



**STEERING YOU IN THE  
RIGHT DIRECTION**



**HOT RODS  
MUSCLE CARS  
CLASSICS  
TRUCKS  
RACING  
OFF-ROAD**

*Cleveland*

**MANUFACTURER OF AUTOMOTIVE STEERING AND ELECTRICAL COMPONENTS AND ACCESSORIES**



Flaming River's Promise to you...is to strive to provide the best quality products and service possible!

Jeanette Ladina  
President and CEO

As we celebrate 32 years in business, we are proud of the variety of products we have been able to manufacture directly at our Berea, Ohio, headquarters.

The products that we manufacture in the USA, which comprise 96% of our part numbers, include power rack and pinions, steering boxes, tilt steering columns, stainless roadster columns, key columns, universal joints and billet accessories. Look for the Made in the USA logo throughout the catalog for easy identification.



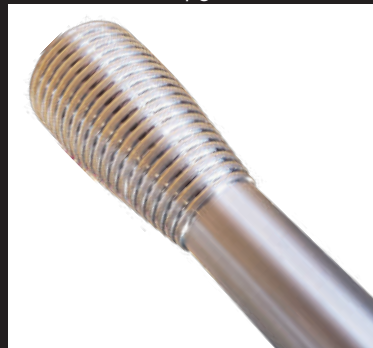
We are pleased to offer several new products again this year! Please see the following pages for details on these products:



65-66 Mustang Microsteer Column  
See pg. 31



82-92 S10 Manual Cradle Kit  
See pg. 122



New Grooved Roadster Column  
See pg. 34



New Cast Housing for VDOG®  
See pg. 92



57-60 F-100

55-59 Chevy/GMC

New Floor Mounts  
See pg. 68



6" Hi-Rev Pump Pulleys  
See pg. 157

# OUR GOAL IS TO BE YOUR COMPLETE STEERING COMPANY!

Flaming River was founded in 1987 with a vision to offer quality Steering Systems for street rods, muscle cars, classics and trucks. Our products use all new parts to ensure that we can maintain quality standards, improve the original design, and offer long range product availability as well as lifetime serviceability. Tilt steering columns, power rack and pinions, steering shafts and billet accessories are all made right here at Flaming River by a talented group of car enthusiasts. Our promise to you is: "To provide the best quality products and service possible."



*In 2019, The VDOG™ won two SEMA Awards for Best New Engineered Product and Best New Street Rod Product!*

Over the past 33 years, we have designed many award-winning products using state-of-the-art technology, engineering and quality control in our manufacturing process. Although this has been exciting, we know the best reward is a satisfied customer.

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FLAMING RIVER'S  
1968 CAMARO  
*WE DRIVE WHAT WE BUILD!*



An ISO 9001:2015  
and 14001:2015  
registered company



# YOUR COMPLETE STEERING COMPANY

Italian Leather Corvette  
Steering Wheel  
P/N FR20152BK

## Roadster Tilt Steering Column

- 5-position tilt steering column
- Ideal for roadsters, classic trucks and early Corvettes
- CNC machined from 304 Stainless Steel
- Available in many finishes and colors
- P/N FR21022-28

## VDOG™ Variable Angle Gear

- 90° gear box with articulating ball valve
- Hardened gear drive system - no chains or sprockets
- Available in Cast, Billet or Powdercoat finishes
- Pillow Block Mont available
- P/N FR20303 (Cast)

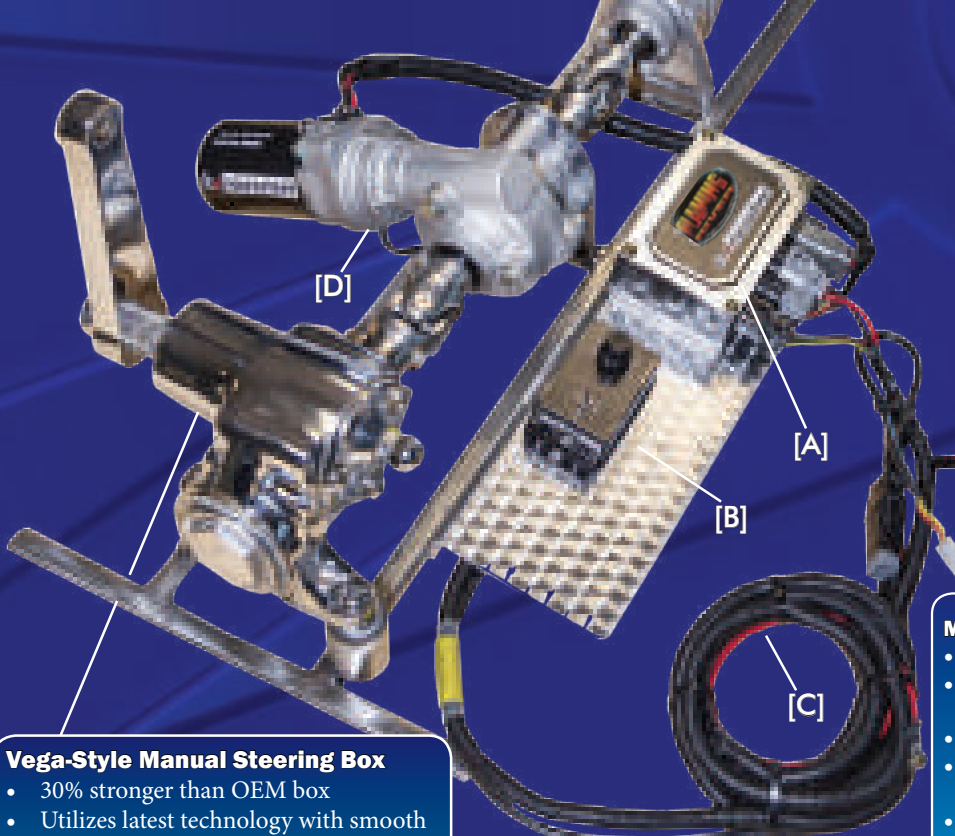


## Swivel Floor Mount

- Make installation of a Flaming River Column easy and beautiful with a swivel floor mount!

## Stainless Steel U-Joints

- Available in many different sizes and shaft diameters
- Made from 303 Stainless Steel for strength and corrosion resistance



Hard Candy - Flaming River's '32 Roadster Coupe

## Vega-Style Manual Steering Box

- 30% stronger than OEM box
- Utilizes latest technology with smooth needle bearing design
- Dramatic upgrade over standard Vega boxes
- Available in different finishes
- P/N FR1500 (FR1500C Shown)

## Microsteer Electric Power Assisted Steering

- Can be fitted to virtually any vehicle
- Works in conjunction with your current manual steering system
- Electric Control Unit included for calibration [A]
- Can be calibrated to meet your steering needs using the Tuning Box [B] (included)
- Complete wiring harness for easy plug and play operation [C] (included)
- Electric Motor/Gearbox Unit assists with manual steering [D] (included)
- P/N FR40200

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*If It Doesn't Say Flaming River  
It Just Isn't Good Enough!*



Quality Steering Systems

# TILT KEY FLOOR SHIFT

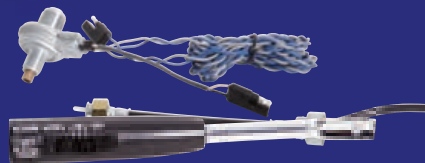
The style of column you have been looking for is now available in an all new stylish and compact design. We even added the classic "bell curve" casting used in the classics for a natural dash fit. Or purchase one of our billet mounts for a custom fit.



O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
2 x 28	1 INCH DD	FR30001-28	FR30001-28BK	FR30001-28SS
2 x 30	1 INCH DD	FR30001-30	FR30001-30BK	FR30001-30SS
2 x 32	1 INCH DD	FR30001-32	FR30001-32BK	FR30001-32SS
2 x 33	1 INCH DD	FR30001	FR30001BK	FR30001SS
2 x 35	1 INCH DD	FR30001-35	FR30001-35BK	FR30001-35SS
O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
2 x 28	1 INCH - 48	FR30002-28	FR30002-28BK	FR30002-28SS
2 x 30	1 INCH - 48	FR30002-30	FR30002-30BK	FR30002-30SS
2 x 32	1 INCH - 48	FR30002-32	FR30002-32BK	FR30002-32SS
2 x 33	1 INCH - 48	FR30002	FR30002BK	FR30002SS
2 x 35	1 INCH - 48	FR30002-35	FR30002-35BK	FR30002-35SS



Key Column Wiring Adapter  
Designed to adapt your wiring harness to a Flaming River Key Column. Not necessary if replacing a GM style key column. **FR20118-5**



Aftermarket cruise control kit with GM style lever can be installed on your Flaming River Tilt Column. For vehicles with non-computer engines only. **FR20118-4**



This stramp clamp fits the original OEM dash mount with a rubber isolator for vibration dampening and absorption. For GM models years 1969 and up. **FR20300**

Pat. No. US 7,976,065 B2

# TILT KEY COLUMN SHIFT

Flaming River® now offers an integrated key column. The key is located at the original three o'clock position, just like you would expect from Flaming River. No welded on attachments or extra relays. Modeled after the popular muscle car columns with tilt and ignition key built into the column, yet attractive enough to put into your street rod. Flaming River manufactures the column complete with a GM coded key assembly, wiring, ignition and neutral safety switch.



*The best reward is a satisfied customer!*

OEM Factory Style Dash Mount for Key Column. Billet aluminum clamp can be used with virtually all OEM applications to facilitate the installation of a flaming river tilt key column into an existing dash.



FR20114

O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
2 x 28	1 INCH DD	FR30101-28	FR30101-28BK	FR30101-28SS
2 x 30	1 INCH DD	FR30101-30	FR30101-30BK	FR30101-30SS
2 x 32	1 INCH DD	FR30101-32	FR30101-32BK	FR30101-32SS
2 x 33	1 INCH DD	FR30101	FR30101BK	FR30101SS
2 x 35	1 INCH DD	FR30101-35	FR30101-35BK	FR30101-35SS
2 x 28	1 INCH - 48	FR30102-28	FR30102-28BK	FR30102-28SS
2 x 30	1 INCH - 48	FR30102-30	FR30102-30BK	FR30102-30SS
2 x 32	1 INCH - 48	FR30102-32	FR30102-32BK	FR30102-32SS
2 x 33	1 INCH - 48	FR30102	FR30102BK	FR30102SS
2 x 35	1 INCH - 48	FR30102-35	FR30102-35BK	FR30102-35SS



**WARNING!**

This product can expose you to chemicals including hexavalent chromium, which is known to the State of California to cause cancer.

# TILT FLOOR SHIFT



This sleek tilt column is designed for use with a floor shifter. With the choice of 1-3/4" or 2" tube diameter and a compact shroud, you create a unique, new custom look. Each column comes complete with a billet aluminum dress up kit, GM turn signal hazards, a 4-1/4" connector and canceling cam. Standard shaft size is 1" DD and you can choose from multiple finishes.

O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
2 x 28	1 INCH DD	FR20005-28	FR20005-28BK	FR20005-28SS
2 x 30	1 INCH DD	FR20005	FR20005BK	FR20005SS
2 x 32	1 INCH DD	FR20006	FR20006BK	FR20006SS
2 x 33	1 INCH DD	FR20004-69	FR20004-69BK	FR20004-69SS
2 x 35	1 INCH DD	FR20007	FR20007BK	FR20007SS
1-3/4 x 28	1 INCH DD	FR20000	FR20000BK	FR20000SS
1-3/4 x 30	1 INCH DD	FR20001	FR20001BK	FR20001SS
1-3/4 x 32	1 INCH DD	FR20002	FR20002BK	FR20002SS
1-3/4 x 35	1 INCH DD	FR20003	FR20003BK	FR20003SS
<b>CUSTOM SIZES</b>				
2 x CUSTOM		FR20000XX	FR20000XXBK	FR20000XXSS
1-3/4 x CUSTOM		FR20000XX	FR20000XXBK	FR20000XXSS

*FLAMING RIVER IS THE ONLY ONE I USE. THE QUALITY AND THE FITMENT IS ALWAYS ON THE MONEY.*



DAVE TUCCI  
TUCCI HOT RODS





# TILT COLUMN SHIFT

Flaming River® now manufactures an all-new Column Shift Tilt Steering Column. All new components have been engineered by Flaming River to incorporate state-of-the-art technology into this nostalgic design. Each column comes complete with a gearshift arm, billet aluminum dress up kit, illuminated gearshift indicator and GM wiring (4-1/4" connector), and a removable 12-position linkage arm is also included for easy alignment. Shaft size is 1" DD and the tube diameter is 2". Available with or without shift indicator.



A Neutral Safety Switch is recommended and can be added to any Column Shift Column by adding NE to the end of the part number. Neutral Safety Switch must be ordered with column and is located 21" from the top of the shroud, unless otherwise specified.

O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
2 x 28	1 INCH DD	FR20020	FR20020BK	FR20020PL
2 x 30	1 INCH DD	FR20021	FR20021BK	FR20021PL
2 x 33	1 INCH DD	FR20022	FR20022BK	FR20022PL
2 x 35	1 INCH DD	FR20029	FR20029BK	FR20029PL
CUSTOM LENGTH				
2 x CUSTOM		FR20020XX	FR20020XXBK	FR20020XXSS

# '55-'56 CHEVY FLOOR SHIFT



Add a tilt steering column to your classic 55-56 Chevy Bel-Air. We offer a variety of floor shift or column shift style tilt columns. Choose from a variety of accessories to complete your tri-five steering column installation. Our direct tilt fits like the original steering column. These columns are built with a 2" diameter tube and the output shaft size is 1" DD.

The 1955-56 Chevy Floor Shift Tilt Column features a 2" tube diameter for a direct bolt-in fit with your existing dash bezel. This column is made from all-new components for updated steering technology. A billet aluminum dress up kit with tilt and turn signal levers and hazard knob, GM wiring (4-1/4" connector), and canceling cam are all included. Output shaft size is 1" DD.



APPLICATION	MILL FINISH	BLACK POWDERCOAT	POLISHED	FLOOR MOUNT	WIRING ADAPTER	U-JOINT
55 CHEVY	FR20005	FR20005BK	FR20005SS	FR20101-57	FR20115	FR1707DD (Stock Box)
55 CHEVY	FR20005	FR20005BK	FR20005SS	FR20101-57	FR20115	FR1949 (AFTERMARKET PWR)
56 CHEVY	FR20005	FR20005BK	FR20005SS	FR20101-57	FR20116	FR1707DD (Stock Box)
56 CHEVY	FR20005	FR20005BK	FR20005SS	FR20101-57	FR20116	FR1949 (AFTERMARKET PWR)

# '55-'56 CHEVY COLUMN SHIFT

STEERING COLUMNS: '55-'56 CHEVY COLUMN SHIFT



The 1955-56 Chevy Column Shift Tilt Column features a 2" tube diameter for a direct bolt-in fit with your existing dash bezel. This column is made from all-new components for updated steering technology. A billet aluminum dress up kit with tilt and turn signal levers and hazard knob, GM wiring (4-1/4" connector), and canceling cam are all included. Combination back up and neutral safety switch also included. Output shaft size is 1" DD.

Flaming River wins the SEMA Award for Best New Street Rod or Custom Car Product in 2000 for our Columns!



**Tri-Five Hazard Kit**  
This kit allows you to connect your Flaming River® Tilt Column to the stock electrical wiring in your TRI-5.

- FR20115 - '55 Tri-Five Hazard Kit
- FR20116 - '56 Tri-Five Hazard Kit
- FR20117 - '57 Tri-Five Hazard Kit



Quality Steering Systems

APPLICATION	MILL FINISH	BLACK POWDER COAT	POLISHED	FLOOR MOUNT	WIRING ADAPTER	U-JOINT
55 CHEVY	FR20023	FR20023BK	FR20023SS	FR20101-57	FR20115	FR1707DD (STOCK BOX)
55 CHEVY	FR20023	FR20023BK	FR20023SS	FR20101-57	FR20115	FR1949 (AFTERMARKET PWR)
56 CHEVY	FR20023	FR20023BK	FR20023SS	FR20101-57	FR20116	FR1707DD (STOCK BOX)
56 CHEVY	FR20023	FR20023BK	FR20023SS	FR20101-57	FR20116	FR1949 (AFTERMARKET PWR)

# '57 CHEVY



**Shortest you Can Find!  
Only 6 3/8 Inches**



Flaming River® introduces its all new "Shorty" 57 Chevy Tilt Steering Column—the shortest you can find with a 6-3/8" shroud! These all-new columns feature a 2" tube diameter and bolt directly into the existing dash bezel just like the original. Each column includes a billet aluminum dress up kit (tilt lever, turn signal lever, and hazard knob), as well as GM wiring and a canceling cam.

These columns are available in a Floor Shift or Column Shift design with the option of a paintable mill finish or polished stainless finish. Column Shift columns come complete with a neutral safety switch as well as a removable shifter arm with 12 locating positions. Made in the USA and backed with a 3-year warranty and lifetime serviceability.

COLUMN STYLE	APPLICATION	MILL FINISH	BLACK POWDER COAT	POLISHED	FLOOR MOUNT	WIRING ADAPTER	U-JOINT
FLOOR SHIFT	57 CHEVY	FR20005-57	FR20005-57BK	FR20005-57SS	FR20101-57	FR20117	FR1707DD (Stock Box)
FLOOR SHIFT	57 CHEVY	FR20005-57	FR20005-57BK	FR20005-57SS	FR20101-57	FR20117	FR1949 (AFTERMARKET PWR)
COLUMN SHIFT	57 CHEVY	FR20023-57	FR20023-57BK	FR20023-57SS	FR20101-57	FR20117	FR1707DD (Stock Box)
COLUMN SHIFT	57 CHEVY	FR20023-57	FR20023-57BK	FR20023-57SS	FR20101-57	FR20117	FR1949 (AFTERMARKET PWR)

'57 CHEVY

STEERING COLUMNS: '57 CHEVY

FR20023-57-CU  
Shown with Shift  
Indicator

*IT'S A DIRECT FIT!*

**57 CHEVY  
COLUMN SHIFT  
TILT COLUMN**

PART No. **FR20023-57SS** SHOWN

Custom 57 Chevy Column Shift Tilt Column LED Indicator Fits aftermarket dash in 1957 Chevy. These columns are considered custom and therefore, non-returnable. Available in Paintable or Chrome finish.

**FR20023-57SC** - Spray Chrome Finish  
**FR20023-57-CU** - Paintable Finish

Order our new LED  
Shift Indicator  
for your '57 Chevy  
Column Shift Column  
through our Custom  
Column Program.



OEM Style Flexible Rag Joint

Tri-Five Swivel Floor Mount

TRI-5 Swivel Floor Mount  
Simplify installation of a  
new Tilt Column in your  
classic TRI-5 with this attractive,  
triangular-shaped Swivel Floor  
Mount. A machined aluminum  
ball swivels for easy positioning of  
the column at virtually any angle.

FR20101-57



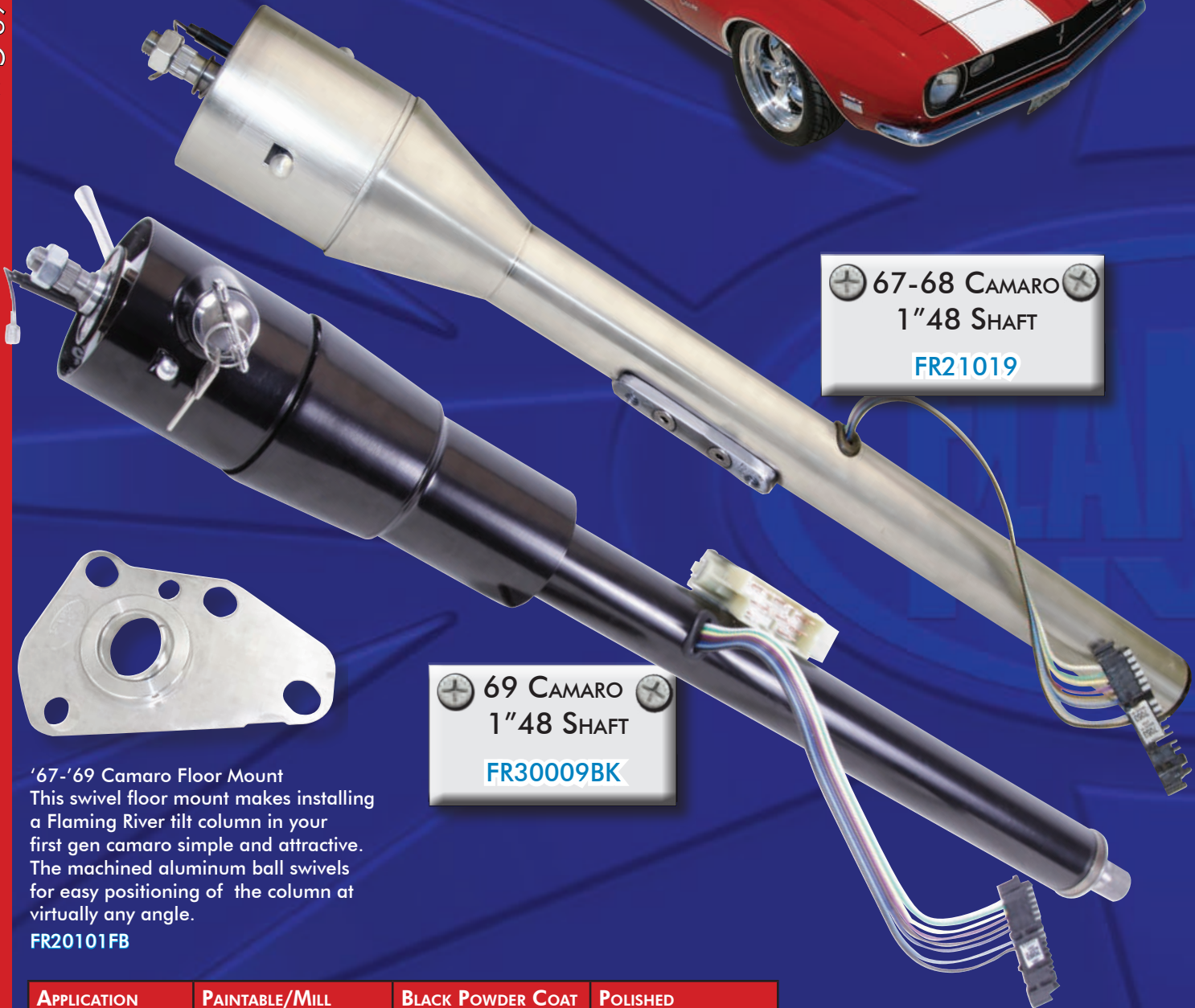
OEM Style Flexible Rag  
Joint recommended  
for use with power  
steering boxes to absorb  
vibration and power  
steering noise.

FR1949



# '67-'69 CAMARO (FIRST GEN)

These Street Machine Tilt Columns are designed to fit the original dash mount and even accept the original rag joint flange or factory steering shaft. The classis applications use our 2" diameter column to match the existing mounting holes and can be built with 1" dd, 3/4"-36 or 1"-48 shaft for a custom fit.



⊕ 67-68 CAMARO ⊕  
1"48 SHAFT  
FR21019

⊕ 69 CAMARO ⊕  
1"48 SHAFT  
FR30009BK

'67-'69 Camaro Floor Mount  
This swivel floor mount makes installing a Flaming River tilt column in your first gen camaro simple and attractive. The machined aluminum ball swivels for easy positioning of the column at virtually any angle.  
FR20101FB

APPLICATION	PAINTABLE/MILL FINISH	BLACK POWDER COAT	POLISHED
67-68 CAMARO	FR21019 - 1"48 FR21020 - 1"DD	FR21019BK - 1"48 FR21020BK - 1"DD	FR21019PL - 1"48 FR21020PL - 1"DD
67-68 CAMARO DIRECT FIT	FR21027	FR21027BK	FR21027SS
69 CAMARO	FR30009 - 1"48 FR30009GS (COLUMN SHIFT) FR30010 - 1"DD	FR30009BK - 1"48 FR0009GSBK (COLUMN SHIFT) FR30010BK - 1"DD	FR30009SS - 1"48 FR30009GSPL (COLUMN SHIFT) FR30010SS - 1"DD



# MUSCLE SERIES STEERING COLUMN

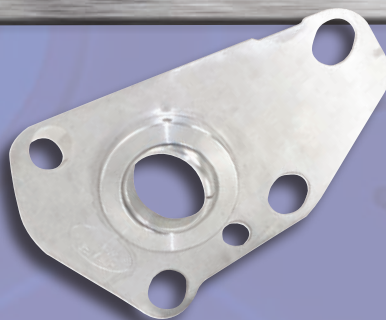
## Muscle Series

STEERING COLUMNS: MUSCLE SERIES



⊕ 67-68 CAMARO ⊗  
1"DD SHAFT  
FR21020BK

### DON'T FORGET THE ACCESSORIES



67-69 Camaro  
Aluminum Swivel Floor  
Mount

FR20101FB



Female Wiring Connector  
67-68 Camaro  
FR20118-2

**BILLET JOINT®**



ACCESSORIES				
APPLICATION	DASH MOUNT	FLOOR MOUNT	WIRING ADAPTER	U-JOINT
67-68 CAMARO	N/A	FR20101FB	FR20118-2	FR1758 PWR FR1716 MANUAL
69 CAMARO	FR20300	FR20101FB	FR20118	FR1758 PWR FR1716 MANUAL

# '70-'81 CAMARO (SECOND GEN)

Flaming River® has designed a direct bolt-in tilt column for this 2nd generation Camaro. Available powdercoated in GM black, mill finish stainless or polished. Featuring licensed GM ignition key (coded), five position tilt, hazards and turn signal. Billet aluminum dress-up kit included. Cruise or dimmer optional.

70-78 CAMARO  
1"48 SHAFT  
FR30009BK - 1"48

70-81 CAMARO  
DIRECT TILT 1"48  
w/OEM DASH MOUNT  
FR30015BK

OEM Style Dash Mount



DIRECT TILT COLUMNS			
APPLICATION	PAINTABLE/MILL FINISH	BLACK POWDER COAT	POLISHED
<b>DIRECT TILT</b>			
70-78 CAMARO, 1"48 SHAFT	FR30015	FR30015BK	FR30015SS
79-81 CAMARO, 1"DD SHAFT	FR30016	FR30016BK	FR30016SS
<b>UNIVERSAL FIT (STRAMP CLAMP NEEDED FOR INSTALLATION)</b>			
70-78 CAMARO, 1"48 SHAFT	FR30009 - 1"48	FR30009BK - 1"48	FR30009SS - 1"48
70-78 CAMARO, 1"48 SHAFT COLUMN SHIFT	FR30009GS	FR30009GSBK	FR30009GSP
79-81 CAMARO, 1"DD SHAFT	FR30010 - 1"DD	FR30010BK - 1"DD	FR30010SS - 1"DD





# '70-'81 CAMARO (SECOND GEN)

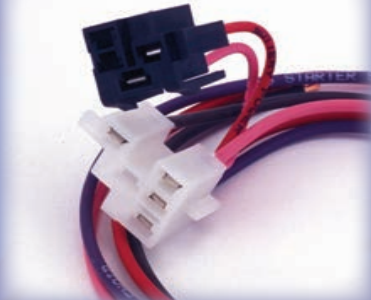
STEERING COLUMNS: '70-'81 CAMARO



**DON'T FORGET THE ACCESSORIES**



Keyless Ignition  
also available, see pg. 54



Wiring Harness Adapter  
for Key Column  
FR20118-5



70-81 Camaro Aluminum  
Swivel Floor Mount  
FR20101CA



Female Wiring Adapter  
70-78 Camaro  
FR20118



69-81 Camaro Key  
Column Install Kit  
FRCA110



Column Dress Up Kit  
Black Powdercoat  
FR20112BK

Stramp  
Clamp  
FR20300



Fits the original OEM dash mount with a rubber isolator for vibration absorption. GM 69 and up.

Pat. No. US 7,976,065 B2

ACCESSORIES			
APPLICATION	DASH MOUNT	FLOOR MOUNT	WIRING ADAPTER
UNIVERSAL FIT	FR20300	FR20101CA	FR20118
UNIVERSAL FIT	FR20300	FR20101CA	N/A
DIRECT TILT	N/A	FR20101CA	FR20118
DIRECT TILT	N/A	FR20101CA	N/A

# '64-'72 CHEVELLE / EL CAMINO



1967-1968  
Paintable/Mill Finish  
FR21019

Bolts to  
Original  
Mount

US PATENT NO.  
US D592,115 S.



1969-1972  
Black Powder Coat  
FR30009BK

1964 -1966  
Polished Finish  
FR20005SS



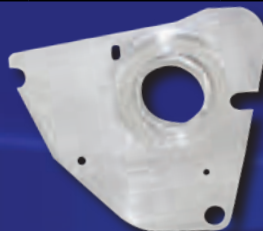
'64-'66 Install Kit  
Everything you need to  
simplify the installation of  
a Flaming River column in  
your 1964-1966 Chevelle  
or El Camino.

FRCA100

64-72 CHEVELLE	64-66 CHEVELLE W/SHAFT UPGRADE	64-66 CHEVELLE	67-68 CHEVELLE 1"48	67-68 CHEVELLE 1"DD	69-72 CHEVELLE	69-72 CHEVELLE COLUMN SHIFT
PAINTABLE/MILL FINISH	FR20005	FR20005	FR21019 - 1"48	FR21020 - 1"DD	FR30009 - 1"48	FR30009GS
BLACK POWDER COAT	FR20005BK	FR20005BK	FR21019BK - 1"48	FR21020BK - 1"DD	FR30009BK - 1"48	FR30009GSBK
POLISHED COLUMN	FR20005SS	FR20005SS	FR21019PL - 1"48	FR21020PL - 1"DD	FR30009SS - 1"48	FR30009GSPL
DASH MOUNT	N/A	N/A	N/A	N/A	FR20300	FR20300
FLOOR MOUNT	FR20101CH	FR20101CH	FR20101CH	FR20101CH	FR20101AB	FR20101AB
WIRING ADAPTER	FR20118-1	FR20118-1	FR20118-1	FR20118-1	FR20118	FR20118
U-JOINT	FR1717DD FR1856 FR1758 (POWER) FR1717DD FR1856 FR1714DD (MANUAL)	FR1707DD (MODIFY STOCK SHAFT)	N/A	FR1949T	N/A	N/A



64-67 Chevelle  
FR20101CH



68-72 Chevelle  
FR20101AB



**WARNING!**

This product can expose you to chemicals including hexavalent chromium, which is known to the State of California to cause cancer.

# '62-'74 Nova / CHEVY II

STEERING COLUMNS: '62-'74 NOVA / CHEVY II



NOVA/CHEVY II	62-66 NOVA/CHEVY II	67 NOVA	69-74 NOVA	69-74 NOVA (COLUMN SHIFT)
PAINTABLE/MILL FINISH COLUMN	FR20005	FR21010	FR30009 - 1"48	FR30009GS
BLACK POWDER COAT COLUMN	FR20005BK	FR21010BK	FR30009BK - 1"48	FR30009GSBK
POLISHED COLUMN	FR20005SS	FR21010SS	FR30009SS - 1"48	FR30009GSPL
DASH MOUNT	N/A	N/A	FR20300	FR20300
FLOOR MOUNT	N/A	N/A	FR20101FB	FR20101FB
WIRING ADAPTER	FR20118	FR20118	FR20118	FR20118
U-JOINT	FR1707DD (Stock Box)	N/A	FR1758 (POWER) FR1716 (MANUAL)	FR1758 (POWER) FR1716 (MANUAL)

**FR20101FB**  
67-74 Nova  
Floor Mount



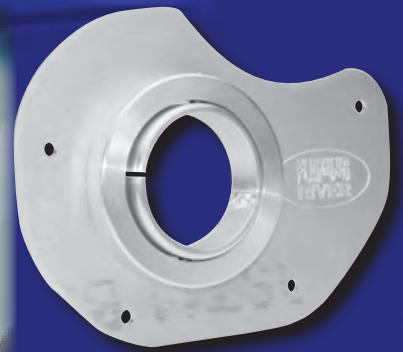
**FR20300**  
Stramp Clamp



Cradle Kits Available  
See pg 127



# '58-'69 IMPALA / CAPRICE



'58-'64 Impala Floor Mount  
 Make installation of your Flaming River Column simple and attractive at the firewall with one of our Swivel Floor Mounts.

FR20098



Floor Shift and Column Shift style Tilt Columns are now available as a direct fit bolt-in to replace the original column. Each column comes complete with a billet dress up kit with turn signal lever, hazards, horn and canceling cam. With a 3/4"-36 output shaft, you can connect to your original steering setup and also use a 1969 and up GM steering wheel. Made of 304 Stainless Steel and available in Paintable or Polished finishes.

## 58-60 Column Shift FR21012PL



58-60 DIRECT FIT	MILL STAINLESS	BLACK POWDER COAT	POLISHED
FLOOR SHIFT COLUMNS	FR21011	FR21011BK	FR21011PL
COLUMN SHIFT COLUMNS	FR21012	FR21012BK	FR21012PL
FLOOR MOUNT	FR20098		
WIRING ADAPTER	FR20118		

## 63-64 Column Shift FR21016



63-64 DIRECT FIT	MILL STAINLESS	BLACK POWDER COAT	POLISHED
FLOOR SHIFT	FR21015	FR21015BK	FR21015PL
COLUMN SHIFT COLUMNS	FR21016	FR21016BK	FR21016PL
FLOOR MOUNT	FR20098		
WIRING ADAPTER	FR20118		

## 65-68 Floor Shift FR21023PL



65-68 DIRECT FIT	MILL STAINLESS	BLACK POWDER COAT	POLISHED
FLOOR SHIFT COLUMNS	FR21023	FR21023BK	FR21023PL
COLUMN SHIFT COLUMNS	FR21024	FR21024BK	FR21024PL
FLOOR MOUNT	FR20098		
WIRING ADAPTER	FR20118		

## 61-62 Floor Shift FR21013PL



61-62	MILL STAINLESS	BLACK POWDER COAT	POLISHED
FLOOR SHIFT COLUMNS	FR21013	FR21013BK	FR21013PL
COLUMN SHIFT COLUMNS	FR21014	FR21014BK	FR21014PL
FLOOR MOUNT	FR20098		
WIRING ADAPTER	FR20118		



69-70	MILL STAINLESS	BLACK POWDER COAT	POLISHED COLUMN
FLOOR SHIFT	N/A	N/A	N/A
COLUMN SHIFT	FR30104	FR30104BK	FR30104SS
WIRING ADAPTER	FR20118		

# '53-'62 CORVETTE

STEERING COLUMNS: '53-'62 CORVETTE



This all-new column has a 1-3/4" tube diameter, and 2-3/8" upper housing that integrates with the original dash configuration of the early 53-62 Corvettes. This column can also be used in Cobras, Roadsters, and other custom applications that need to be close to the dash. Includes a GM style turn signal and a 3/4"-36 splined shaft for easy connection to your existing steering. Available with or without hazards.

2 1/2"

33"

PART No	STYLE
<b>STRAIGHT COLUMN (1-3/4" DIA)</b>	
FR1999VTR	MILL STAINLESS W/O HAZARD
FR1999VTRSS	POLISHED STAINLESS W/O HAZARD
FR1999VTR-H	MILL STAINLESS WITH HAZARD
FR1999VTRSS-H	POLISHED STAINLESS WITH HAZARD
FR1999XX**	CUSTOM LENGTH (XX) AND POWDER COAT COLOR**
<b>ACCESSORIES</b>	
FR20118	WIRING ADAPTER
FR1941	STEERING COUPLER

See pg. 35 for our Bella Tilt Column



1953 Corvette Dash  
(Shown w/Original Column)

The Corvette dash was completely redesigned in 1958 with the instrument panel directly in front of the driver.



1958 Corvette Dash

## 1953-62 Corvette Steering Wheel Adapters



3/4"-36 splined shaft



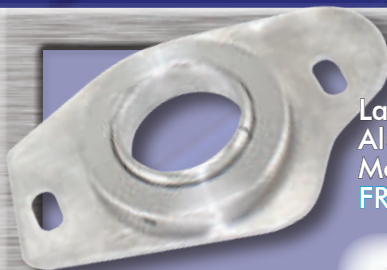
# '63-'68 CORVETTE

The design of these Tilt Columns is similar to the styling of the original straight column—right down to the 1-1/2" tube diameter—but now comes with the modern convenience of tilt steering! This all-new column fits into the original dash mount and features a 3/4"-36 spline (1963-66 Vette), or 1"-48 spline (1967-68 Vette) to connect to the existing steering setup. Available in Paintable, Black Powder coat, or Polished finishes.

PART No.	DESCRIPTION
FR2000VT	63-66 1-1/2" DIA MILL FINISH
FR2000VTA	63-66 1-1/2" DIA MILL FINISH (WHEN USING FR ADAPTER)
FR2000VTBK	63-66 1-1/2" DIA BLACK
FR2000VTBKA	63-66 1-1/2" DIA BLACK FINISH (WHEN USING FR ADAPTER)
FR2000VTSS	63-66 1-1/2" DIA POLISHED FINISH
FR2000VTSSA	63-66 1-1/2" DIA POLISHED STAINLESS (WHEN USING FR ADAPTER)



63-66 Corvette  
FR2000VTSS



Later 68 Corvette  
Aluminum Swivel Floor  
Mount  
FR20101VT

Hazard Kit Pre-1969  
(4-Way Flashers):  
FR20118-1



Corvette Wheel Adapter  
This custom polished aluminum adapter is designed to mount your original Corvette steering wheel to a Flaming River Tilt Column.

- FR2000VT-AD Polished
- FR2000VT-ADBK Black Powder coat





# '63-'68 CORVETTE

STEERING COLUMNS: '63-'68 CORVETTE

**FR2003VT**  
1967-68 Co rvette  
with Collabsible  
Column

OEM Style  
Brackets

**FR2001VTSS**  
1967-68 Corvette

OEM Shroud  
Not Included

**FR2103VTBK**  
Later 1968 Corvette

PART NO.	DESCRIPTION
FR2001VT	67-68 1-1/2" DIA MILL FINISH
FR2001VTA	67-68 1-1/2" DIA MILL FINISH (WHEN USING FR ADAPTER)
FR2001VTBK	67-68 1-1/2" DIA BLACK POWDER COAT
FR2001VTBKA	67-68 1-1/2" DIA BLACK POWDERCOAT (WHEN USING FR ADAPTER)
FR2001VTSS	67-68 1-1/2" DIA POLISHED STAINLESS
FR2001VTSSA	67-68 1-1/2" DIA POLISHED STAINLESS (WHEN USING FR ADAPTER)
FR2003VT	1967-1968 1-1/2" DIA MILL STAINLESS
FR2003VTA	1967-1968 1-1/2" DIA MILL STAINLESS (WHEN USING FR ADAPTER)
FR2003VTBK	1967-1968 1-1/2" DIA BLACK W/CWL
FR2003VTBKA	1967-1968 1-1/2" DIA BLACK W/CWL (WHEN USING FR ADAPTER)
FR2003VTBKTH	TOP HAT 67 1-1/2" DIA BLACK COLUMN
FR2003VTSS	1967-1968 1-1/2" DIA POL. STAINLESS
FR2003VTSSA	1967-1968 1-1/2" DIA POL. STAINLESS (WHEN USING FR ADAPTER)
FR2103VT	1968 2" DIA MILL STAINLESS
FR2103VTBK	1968 2" DIA BLACK POWDER COAT
FR2103VTSS	1968 2" DIA POLISHED STAINLESS

Lifetime Serviceability

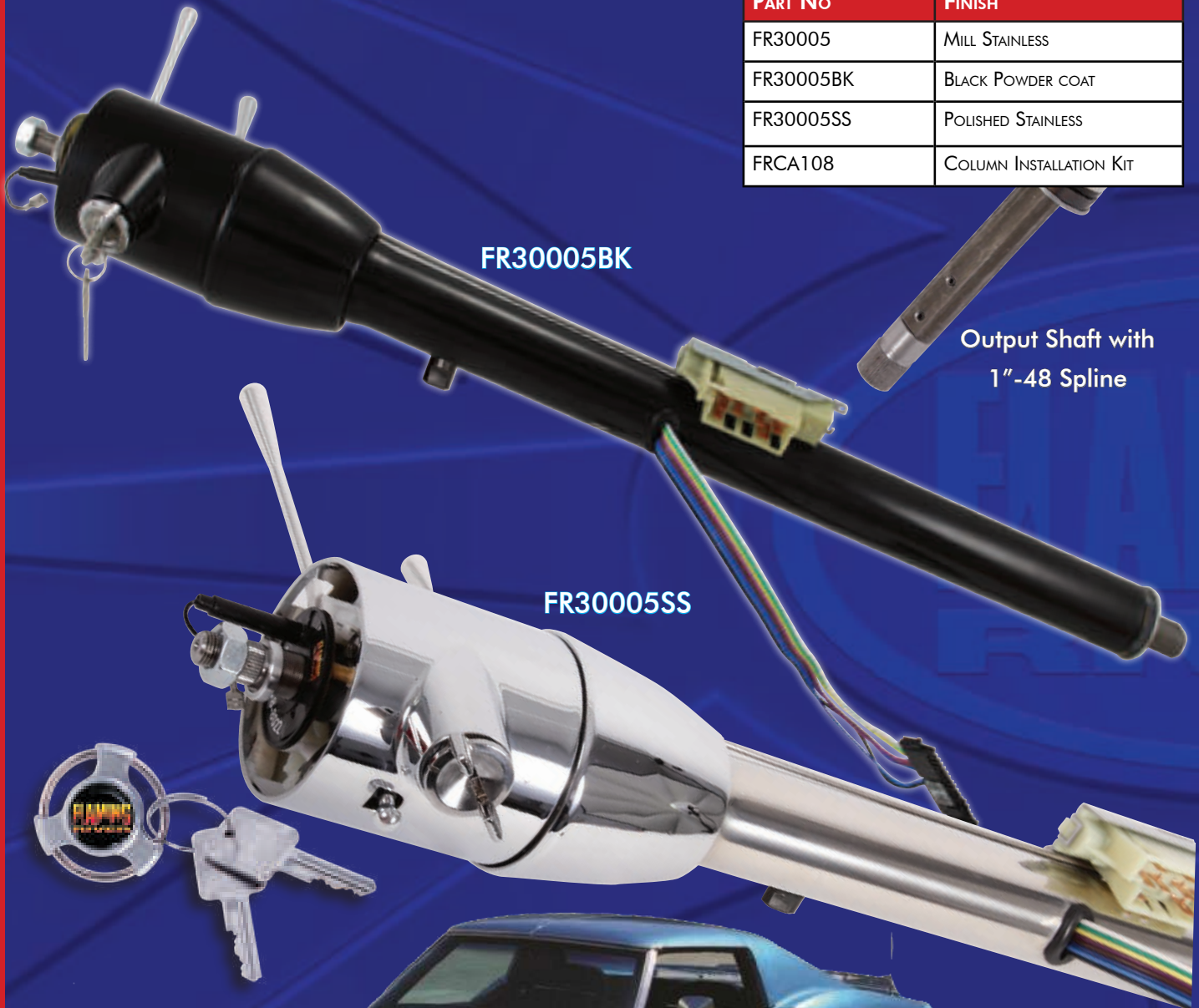


# '69-'82 CORVETTE

This classic C3 Corvette Tilt Key Column features the ignition switch integrated at the original 3 o'clock location. This column includes a billet aluminum dress up kit with turn signal/tilt levers and a hazard knob, GM wiring, and a canceling cam. Available in Paintable, Black Powder coat, and Polished finishes.

Note: For 1975-1982 Corvettes—this column does not include wiper, cruise control, or dimmer switch controls (Dimmer switch and cruise control available upon request). FRCA108 Key Column Installation Kit recommended.

PART No	FINISH
FR30005	MILL STAINLESS
FR30005BK	BLACK POWDER COAT
FR30005SS	POLISHED STAINLESS
FRCA108	COLUMN INSTALLATION KIT



FR30005BK

FR30005SS

Output Shaft with  
1" -48 Spline



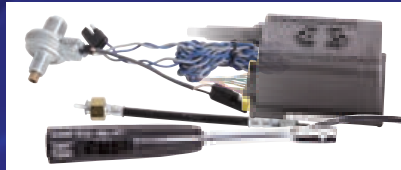




# DON'T FORGET THE ACCESSORIES



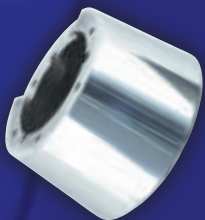
Upgrade from factory Rag Joint to a stronger Needle-Bearing U-Joint



Electronic Cruise Control FR20118-4



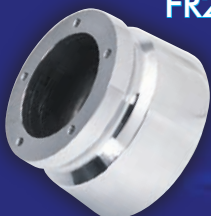
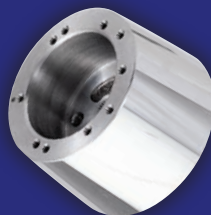
1969-82 Corvette Key Column Installation Kit FRCA108



Corvette Wheel Adapter  
FR2000VT-AD Polished  
FR2000VT-ADBK Black Powder coat

69-82 Corvette Swivel Mount  
FR20101VT

5/6 Bolt Wheel Adapter for Flaming River® Column  
FR20119TA



5/6 Bolt Bell-Style Wheel Adapter for Flaming River® Column  
FR20119BA



# GM CLASSIC TRUCKS ('48-'66)



Original mounting pattern for dash mount.  
FR21000 Column Shown

FR21000 shown with included Slip Shaft and Universal Joint

**DON'T FORGET THE ACCESSORIES**

APPLICATION	COLUMN	DASH MOUNT	DASH MOUNT (3 1/2" DROP)	FLOOR MOUNT	WIRING ADAPTER
48-55 CHEVY TRUCK (FS)	FR20005	FR20114		FR20101	FR20118-1
48-55 CHEVY TRUCK (FS)	FR20005	FR20114		FR20101	FR20118-1
55-56 CHEVY TRUCK (GS)	FR20021NE		FR20108PL	FR20101	FR20118-1

CHEVY/GMC C/K 10 - C/K 20 1960-66		
FINISH	FLOOR SHIFT	COLUMN SHIFT
MILL STAINLESS - MANUAL	FR21000M	FR21100M
MILL STAINLESS - EARLY POWER	FR21000P1	FR21100P1
MILL STAINLESS - LATE POWER	FR21000P2	FR21100P2
POLISHED - MANUAL	FR21000MSS	FR21100MSS
POLISHED - EARLY POWER	FR21000P1SS	FR21100P1SS
POLISHED - LATE POWER	FR21000P2SS	FR21100P2SS
CUSTOM COLOR	FR21000M-CLR	FR21100M-CLR

**RECOMMENDED ACCESSORIES:**

FR20114 – OEM FACTORY STYLE DASH MOUNT (2" DIA.)  
 FR20119TA – 5/6 BOLT STEERING WHEEL ADAPTER

NOTE: EARLY POWER BOX (ORIGINAL GM) USES A 13/16"-36 SPLINE. LATE POWER BOX (LATE MODEL GM TRUCK BOX) USES A 3/4"-30 SPLINE. PLEASE VERIFY BEFORE ORDERING.

BLACK POWDER COAT AVAILABLE THROUGH OUR CUSTOM COLUMN PROGRAM. COLOR FROM RAL DECK MUST BE SPECIFIED WHEN ORDERING. CUSTOM COLORS ARE NON-RETURNABLE



# MAKE DRIVING ENJOYABLE WITH MICROSTEER!

Flaming River is now offering the Microsteer Universal Electric Power Assist Steering System. It can be easily fitted to virtually any vehicle, without the need to change steering rack or fit a hydraulic system where manual steering currently exists. **FR40200**

- Potentiometer (speed sensitivity adjuster) included for manual adjustment
- Speed sensor pick up can also be wired into your speedometer (speed sensor is sold separately as well in the event you do not have existing module pick up. Part **FR40200S**)
- Waterproof design - unit can be mounted in engine compartment or under dash based on preference and space available
- Complete wiring harness included for plug and play operation



Microsteer installed on Ralph's truck

*"It works great! I'm definitely a fan. Thanks for your assistance and tech advice." - Ralph Gronefeld*



**FR2721**



**FR1948**

Vehicle Speed Sensor may be desired as mentioned above



**FR40200S**

11/16" -36 Pinch Bolt Universal Joint or Coupler needed for installation. U-Joint and Coupler are sold separately.

# '67-'72 GM C-SERIES TRUCKS



Shown with optional LED Indicator

67-72 C-10 Truck Swivel Floor Mount FR2010C10

FR20030PL Features 3/4"-36 Spline and Neutral Safety Switch

Floor Shift and Column Shift style Tilt Columns are now available as a direct fit bolt-in to replace the original column. Each column comes complete with a billet dress up kit with turn signal lever, hazards, horn and canceling cam. With a 3/4"-36 output shaft, you can connect to your original steering setup and also use a 1969 and up GM steering wheel. Made of 304 Stainless Steel and available in Paintable or Polished finishes.



FINISH	FLOOR SHIFT	COLUMN SHIFT	DIRECT-FIT COLUMN SHIFT
MILL STAINLESS	FR20007-36	FR20030	FR21032
		FR20030-F	
POLISHED STAINLESS	FR20007-36SS	FR20030PL	FR21032SS
		FR20030PL-F	
BLACK POWDERCOAT	FR20007-36BK	FR20030BK	FR21032BK
		FR20030-FBK	

FR20030/ FR20030PL: NSS is measured 17" up from the bottom of shaft  
 FR20030-F / FR20030PL-F: NSS is measured 10" up from the bottom of shaft

# '73-'87 GM C-SERIES TRUCKS

**FR30006SS**  
Shown in Polished  
Stainless Finish

**FR30106BK**  
Shown in Black Powder Coat  
with 5/6 Bolt Wheel Adapter  
**FR20119TA-BK**



FINISH	FLOOR SHIFT	COLUMN SHIFT
<b>1" DD</b>		
MILL STAINLESS	FR30006	FR30106
BLACK POWDER COAT	FR30006BK	FR30106BK
POLISHED STAINLESS	FR30006SS	FR30106SS
<b>1"-48</b>		
MILL STAINLESS	FR30006-48	FR30106-48
BLACK POWDER COAT	FR30006-48BK	FR30106-48BK
POLISHED STAINLESS	FR30006-48SS	FR30106-48SS



**IT'S A DIRECT FIT!**

Dimmer Available.  
Wiper Switch not available for 85 and later.



All of our Key Columns  
have GM-coded  
Ignitions



Install the upper  
portion of the new  
Flaming River®  
Mounting Clamp  
into the stock location.

Slide the new steering  
column through the  
opening in the original  
floor mount, and then  
slide the column through  
the opening  
in the firewall.



Quality Steering Systems

# '65-'70 MUSTANG

This all-new Tilt Steering Column looks great with an aftermarket steering wheel, or you use your original wheel with our Ford-spline style column (Some modification to your original wheel may be necessary). Our Tilt Columns are available in paintable mill or polished stainless finishes. We also offer steering wheel adapters, and convenient Column Installation Kits for mounting.



AFTERMARKET STEERING WHEEL	
FR20005	65-66 PAINTABLE TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FR20005SS	65-66 POLISHED TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FR20005BK	65-66 BLACK POWDERCOAT TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FR20004-69	67-70 PAINTABLE TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FR20004-69SS	67-70 POLISHED TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FR20004-69BK	67-70 BLACK POWDERCOAT TILT COLUMN - GM SPLINE FOR AFTERMARKET STEERING WHEEL
FACTORY FORD STEERING WHEEL ONLY	
FR2000MU1	65-66 PAINTABLE TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
FR2000MU1SS	65-66 POLISHED TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
FR2000MU1BK	65-66 BLACK POWDERCOAT TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
FR2000MU2	67-70 PAINTABLE TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
FR2000MU2SS	67-70 POLISHED TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
FR2000MU2BK	67-70 BLACK POWDERCOAT TILT COLUMN - FORD SPLINE FOR FACTORY FORD STEERING WHEEL
INSTALLATION KIT	
FR200MUKT	65-66 MUSTANG INSTALLATION KIT
FR200MUKT2	67-70 MUSTANG INSTALLATION KIT
FR200MUKTNO	65-66 INSTALLATION KIT WITH NO UNIVERSAL JOINT
FR200MUKT2NO	67-70 INSTALLATION KIT WITH NO UNIVERSAL JOINT

Polished Finish  
FR20005SS

Also Available with  
a Bell Style Cone  
FR20006BBK



*Street Machine Tilt*

It's a Direct Fit!

FLAMING RIVER

MADE IN



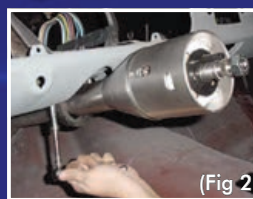
Quality Steering Systems

# '65-'70 MUSTANG

65 Mustang Interior shown with FR2000MU1SS Column, Factory Ford Steering Wheel and New Billet Dash Mount FR20114FD



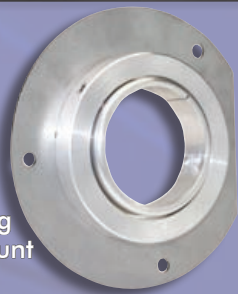
- Use your original dash support (Fig 1) to hold the column under the dash and tighten the two support nuts. (Fig 2) (Note: you must first place a shim that is included in your installation kit between the support and the column to ensure a tight fit),
- Make sure that the column is straight before securing column.
- Mark the location of the tabs on the column using a center punch or scribe (Fig 3), then remove the column from the car and drill a small pilot hole for each screw (Fig 4).
- Fasten the new floor mount to the column by using the screws provided with the hardware kit then reinstall the steering column into the car.



## DON'T FORGET THE ACCESSORIES



67-70 Mustang Swivel Floor Mount  
FR20101M7



65-66 Mustang Swivel Floor Mount  
FR20101M5



65-66 Mustang Wiring Harness  
This adapter includes horn relay control and adds hazard functionality to the vehicle  
FR20301

### Mustang Column Install Kits



Long Shaft FR200MUKT



Short Shaft FR200MUKT2



Billet Dash Mount  
FR20114FD - Satin  
FR20114FDPL - Polished  
FR20114FDBK - Black Powdercoat

# 65-66 MUSTANG MICROSTEER COLUMN



Power Up  
Your Column!



Our Flaming River Tilt Steering Column for 1965-1966 Mustangs is now available with our Microsteer Electric Power Assisted Steering integrated to the column! The microsteer unit and wiring is concealed behind the lower dash panel, so all you see is a beautiful column when installed! Keep the look of your classic Mustang interior clean with our new Microsteer Column and enjoy easier steering from your manual Mustang steering box or rack and pinion.

FR40200M65 Mill Finish  
FR40200M65PL Polished Finish

Now You See It...



Now You Don't!





# '65-'66 MUSTANG MANUAL STEERING OPTIONS

## Upgrade Your Steering for Microsteer!



Manual Rack Cradle Kit with Microsteer Column and Original Spindle **FR30065HREP**

Manual Rack Cradle Kit with Microsteer Column and Granada Spindle **FR300KTHREP**

Flaming River has designed a direct bolt-in manual rack and pinion steering system for your Classic Mustang! The custom designed quick ratio rack and pinion offers full turning radius and travel with 3-1/2 turns lock to lock. The patented cradle technology mounts in the original chassis hole locations with no modification required. Kits are designed to work with Small Block and Big Block, engines, but 351 Windsor and 351 Cleveland engines will require custom exhaust headers.

- Full turning radius
- Quick Ratio Rack & Pinion with 3-1/2 turns lock to lock
- No chassis or suspension modifications required
- Kits can be purchased with or without Tilt Steering Column
- Lifetime Serviceability



**FR1498**

**Classic Mustang Manual Steering Boxes**  
 The Popular Manual Steering Boxes for the 1965-70 Mustang are now made right here, in the USA. Our Mustang Boxes are made from all-new components including a new casting, sector gear shaft, and internals—no rebuilt parts in this box! Replace that worn steering box with an all-new needle bearing steering box and experience the difference in steering, handling, and performance!

# COUPES AND ROADSTERS



**FR1999ROSS**

The Flaming River 304 Stainless Nostalgia Non-Tilt Steering Column is ideal for Roadsters, Cobras, and other custom applications that require a sleek and compact column. An attractive bell-style column with a 1-3/4" tube diameter, 30" overall length, and 3/4"-36 splined shaft. A billet dress up kit is included with GM turn signal lever, hazard knob, and horn.

Note: Custom lengths available upon request.

PART No	FINISH
FR1999RO-30	30" MILL STAINLESS
FR1999ROSS-30	30" POLISHED STAINLESS
FR1999ROBK-30	30" BLACK POWDER COAT
FR1999ROSS-30LC	30" POLISHED LASER CUT COLLAPSIBLE
FR1999RO-32	32" MILL STAINLESS
FR1999RO-32PL	32" POLISHED STAINLESS
FR1999CU	CUSTOM - MILL STAINLESS
FR1999CUSS	CUSTOM - POLISHED STAINLESS

**CUSTOM COLUMNS ARE NON-RETURNABLE**

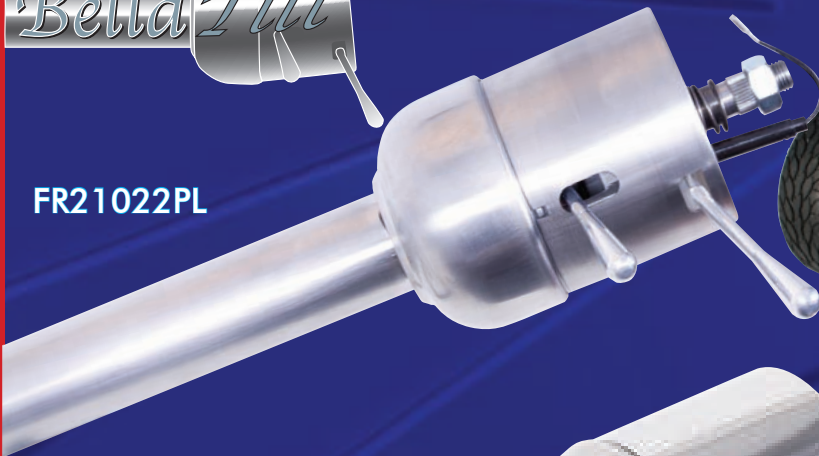
LENGTH	PAINTABLE	BLACK CHROME POWDER COAT	BLACK POWDER COAT	POLISHED	CUSTOM COLOR / LENGTH
28"	FR21022-28	FR21022-28BC	FR21022-28BK	FR21022-28PL	FR21022XX**
30"	FR21022-30	FR21022-30BC	FR21022-30BK	FR21022-30PL	FR21022XX**
32"	FR21022-32	FR21022-32BC	FR21022-32BK	FR21022-32PL	FR21022XX**

\*\*COLOR FROM RAL DECK MUST BE SPECIFIED WHEN ORDERING. CUSTOM COLORS ARE NON-RETURNABLE

## Stainless Steel Tilt Roadster Column



**FR21022PL**



Sleek 1-3/4" Diameter Roadster Tilt Column

*The best reward is a satisfied customer!*



**FR20001SS**

LENGTH	PAINTABLE	BLACK POWDER COAT	POLISHED	CUSTOM COLOR
28"	FR20000	FR20000BK	FR20000SS	FR20000**
30"	FR20001	FR20001BK	FR20001SS	FR20001**
CUSTOM	FR20000XX	FR20000XX	FR20000XX	FR20000XX**

## Choose Your Style of Column

Our aluminum nostalgia roadster non-tilt columns are manufactured from 6061 aluminum for that vintage look in a classic hot rod with no wiring to get in the way... no horn, no electronics and no wiring. Just a nostalgic column.

### FR3301

Tapered Billet Aluminum Roadster Column  
No Wiring,  
Electronics  
or Horn

New compact, lightweight, billet aluminum roadster column features and benefits:

- 3 Bolt Wheel Pattern to fit Classic Roadster Steering Wheels
- 30" Length with 3/4"-36 input shaft
- Sleek compact nostalgia design (1-3/4" tube) without electronics
- Made in USA



### FR1313WOE

Nostalgia Column  
No Wiring, Electronics  
or Horn



**NEW!** Tapered Vintage Column  
No Wiring, Electronics or Horn



**NEW!** Grooved Billet Aluminum Column  
No Wiring, Electronics or Horn

Billet Aluminum Roadster Column  
3 to 5/6 Bolt Steering Wheel  
Adapter - **FR20119**



*Note: Horn button will not be functional.*

# NON-TILT ROADSTER COLUMN



**304 Stainless Nostalgia Non-Tilt Steering Column**  
 This nostalgia column is ideal for Roadsters, Cobras, and other custom applications that require a sleek and compact column. An attractive bell-style column with a 1-3/4" tube diameter, 30" overall length, and 3/4"-36 splined shaft. A billet dress up kit is included with GM turn signal lever, hazard knob, and horn. Note: Custom lengths available upon request.



PART No	FINISH
FR1999RO-30	30" MILL STAINLESS
FR1999ROSS-30	30" POLISHED STAINLESS
FR1999RO30-BK	30" BLACK POWDER COAT
FR1999ROSS-30LC	30" POLISHED LASER CUT COLLAPSIBLE
FR1999RO-32	32" MILL STAINLESS
FR1999RO-32PL	32" POLISHED STAINLESS
FR1999CU	CUSTOM - MILL STAINLESS
FR1999CUSS	CUSTOM - POLISHED STAINLESS

**CUSTOM COLUMNS ARE NON-RETURNABLE**



### 3 Bolt Wheel Adapter

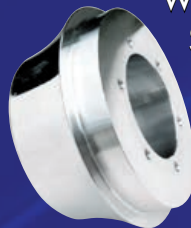
Designed to mount any traditional 3 Bolt Steering Wheel to a Flaming River column for a seamless and streamlined appearance.

**FR3304** (Polished)  
**FR3304BK** (Black)

### Roadster Column 3 to 5/6 Bolt Steering Wheel Adapter - FR20119

This billet steering wheel adapter allows mounting of a 5 or 6 bolt steering wheel on our 3-bolt Roadster Column (**FR3301**). This new pattern combination enables the use of most aftermarket steering wheels.

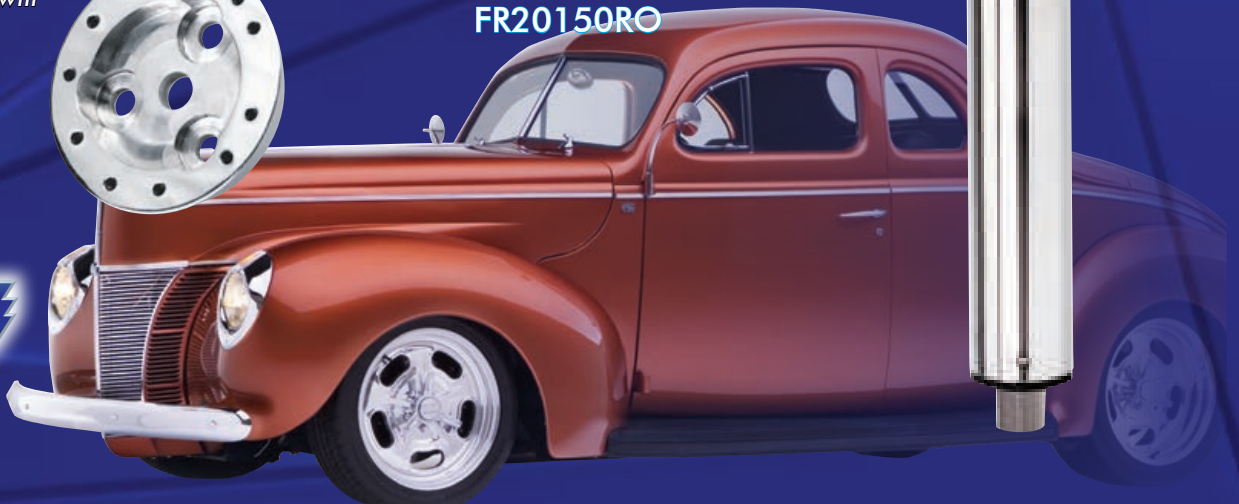
*Note: Horn button will not be functional.*



### WaterFall Adapter for Stainless Nostalgia Column

This wheel adapter is designed to combine the modern, billet elegance of our WaterFall Steering Wheel with our Stainless Nostalgia Column

(**FR1999RO-30** series)  
**FR20150RO**



# BELLA TILT™ ROADSTER COLUMN



Shown with  
Banjo Steering Wheel

We've taken our popular Roadster style steering column and added the modern convenience of 5 position tilt. This new column is ideal for classic trucks and roadsters.



- Only 5-1/2" from the bottom of the dish to the top of the column's shroud.
- Compact space-saving design has a nostalgic look and full tilt functionality.
- Fits snug against the dash and, compared to a standard tilt column, allows for an additional 2" of clearance in the driver's seat.
- Each column is CNC machined from high-grade 304 stainless steel.
- Sleek 1-3/4" tube diameter and is available in a variety of lengths.
- Finishes include paintable mill, polished, and black or custom powder coat.
- GM 4-1/4" wiring connector, horn functionality, canceling cam, turn signal arm, tilt lever, and hazard knob.
- All Flaming River steering columns are proudly Made in the USA.



Quality Steering Systems



LENGTH	PAINTABLE	BLACK CHROME POWDER COAT	BLACK POWDER COAT	POLISHED	CUSTOM COLOR / LENGTH
28"	FR21022-28	FR21022-28BC	FR21022-28BK	FR21022-28PL	FR21022XX**
30"	FR21022-30	FR21022-30BC	FR21022-30BK	FR21022-30PL	FR21022XX**
32"	FR21022-32	FR21022-32BC	FR21022-32BK	FR21022-32PL	FR21022XX**

CUSTOM POWDERCOAT AVAILABLE

\*\*NONRETURNABLE AND COLOR FROM RAL DECK MUST BE SPECIFIED WHEN ORDERING

# '39-'40 FORD



*Bella Tilt*

FR20021PL



FR21022PL

LENGTH	PAINTABLE	BLACK CHROME POWDER COAT	BLACK POWDER COAT	POLISHED	CUSTOM COLOR/LENGTH
30"	FR20005	FR20005BC	FR20005BK	FR20005SS	FR20000XX**
32"	FR20006	FR20006BC	FR20006BK	FR20006SS	FR20000XX**
30"	FR20021NE	FR20021BC	FR20021NEBK	FR20021NE-PL	FR20021XX**
28"	FR21022-28	FR21022-28BC	FR21022-28BK	FR21022-28PL	FR21022XX**
30"	FR21022-30	FR21022-30BC	FR21022-30BK	FR21022-30PL	FR21022XX**
32"	FR21022-32	FR21022-32BC	FR21022-32BK	FR21022-32PL	FR21022XX**

**\*\*COLOR FROM RAL DECK MUST BE SPECIFIED WHEN ORDERING  
CUSTOM COLORS ARE NON-RETURNABLE**



FR1999ROSS

PART NO	FINISH
FR1999RO-30	MILL STAINLESS
FR1999ROSS-30	POLISHED STAINLESS
FR1999RO-30BK	BLACK POWDER COAT
FR1999ROSS-30LC	POLISHED LASER CUT COLLAPSIBLE
FR1999CU	CUSTOM - MILL STAINLESS
FR1999CUSS	CUSTOM - POLISHED STAINLESS

**CUSTOM COLUMNS ARE NON-RETURNABLE**

# CUSTOM COLUMNS AVAILABLE

STEERING COLUMNS: CUSTOM COLUMNS AVAILABLE



*Tried & true fabulous products. I'm proud to use a Flaming River steering column on my Great 8 Truck "Mirage"*

**Richard Broyles**  
"Mirage" 1941 Ford Roadster Truck



FR20005SS



# CUSTOM COLUMNS AVAILABLE



Polished Column Drop  
FR20107PL



Swivel Floor Mount  
FR20101



Floor Mount Firewall Cover  
FR20100CVR

# '49-'51 FORD



## Just Add Tilt

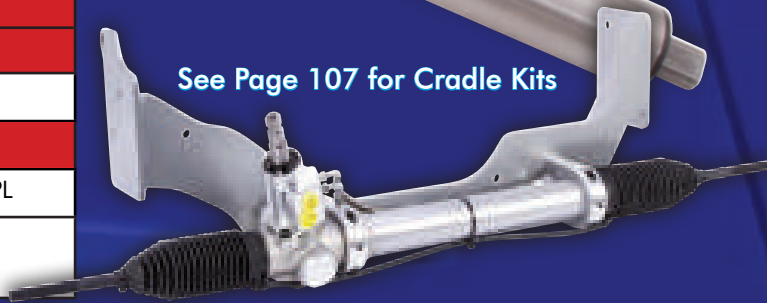


49-51 Ford Swivel Floor Mount with Knockout to Accommodate Brake Pedal  
FR20101FD1

PAINTABLE	BLACK POWDER COAT	POLISHED
<b>FLOOR SHIFT</b>		
FR20007	FR20007BK	FR20007SS
<b>COLUMN SHIFT WITH NEUTRAL SAFETY SWITCH</b>		
FR20029NE	FR20029NEBK	FR20029NE-PL

CUSTOM COLUMNS ARE AVAILABLE THROUGH OUR CUSTOM COLUMN PROGRAM AND ARE NON-RETURNABLE

See Page 107 for Cradle Kits





# '55-'57 THUNDERBIRD

Add an all-new Tilt Steering Column to your classic T-Bird! This attractive Floor Shift design is available in two styles so you can use your original steering wheel, or add an aftermarket wheel. Each column includes a billet dress up kit with turn signal and tilt levers, hazards, horn and canceling cam. Select your finish – available in Paintable to match your vehicle's interior, or Polished Stainless.



FINISH	AFTERMARKET STEERING WHEEL	ORIGINAL STEERING WHEEL
<b>56-57 THUNDERBIRD</b>		
MILL STAINLESS	FR20009	FR20009OE
POLISHED STAINLESS	FR20009SS	FR20009OESS
<b>55 THUNDERBIRD</b>		
MILL STAINLESS	FR20008	FR20008OE
POLISHED STAINLESS	FR20008SS	FR20008OESS

Column Includes steering box shaft adapter for easy installation to the original steering box.



IT'S A DIRECT FIT!



# '60-'65 COMET / FALCON



FR21018PL

FR21017

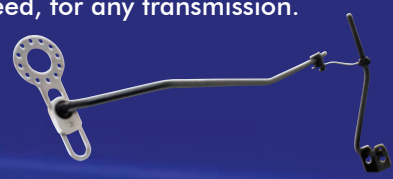
60-65 COMET/FALCON (FOR USE WITH AFTERMARKET STEERING WHEEL)	
FLOOR SHIFT	
MILL STAINLESS	FR21018
POLISHED FINISH	FR21018PL
COLUMN SHIFT	
MILL STAINLESS	FR21017
POLISHED FINISH	FR21017PL

**'60-'65 Comet/Falcon Floor Mount**  
Using a Flaming River Swivel Floor Mount will not only make your installation easier, it's going to have that clean finished look as well.

**Shift Indicator Adjustment Kit**  
This sliding linkage arm allows for perfect alignment of your transmission with your steering column indicator. The sliding machined mechanism locks into position at exactly the location you need, for any transmission.



FR20097



FR20059

# '60-'64 GALAXIE

STEERING COLUMNS: '60-'64 GALAXIE



For use with  
aftermarket  
Steering Wheel



Utilize your original dash support  
(Note: you must first place the shim  
that is included in your installation  
kit between the support and the  
column to ensure a tight fit)

**60-64 GALAXIE**  
(FOR USE WITH AFTERMARKET STEERING  
WHEEL)

MILL STAINLESS	FR20005
POLISHED FINISH	FR20005SS
BLACK POWDERCOAT FINISH	FR20005BK



IT'S A DIRECT FIT!

## DON'T FORGET THE ACCESSORIES

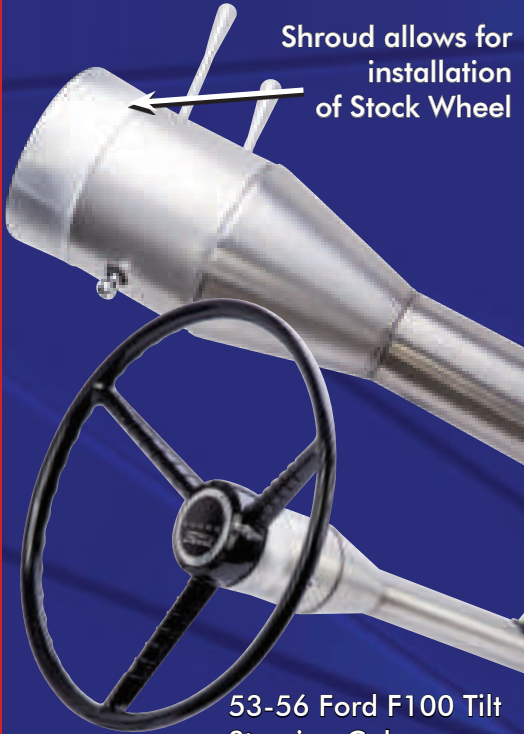


**NEW**  
**ROBOTIC**  
**WELD**

Female Wiring Adapter FR20118  
Replaces Original Plug Harness and adapts  
to Flaming River® Column Harness.  
Note: Verify color code on original wiring  
harness before disassembly

Black	Blue	Brown	Purple	Yellow	Green	White
Lt. Blue	Blue	Brown	Purple	Yellow	Green	White

# '48-'56 FORD F-SERIES TRUCKS



Shroud allows for installation of Stock Wheel

53-56 Ford F100 Tilt Steering Column  
FR20005F1SS



Images courtesy of Steve Garrett

Flaming River offers a full selection of floor shift and column shift tilt steering columns for classic Ford trucks. We also offer a full line of steering column accessories like column mounts and column drops to complete the steering column installation in your Ford Truck.

APPLICATION	MILL STAINLESS	POLISHED STAINLESS	BLACK POWDER COAT	DASH MOUNT	FLOOR MOUNT	WIRING ADAPTER
48-52 FORD TRUCK (FS)	FR20005	FR20005SS	FR20005BK	FR20108PL	N/A	FR20118-1
48-52 FORD TRUCK (GS)	FR20021NE	FR20021NE-PL		FR20108PL	N/A	FR20118-1
53-56 FORD TRUCK (FS)	FR20005	FR20005SS	FR20005BK	FR20108PL	FR20101F1	FR20118-1
53-56 FORD TRUCK (GS)	FR20021NE	FR20021NE-PL		FR20108PL	FR20101F1	FR20118-1
ROADSTER STYLE	FR21022-30	FR21022-30PL	FR21022-30BK			
53-56 F100 (FS) USING 53-56 F100 STEERING WHEEL	FR20005F1	FR20005F1SS	FR20005F1BK			

**RECOMMENDED ACCESSORIES:**

- **FR20108PL – 3-1/2" POLISHED COLUMN DROP FOR EASY COLUMN MOUNTING (2" DIAMETER)**
- **UNIVERSAL JOINT KIT • FR20119TA – 5/6 BOLT STEERING WHEEL ADAPTER**

**53-56 Ford F100 Truck Floor Mount**  
This new floor mount features knock-outs to accommodate original brake and clutch pedals

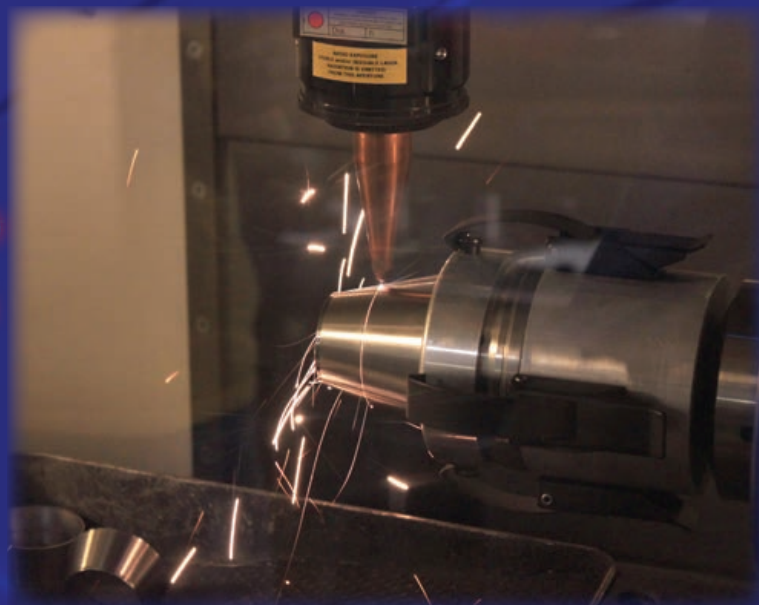
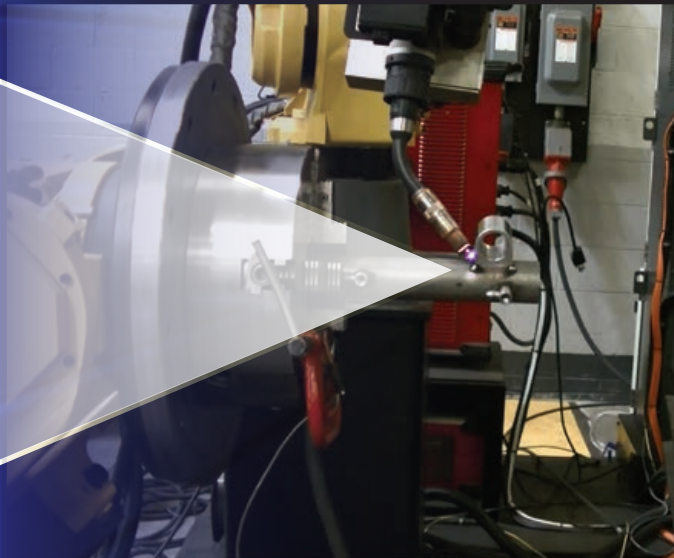
FR20101F1



IMAGES COURTESY OF STEVE GARRETT

U.S. Army Veteran Steve Garrett's 1953 Shelby Powered Ford F-100 with a Flaming River Steering Column and Steering Wheel (interior pictured above)

# STEERING COLUMN MANUFACTURING



*Use a Flaming River® Wheel Adapter for a seamless fit!*



# '66-'77 FORD BRONCO



OEM Style Dash Mount Bracket

FR30017KT

XL Billet Column Dress Up Kit  
FR20122AL

Flaming River has designed a Direct Tilt Steering Column to fit the 1966-77 Bronco with mounts on the column for easy installation. This column is sold as a kit with a slip shaft and universal joint, floor mount and wiring connector to ease installation and provide a collapsible shaft. A custom machined dress up kit (extended length turn signal, tilt and hazard) is included with this column.

- Direct Bolt in installation
- Column Shift or Floor Shift options available
- Replaces solid shaft in original Bronco with a slip shaft which improves safety and performance
- Kit includes all components necessary for installation including a 3/4"-36 u-joint to fit original steering box
- Custom floor mount is included to complete the installation



Ford Wiring Harness



Also available with a Floor Shift Tilt Column

66-71 BRONCO COLUMN INSTALL KITS				
	FORD SPLINE		AFTERMARKET SPLINE	
	COLUMN SHIFT COLUMN	FLOOR SHIFT COLUMN	COLUMN SHIFT COLUMN	FLOOR SHIFT COLUMN
MILL STAINLESS	FR30017KTF	FR30018KTF	FR30017KT	FR30018KT
POLISHED STAINLESS	FR30017KTFSS	FR30018KTFSS	FR30017KTSS	FR30018KTSS
BLACK POWDERCOAT	FR30017KTFBK	FR30018KTFBK	FR30017KTBK	FR30018KTBK

Complete Column Install Kit includes: Column, OEM Style Dash Mounting Bracket, Swivel Floor Mount and Slip Shaft Kit with U-Joint

# '66-'77 FORD BRONCO

STEERING COLUMNS: '66-'77 FORD BRONCO



Column Installed with OEM Dash Bezel



FR30017BK



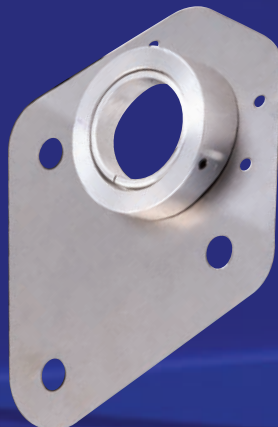
**Ford Spline Available!**

66-71 BRONCO COLUMNS (NO SLIP SHAFT OR U-JOINT)		
	FORD SPLINE	
	COLUMN SHIFT COLUMN	FLOOR SHIFT COLUMN
MILL STAINLESS	FR30017F	FR30018F
POLISHED STAINLESS	FR30017FSS	FR30018FSS
BLACK POWDERCOAT	FR30017FBK	FR30018FBK
	AFTERMARKET SPLINE	
	COLUMN SHIFT COLUMN	FLOOR SHIFT COLUMN
MILL STAINLESS	FR30017	FR30018
POLISHED STAINLESS	FR30017SS	FR30018SS
BLACK POWDERCOAT	FR30017BK	FR30018BK

FR30017SS



SWIVEL FLOOR MOUNT



'66-'71 Swivel Floor Mount  
Our aluminum swivel floor mounts make installing a Flaming River column in your Ford Bronco easy and beautiful!

FR20101BR1

# JEEP / OFF-ROAD



Flaming River offers a full selection of columns and accessories for Jeep and other Off-Road markets. If you're looking for the perfect steering solution for CJ, TJ or other Jeep or Off-Road pickup truck, check out what we have to offer.



**Billet Aluminum Mounting Clamp**  
FR20114 - 2" Dia



PART No.	DESCRIPTION
<b>FOR USE WITH FLAMING RIVER SLIP SHAFT KIT</b>	
FR20005	30" FLOOR SHIFT TILT COLUMN WITH 2" OD - PAINTABLE MILL FINISH
FR20005BK	30" FLOOR SHIFT TILT COLUMN WITH 2" OD - BLACK POWDERCOAT FINISH
FR20005SS	30" FLOOR SHIFT TILT COLUMN WITH 2" OD - POLISHED FINISH
FR30001-30	30" FLOOR SHIFT KEY COLUMN WITH 2" OD - PAINTABLE MILL FINISH
FR30001-30BK	30" FLOOR SHIFT KEY COLUMN WITH 2" OD - BLACK POWDERCOAT FINISH
FR30001-30SS	30" FLOOR SHIFT KEY COLUMN WITH 2" OD - POLISHED FINISH
<b>FOR USE WITH FACTORY STEERING SHAFT (1"-48 SPLINE)</b>	
FR20005-48	30" FLOOR SHIFT TILT COLUMN WITH 2" OD, 1"-48 SPLINE - PAINTABLE MILL FINISH
FR20005-48BK	30" FLOOR SHIFT TILT COLUMN WITH 2" OD, 1"-48 SPLINE - BLACK POWDERCOAT FINISH
FR20005-48SS	30" FLOOR SHIFT TILT COLUMN WITH 2" OD, 1"-48 SPLINE - POLISHED FINISH
FR30002-30	30" FLOOR SHIFT KEY COLUMN WITH 2" OD, 1"-48 SPLINE - PAINTABLE MILL FINISH
FR30002-30BK	30" FLOOR SHIFT KEY COLUMN WITH 2" OD, 1"-48 SPLINE - BLACK POWDERCOAT FINISH
FR30002-30SS	30" FLOOR SHIFT KEY COLUMN WITH 2" OD, 1"-48 SPLINE - POLISHED FINISH



Columns do not include wiper, cruise control, or dimmer switch controls. Dimmer switch and cruise control available upon request.

*"NOT ALL THOSE WHO WANDER ARE LOST"*  
-J.R.R. TOLKIEN





**FR20101CJ**  
Swivel Floor Mount  
Sold Separately



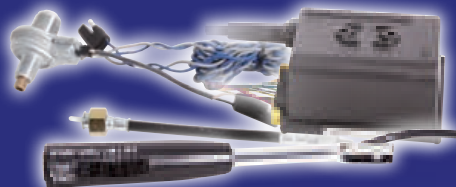
Jeep Slip  
Shaft Kits  
**FR1519-76**

New 79-86 Jeep  
CJ Series Floor  
Shift Key Column  
**FR30019BK**

79-86 JEEP CJ SERIES COLUMNS	
FR30019	MILL STAINLESS FINISH
FR30019SS	POLISHED STAINLESS FINISH
FR30019BK	BLACK POWDERCOAT FINISH
FR20101CJ	SWIVEL FLOOR MOUNT
JEEP SLIP SHAFT KITS	
JEEP CJ-5 / CJ-6 / CJ-7 / CJ-8	
FR1519-76P	1972-86 POWER STEERING
FR1519-76M	1972-86 MANUAL STEERING
FR1519-PTLT	72-86 POWER STEERING w/ FR COLUMN
FR1519-MTLT	72-86 MANUAL STEERING w/ FR COLUMN
JEEP WRANGLER	
FR1519-87P/M	1987-95
1997-2000 JEEP TJ	
FR1519-97	1997-2000

Columns do not include wiper, cruise control, or dimmer switch controls. Dimmer switch and cruise control available upon request.

**FR20114K**  
Key Column



Electronic Cruise Control  
**FR20118-4**



# MOPAR A-BODY



These Tilt Steering Columns are made from 304 stainless steel, use all-new parts and come in three different finishes: Paintable Mill, Black Powder Coat, and Polished Stainless. Each Tilt Column includes billet dress-up kit with tilt lever, turn signal/hazard switch, and female plug kit for connecting to original wiring harness. Horn relay, hazard kit, and steering wheel adapters may be required and are sold separately.

A BODY: DUSTER, DART , DEMON, VALIANT & 64-69 BARRACUDA	
PART NUMBER	DESCRIPTION
FR30011CM	70-76 TILT KEY - MANUAL STEERING (PAINTABLE)
FR30011CMBK	70-76 TILT KEY - MANUAL STEERING (BLACK POWDER COAT)
FR30011CMSS	70-76 TILT KEY - MANUAL STEERING (POLISHED)
FR30011CP	70-76 TILT KEY - POWER STEERING (PAINTABLE)
FR30011CPBK	70-76 TILT KEY - POWER STEERING (BLACK POWDER COAT)
FR30011CPSS	70-76 TILT KEY - POWER STEERING (POLISHED)
FR30011C	70-76 TILT KEY COLUMN w/o SLIP SHAFT/U-JOINT (MILL FINISH)
FR30011CBK	70-76 TILT KEY -COLUMN w/o SLIP SHAFT/U-JOINT (BLACK POWDER COAT)
FR30011CSS	70-76 TILT KEY COLUMN w/o SLIP SHAFT/U-JOINT (POLISHED)
FR21028	70-76 TILT NON-KEY - MANUAL STEERING (PAINTABLE)
FR21028PL	70-76 TILT NON-KEY - MANUAL STEERING (POLISHED)
FR21028BK	70-76 TILT NON-KEY - MANUAL STEERING (BLACK POWDER COAT)
FR21028P	70-76 TILT NON-KEY - POWER STEERING (PAINTABLE)
FR21028PPL	70-76 TILT NON-KEY - POWER STEERING (POLISHED)
FR21028PBK	70-76 TILT NON-KEY - POWER STEERING (BLACK POWDER COAT)



A-Body Mopar Swivel Floor Mount  
FR20101MPA

Mopar Universal Joint Adapter  
Manual: FR1506M  
Power: FR1506P

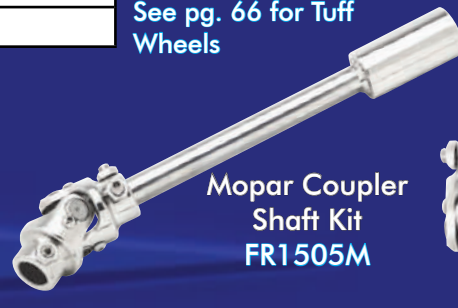


Tuff Wheel Adapter  
A custom Wheel Adapter enables our Tuff Wheel to mount on a Flaming River Tilt Column.  
FR20161AD



See pg. 66 for Tuff Wheels

Mopar Coupler Shaft Kit  
FR1505M



# MOPAR E-BODY / B-BODY

Flaming River has designed a Direct Tilt Ignition Steering Column for the Mopar E-Body. This is a direct bolt-in column with the mounting holes in place to use the original bracket, and a collapsible slip shaft with universal joint is included for easy install. The new design is available with an exciting new vintage style "Canister" adapter which will fit with the Tuff Wheel for a complete muscle look. Add the new E-body floor mount and you have a complete system for your Mopar.



70-74 E BODY: CHALLENGER - CUDA	
FR30013CM	70-74 TILT KEY - MANUAL STEERING (PAINTABLE)
FR30013CMBK	70-74 TILT KEY - MANUAL STEERING (BLACK POWDER COAT)
FR30013CMSS	70-74 TILT KEY - MANUAL STEERING (POLISHED)
FR30013CP	70-74 TILT KEY - POWER STEERING (PAINTABLE)
FR30013CPBK	70-74 TILT KEY - POWER STEERING (BLACK POWDER COAT)
FR30013CPSS	70-74 TILT KEY - POWER STEERING (POLISHED)



70-74 E-Body Mopar Swivel Floor Mount  
FR20101MPE



62-69 B-Body Mopar Swivel Floor Mount  
FR20101MP



**B BODY: 1962-70 BELVEDERE; 1975-78 FURY, GTX; 1968-75 ROAD RUNNER; 1965-74 SATELLITE, CHARGER; 1965-76 CORONET; 1978 MAGNUM; 1977-78 MONACO**

FR30012CM	70-78 TILT KEY - MANUAL STEERING (PAINTABLE)
FR30012CMBK	70-78 TILT KEY - MANUAL STEERING (BLACK POWDER COAT)
FR30012CMSS	70-78 TILT KEY - MANUAL STEERING (POLISHED)
FR30012CP	70-78 TILT KEY - POWER STEERING (PAINTABLE)
FR30012CPBK	70-78 TILT KEY - POWER STEERING (BLACK POWDER COAT)
FR30012CPSS	70-78 TILT KEY - POWER STEERING (POLISHED)
FR30012C	70-78 TILT KEY COLUMN W/O SLIP SHAFT/U-JOINT (MILL FINISH)
FR30012CBK	70-78 TILT KEY - COLUMN W/O SLIP SHAFT/U-JOINT (BLACK POWDER COAT)
FR30012CSS	70-78 TILT KEY COLUMN W/O SLIP SHAFT/U-JOINT (POLISHED)



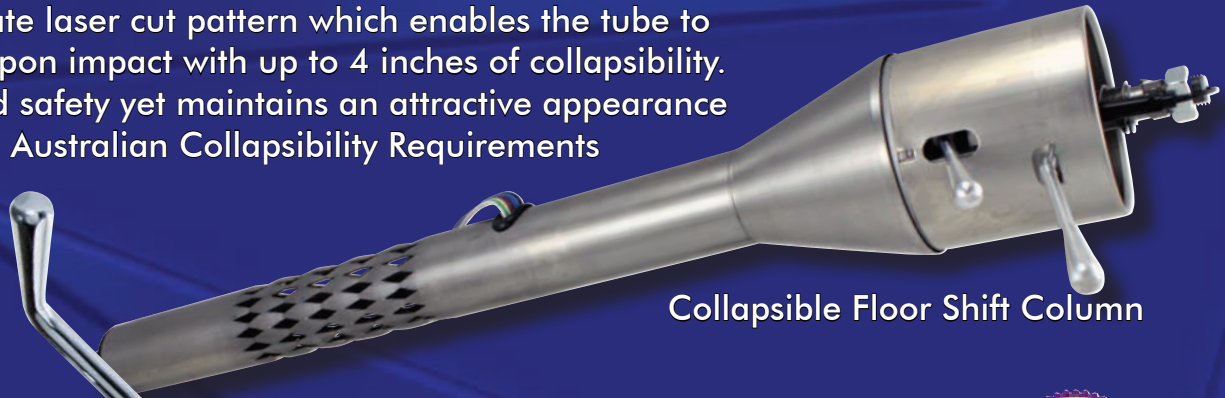
Gilbert Haas' 1971 Viper Cuda

My 1971 Viper Cuda Pro-Touring build debuted at the 2016 Columbus Nationals as a Street Machine of the Year (SMOTY) contender. The build featured your steering column with a Mopar ignition key. I would like to thank you for your products which helped me compete at that level.

**GILBERT HAAS**  
PRESIDENT, HAAS LASER TECHNOLOGIES

# COLLAPSIBLE COLUMNS

- Intricate laser cut pattern which enables the tube to fold upon impact with up to 4 inches of collapsibility.
- Added safety yet maintains an attractive appearance
- Meets Australian Collapsibility Requirements



Collapsible Floor Shift Column



Collapsible Column Shift Column



Continued investment and growth in our manufacturing processes, including our laser technology, allows us to manufacture precision parts with maximum flexibility. A bellowed diamond pattern is laser cut into our Collapsible Columns for both style and safety. Our Collapsible Columns also include a collapsible center shaft and are available as Tilt Columns, "Roadster" nostalgia columns and our Trim line Race Columns—voted Best New Safety Product by NSRA.



Un-collapsed Column



Collapsed Column

O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
<b>TILT FLOOR SHIFT (No Key)</b>				
2 x 30	1 INCH DD	FR20005LC	FR20005LCBK	FR20005SSLC
2 x 32	1 INCH DD	FR20006LC	FR20006BKLC	FR20006SSLC
2 x 35	1 INCH DD	FR20007LC	FR20007LCBK	FR20007SSLC
<b>TILT KEY FLOOR SHIFT</b>				
2 x 30	1 INCH DD	FR30001-30LC	FR30001-30BKLC	FR30001-30SSLC
2 x 32	1 INCH DD	FR30001-32LC	FR30001-32BKLC	FR30001-32SSLC
2 x 35	1 INCH DD	FR30001-35LC	FR30001-35BKLC	FR30001-35SS

O.D. x LENGTH	SHAFT SIZE	MILL FINISH	BLACK POWDER COAT	POLISHED STAINLESS
<b>TILT COLUMN SHIFT (No Key)</b>				
2 x 30	1 INCH DD	FR20021LC	FR20021BKLC	FR20021SSLC
2 x 33	1 INCH DD	FR20022LC	FR20022BKLC	FR20022SSLC
2 x 35	1 INCH DD	FR20029LC	FR20029BKLC	FR20029SSLC
<b>TILT KEY COLUMN SHIFT (NEUTRAL SAFETY SWITCH INCLUDED)</b>				
2 x 30	1 INCH DD	FR30101-30LC	FR30101-30BKLC	FR30101-30SSLC
2 x 33	1 INCH DD	FR30101LC	FR30101BKLC	FR30101SSLC
2 x 35	1 INCH DD	FR30101-35LC	FR30101-35BKLC	FR30101-35SSLC

Collapsible Roadster Column

# MICRO & DASH MOUNT COLUMNS

Overall Length 17 inches



## Micro Tilt Steering Columns

Available in Floor Shift and Column Shift designs, our Micro Columns are ideal for a variety of vehicle applications. At only 17" in length – these columns add tilt functionality, reduce universal joint angles, and remove the tube from the engine compartment for added clearance and safety. Available in Paintable, Black Powder coat and Polished finishes.

FLOOR SHIFT	
PART No.	FINISH
FR2000MC	MILL STAINLESS
FR2000MCSS	POLISH STAINLESS
FR2000MCBK	BLACK POWDER COAT
COLUMN SHIFT	
PART No.	FINISH
FR20020MC	MILL STAINLESS
FR20020MCSS	POLISH STAINLESS
FR20020MCBK	BLACK POWDER COAT

Check out our VDOG Variable Angle Gear for Additional Angle Options



## Dash Mount Tilt Steering Columns

Our 7-1/2" Dash Mount Tilt Columns eliminate pedal interference by taking the column tube out of the engine compartment. This column offers all of the features of our standard Tilt Columns, but gives you maximum design flexibility. No need for a mounting bracket, as this column includes a face plate for mounting. Output shaft is 3/4" DD. Available in Paintable, Black Powder coat and Polished finishes.

PART No.	FINISH
FR20020DM	MILL STAINLESS
FR20020DMSS	POLISH STAINLESS
FR20020DMBK	BLACK POWDER COAT

# RIGHT HAND DRIVE AND TRU TELESCOPIC COLUMNS

## Right Hand Drive Columns

Flaming River has designed a gear shift with the shifter on the left side for a customized solution to the export market. As with all Flaming River tilt columns, this has all-new components and is manufactured with all stainless steel. Made in the U.S.A.

### Right Hand Drive Columns

PART No	FINISH
FR21230	30" MILL STAINLESS
FR21230BK	30" BLACK POWDER COAT
FR21230SS	30" POLISHED STAINLESS
FR21230XX	CUSTOM LENGTH



## Power Tru Telescopic Column



### Power Tru Telescopic Columns

PART No	LENGTH	FINISH
FR20011	30-32 INCH	MILL STAINLESS
FR20011PL	30-32 INCH	POLISHED STAINLESS
FR20012	32-34 INCH	MILL STAINLESS
FR20012PL	32-34 INCH	POLISHED STAINLESS

- Memory control for Driver 1 or Driver 2 positioning
- Unique design telescopes from the tube for driver comfort
- Smooth linear activating device with stainless cable positions the column
- Stainless steel piston and sleeve CNC machined for smooth action
- 2 inch range of linear movement



Memory circuit included with all power units.

# MOTORSPORTS COLUMNS

## Straight Motorsports Column

This basic, straight-tube design is for competition use. Mill finish 304 Grade Stainless tube with 1.75" Dia. Features 1" DD output shaft. Upper shaft end is 3/4" smooth to accept a quick-release steering wheel hub. Diamond laser-cut collapsible column is also available for added safety.

Flaming River pioneered the Laser Cut Stainless Steering Column using all-new parts. Continued investment and growth in our manufacturing processes, including our laser technology, allows us to manufacture precision parts with maximum flexibility. A bellowed diamond pattern is laser cut into our Collapsible Columns for both style and safety. Our Collapsible Columns also include a collapsible center shaft and are available as Tilt Columns, "Roadster" nostalgia columns and our Trim line Race Columns—voted Best New Safety Product by NSRA.

- Intricate laser cut pattern which enables the tube to fold upon impact with up to 4 inches of collapsibility.
- Added safety yet maintains an attractive appearance
- Meets Australian Collapsibility Requirements



Quick Disconnect can be added to any column through our Custom Column Program!

### MOTORSPORTS STRAIGHT COLUMN - WITHOUT LASER CUT

FR3306	MOTORSPORTS STRAIGHT COLUMN
FR3306KT	MOTORSPORTS STRAIGHT COLUMN KIT - INCLUDES FR20142 QUICK RELEASE HUB
FR3308	STAINLESS STEEL NOSTALGIA STRAIGHT COLUMN

### MOTORSPORTS STRAIGHT COLUMN - WITH LASER CUT

FR3307	LASER CUT COLLAPSIBLE MOTORSPORTS STRAIGHT COLUMN
FR3307KT	LASER CUT COLLAPSIBLE MOTORSPORTS STRAIGHT COLUMN KIT INCLUDES FR20142 QUICK RELEASE HUB
FR3310LCKT	SATIN BLACK FINISH LASER CUT COLLAPSIBLE MOTORSPORTS COLUMN WITH QUICK DISCONNECT



FR3310LCKT



FR3306KT

FR3307KT



Quick Release Wheel Hub Quick Release Steering Wheel Disconnect is designed for motorsports applications. Lightweight, black anodized and CNC machined from 6061-T6 billet aluminum. SFI Approved FR20142

# STRAIGHT COLUMNS

*NON-TILT!*

# STRAIGHT → COLUMNS

## Stainless Steel Nostalgia Column

This lightweight, non-tilt column is made of paintable 304 Grade Stainless Steel. It features a compact shroud and is designed for classes requiring OEM-style steering columns.

- Nostalgia, Racing or Muscle Car Applications
- Weight Savings
- Space Savings

### STRAIGHT COLUMN, FLOOR SHIFT (w/GM WIRING, 2" DIA)

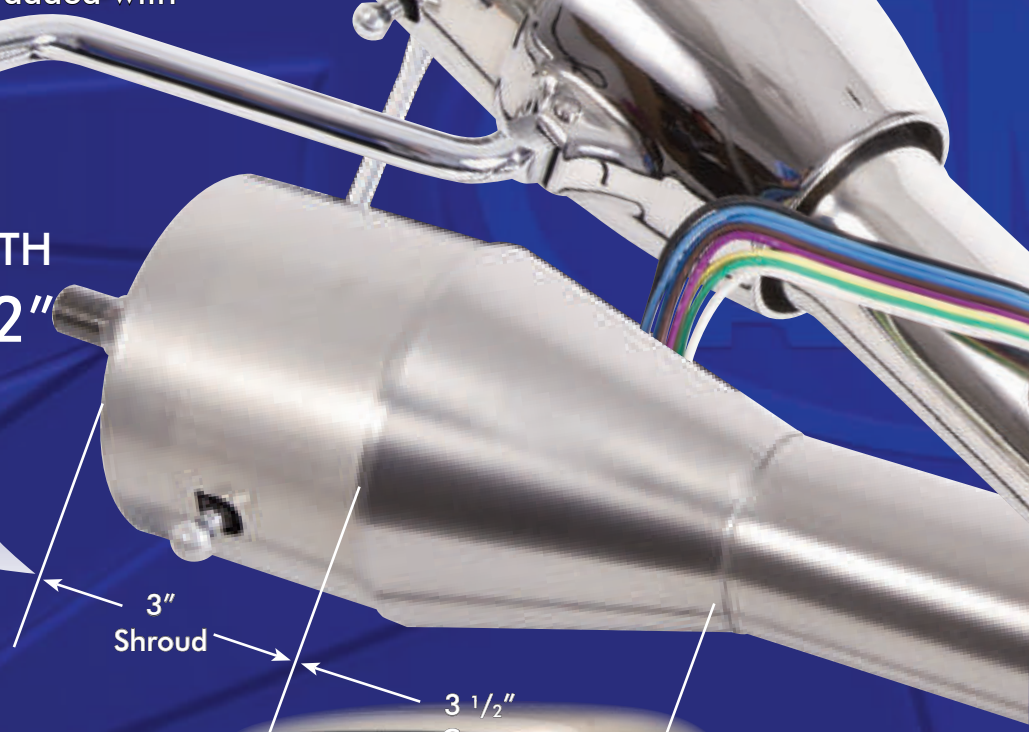
FR3310-30	MILL FINISH STAINLESS 30" LENGTH
FR3310-30SS	POLISHED STAINLESS 30" LENGTH
FR3310-30BK	BLACK POWDERCOAT 30" LENGTH
FR3310-XX	CUSTOM LENGTH

### STRAIGHT COLUMN, COLUMN SHIFT (w/GM WIRING, 2" DIA)

FR3311-30	MILL FINISH STAINLESS 30" LENGTH
FR3311-30SS	POLISHED STAINLESS 30" LENGTH
FR3311-30BK	BLACK POWDERCOAT 30" LENGTH
FR3311-XX	CUSTOM LENGTH

Note: Neutral Safety is not included in above columns, but can be added with custom column.

TOTAL LENGTH  
ONLY 6 1/2"



Quality Steering Systems





# GOLF CARTS / RECREATIONAL

STEERING COLUMNS: GOLF CARTS / RECREATIONAL

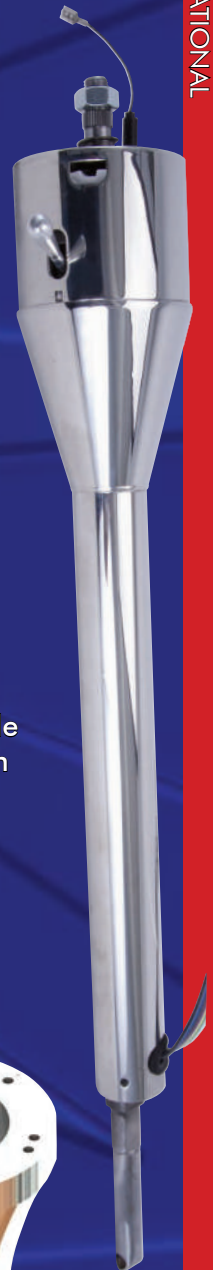
Flaming River Tilt Steering Columns - Add Comfort and Style to Your "Other" Ride! Perfect for boats, golf carts, pit carts, and other custom carts. All stainless...Same as original column with 1-3/4" tube diameter 5 position tilt for driving comfort Built-in turn signal, hazards, and horn relay. Easy mounting using existing universal joint. Accepts aftermarket adapter for use with any steering wheel. Custom applications also available.



**FR1978**  
Chrome Moly  
Universal Joint  
3/4" DD x 16.5mm-36



**Slip Fit Tilt Steering Column**  
Conversions are designed to slide over the existing steering column tube and add tilt steering to any Club Car or utility cart. Steering wheel not included.



**Precedent Column**

## TILT STEERING COLUMNS

PART No.	DESCRIPTION
FR20011GOSS	01-UP EZ GO (4 Bolt)
FR20010GOSS	96-01 EZ GO (3 Bolt)
FR20012GOSS	92-03 CLUB CAR
FR20012PR	PRECEDENT CLUB CAR COLUMN
FR20012PRSS	PRECEDENT CLUB CAR COLUMN - POLISHED FINISH

## INSTALLATION ACCESSORIES

PART No.	DESCRIPTION
FR1978	3/4"DD x 16.5MM-36 CHROME MOLY U-JOINT
FR1934	1"DD x 3/4"DD CHROME MOLY U-JOINT
FR1850	18" DD STEERING SHAFT

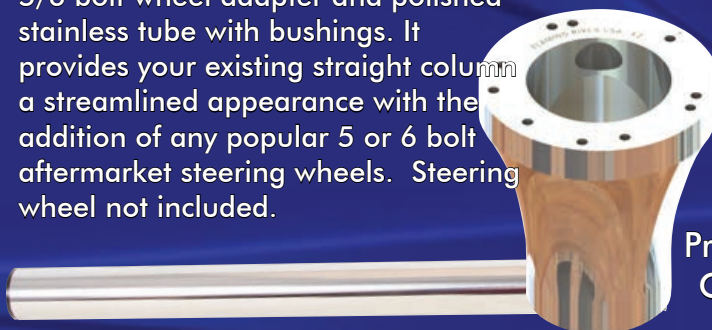
## GOLF CART DRESS UP KIT

PART No.	DESCRIPTION
FR400KT	DRESS UP KIT
FR20014AD	5/6 BOLT ADAPTER

## SLIP FIT TILT STEERING COLUMNS

PART No.	FINISH
FR20014EZ	POLISHED STAINLESS STEEL

**EZ Go Column Dress Up Kit**  
This golf cart dress up kit includes a 5/6 bolt wheel adapter and polished stainless tube with bushings. It provides your existing straight column a streamlined appearance with the addition of any popular 5 or 6 bolt aftermarket steering wheels. Steering wheel not included.



# KEYLESS IGNITION SYSTEM



## Start Your Car With The Simple Push of a Button!

Flaming River Programmable Keyless Ignition System comes with two key fobs and 5 programmable channels. Four channels are user programable for keyless entry, shaved door 'pop', trunk release and automatic window roll up. The 5th channel is a proximity channel and activates automatically as you approach your vehicle. The start button is a 22mm brushed stainless material and has an LED that emulates all functionality of a traditional key switch. Each kit comes with a unique emergency bypass card with a pin number that assures you can always start your vehicle. The advanced control module has a 60 amp ignition and two accessory circuits and features a programmable starter delay and built in MSD™ ignition filtering system.

PART No.	DESCRIPTION
FR60004	PROGRAMMABLE KEYLESS IGNITION SYSTEM - DASH MOUNT
FR60008	PROGRAMMABLE KEYLESS IGNITION SYSTEM - STREET MACHINE STYLE COLUMN PAINTABLE - FR30009 STYLE STEERING COLUMNS. 33" LENGTH COLUMN WITH 1" -48 SPLINE.
FR60008BK	PROGRAMMABLE KEYLESS IGNITION SYSTEM - STREET MACHINE STYLE COLUMN PAINTABLE - FR30009 STYLE STEERING COLUMNS. 33" LENGTH COLUMN WITH 1" -48 SPLINE. BLACK POWDER COAT
FR60008SS	PROGRAMMABLE KEYLESS IGNITION SYSTEM - STREET MACHINE STYLE COLUMN PAINTABLE - FR30009 STYLE STEERING COLUMNS. 33" LENGTH COLUMN WITH 1" -48 SPLINE. STAINLESS FINISH
FR60008CLR	PROGRAMMABLE KEYLESS IGNITION SYSTEM - STREET MACHINE STYLE COLUMN PAINTABLE - FR30009 STYLE STEERING COLUMNS. 33" LENGTH COLUMN WITH 1" -48 SPLINE. CUSTOM COLOR COLUMN. MUST SPECIFY COLOR FROM OUR RAL DECK.
FR60005	PROGRAMMABLE KEYLESS IGNITION SYSTEM - FLOOR SHIFT COLUMN PAINTABLE
FR60006	PROGRAMMABLE KEYLESS IGNITION SYSTEM - COLUMN SHIFT COLUMN PAINTABLE

## Programmable Keyless Ignition System



### Optional Color Push Buttons (Blue Included as standard with kit)

PART No.	DESCRIPTION
FR60004-WHITE-PB	WHITE IGNITION PUSH BUTTON
FR60004-RED-PB	RED IGNITION PUSH BUTTON
FR60004-GREEN-PB	GREEN IGNITION PUSH BUTTON



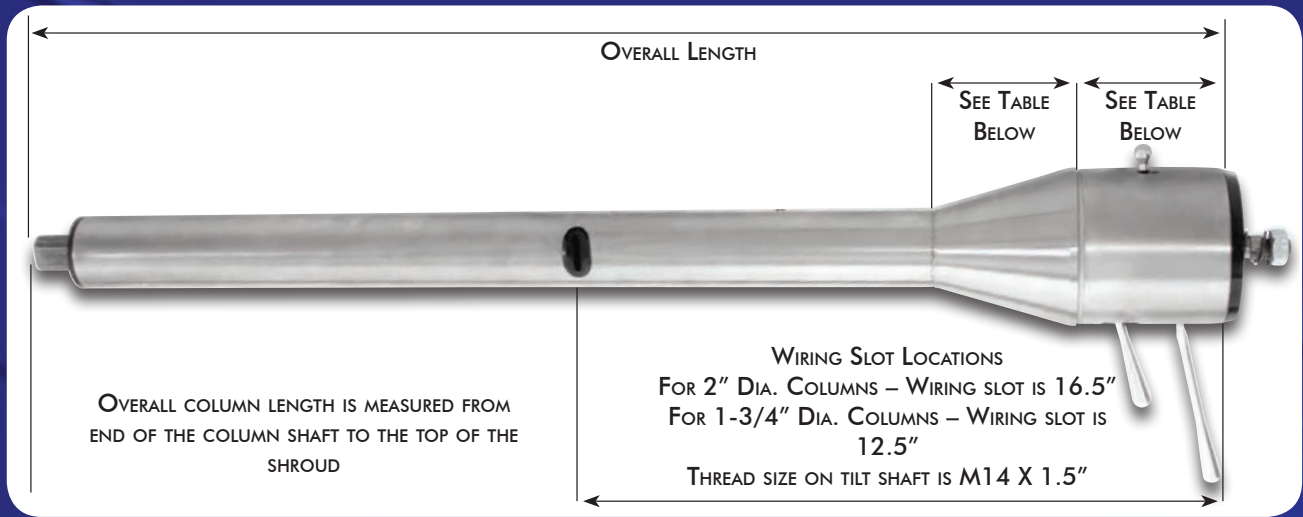
# ANATOMY OF A COLUMN

STEERING COLUMNS: ANATOMY OF A COLUMN



# DESIGNING YOUR SYSTEM

What makes Flaming River® unique is that we have designed a complete steering system. From the Steering Wheel, to the Steering Column, through the Universal Joints, and down to the Rack and Pinion or Steering Box.



To make your installation as simple as possible, we recommend the following items:

**Installation Kits:**

- Mustang Long Shaft Column Install Kit – FR200MUKT
- Mustang Short Shaft Column Install Kit – FR200MUKT2

**Column Shift Tilt Columns:**

- Optional Overdrive Lens – FR20010LNO

**Floor Mounts:**

- Polished Floor Mount 1-3/4" Dia. – FR20100
- Polished Floor Mount – 2" Dia. – FR20101
- Floor Mount Firewall Cover – FR20100CVR

**Column Mount:**

- OEM Factory Style Dash Mount for Classic Columns –

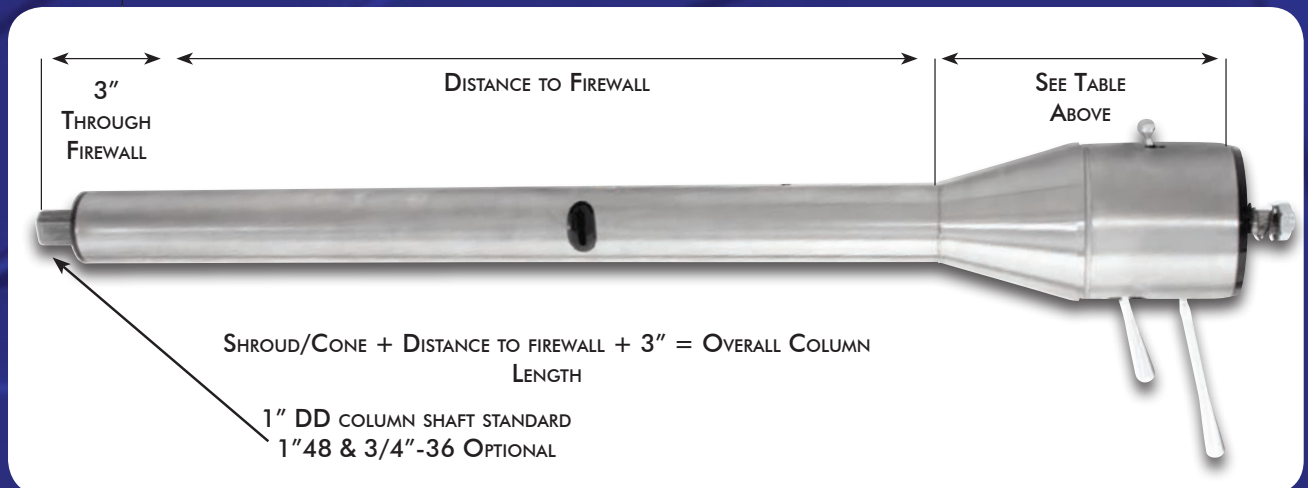
**FR20114**

- Column Drops:  
For 2" or 1-3/4" tube diameter

**Steering Wheel Adapters:**

Universal 5 and 6 Bolt Wheel Adapters contain the pattern for both 5 and 6 bolt wheels in a contemporary tapered or bell-style design. These adapters are only 3.90" wide for a seamless fit to our Steering Columns. Also available in larger diameter for GM style.

FLAMING RIVER SHROUD/CONE MEASUREMENTS		
	SHROUD	CONE
FLOOR SHIFT/COLUMN SHIFT (NON-KEY)	3-5/8"	3-1/2"
KEY COLUMNS	4-1/8"	3-1/2"
'57 CHEVY COLUMNS	3"	3-3/8"
ROADSTER TILT COLUMNS	3"	2-1/2"
ROADSTER NON-TILT COLUMNS	N/A	2-1/2"

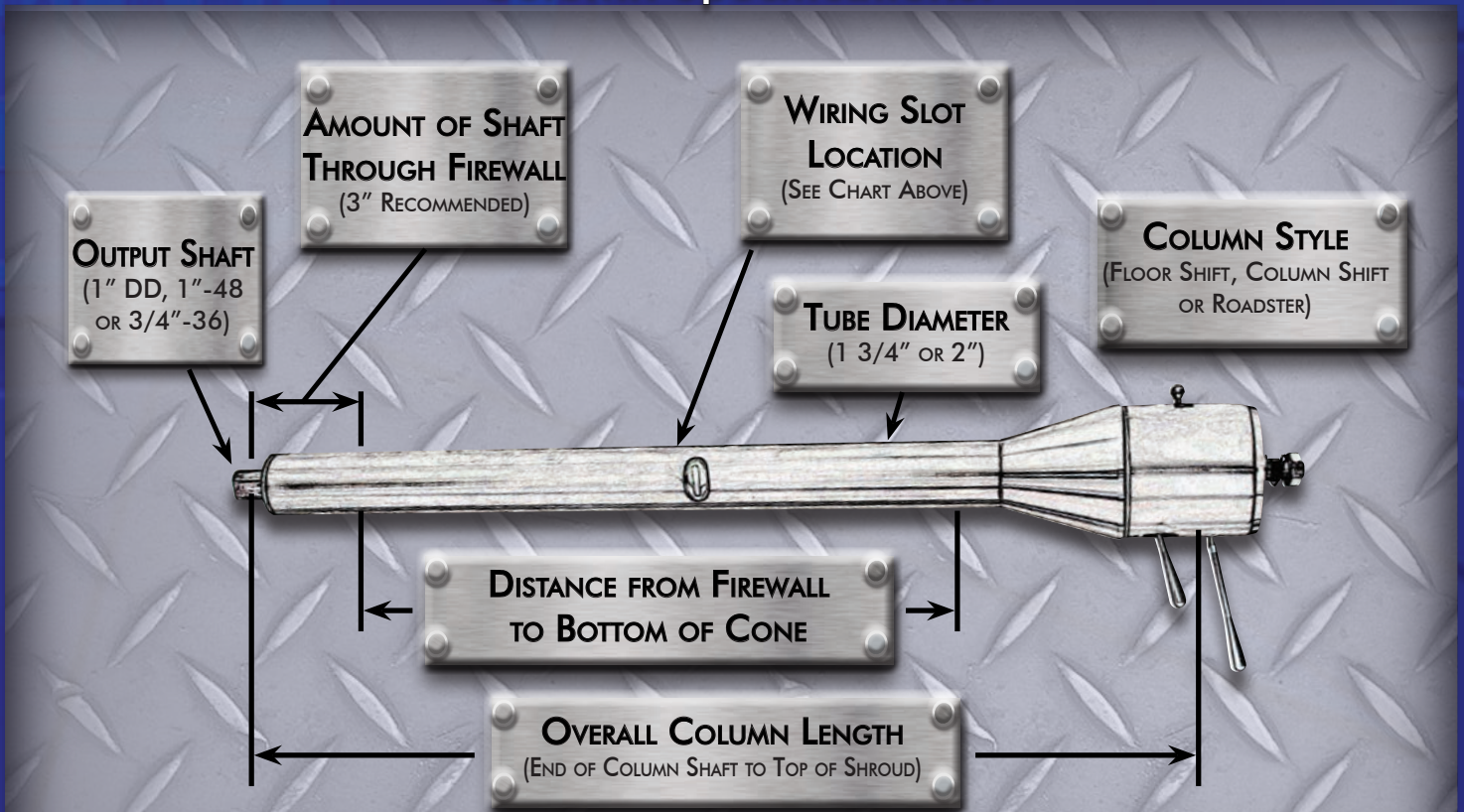


Chances are good that we have a column to fit your steering needs. Visit our website or contact Flaming River's Tech Support Department. One of our friendly Sales reps can recommend a column for your specific vehicle, or help you build a perfect fit through our Custom Column Manufacturing Program. We can custom build a Non-Tilt Roadster Column, Floor Shift Tilt Column, Column Shift Tilt Column, or Tilt Key Column to your exact specifications!

If you're interested in building a Custom Column, please review the appropriate custom column order forms on our website and then contact one of our Sales Reps. They'll take down your information, make sure they understand what you're looking for, and then we'll take care of the rest.

Flaming River can build, within our standard configuration, a customized column to match your original.

## Column Specifications:




**STEERING WHEEL TYPE:** AFTERMARKET, GM 69-93 OR FORD 65-70

**FINISH:** MILL FINISH (PAINTABLE), BLACK POWDER COAT, POLISHED (STAINLESS) OR CUSTOM POWDERCOAT FROM RAL DECK

# CUSTOM COLUMNS

## FILL IN THE BLANKS...WE'LL DO THE REST!



**Custom Floor Shift Tilt Column Order Sheet**

Flaming River offers a custom steering column manufacturing program that allows you to design a steering column for the right look and perfect fit for your vehicle's steering system. Please review and complete the custom order form below, in its entirety, with your required specifications and return to:

Form F-049 Rev D - 9/30/15

**CUSTOMER CONTACT INFORMATION**

Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Vehicle Make/Model/Year: \_\_\_\_\_

**CUSTOM LENGTH SPECIFICATIONS**

Is this column design based on an already existing part number from Flaming River?

YES  NO

If no, what is the part number of the column that you want to build off of? \_\_\_\_\_

**Dimension A:**  
Overall length of the column (Dimension C + D + Shroud/Conc length)

**Dimension B:**  
Wire slot location - Standard location is 26.50" for a 2.00" tube and 22.00" for a 1.75" tube.

**Wire slot (locking)** - Standard location is at 12" off from driver's seat.

**Dimension C:**  
3.00" of column through the firewall into the engine compartment is recommended to secure the column and allow room to connect the steering linkage.

**Dimension D:**  
Dimension from the firewall to the bottom of the cone.

Comments: \_\_\_\_\_

**CUSTOM REQUIREMENTS**

Collapsible:  Yes  No

Tube Diameter:  1.75"  2.00"

Cone Style:  Standard  Full (2.00" tube only)

Output Shaft:  1" DD  1" -48

3/4" -36

Steering Wheel:  Aftermarket Ford 2005-70  GM 1969-93

Column Finish:  Paintable Mill  Polished

Black Powder Coat  Custom Powder Coat (RAL color #)

**CUSTOMER APPROVAL - PLEASE SIGN AND DATE**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FLAMING RIVER APPROVALS - INTERNAL USE ONLY**

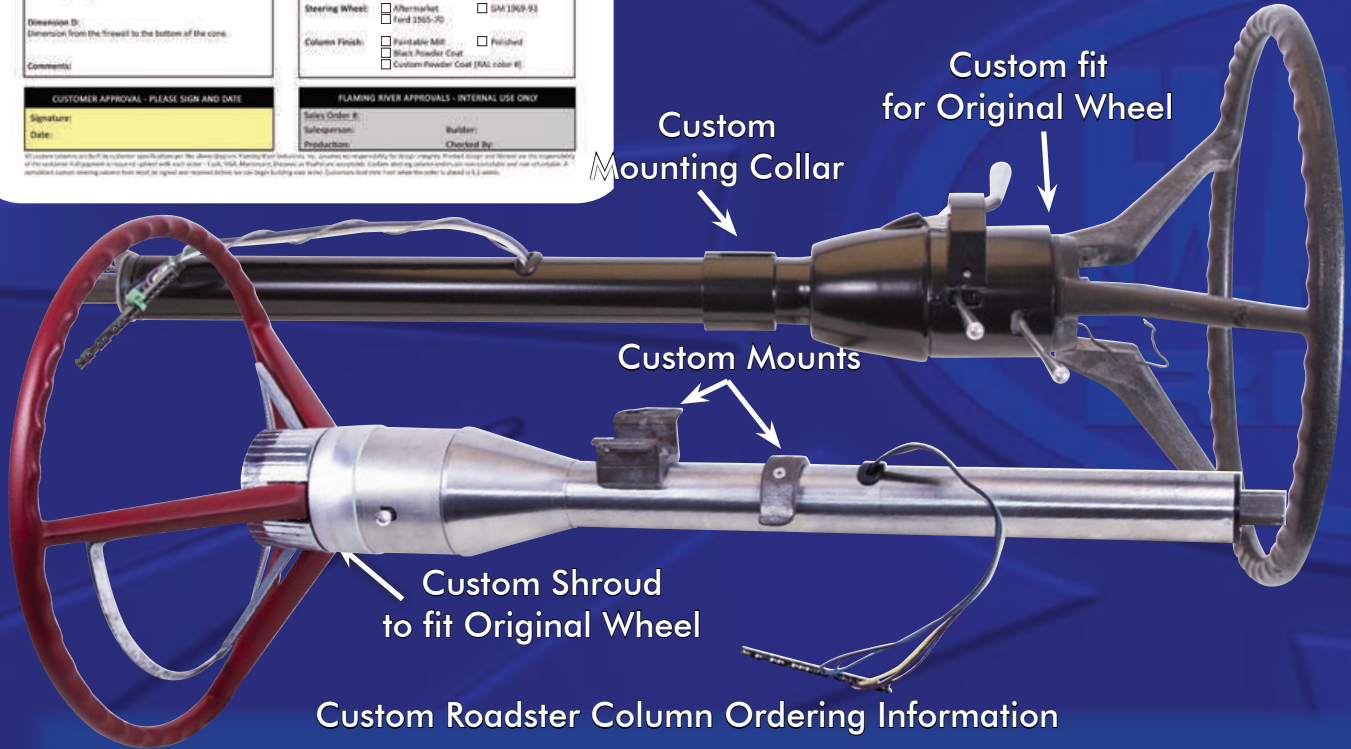
Sales Order #: \_\_\_\_\_ Builder: \_\_\_\_\_

Subprocessor: \_\_\_\_\_ Production: \_\_\_\_\_

Checked By: \_\_\_\_\_

Fill In The Blanks...We'll make it your way through our Custom Program! Fill it out and send it back to us and we will quote your custom Flaming River column!

WIRING SLOT LOCATIONS	
2" DIA FLOOR SHIFT	16.5"
1-3/4" DIA FLOOR SHIFT	12.25"
COLUMN SHIFT (WITH OR WITHOUT NEUTRAL SAFETY SWITCH)	16"
FLOOR SHIFT OR COLUMN SHIFT KEY COLUMNS	16"

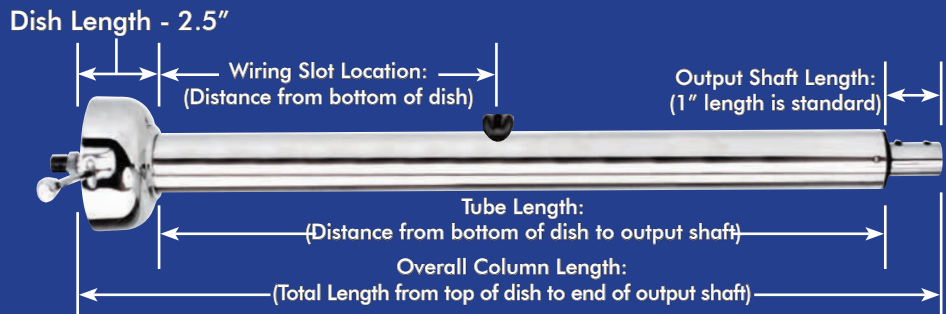


### Custom Roadster Column Ordering Information

**SPECIFY:**  
Electrical Options:  
(Hazards Only / Hazards and Turn Signals)

Wiring Slot Alignment:  
(Top / Bottom)  
Output Shaft Specifications:  
(1" DD / 3/4" -36 / 1" -48)

Column Finish:  
(Paintable FR199CU / Polished FR1999CUSS)



Custom columns are pre-paid, non-cancelable and non-returnable. Rack specifications must be in writing and signed by customer. Please allow 4-6 weeks from time of order.

# TILT STEERING COLUMN INSTALLATION

## TILT STEERING COLUMN INSTALLATION

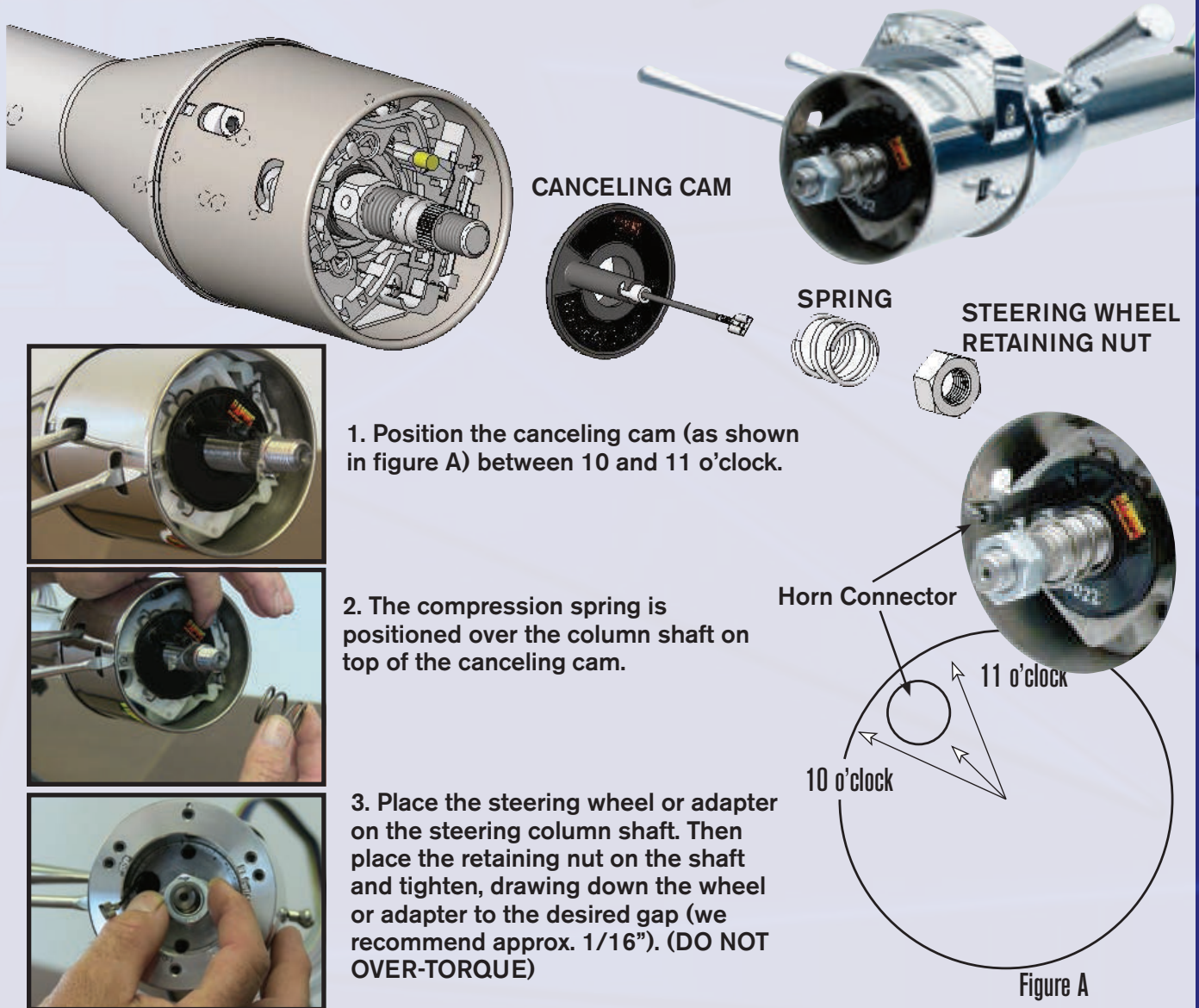
1. Determine the floor mount you intend to use and dash board clamp or column drop.
2. Position the floor mount at the bottom of the steering column. Do not fully tighten the mount until the column is in its final position.
3. Install the column in the vehicle and install the dash clamp or column drop to hold the column in place. Next, re-adjust floor mount to fit snug to the floor and make any final adjustments before tightening all the clamps.
4. Install the turn signal arm using the phillips screw provided. Then the tilt arm, and finally the hazard knob using the allen screw provided.
5. Connect the GM 4-1/4" male plug to your vehicle wiring harness.

### INSTALLING THE STEERING WHEEL

The spline on your new Flaming River steering column is a GM spline designed from 69 to present steering wheels without an airbag. The horn wire is furnished with your steering column and is pre-installed into the canceling cam.

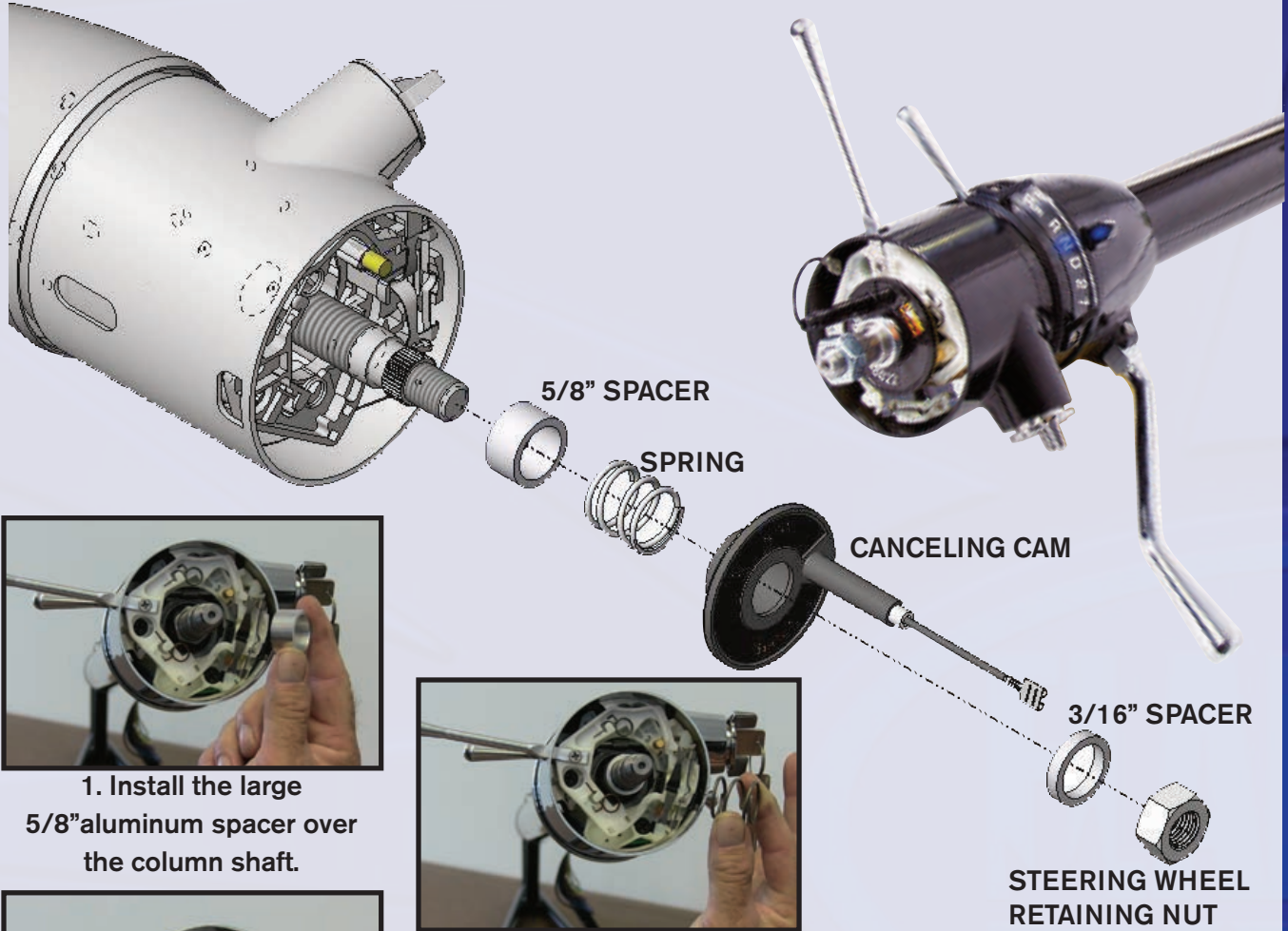
**NOTE: Ignition Rod must move free and clear to function. Please make sure it is not binding in your column mount.**

### INSTALLING THE CANCELING CAM (NON-KEY COLUMN)



# TILT STEERING COLUMN INSTALLATION

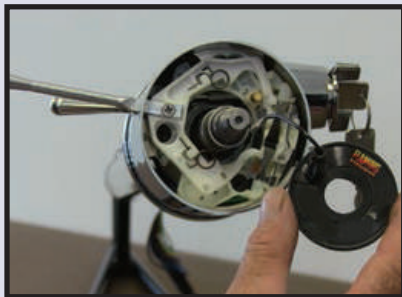
## INSTALLING THE CANCELING CAM (KEY COLUMN)



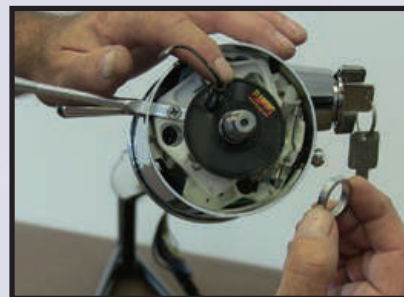
1. Install the large 5/8" aluminum spacer over the column shaft.



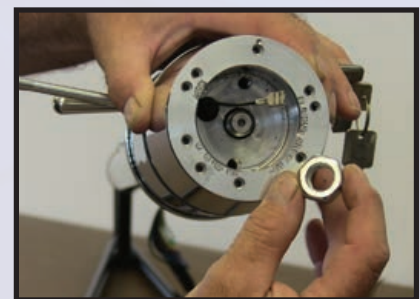
2. Next install the Canceling Cam Spring over the column shaft and down to the 5/8" aluminum spacer.



3. Then, slide the Canceling Cam over the column shaft and canceling cam spring. For proper operation of the canceling cam, align the canceling cam stem between the 10 and 11 o'clock position. (figure A)



4. Place the final 3/16" aluminum spacer over the column shaft and down to the canceling cam.



5. When installing your steering wheel adapter, tighten the retaining nut to 50 ft lbs.

### IMPORTANT: (FOR KEY AND NON-KEY COLUMNS)

A spring-loaded horn contact connects to the underside of the cancelling cam. When connecting the cancelling cam to your horn button, please note that the black wire is only designed for momentary ground to trigger a horn relay. Do not connect voltage to the black wire, or permanent damage to the column wiring or other components will occur and void column warranty.





# COLUMN ACCESSORIES & OTHER ACCESSORIES



# COLUMN ACCESSORIES

**Billet Dress Up Kit** Patent #D615,466  
 Sleek one-piece design now included with all Tilt Steering Columns. Kit includes turn signal lever, tilt lever, and hazard knob. Available in Mill, Polished, and Black Powder coat finishes.

FINISH	ORIGINAL STYLE	MACHINED STYLE
SATIN	FR20112AL	FR20121AL
POLISHED	FR20112ALP	FR20121APL
BLACK	FR20112BK	FR20121BK
MILL	FR20122AL	(LONGER)
BLACK	FR20122BK	(LONGER)



**New Longer Machined Style**

Turn Signal: 7-5/8"

Tilt: 5-3/4"

Hazard: 1"

FR20122AL Mill Finish

FR20122BK Black Powdercoat Finish



**FR20112APL**



### Billet Aluminum Linkage Kit

This adjustable kit connects and aligns a gearshift arm to a GM automatic transmission. Includes adjustable billet aluminum arm, two adjustable Heim-style connectors, a shift rod, and all mounting hardware.

FR20010RK2 6 Speed Transmission

FR20010RK 3/4

SpeedTransmission



### Stainless Steel Linkage Kit

This linkage kit connects the column or floor shifter to almost any GM transmission and allows for easy gear pointer alignment.

FR20010LK

FR20010LK-S



### Cable Shift Linkage Kit

Cable Shift Linkage is the ultimate answer to clearance issues. The cable allows you to route around transmissions, exhaust, cross members and brake pedals. Can be used on either side of the column. The cable has a Teflon-lined black housing with stainless inner-wire, measuring 5ft. in length. Ready-to-install hardware and brackets included.

FR20010CBL

### Shift Indicator Adjustment Kit

This sliding linkage arm allows for perfect alignment of your transmission with your steering column indicator. The machined sliding mechanism locks into position at the exact location you need for any transmission. The precision machined bushing design can be reversed to increase the range of motion. FR20059



INDICATOR HOUSING, LENS AND POINTER INCLUDED WITH EACH COLUMN AT NO ADDITIONAL CHARGE.



PART No.	DESCRIPTION
FR20010-KITC	CHROME INDICATOR HOUSING, POINTER AND LENS
FR20010-OVKITC	CHROME INDICATOR HOUSING, POINTER & OVERDRIVE LENS
FR20010LNO	OVERDRIVE LENS
FR20010PO	POINTER

# COLUMN MOUNTS

**Mounting Clamps (Under OEM Dash)**  
 These billet aluminum clamps can be used with virtually all OEM applications to facilitate installation of a Flaming River Tilt Column into a vehicle's existing dash.

PART No.	DESCRIPTION
FR20114	2" DASH MOUNT
FR20114K	KEY COLUMN DASH MOUNT
FR20114-2	1-3/4" DASH MOUNT
FR20114-3	G-BODY DASH MOUNT
FR20114-4	67-68 CAMARO COLUMN MOUNT
FR20114-5	69-82 CORVETTE KEY COLUMN MOUNT

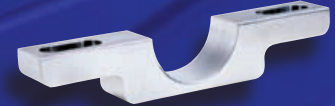
FR20114 - 2" Dia  
 FR20114-2 - 1 3/4" Dia



FR20114K - Key Column



FR20114-3 G Body



FR20114-5 69-82 Corvette Key Column Mount



FR20114-4 Column Mount



### 1965-70 Mustang Dash Mount Clamp

Flaming River has designed a replacement dash mount clamp for installing a Flaming River tilt steering column into a 1965-70 Mustang. This two-piece billet aluminum clamp fits in the factory column mounting location and firmly secures a new tilt column into place.

FR20114FD – Satin · FR20114FDPL – Polished · FR20114FDBK – Black Powdercoat

### Ignition Switch with Column Mount

A new billet aluminum column mount with ignition key provides a stylish way to mount your column and key. The reversible design can mount the key on either the left or right side of the column.

FR20114KYPL



FR20114KYPL

### Billet Dash Mount with Ignition Key

Relocate your ignition switch to underneath the dash with this stylish billet aluminum mount. It easily bolts to the stock dash for convenient mounting in Jeeps, Camaros, Chevilles, Street Rods, and limitless other applications. Ignition switch and boot included.

FR20114KY-2PL (Shown with Shim FR20114SH-2)



FR20114SH-2

PART No.	DESCRIPTION
FR20114KYPL	COLUMN MOUNT WITH IGNITION
FR20114KY-2PL	COLUMN MOUNT WITH IGNITION & 12V ACC.
FR20114SH-1	SHIM TO DROP 3/4"
FR20114SH-2	SHIM TO DROP 1-1/4"
FR20114SH-3	SHIM TO DROP 2"

### Dual Column Mount with 12V Accessory

This mount not only provides a convenient mount for your ignition but also includes a 12 Volt Adapter to keep your cell phone or other vehicle accessory charged while you're on the road. Can also be used to mount headlight switch in place of 12 Volt outlet. A protective rubber boot for the ignition switch is included.



FRIGN3PL

FRIGN4PL

PART No.	DESCRIPTION
FRIGN4-1	DUAL MOUNT MILL FINISH - BILLET MOUNT ONLY
FRIGN4	DUAL MOUNT MILL FINISH
FRIGN4-1PL	DUAL MOUNT POLISHED - BILLET MOUNT ONLY
FRIGN4PL	DUAL MOUNT POLISHED
FRIGN3-1	SINGLE MOUNT MILL FINISH - BILLET MOUNT ONLY
FRIGN3	SINGLE MOUNT MILL FINISH - WITH KEY
FRIGN3-1PL	SINGLE MOUNT POLISHED - BILLET MOUNT ONLY
FRIGN3PL	SINGLE MOUNT POLISHED - WITH KEY



# COLUMN DROPS

Flaming River's Column Drops feature a sleek, hinged design. These are machined from billet aluminum with a smooth radius edge and are available in a satin or polished finish. Choose 1-3/4" or 2" diameter to fit all Flaming River columns.



SIZE DROP	1-3/4" DIA	2" DIA	KEY COLUMN
2-1/2"	FR20102	FR20107	FR20107K
3-1/2"	FR20103	FR20108	FR20108K
4-1/2"	FR20104	FR20109	FR20109K
5-1/2"	FR20105	FR20110	FR20110K
6-1/2"	FR20106	FR20111	FR20111K

ADD PL FOR POLISHED

Measure from the top of the hinge to center of the column drop



**Polished Open Column Drop**  
Machined from billet aluminum with a smooth radius edge. Measure from top of hinge to center of column opening to determine what length you need

SIZE DROP	DIAMETER	PART No.
5-1/2"	1-3/4"	FR20105-COPL
6-1/2"	1-3/4"	FR20106-COPL

8 DEGREE MOUNTING ANGLE

**Slanted Dash Mount**  
Fits vehicles with a slanted dash, including the 1932 Ford Roadster.



PART No.	DESCRIPTION
FR20109PL-8DEG	2 IN. DIA. 4-1/2 IN. LENGTH 8 DEGREE MOUNTING ANGLE POLISHED
FR20110PL-8DEG	2 IN. DIA. 5-1/2 IN. LENGTH 8 DEGREE MOUNTING ANGLE POLISHED

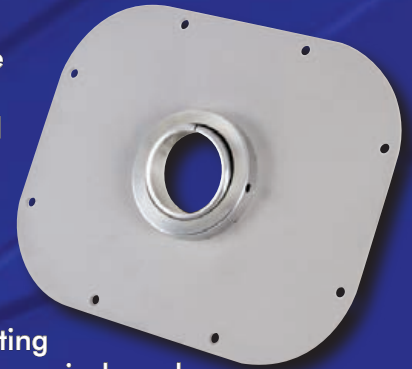
# FLOOR MOUNT REPLACEMENT SYSTEMS



These Swivel Floor Mounts make installing a Flaming River Tilt Column in your classic vehicle simple and attractive. The machined aluminum ball swivels for easy positioning of the column at virtually any angle.

## Blank Slate Universal Swivel Floor Mount

This universal floor mount is designed to be used in a street rod build that will include a new firewall. It is a standard rectangular shape with a swivel floor mount included for easy 2 inch column mounting. This "Blank Slate" design works nicely for the builder installing a column that would like to customize with their own mounting holes. The Blank Slate fills the gap nicely and allows for true customization. Made in the U.S.A.



**Polished Floor Mount**  
Billet Aluminum Swivel Design Floor Mount with a ball and collar design, simplifies column installation by allowing up to 60° angle. Available in both 1-3/4" and 2" diameter to fit all Flaming River column styles. Polished finish.

PART No.	DESCRIPTION
FR20100	1-3/4" FLOOR MOUNT
FR20101	2" FLOOR MOUNT
FR20100CVR	FLOOR MOUNT COVER
FR20100CVRBK	FLOOR MOUNT COVER - BLACK POWDERCOAT

For a finishing touch, add our Floor Mount Firewall Cover (FR20100CVR). Floor Mount Firewall Cover Polished aluminum cover to finish the engine side of the floor mount. Conceals the screws for a finishing touch.



## NEW Floor Mounts



55-59 Chevy/GMC  
Pickup  
FR20101GMC1



57-60 Ford F-Series  
FR20101F3



Blank Slate Universal  
FR20101BLS

# FLOOR MOUNT REPLACEMENT SYSTEMS



57-60 Ford F-Series  
FR20101F3



Blank Slate Universal  
FR20101BLS



55-59 Chevy/GMC  
Pickup  
FR20101GMC1



55-57 Chevy  
FR20101-57



67-69 Camaro/  
69-74 Nova  
FR20101FB



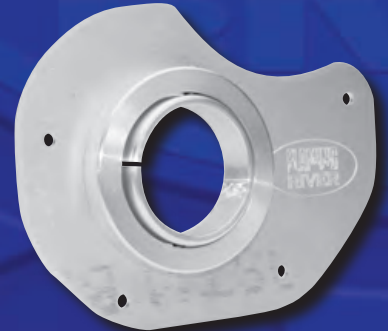
70-81 Camaro  
FR20101CA



64-67 Chevelle  
FR20101CH



68-72 Chevelle  
FR20101AB



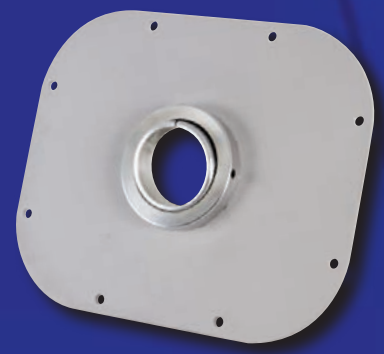
58-64 Impala  
FR20098



69-82 Corvette  
FR20101VT



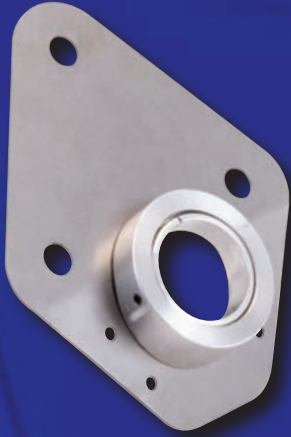
67-72 C-10 Truck  
FR20101C10



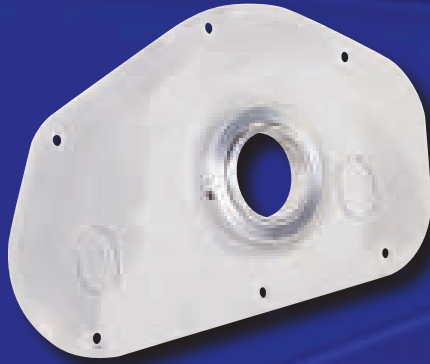
48-52 Ford F1 Truck  
FR20101F2

# FLOOR MOUNT REPLACEMENT SYSTEMS

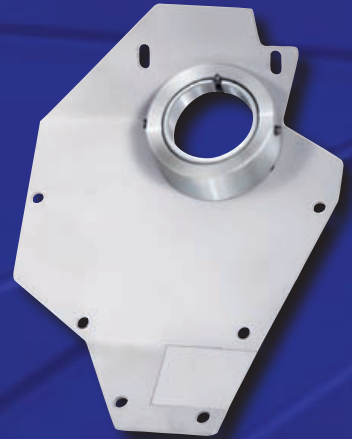
ACCESSORIES



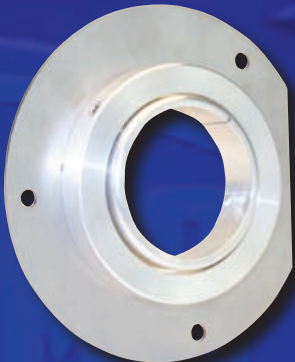
66-77 Ford Bronco  
FR20101BR1



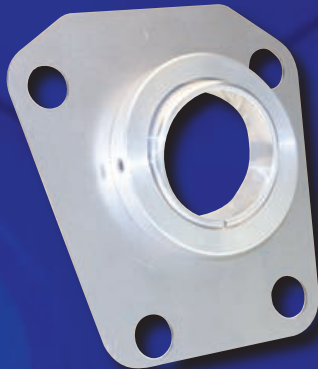
53-56 Ford F100 Truck  
FR20101F1



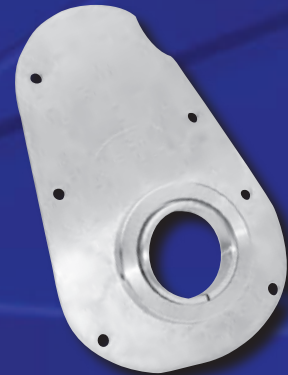
49-53 Ford  
FR20101FD1



65-66 Mustang  
FR20101M5



67-70 Mustang  
FR20101M7



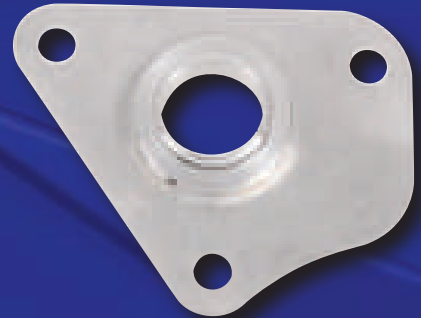
1960-65 Comet/Falcon  
FR20097



70-74 Mopar E-Body  
FR20101MPE



62-69 B-Body Mopar  
FR20101MP



A-Body Mopar  
FR20101MPA

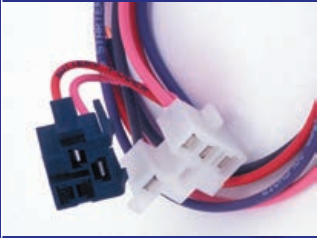


79-86 Jeep CJ Series  
FR20101CJ



# ELECTRICAL ACCESSORIES

## Key Column Wiring Adapter



Designed to adapt your wiring harness to a Flaming River® Key Column. Not necessary if replacing a GM style key column.

FR20118-5

## Neutral Safety Switch



A Neutral Safety Switch is recommended and can be added to any Column Shift Column by adding NE to the end of the part number.

## Dimmer Switch Kit



Turn signal lever can be ordered with a discreet micro switch. A relay master unit is included for high beam/low beam operation.

FR20118-8

## Canceling Cam / Horn Contact



Spring-loaded horn wire and canceling cam are included with every Flaming River Tilt Column

FR20120HN  
FR20024SC

## FR20118 Female Wiring Connector Kit (4.25")



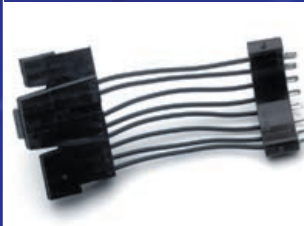
Female plug for Flaming River Tilt Columns. Supplied with terminals and can be used to adapt any existing wiring harness to mate with Flaming River 4-1/4" connector.

## FR20118-1 Hazard Kit



Designed for pre-1969 vehicles, this Flasher Kit is available for vehicles that were not originally equipped with 4-Way Flashers. Includes flasher, female adapter, and terminals.

## FR20118-2 Female Wiring Kit (67-68 Camaro)



Horseshoe-shaped connector used in 1967-68 Camaro.

(FR20118 Plug Adapter could be used in place of this adapter).

## TRI-5 Chevy Hazard Kit



This kit allows you to connect your Flaming River® Tilt Column to the stock electrical wiring in your TRI-5.

FR20115 – 1955 Chevy  
FR20116 – 1956 Chevy  
FR20117 – 1957 Chevy

## 65-66 Mustang Wiring Harness



Designed for the 1965-1966 Mustang, this wiring harness adapter includes horn relay control and adds hazard functionality to the vehicle.

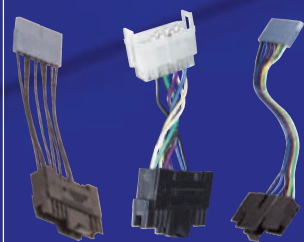
FR20301

## FR20118-4 Cruise Control Kit



This aftermarket cruise control kit, with a GM style lever, can be installed on your Flaming River® Tilt Column. Note: For vehicles with non-computer engines only.

## Mopar Wiring Adapters



Wiring harnesses to connect your Mopar wiring to a Flaming River Column.

FR20118-7 - 66-69 Mopar  
FR20118-6 - 70-74 Mopar

## 1966 Ford Bronco Wiring Harness



Designed for the 1966 Bronco, this wiring harness adapter includes horn relay control and adds hazard functionality to the vehicle.

FR20301



**64-66 Chevelle/El Camino Column Install Kit**



Steering Column Installation Kits come with everything you need to make installation of a Flaming River Column easier.

**FRCA100**

**69-72 Chevelle/El Camino Key Column Install Kit**



Steering Column Installation Kits come with everything you need to make installation of a Flaming River Column easier.

**FRCA110**

**62-66 Nova Column Install Kit**



Steering Column Installation Kits come with everything you need to make installation of a Flaming River Column easier.

**FRCA100**

**69-74 Nova Key Column Install Kit**



Steering Column Installation Kits come with everything you need to make installation of a Flaming River Column easier.

**FRCA110**

**69-82 Corvette Key Column Install Kit**



Steering Column Installation Kits come with everything you need to make installation of a Flaming River Column easier.

**FRCA108**

**Mustang Column Install Kit for Short Shaft Box**



This kit is recommended for Mustang column installation with the use of a short shaft steering box.

**FR200MUKT2**

**Mustang Column Install Kit for Long Shaft Box**



This kit is recommended for Mustang column installation with the use of a long shaft steering box (original).

**FR200MUKT**

**Power Steering Hose Kit**



Stainless braided lines with fittings for installing Flaming River power rack and pinion with a remote reservoir. Simplifies installation with a clean, polished appearance.

**FR1610**

**Stramp Clamp**



Stramp Clamp fits the original dash mount with a rubber isolator for vibration absorption. GM 1969 and up. Pat. no. US 7,976,905 B2

**FR20300**

**Aluminum Remote Fluid Reservoir**



Cane-style baffle design in Reservoir prevents foaming in fluid

Aluminum remote reservoirs are recommended for use with Flaming River Power Rack systems and the sleek design compliments any engine compartment.

**FR1614**

**Quick Release Steering Wheel Hub Disconnect**



This quick disconnect is the new standard in quick release hubs. Designed for motorsports applications and CNC-machined from premium 6061-T6 billet aluminum.

**FR20142**

**LS3 Power Steering Pump Extended AN Fitting**



This extended AN fitting allows for easier connection on your LS swap power steering pump.

**FR1634**

# OTHER ACCESSORIES

**OEM Style Flexible Rag Joint**



OEM Style Flexible Rag Joint recommended for use with power steering boxes to absorb vibration and power steering noise.

**FR1949**

**Pillow Block Mounts**



Pillow Block Mounts allow for universal mounting and the pinion shaft rotates to align with your vehicle's steering shafting.

**FR1617P**

**Mustang Cradle Rack & Pinion Riser Kit**



This relocation kit allows you to move the rack and pinion up 1" on the cradle to allow better adjustability during alignment.

*For use with Mustang Power Rack and Pinions only.*

**FR20060MU**

**Precision Steel Power Steering Pump Bracket**



For Stage II style pumps. Features adjustable design that allows for use with short & long neck water pumps.

**FR1612** - SB Chevy w/ FR pump  
**FR1613** - BB Chevy w/ FR pump  
**FR1591** - KRC Pump SB Bracket

**Ultra Angle Exhaust Headers (65-70 Ford SB)**



These unique angle exhaust headers are designed to give you maximum clearance for steering u-joints. For small block ford.

**FR50003C**

**Coated Exhaust Headers (55-57 Chevy SB)**



Newly redesigned headers are made to work with any small block chevy engine and integrate with all of Flaming River's Rack & Pinion Cradle kits.

**FR50001C**

**Coated Exhaust Headers (67-69 Camaro SB)**



Unique angle is designed to leave room for steering universal joints and no hassle installation. For small block Camaro, 67-69.

**FR50002C**

**Small Block Nova Coated Headers**



Unique angle is designed to leave room for steering universal joints and no hassle installation. For small block Nova, 62-67.

**FR50004C**

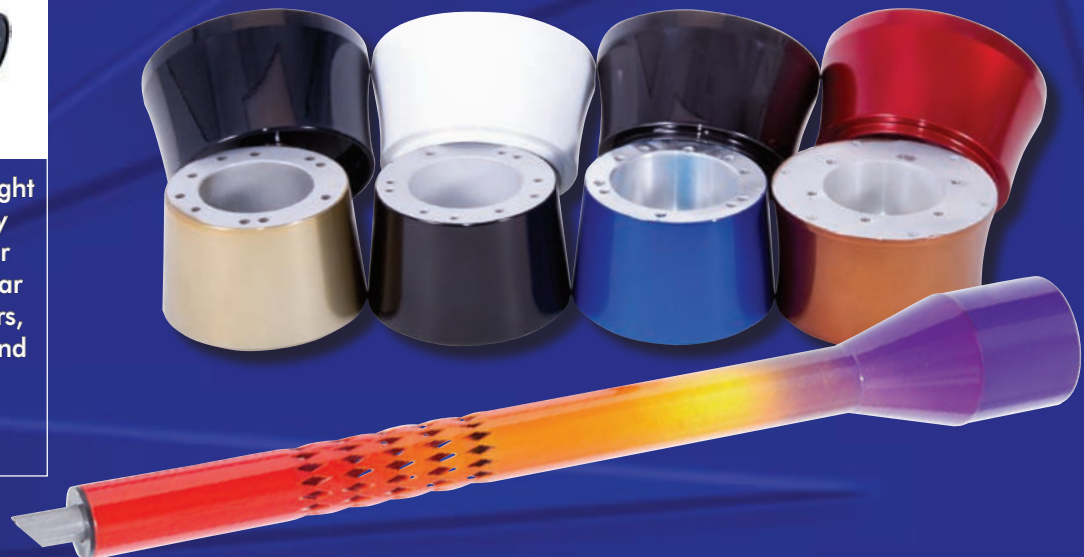
**Single Wire Timing Light**



Self-powered timing light works without auxillary power source. Ideal for use with magnetos, rear battery mount race cars, motorcycles, marine and all spark systems.

**FR1001**  
**FR1020** - 20' Lead

## CUSTOM POWDER COATING AVAILABLE!



# MICROSTEER ELECTRIC POWER ASSISTED STEERING



FR40200

Flaming River now offers a Microsteer universal electric power assisted steering system. This system can be easily fitted to virtually any vehicle without the need to change your steering rack or fit a hydraulic system where manual steering currently exists. This system is designed to work in conjunction with your current mechanical steering mechanism. The kit includes:

- Motor/gearbox (mgu)
- Electronic Control Unit (ecu)
- Tuning Box
- Wiring Harness
- Instructions

The unique microsteer tuning box allows you to adjust the amount of resistances by a rotary potentiometer or you can make the system speed sensitive by connecting a wheel speed signal to the tuning box. If you have no wheel speed sensor on the vehicle, we offer an optional speed sensor. The input and output shafts of the microsteer unit are 11/16" -36. Flaming River has the pinch bolt universal joints available for purchase, as well as the coupler you will likely need for installation.



FR40200S - Speed Sensor



PART NUMBER	FINISH
FR40200	MICROSTEER KIT
FR40200S	MICROSTEER SPEED SENSOR (OPTIONAL)
FR2721	11/16"-36 PINCH BOLT U-JOINT
FR1948	11/16"-36 COUPLER



FR2721



FR1948



MICROSTEER INSTALLED

# FLAMING RIVER THROUGH THE YEARS

It has been 33 years since Flaming River began its manufacturing journey, and that seems like an ideal time to look back at our history and highlight the milestones that have led us to become the company we are today. Each of these events happened with a team of dedicated professionals that have helped make our Dream Vision our Reality, and it's with a sense of nostalgia that we remember all of the exciting projects that we have been able to launch and reflect upon how quickly the years have flown by. Don't worry – even amidst the nostalgia, we continue to look forward to new opportunities and continued evolution within this ever-growing industry!

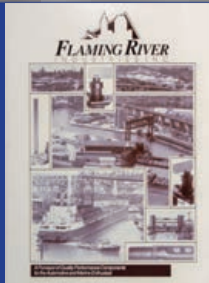
I am often asked how I got started in this industry, and at Flaming River, and I am more than happy to share some of the highlights of this story.

## 1987

In 1987, Flaming River entered the marketplace for the sole purpose of developing unique products for the Racing & Hot Rod Industry. This included products that the OEM was no longer making, like the Pinto rack & pinion, and many others that soon fell by the wayside. In the beginning, we offered 4 main products:

- Pinto – Drag Race
- Timing Light – Self Powered 2 D Battery
- Big Switch – Battery Master Shut Off
- Tuff Ties in colors

While after all these years most of the original products are still being sold, the overall philosophy of Flaming River is to continue to develop new products for the specialty market – parts that were assumed to be available forever no longer are, and junkyard parts just aren't good enough for today's Racers and Rodders!



## 1996

Listening to your customers is a great business model. Customers kept looking at our new rack and pinion and wondered why we didn't offer universal joints. We did the research, teamed up with a U.S. company, and today we have over 600 combinations of universal joints – best of all, they're Made in the U.S.A. During this same period, we were also developing the Vega steering box – another all new product that was commonly used on a roadster chassis. We worked with a local builder and friend for the final fitment and details. Many knew him as the guy who was quoted as saying "The Sun never sets on the Cool"



## 1990

Jeanette Ladina started working for Flaming River during her high school years as an office student through the Co-Op program. In 1990, at 22, she became a part owner of Flaming River Industries, Inc. This was the year when we started to build upon the initial 4 product offering, and the expansion of new product development began moving forward.



## 1999

History is proven again to repeat itself – the people asked and we delivered: the first all new Made in the U.S.A. tilt steering column for the aftermarket. From the beginning, our tilt column was manufactured and assembled at Flaming River Industries with all new components and an attractive stainless steel design...no cores used in our process. This was our first SEMA New Product win, and a purveyor of great things to come: build in-house manufacturing for true flexibility and responsiveness to customer requests



## 1993-1995

By 1993, Flaming River was a known entity to racers and rodders. We exhibited each year at SEMA and Performance Racing trade shows to meet with customers directly and expand our market. Sure enough, we learned that our customers were asking for much more, and the muscle car and classic car enthusiasts came knocking on our door for products they were having difficulty finding. Exhibiting at SEMA each year is an important part of business growth and allows us to connect with customers face to face.



## 2000

Welcome to today's Flaming River! Jeanette Ladina became the sole owner of Flaming River, and decided to build up our very own building to allow us the ability to manufacture as much of our own products as possible. Tilt steering columns became our flagship product, and proudly say: Flaming River USA

## 2001

We bought our first laser from Haas and retired the punch press! In order to meet demand and continue product line growth, machinery was the only way to go. Utilizing our new purchases, we were able to create the all new Stainless Laser-Cut Collapsible Tilt Steering Column and build them from the ground up to add them to our product line



## 1994

Flaming River takes a big step and decides to add the 1974-78 Mustang manual rack and pinion to its product line. The industry had been waiting for this one – you couldn't find it anywhere and it was the standard chassis platform for Street Rod builders. In fact, at SEMA customers looked at the Pinto we made for racing and asked "Why can't you make this other rack that we really need?" So we delivered what they were asking for, and opened up a new and expanded marketplace to us



# ...THE BEST IS YET TO COME!

## 2004

Jeanette's business model is built on the following credo: "The customer who buys our products will receive the best products possible at a fair price". We are proud of what we do here and we believe in USA Built to Last and Last, and no matter what it has to look great too! In 2004, Jeanette was honored to be named Goodguys 2004 Woman of the Year



## 2005

Flaming River continues to move forward, always striving towards new product offerings for Racing, Hot Rods, Muscle



Cars, and Classic trucks and cars. This year, we committed ourselves to developing our own Power Rack and Pinion. For years the industry had been using rebuilds and the supply of cores was clearly not going to support future demand. We built the first of its kind "New Hot Rod Power Rack and Pinion" – the new rack and pinion was fitted to our 65-70 Mustang Rack and Pinion Cradle Kit with full turning radius and 6-1/8" of travel, and it's one of a kind. We build them, we test them, and yes, they are repairable. All built in Berea, Ohio, in the USA



## 2006

Many car enthusiasts dream of buying or repairing a hot rod. Having a 32 Roadster is just plain old American. Our Roadster, Hard Candy, was built by Leonard Lopez and is unique in many ways. First, it is a rack and pinion straight-axle car uniquely designed by Lopez, with Flaming River Electric Steering. Hard Candy is LS powered with a Dominator front axle and a Flaming River steering system – a run-wild test car to be sure!

Hard Candy is a part of the Flaming River family, and often on display at shows or parked in our showroom



## 2008

At Flaming River, we feel that Hot Rodding Has No Limits, and we know that not all Hot Rods are cars. This one was completely built at Flaming River, by Flaming River Employees.

We truly enjoyed the project and it's the only Hot Rod we ever sold when it went to a very good home in 2018



## 2015

As we mentioned earlier, our goal was to build as much of our products as we possibly could onsite at Flaming River, so in 2015 we added 'Rosie' – our first Robot to help with our welding processes. In 2018, our second Robot 'Charlie' will be brought in to keep our machining processes moving forward. Creativity and technology will lead the future of our company



## 2016

Showroom remodel! We are so proud of our new hand-painted Hot Rod themed mural. This is also the year we were honored with the Street Scene Manufacturer of the Year award



## 2018

Since the beginning, Jeanette Ladina as President and owner of Flaming River has striven to build her company with quality and performance in mind for the benefit of the customer. The company has been honored with several New Product wins, and Jeanette is involved with many organizations and participates in events through SEMA, HRIA, NSRA, and Goodguys. In 2018, the SEMA

Town Hall was held at Flaming River Industries, which allowed people to participate and learn about our industry, as well as connect with our members of the community and tour our facility.

## 2019

Flaming River takes home two SEMA awards for the VDOG® Variable Angle Gear – Best New Street Rod Product and Best Engineered Product.



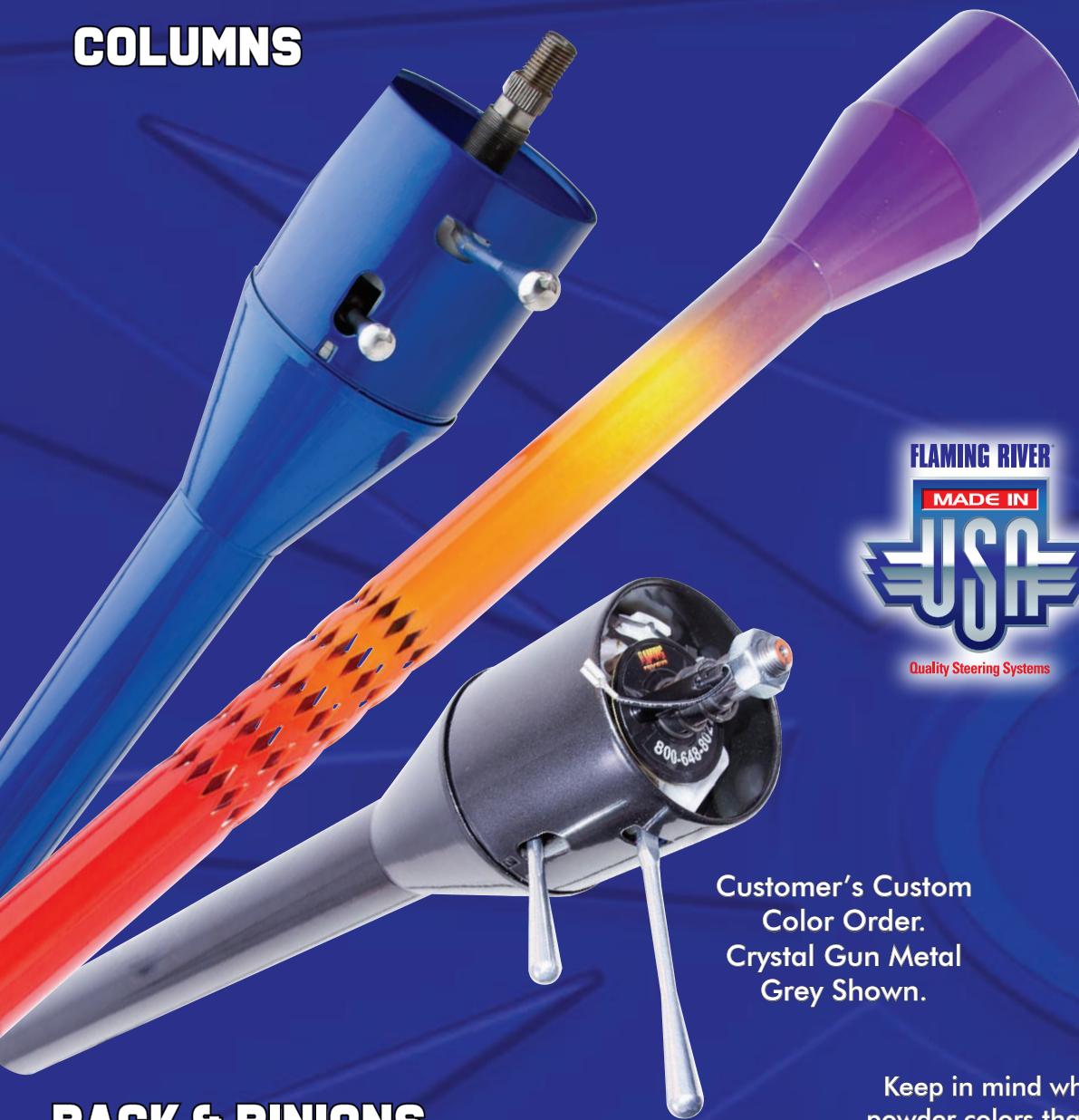
Flaming River continues to push for higher standards and strive for the best by receiving ISO 9000:2015 Certification and Environmental Standards 14001:2015 – the goal is quality product for a satisfied customer. You can be sure that if it doesn't say Flaming River, it's just not good enough!



*The best reward is a satisfied customer!*

# POWDER COATED CUSTOM COLORS

## COLUMNS



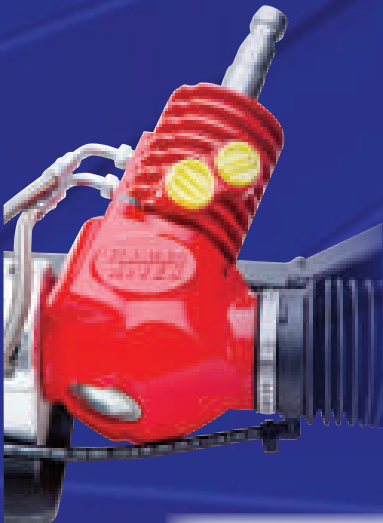
Customer's Custom  
Color Order.  
Crystal Gun Metal  
Grey Shown.



**NEW!** Black Matte  
Powder Coat

Keep in mind when ordering custom  
powder colors that the powder can't be  
matched to a specific paint color. Choose  
a powder color from the RAL book.

## RACK & PINIONS

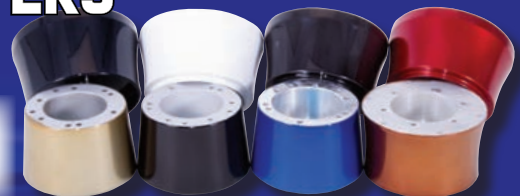


**CHROME**  
Spray Chrome Option  
Also Available



RAL Book FRPC100

## WHEEL ADAPTERS



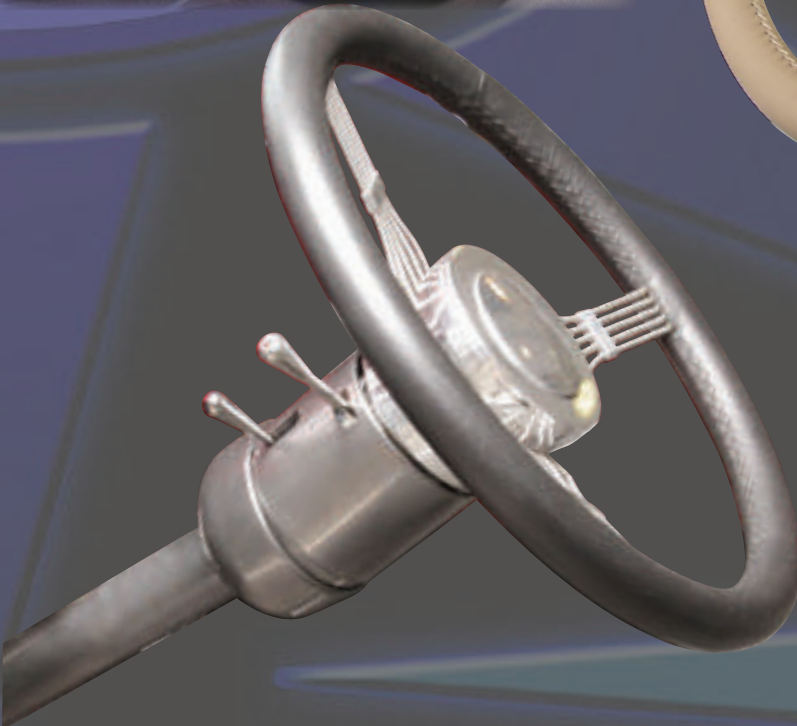
 **WARNING!**

# STEERING WHEELS: INDEX

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Mopar Tuff Wheel	83
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*See our new Roadster Columns on pg. 87!*



# WATERFALL WHEEL

## Hand-Stitched Italian Leather Wheels

WaterFall Adapter for Stainless Nostalgia Column  
 This sleek, hourglass billet adapter must be purchased with WaterFall Wheel to ensure compatibility with steering column.

- FR20150HGAD - FR Column
- FR20150OE - OE Column
- FR20150FD - FR Ford Column



**FR20150DG**  
Slate Grey 13.8" Dia



**FR20150LG**  
Light Grey 13.8" Dia



**FR20150**  
Black 13.8" Dia  
Shown with Embossed  
Flaming River Logo



**FR20150WH**  
Blizzard White 13.8" Dia



**FR20150LT**  
Light Tan 13.8" Dia



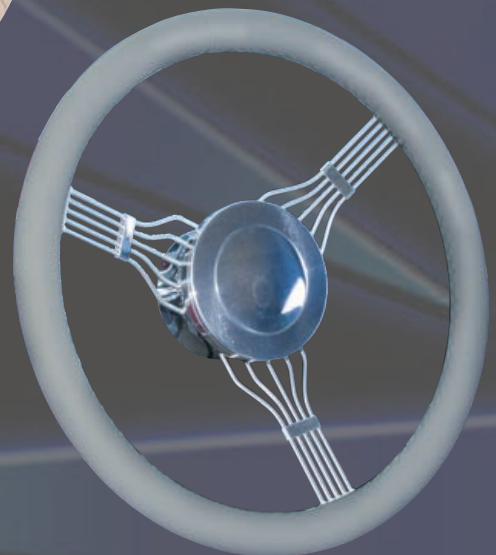
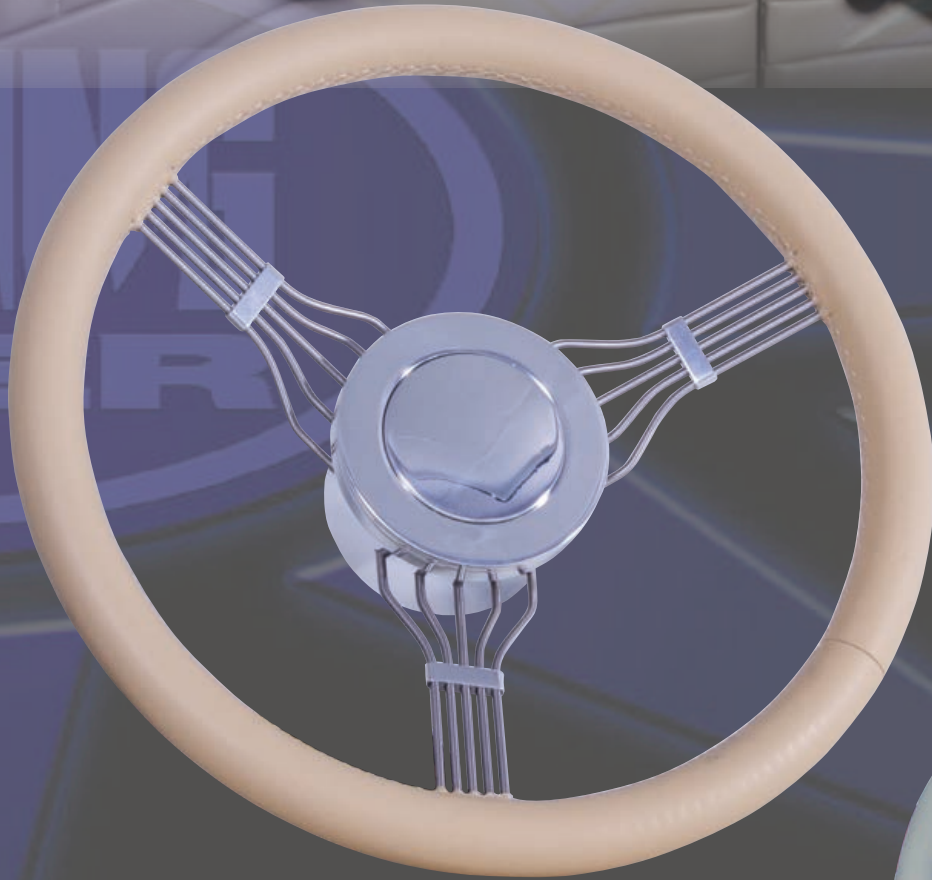
*BEING IN THE INDUSTRY FOR OVER 30 YEARS, WE NEED A COMPANY THAT PROVIDES RELIABILITY, SERVICE AND QUALITY PRODUCTS.*

**LEONARD LOPEZ**  
DOMINATOR MOTOR SPORTS





*True Italian*



STYLE	COLOR
BANJO 15" STEERING WHEEL	
FR20128BJBK	BLACK - FR COLUMN
FR20128BJLG	LIGHT GRAY - FR COLUMN
FR20128BJTN	LIGHT TAN - FR COLUMN
FR20128GMBK	BLACK - GM COLUMN
FR20113LHN	LARGE HORN BUTTON FOR 9 BOLT WHEEL - INCLUDED WITH WHEEL

# NAVIGATOR / WOODY'S III

## Italian Wood

This striking steering wheel design combines the comfort of a leather grip with the elegance of wood trim accents. The brushed aluminum finish of the center spokes and the offset dish design make this wheel truly innovative.

WOODY'S III (13.8" DIA. / 5 BOLT)

FR20123

WOODY'S III

STYLE	COLOR
NAVIGATOR - LEATHER/WOOD	
FR20163BK	WOOD/BLACK
FR20163LT	WOOD/LIGHT TAN



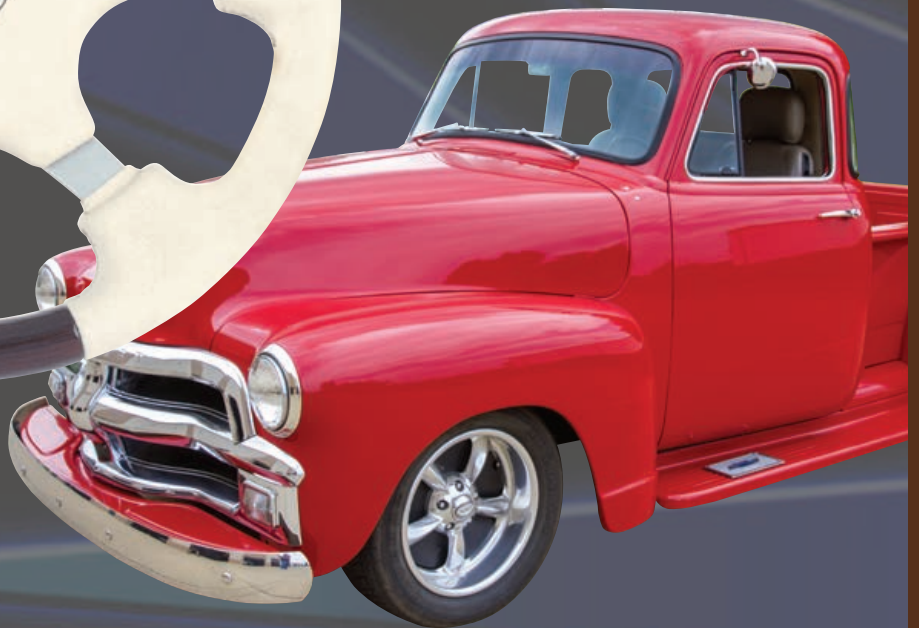
Hard Candy - Flaming River's '32 Roadster Coupe



## Fruitwood Luxury Steering Wheels

This 15" diameter 5 bolt steering wheel features a four spoke Fruitwood and Chrome design, finished with genuine "Buckskin" leather. Available in Bone finish only while supplies last.

**FR20125FW**



# MOPAR TUFF WHEEL

The popular Mopar "Tuff" Wheel is becoming more and more popular in muscle cars. Our Tuff Wheel features hand-stitched Italian leather. This wheel also comes complete with a horn button and cover. 14" diameter.

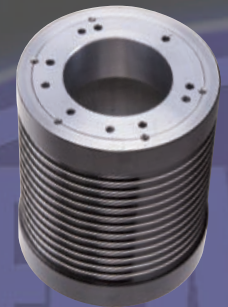


PART No.	DESCRIPTION
FR20161	NEW LEATHER STYLE 14" TUFF WHEEL POLISHED ALUMINUM SPOKES
FR20161S	NEW LEATHER STYLE 14" TUFF WHEEL SATIN ALUMINUM SPOKES
FR20161AD	WHEEL ADAPTER: FOR TUFF WHEEL TO FR TILT COLUMN
FR20161CAP	STEERING WHEEL ACCESS: MOPAR "TUFF" HORN CAP

FR20161S Close-up Shown



Mopar Canister  
Wheel Adapter  
in Polished Finish  
FR20182



Mopar Canister  
Wheel Adapter in  
Black Powder Coat  
FR20182BK

*Hand Stitched Italian Leather*

A custom Wheel Adapter enables our Tuff Wheel to mount on a Flaming River Tilt Column.  
FR20161AD



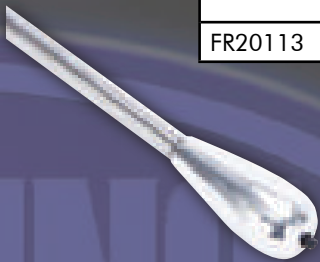
# MUSCLE TUFF WHEEL

The popular "Tuff" Wheel is becoming more and more popular in muscle cars. Our Muscle Tuff Wheel features hand-stitched Italian leather. This wheel also comes complete with a horn button and cover. 14" diameter. Includes billet polished aluminum Horn Button Assembly.

- 14" Diameter
- Includes 9 Bolt Wheel Adapter
- Includes Polished Horn Button
- Polished Spokes



PART No.	DESCRIPTION
FR20174KT	14" MUSCLE TUFF WHEEL WITH 9 BOLT ADAPTER AND POLISHED HORN BUTTON
FR20113	9 BOLT WHEEL ADAPTER



Dimmer Switch Kit can be ordered with column

**FR20118-8**

*Hand Stitched Italian Leather*

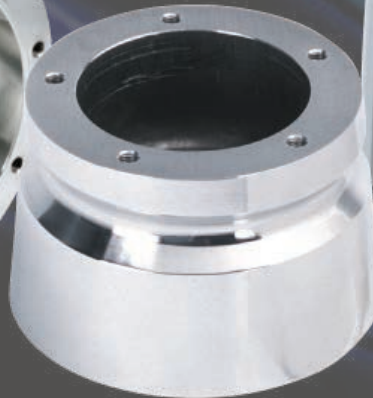
Flaming River Column  
9 bolt adapter **FR20113**



Flaming River Column  
Tapered 5/6 adapter  
**FR20119TA**



Flaming River Column  
Bell Style 5/6 adapter  
**FR20119BA**

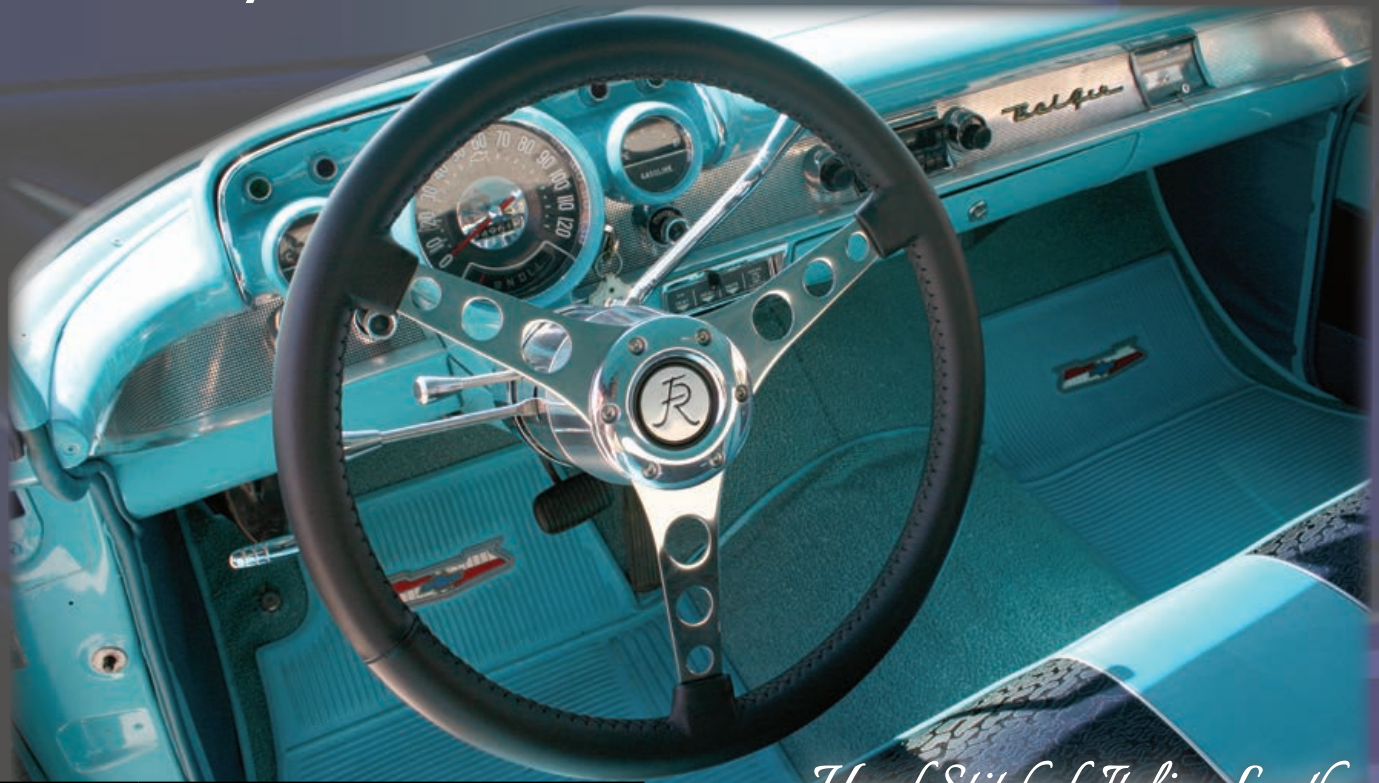


Polished Aluminum Wheel Adapters fit perfectly with a Flaming River Column for a seamless appearance.



Canceling Cam / Horn Contact  
Spring-loaded horn wire and  
canceling cam are included with  
every Flaming River Tilt Column  
**FR20120HN**  
**FR20024SC**

# NOSTALGIA / VETTE LEATHER WHEELS



*Hand Stitched Italian Leather*

PART No.	DESCRIPTION
<b>NOSTALGIA / CORVETTE STEERING WHEELS MOLDED</b>	
FR20151HRN	STEERING COLUMN ACCESS: HORN BUTTON ASSEMBLY
<b>NOSTALGIA / CORVETTE STEERING WHEELS ITALIAN LEATHER</b>	
FR20152BK	VETTE 6 BOLT LASER CHROME 15" (BLACK LEATHER)
FR20152RE	VETTE 6 BOLT LASER CHROME 15" (RED LEATHER)
53-62 CORVETTE STEERING WHEEL ADAPTERS	
FR20156SS	WHEEL ADAPTER: VETTE "BELL" VETTE BOLT PATTERN, ALUMINUM
FR20157SS	WHEEL ADAPTER: VETTE "BELL" 6 BOLT PATTERN, ALUMINUM



**FR20152BK**  
15" Dia  
6 Bolt



**FR20152RE**  
15" Dia  
6 Bolt

1953-62 Corvette Steering Wheel Adapters  
Smooth radius design allows an original or aftermarket steering wheel to fit onto a Flaming River 53-62 Steering Column (FR1999VTR style).

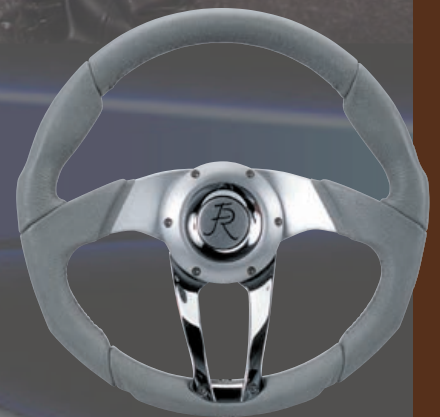
**FR20156SS** Std. Corvette  
**FR20157SS** 6 Bolt





## *Hand Stitched Italian Leather*

Radiused Billet Spokes – A New Curve in Steering!  
 A modular pattern leather grip is highlighted with a flowing spoke design, in billet aluminum, for a modern spin on a classic style. Made with Premium Italian Leather. Adds a unique touch to any ride! All Cascade Wheels are 13.8" diameter.



FR20160LG Light Grey



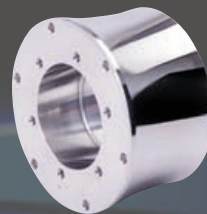
FR20160 Black



FR20160DG Slate Grey



FR20160TN Tan



Our Cascade Steering Wheels require a custom adapter to mount on Flaming River Tilt Columns or stock columns.  
**FR20160AD FR20160ADOE**

# GREAT LAKES ROADSTER WHEEL

*This is a Roadster Style Wheel,  
The Horn Button is decorative (Non-Functioning)*

*This wheel complements  
our new Roadster  
Columns on pg. 34!*



**FR20175LT**  
Great Lakes Wheel  
Light Tan  
14" Dia. / 3 Bolt



**FR3301GRV**



**FR3301**



**FR3305**



**FR20119**  
Billet Roadster Column  
Steering Wheel Adapter



3 Bolt Wheel Adapter  
**FR3304** (Polished)  
**FR3304BK** (Black)

PART No.	DESCRIPTION
FR20175BK	GREAT LAKES ROADSTER WHEEL - BLACK
FR20175LT	GREAT LAKES ROADSTER WHEEL - LIGHT TAN





# D WHEEL

STEERING WHEELS: D WHEEL



*Hand Stitched Italian Leather*



**FR20130BK**  
D Wheel Black  
13.4" Dia. / 6 Bolt



**FR20130LG**  
D Wheel Lt. Gray  
13.4" Dia. / 6 Bolt

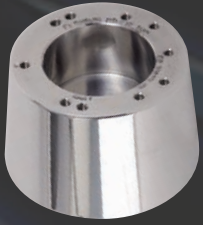


**FR20130LT**  
D Wheel Light Tan  
13.4" Dia. / 6 Bolt



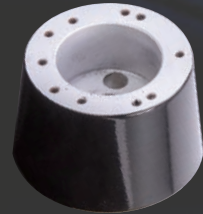
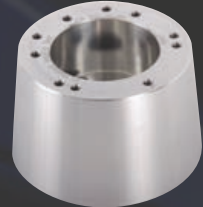
# STEERING WHEEL ADAPTERS

Polished Aluminum Wheel Adapters with a 2-1/2" total height, fit perfectly with Flaming River Tilt Columns and Steering Wheels. These adapters actually fit on the column shroud for a "seamless appearance."



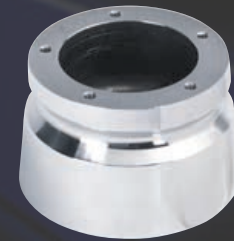
## TAPERED STYLE 5/6 BOLT PATTERN

FR20119TA	FR COLUMN
FR20119OE	GM COLUMN
FR20119OEBK	GM COLUMN SATIN BLACK
FR20119TA-BK	FR COLUMN SATIN BLACK
FR20119TA-CLR	FR COLUMN CLEAR POWDER COAT
FR20119TAS	FR COLUMN SATIN FINISH
FR20119FD	FR FORD COLUMN
FR20143	67 & PRIOR GM COLUMNS
FR20144OE-M	MOTOLITA WHEEL TO GM COLUMN



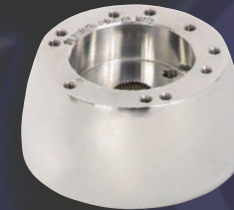
## BILLET ROADSTER COLUMN WHEEL ADAPTER

FR20119	3 TO 5/6 BOLT ADAPTER
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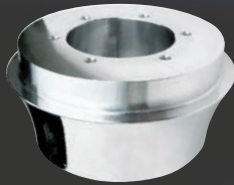
## BELL STYLE 5/6 BOLT PATTERN

FR20119BA	FR COLUMN
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## LOW PROFILE 5/6 BOLT PATTERN 1-7/8" TALL

FR20119A	FR COLUMN
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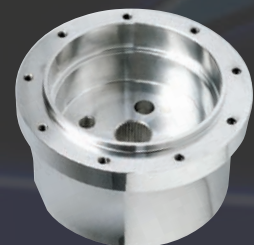
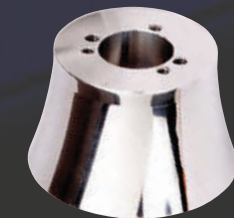
## WATERFALL STEERING WHEEL ADAPTER

FR20150HGAD	FR COLUMN
FR20150OE	GM COLUMN
FR20150M69	DODGE 1966-69
FR20150M70	DODGE 1970-75
FR20150GM	67 & PRIOR GM COLUMNS
FR20150FD	FR FORD COLUMN



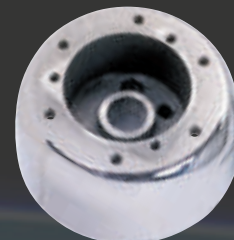
## 3 BOLT STEERING WHEEL ADAPTER

FR3302	FR COLUMN
FR3302OE	GM COLUMN
FR3302FD	FR FORD COLUMN
FR3304	ROADSTER COLUMN
FR3304BK	ROADSTER COLUMN - SATIN BLACK



## 9 BOLT PATTERN

FR20113	FR COLUMN
FR20113BK	FR COLUMN SATIN BLACK
FR20113FD	FR FORD COLUMNS
FR20113OE	GM COLUMN
FR20145	BILLET SPECIALTIES WHEEL TO FR TILT COLUMN



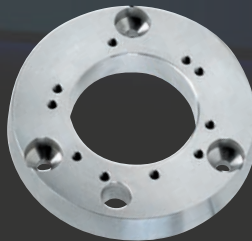
## 1953-62 CORVETTE STEERING WHEEL ADAPTERS FOR FLAMING RIVER FR1999VTR COLUMNS 1-13/16" TALL

FR20156SS	ORIGINAL VETTE
FR20157SS	AFTERMARKET 5/6 BOLT

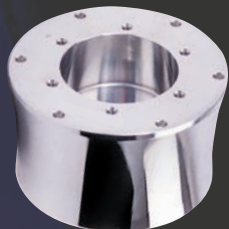
# WHEEL ADAPTERS



TUFF WHEEL ADAPTER 1-13/16" TALL	
FR20161AD	FLAMING RIVER TILT COLUMN



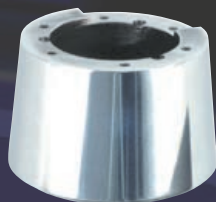
1970-74 MOPAR "E" BODY STEERING COLUMNS	
FR20119DO	5/6 BOLT PATTERNS
FR20119DO2	WATERFALL WHEEL



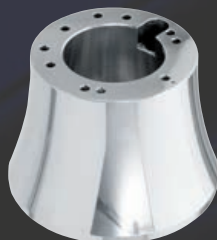
CASCADE WHEEL ADAPTER	
FR20160AD	FR TILT COLUMN
FR20160ADOE	GM COLUMN



1966-69 MOPAR 3-1/4" TALL	
FR20180	5/6 BOLT



CORVETTE WHEEL ADAPTER TO A FLAMING RIVER TILT COLUMN	
FR2000VT-AD	POLISHED
FR2000VT-ADBK	SATIN BLACK



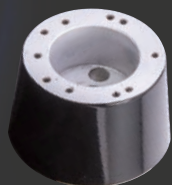
1970-75 MOPAR - 3-1/4" TALL	
FR20181	5/6 BOLT



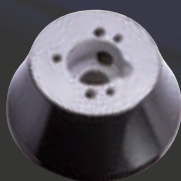
NEW MOPAR CANISTER WHEEL ADAPTER	
FR20182BK	FLAMING RIVER TILT COLUMN SATIN BLACK FINISH
FR20182	FLAMING RIVER TILT COLUMN POLISHED FINISH



## MUSCLE-SERIES SATIN BLACK WHEEL ADAPTERS



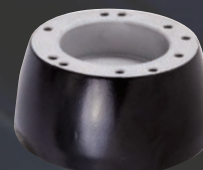
Tapered Style  
5/6 Bolt Pattern  
FR20119TA-BK



3 Bolt Pattern  
(Roadster Column)  
FR3304BK



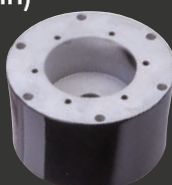
3 Bolt Pattern  
(FR Column)  
FR3302BK



5/6 Bolt Pattern  
(Roadster Column)  
FR20119RA-BK



9 Bolt Pattern  
FR20113BK



Cascade  
FR20160BK

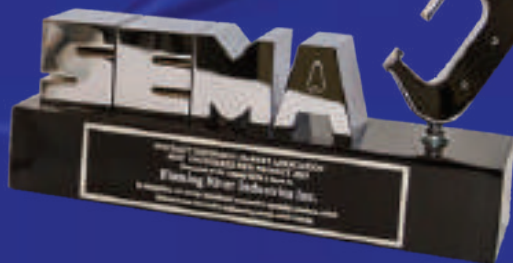


Waterfall  
FR20150HGADBK

# THE VDOG® VARIABLE ANGLE GEAR



Flaming River VDOG® Billet model installed in our 1949 Dodge Pickup Truck. We also utilize our Microsteer Electric Power Assisted Steering system in conjunction with the VDOG® to make this pickup easier and to drive!



# THE VDOG® VARIABLE ANGLE GEAR



FR20303



The VDOG® Variable Angle Gear has a cast aluminum housing and the output shaft is 3/4"-36 for compatability with universal joints. The unit is gear driven without any chains or sprockets and is internally lubricated, so you never have to disassemble for maintenance. The VDOG® can be mounted in a horizontal or vertical position which is ideal for many applications, including cab-over and off-road vehicles. This is a great addition to a custom build with big engines and tight firewall clearance! When you can't get the angle, get the VDOG®!



BILLET FINISH

FR20304



FR20304PBM

**Pillow Block Mount for The VDOG®**

PART NUMBER	FINISH
FR20303	CAST VDOG®
FR20304	BILLET VDOG®
FR20303BL	CAST VDOG® BLUE POWDERCOAT
FR20303BK	CAST VDOG® BLACK POWDERCOAT
FR20304PBM	VDOG® PILLOW BLOCK MOUNT



FR20303BL



FR20303BK



Available in a Billet Finish, Blue Powder Coat, Black Powder Coat or custom color powder coat.



# Tech Tips

## Steering Boxes & Racks

APPLICATION	SIZE	SPLINE DIA.	SPLINE
FORD RACK			
MUSTANG II & PINTO MANUAL	9/16"-26	.563	26
MUSTANG II & PINTO POWER	3/4"-36	.750	36
FORD BOX			
MANUAL & POWER	3/4"-36	.750	36
GM BOX MANUAL			
VEGA	5/8"-36	.625	36
CORVAIR	5/8"-36	.625	36
CORVETTE (63-68)	3/4"-36	.750	36
CORVETTE (69-82)	3/4"-30	.750	30
MODEL 122 (65-85)	3/4"-36	.750	36
MODEL 525 (86 - PRESENT)	3/4"-30	.750	30
GM POWER BOX			
MODEL 605 (78-84)	3/4"-30	.750	30
MODEL 800 (77-PRIOR)	13/16"-36	.813	36
MODEL 800 (78-PRESENT)	36	.750	30
GM RACK			
79-PRESENT	5/8"-36	.625	36
VARIATIONS	3/4"-30	.750	30
CORVETTE (84-PRESENT)	17MM DD	.670	.570
FIERO	17MM DD	.670	.570
CHRYSLER BOX OR RACK			
OMNI MANUAL	9/16"-26	.563	26
OMNI POWER	9/16"-36	.563	36
POWER BOX	5/8"-36C		36
MANUAL BOX	3/4"-36	.750	36
MISC.			
JAGUAR & MGB	3/4"-48	.750	48
VW RABBIT - DIESEL	3/4"-36	.750	36
BMW	17MM-54	.670	54



**Universal Joint Yoke Shapes Shown Below:**  
(To be determined by individual applications)

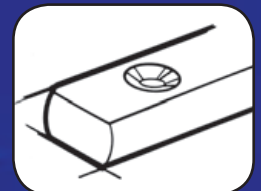
Double D (DD)      Smooth      Splined  
 Pyramid (Late Ford/Mustang)      Flaming River Power

### Six Simple Steps for Ordering a Flaming River Steering System:

1. Choose the type of intermediate shaft you will be using—Splined or DD. This will determine one side of the Universal Joint that you will need to order.
2. Determine whether you will need a two or three U-Joint system. This is dictated by the angle—we recommend a 15° angle for the optimal setup, however up to 30° is acceptable. If using a three U-Joint system, a Support Bearing is necessary. The center U-Joint should either be 3/4" DD X 3/4" DD or 3/4"-36 X 3/4"-36 depending on whether you are using splined or DD shafts.
3. Use the Reference Application Chart to select the proper Rack and Pinion or Steering Box spline size for your system. If the chart does not list your application, just measure the diameter of the shaft and count the number of individual splines. If there is a flat, count half of the splines and then double that number.
4. Measure your column's output shaft. If it is a DD shaft (two rounds, two flats), then measure the rounds—it will either be a 1" DD or 3/4" DD. If there are splines, then measure the diameter and count the individual splines—it will either be 1"-48 or 3/4"-36.
5. If you are using splined shafts and a two U-Joint system, then measure the distance between the steering gear shaft and the column and then subtract 3-1/4". Round this number up to the next whole number to determine the shaft length you require.
6. If you are using a three U-Joint system, we recommend using dowel rods to mock up the system. Simply measure the length of the dowel rod and this will be the length of the shaft you will require. DD shafting can easily be cut down to size.

### Important Notes:

- Phasing – Keep the forks of the yokes closest to each other in line, and parallel to the center of the shaft to avoid binding.
- NEVER weld a Universal Joint! Welding reduces the strength of the metal and can melt the needle bearing seal.
- Set screws are supplied on all splined and DD Universal Joints. However, it is necessary to indent, by drilling, the shaft to properly secure the set screw mechanism. A red thread locker should also be used. Periodically inspect the set screws to ensure tightness.
- The shaft should be installed 7/8" into the yoke (flush). A shaft that does not engage fully could sacrifice the strength of the system. However, if a shaft is too long, it can cause the shaft to interfere (bind) with the operation of the system.



# UNIVERSAL JOINTS AND SHAFTS: INDEX

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Quality Steering Systems

# BILLET JOINT®

## BILLET-JOINT

The Billet-Joint® - Satin Polished (Polished U-Joints are Non-Returnable) Universal Joints are CNC-machined from aircraft steel to precision tolerances. The sealed needle bearing design will last ten times longer than a standard pin and block universal joint. The unique nickel plating prevents rust without the hassle of painting. Polishing available for a stainless look at a nominal charge.



### BILLET JOINT® QUICK ORDER KIT

PART No.	COLUMN/RACK	APPLICATION
FRUJKT1	1"DD / 9/16"-26	FR MANUAL RACKS
FRUJKT2	1"DD / 5/8"-36	VEGA / CORVAIR BOX
FRUJKT3	1"DD / 3/4"-36	MUSTANG POWER
FRUJKT4	1"DD / FR POWER	FR POWER RACKS
FRUJKT5	1"DD / 3/4"-30	GM POWER BOX - 78 TO PRESENT
FRUJKT6	1"DD / 13/16"-36	GM POWER BOX - 77 AND PRIOR
FRUJKT7	3/4"DD / 3/4"DD	CENTER U-JOINT WITH SUPPORT BEARING

STEERING COLUMN SHAFT SIZES			
APPLICATION	SIZE	DIA.	SPLINE
GM COLUMN			
SMALL SPLINE	3/4"-36	.750	36
LARGE SPLINE	1"-48	1.00	48
SMALL DD	3/4"-DD	.750	DD
LARGE DD	1"-DD	1.00	DD
FORD COLUMN			
SMALL SPLINE	3/4"-36	.750	36
SMALL DD	3/4"-DD	.750	DD
LARGE DD	1"-DD	1.00	DD



Billet-Joint® Quick Order Installation Kits  
 Save by Ordering U-Joints as a Kit! Each kit includes (2) two nickel-plated needle bearing Billet-Joints® and (1) one extra-long 22" DD shaft. Stainless U-Joint kits also available.



Quality Steering Systems





# BILLET-JOINT

PART No.	DESCRIPTION
FR1700	3/4" X 3/4"
FR1700PL	3/4" X 3/4" POLISHED
FR1701	3/4" X 9/16"-26
FR1701PL	3/4" X 9/16"-26 POLISHED
FR1702	3/4" X 3/4"-36
FR1702PL	3/4" X 3/4"-36 POLISHED
FR1703	3/4" X 3/4"-30
FR1703PL	3/4" X 3/4"-30 POLISHED
FR1704	3/4" X 5/8"-36
FR1704PL	3/4" X 5/8"-36 POLISHED
FR1705	3/4" X 1"-48
FR1705PL	3/4" X 1"-48 POLISHED
FR1706DD	3/4" X 3/4"DD
FR1706DDPL	3/4" X 3/4"DD POLISHED
FR1707DD	3/4" X 1"DD
FR1707DDPL	3/4" X 1"DD POLISHED
FR1708	9/16"-26 X 3/4"-36
FR1708PL	9/16"-26 X 3/4"-36 POLISHED
FR1709DD	9/16"-26 X 3/4"DD
FR1709DDPL	9/16"-26 X 3/4"DD POLISHED
FR1710DD	1"-48 X 1"DD
FR1710DDPL	1"-48 X 1"DD POLISHED
FR1711	3/4"-36 X 3/4"-36
FR1711PL	3/4"-36 X 3/4"-36 POLISHED
FR1712DD	1"-48 X 3/4"DD
FR1712DDPL	1"-48 X 3/4"DD POLISHED
FR1713	1"-48 X 3/4"-36
FR1713PL	1"-48 X 3/4"-36 POLISHED
FR1714DD	1"DD X 3/4"-36
FR1714DDPL	1"DD X 3/4"-36 POLISHED
FR1715DD	3/4"-36 X 3/4"DD
FR1715DDPL	3/4"-36 X 3/4"DD POLISHED
FR1716DD	3/4"DD X 3/4"DD
FR1716DDPL	3/4"DD X 3/4"DD POLISHED
FR1717DD	1"DD X 3/4"DD
FR1717DDPL	1"DD X 3/4"DD POLISHED
FR1718	13/16"-36 X 3/4"
FR1718PL	13/16"-36 X 3/4" POLISHED
FR1719DD	13/16"-36 X 3/4"DD
FR1719DDPL	13/16"-36 X 3/4"DD POLISHED
FR1720	3/4"-48 X 3/4"
FR1720PL	3/4"-48 X 3/4" POLISHED
FR1722DD	5/8"-36 X 3/4"DD
FR1722PL	5/8"-36 X 3/4"DD POLISHED
FR1723	13/16"-36 X 3/4"-36
FR1723PL	13/16"-36 X 3/4"-36 POLISHED

# BILLET-JOINT

PART No.	DESCRIPTION
FR1724	3/4"-30 X 3/4"-36
FR1724PL	3/4"-30 X 3/4"-36 POLISHED
FR1725DD	3/4" X 17MM DD
FR1725DDPL	3/4" X 17MM DD POLISHED
FR1726	5/8"-36 X 3/4"-36
FR1726PL	5/8"-36 X 3/4"-36 POLISHED
FR1727DD	3/4"-48 X 1"DD
FR1727DDPL	3/4"-48 X 1"DD POLISHED
FR1728DD	3/4"-48 X 3/4"DD
FR1728DDPL	3/4"-48 X 3/4"DD POLISHED
FR1729	3/4"-48 X 3/4"-36
FR1729PL	3/4"-48 X 3/4"-36 POLISHED
FR1730	3/4"-48 X 17MM DD
FR1730PL	3/4"-48 X 17MM DD POLISHED
FR1731	3/4"-48 X 3/4"-48
FR1731PL	3/4"-48 X 3/4"-48 POLISHED
FR1733DD	3/4"-30 X 3/4"DD
FR1733DDPL	3/4"-30 X 3/4"DD POLISHED
FR1734	1"-48 X 3/4"-30
FR1734PL	1"-48 X 3/4"-30 POLISHED
FR1735DD	5/8"-36 X 1"DD
FR1735DDPL	5/8"-36 X 1"DD POLISHED
FR1736	3/4"-36 X 17MM DD
FR1736PL	3/4"-36 X 17MM DD POLISHED
FR1737	9/16"-26 X 3/4"-48
FR1737PL	9/16"-26 X 3/4"-48 POLISHED
FR1738	1" x 1"
FR1738PL	1" x 1" POLISHED
FR1739	5/8 INCH X 7/8 INCH
FR1740	1" x 3/4"
FR1740PL	1" x 3/4" POLISHED
FR1742	1" x 3/4"-36
FR1743DD	1"DD X 9/16"-26
FR1743DDPL	1"DD X 9/16"-26 POLISHED
FR1744	13/16"-36 X 1"-48
FR1744PL	13/16"-36 X 1"-48 POLISHED
FR1745	1"-48 X 5/8"-36
FR1745PL	1"-48 X 5/8"-36 POLISHED
FR1746DD	1" DD X 3/4"-30
FR1746DDPL	1" DD X 3/4"-30 POLISHED
FR1749	5/8"-36 X 5/8 INCH-36
FR1749DD	3/4"DD X 1"
FR1749DDPL	3/4"DD X 1" POLISHED
FR1749PL	5/8"-36 X 5/8 INCH-36 POLISHED
FR1750	7/8" x 3/4 DD
FR1750C	9/16"-26 X 5/8"-36(CHRY)

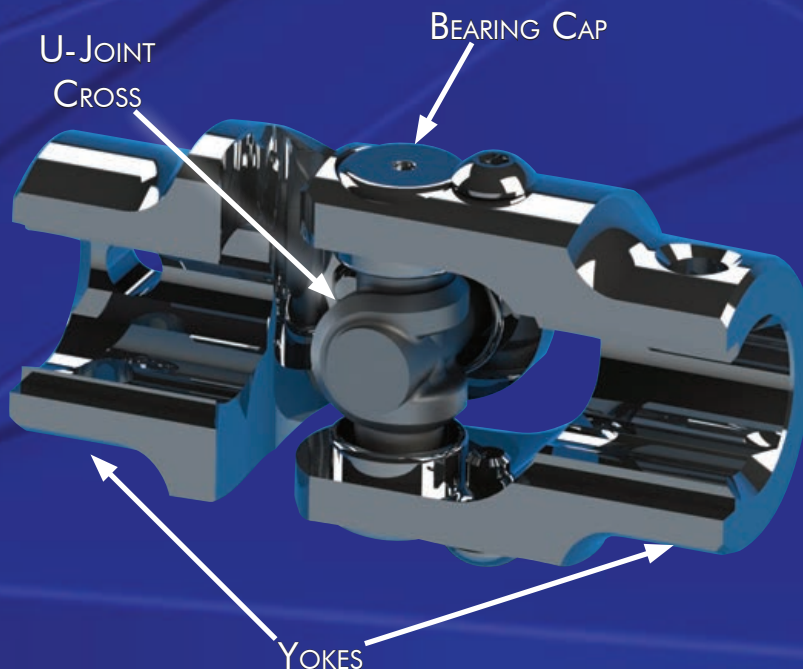
# BILLET-JOINT

PART No.	DESCRIPTION
FR1750CPL	9/16"-26 X 5/8"-36(CHRY) POLISHED
FR1750PL	3/4"DD X 7/8 Dia POLISHED
FR1754	1"DD X 1"DD
FR1754PL	1"DD X 1"DD POLISHED
FR1755	5/8"-36(CHRY) X 3/4"DD
FR1755PL	5/8"-36(CHRY) X 3/4"DD POLISHED
FR1756	5/8"-36(CHRY) X 3/4"-36
FR1756PL	5/8"-36(CHRY) X 3/4"-36 POLISHED
FR1757	5/8"-36(CHRY) X 3/4"
FR1757PL	5/8"-36(CHRY) X 3/4" POLISHED
FR1758	13/16"-36 X 1"DD
FR1758PL	13/16"-36 X 1"DD POLISHED
FR1759DD	17MM DD X 3/4"DD
FR1759DDPL	17MM DD X 3/4"DD POLISHED
FR1760	13/16 INCH-36 X 13/16 INCH-36
FR1760PL	13/16 INCH-36 X 13/16 INCH-36 POLISHED
FR1761	9/16"-36 X 9/16"-36
FR1761PL	9/16"-36 X 9/16"-36 POLISHED
FR1762DD	9/16"-36 X 3/4"DD
FR1762DDPL	9/16"-36 X 3/4"DD POLISHED
FR1763	5/8"-36 X 1"
FR1780	11/16"-36 X 3/4"
FR1780PL	11/16"-36 X 3/4" POLISHED
FR1781	11/16"-36 X 1" DD

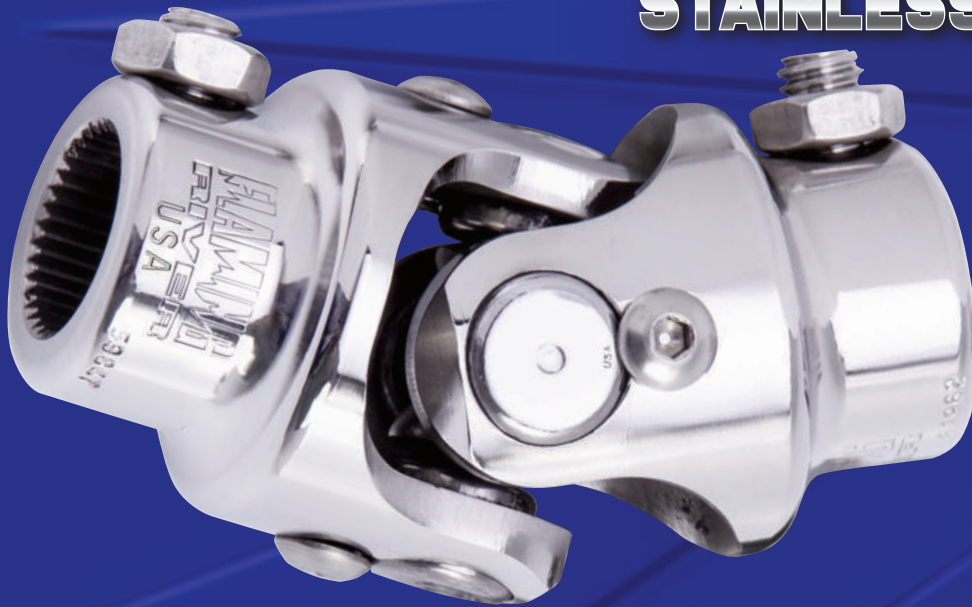
# BILLET-JOINT

PART No.	DESCRIPTION
FR1781PL	11/16"-36 X 1" DD POLISHED
FR1782	11/16"-36 X 3/4"-36
FR1782PL	11/16"-36 X 3/4"-36 POLISHED
FR1783DD	11/16"-36 X 3/4" DD
FR1783DDPL	11/16"-36 X 3/4" DD POLISHED
FR1784DD	TRIANGLE YOKE X 1" DD
FR1784DDPL	TRIANGLE YOKE X 1" DD POLISHED
FR1785DD	11/16"-36 X 1"-48
FR1785DDPL	11/16"-36 X 1"-48 POLISHED
FR1786DD	TRIANGLE YOKE X 3/4"
FR1786PL	TRIANGLE YOKE X 3/4" POLISHED
FR1788	TRIANGLE YOKE X 3/4"-36
FR1788PL	TRIANGLE YOKE X 3/4"-36 POLISHED
FR1789-9	13/16"-36 x 1"
FR1789-9PL	13/16"-36 x 1" POLISHED
FR1789DD	TRIANGLE YOKE X 3/4" DD
FR1789DDPL	TRIANGLE YOKE X 3/4" DD POLISHED
FR1789P	FR POWER RACK U-JOINT: PYR X 3/4-DD®
FR1789P-2	FR POWER RACK U-JOINT: PYR X 3/4-36
FR1789P-2PL	FR POWER X 3/4-36 POLISHED
FR1789P-3	FR POWER X 1" DD
FR1789P-3PL	FR POWER X 1" DD POLISHED
FR1789P-4	FR POWER X 3/4"
FR1789PPL	FR POWER X 3/4" DD POLISHED

## UNIVERSAL JOINT COMPONENTS



# STAINLESS STEEL



Flaming River now introduces a new Stainless Steel Universal Joint series. We have carefully selected 303 Stainless Steel for its strength, superior corrosion resistance and shine. Our stainless steel universal joints have such a precision machined finish that they look great right out of the box. Each kit includes:

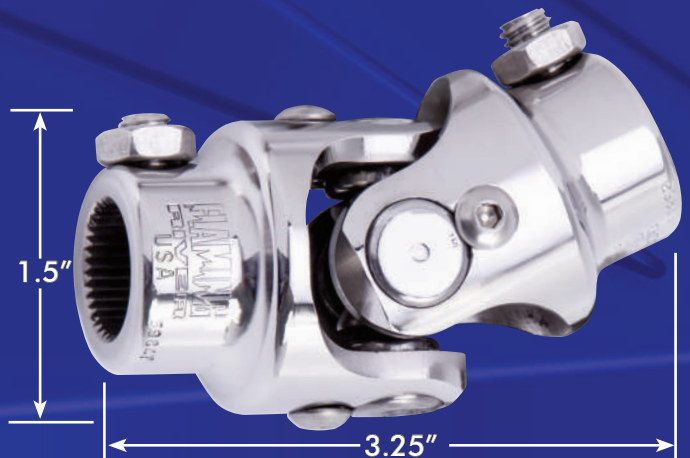
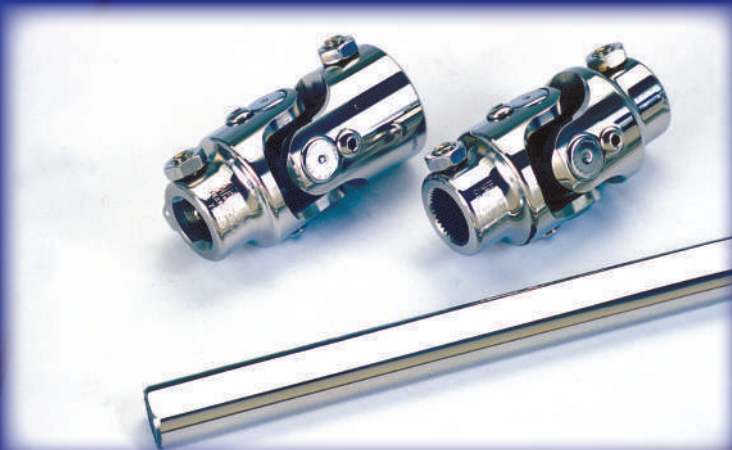
- 2 x Stainless Steel Needle Bearing Universal Joints
- 1 x extra-long 22" DD Stainless Steel Shaft

## STAINLESS STEEL

PART No.	COLUMN/RACK	APPLICATION
FRUJKT1SS	1"DD / 9/16"-26	FR MANUAL RACKS
FRUJKT2SS	1"DD / 5/8"-36	VEGA / CORVAIR BOX
FRUJKT3SS	1"DD / 3/4"-36	MUSTANG POWER
FRUJKT4SS	1"DD / FR POWER	FR POWER RACKS
FRUJKT5SS	1"DD / 3/4"-30	GM POWER BOX - 78 TO PRESENT
FRUJKT6SS	1"DD / 13/16"-36	GM POWER BOX - 77 AND PRIOR
FRUJKT7SS	3/4"DD / 3/4"DD	CENTER U-JOINT WITH SUPPORT BEARING

## BILLET-JOINT

PART No.	COLUMN/RACK	APPLICATION
FRUJKT1	1"DD / 9/16"-26	FR MANUAL RACKS
FRUJKT2	1"DD / 5/8"-36	VEGA / CORVAIR BOX
FRUJKT3	1"DD / 3/4"-36	MUSTANG POWER
FRUJKT4	1"DD / FR POWER	FR POWER RACKS
FRUJKT5	1"DD / 3/4"-30	GM POWER BOX - 78 TO PRESENT
FRUJKT6	1"DD / 13/16"-36	GM POWER BOX - 77 AND PRIOR
FRUJKT7	3/4"DD / 3/4"DD	CENTER U-JOINT WITH SUPPORT BEARING



# STAINLESS STEEL

PART No.	DESCRIPTION
FR2502	3/4" X 3/4"-36
FR2508	9/16"-26 X 3/4"-36
FR2508PL	9/16"-26 X 3/4"-36 POLISHED
FR2509DD	9/16"-26 X 3/4" DD
FR2509DDPL	9/16"-26 X 3/4" DD POLISHED
FR2511	3/4"-36 X 3/4"-36
FR2511PL	3/4"-36 X 3/4"-36 POLISHED
FR2512DD	1"-48 X 3/4" DD
FR2512DDPL	1"-48 X 3/4" DD POLISHED
FR2513	1"-48 X 3/4"-36
FR2513PL	1"-48 X 3/4"-36 POLISHED
FR2514DD	1" DD X 3/4"-36
FR2514DDPL	1" DD X 3/4"-36 POLISHED
FR2515DD	3/4"-36 X 3/4" DD
FR2515DDPL	3/4"-36 X 3/4" DD POLISHED
FR2516DD	3/4" DD X 3/4" DD
FR2516DDPL	3/4" DD X 3/4" DD POLISHED
FR2517DD	1" DD X 3/4" DD
FR2517DDPL	1" DD X 3/4" DD POLISHED
FR2519DD	13/16"-36 X 3/4 DD
FR2519DDPL	13/16"-36 X 3/4 DD POLISHED
FR2522DD	5/8"-36 X 3/4" DD
FR2522DDPL	5/8"-36 X 3/4" DD POLISHED
FR2523	13/16"-36 X 3/4"-36
FR2523PL	13/16"-36 X 3/4"-36 POLISHED
FR2524	3/4"-30 X 3/4"-36
FR2524PL	3/4"-30 X 3/4"-36 POLISHED
FR2526	5/8"-36 X 3/4"-36
FR2526PL	5/8"-36 X 3/4"-36 POLISHED
FR2528DD	3/4"-48 X 3/4" DD
FR2528DDPL	3/4"-48 X 3/4" DD POLISHED
FR2529	3/4"-48 X 3/4"-36
FR2529PL	3/4"-48 X 3/4"-36 POLISHED
FR2530DD	17MM DD X 3/4"-48
FR2530DDPL	17MM DD X 3/4"-48 POLISHED
FR2533DD	3/4"-30 X 3/4" DD
FR2533DDPL	3/4"-30 X 3/4" DD POLISHED
FR2534	1"-48 X 3/4"-30
FR2536DD	17MM DD X 3/4"-36
FR2536DDPL	17MM DD X 3/4"-36 POLISHED
FR2546DD	1" DD X 3/4"-30
FR2546DDPL	1" DD X 3/4"-30 POLISHED
FR2555C	5/8"-36C X 3/4" DD
FR2555CPL	5/8"-36C X 3/4" DD POLISHED
FR2556C	5/8"-36C X 3/4"-36
FR2556CPL	5/8"-36C X 3/4"-36 POLISHED

# STAINLESS STEEL

PART No.	DESCRIPTION
FR2559DD	17MM DD X 3/4"DD
FR2559DDPL	17MM DD X 3/4" DD POLISHED
FR2561	9/16"-36 X 9/16"-36
FR2561PL	9/16"-36 X 9/16"-36 POLISHED
FR2562DD	9/16"-36 X 3/4" DD
FR2562DDPL	9/16"-36 X 3/4" DD POLISHED
FR2563	17MM-54 X 3/4" DD
FR2564	17MM-54 X 1" DD
FR2567	M16.5-36 X M16.5-36
FR2570	9/16"-36 X 3/4"-36
FR2570PL	9/16"-36 X 3/4"-36 POLISHED
FR2582	11/16"-36 X 3/4"-36
FR2582PL	11/16"-36 X 3/4"-36 POLISHED
FR2583	11/16"-36 X 3/4" DD
FR2583PL	11/16"-36 X 3/4" DD POLISHED
FR2586	3/4" DD X 16.5 X 36
FR2587	3/4" X 16.5 X 36
FR2589-2	STAINLESS STEEL U-JOINT: 3/4" X 3/4"
FR2589-4	3/4" X 9/16"-26
FR2589-6	3/4" X 3/4" DD
FR2589-22	17MM-54 X 17MM-54
FR2589P	FR POWER X 3/4" DD
FR2589P-2	FR POWER X 3/4"-36
FR2589P-2PL	FR POWER X 3/4"-36 POLISHED
FR2589P-3	FR POWER X 1" DD
FR2589PPL	FR POWER X 3/4" DD POLISHED
FR2598-13	17MM-54 X 3/4" DD DOUBLE
FR2598-26	17MM-54 X 17MM-54 DD DOUBLE



Stainless Steel U-Joints feature Sleek, Radiused Edges

# PINCH BOLT AND FORGED

Stainless Pinch Bolt Universal Joints are CNC-machined from high-quality 304 stainless steel for added strength and durability. The high-strength shoulder bolt securely clamps the yoke to the shaft for a smooth, low-profile appearance.



PART No.	DESCRIPTION
FR2703	3/4"-30 x 3/4" SATIN FINISH
FR2703PL	3/4"-30 x 3/4" POLISHED FINISH
FR2704	5/8"-36 x 3/4" SATIN FINISH
FR2704PL	5/8"-36 x 3/4" POLISHED FINISH
FR2708	9/16"-26 X 3/4"-36 SATIN FINISH
FR2708PL	9/16"-26 X 3/4"-36 POLISHED FINISH
FR2709DD	9/16"-26 x 3/4" DD SATIN FINISH
FR2709DDPL	9/16"-26 x 3/4" DD POLISHED FINISH
FR2711	3/4"-36 x 3/4"-36 SATIN FINISH
FR2711PL	3/4"-36 x 3/4"-36 POLISHED FINISH
FR2712	17MMDD x 1" DD SATIN FINISH
FR2713	17MMDD x 13/16"-36 SATIN FINISH
FR2715DD	3/4"-36 x 3/4" DD SATIN FINISH
FR2715DDPL	3/4"-36 x 3/4" DD POLISHED FINISH
FR2716DD	3/4" DD x 3/4" DD SATIN FINISH

PART No.	DESCRIPTION
FR2716DDPL	3/4" DD x 3/4" DD POLISHED FINISH
FR2717DD	3/4" DD x 1" DD SATIN FINISH
FR2717DDPL	3/4" DD x 1" DD POLISHED FINISH
FR2718	13/16"-36 x 3/4" SATIN FINISH
FR2719DD	13/16"-36 x 3/4" DD SATIN FINISH
FR2722DD	5/8"-36 x 3/4" DD SATIN FINISH
FR2722DDPL	5/8"-36 x 3/4" DD POLISHED FINISH
FR2723	3/4"-36 x 13/16"-36 SATIN FINISH
FR2725DD	17MMDD x 3/4" SATIN FINISH
FR2725DDPL	17MMDD x 3/4" POLISHED FINISH
FR2726	3/4"-36 5/8"-36 SATIN FINISH
FR2726PL	3/4"-36 5/8"-36 POLISHED FINISH
FR2733DD	3/4"-30 x 3/4" DD SATIN FINISH
FR2733DDPL	3/4"-30 x 3/4" DD POLISHED FINISH

These Forged Universal Joints have a needle bearing design and are ideal for performance applications. These U-Joints can be welded and pinned as required by sanctioning bodies. Available in most popular sizes, including 3/4" smooth. Rated at 350+ ft.. Lbs.. Black oxidized finish for corrosion resistance.



PART No.	DESCRIPTION
FR2630	3/4" X 3/4"
FR2631	3/4" X 9/16"-26
FR2632	3/4 X 5/8"-36
FR2633	3/4" X 5/8"-36C
FR2634	3/4" X 3/4"-30
FR2635	3/4" X 3/4"-36
FR2636	3/4" X 13/16"-36
FR2637	3/4" X 3/4"-48
FR2638	3/4" X 17MM DD
FR2640	3/4" X 3/4"-20

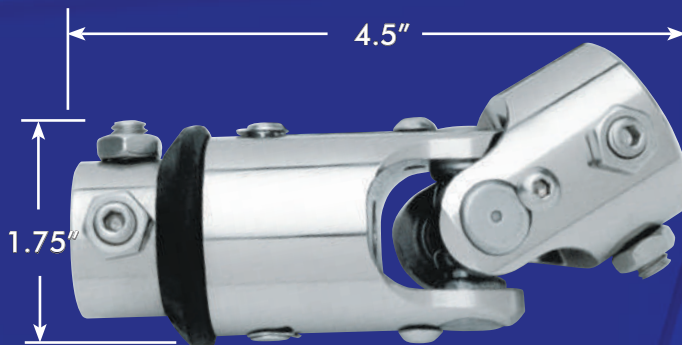
PART No.	DESCRIPTION
FR2642	5/8"-36 X 5/8"-36
FR2643	3/4"-36 X 3/4" DD
FR2644	3/4" DD X 3/4" DD
FR2645	3/4" DD X 9/16"-26
FR2646	3/4"-48 X 3/4"-20
FR2647	3/4"-30 X 3/4"-20
FR2648	3/4" DD X 3/4"
FR2651	3/4"-36 X 3/4"-36
FR2655	3/4" DD X 13/16"-36
FR2661	3/4"-20 X 5/8"-36

# Double U-Joints / Vibration Resistors



## Billet Double Universal Joints

A complete line of Double Universal Joints are available. This design can accommodate up to a 60° angle for added flexibility when designing your steering system. The Double Universal Joints are also CNC-machined and Electroless nickel plated. Satin or Polished finish. Overall Length is 5-1/8"

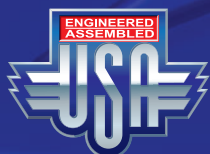
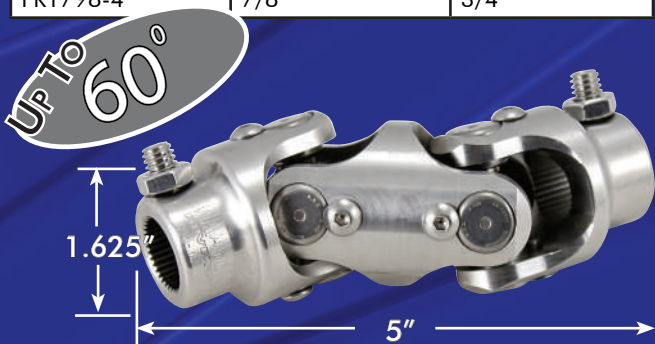


## Vibration Resistor Universal Joints

Our Vibration Resistor Universal Joints utilize a bushing system of thermoplastic rubber to absorb vibration or "road feel" from the steering system. This unique, load-absorbing material is resistant to oil, salt, and weather conditions. Overall length is 4-3/4". Bushing side of U-Joint is available in 3/4" DD or 3/4"-36. Custom sizes available. Satin or Polished finish

PART No.	Box/COLUMN	SHAFT
FR1790	3/4"-36	3/4"-DD
FR1791	9/16"-26	3/4"-DD
FR1792	3/4"-36	3/4"-36
FR1793	9/16"-26	3/4"-36
FR1794	3/4"-DD	3/4"-DD
FR1795	3/4"-30	3/4"-36
FR1796	3/4"-DD	1"-48
FR1797	3/4"	3/4"
FR1798	3/4"-36	5/8"-36
FR1798-1	3/4"-36	3/4"-48
FR1798-2	3/4"	3/4"-DD
FR1798-3	5/8"-36	3/4"-DD
FR1798-4	7/8"	3/4"

PART No.	RESISTOR/BUSHING SIDE	YOKE/SHAFT SIDE
FR1880	3/4"-36	9/16"-26
FR1881	3/4"-36	5/8"-36
FR1882	3/4"-36	3/4"-30
FR1883	3/4"-36	3/4"-36
FR1884	3/4"-36	3/4"-48
FR1885	3/4"-36	13/16"-36
FR1886	3/4"-36	1"-48
FR1887	3/4"-DD	3/4"-36
FR1888	3/4"-36	1"-DD
FR1889	3/4"-DD	9/16"-26
FR1897	3/4"-DD	5/8"-36
FR1898	3/4"-DD	3/4"-30
FR1899	3/4"-DD	3/4"-48
FR1893	3/4"-DD	13/16"-36
FR1894	3/4"-DD	1"-48
FR1895	3/4"-DD	3/4"-DD
FR1896	3/4"-DD	1"-DD



PART No.	DESCRIPTION
FR2592	3/4"-36 X 3/4"-36
FR2592PL	3/4"-36 X 3/4"-36 POLISHED
FR2593	9/16"-26 X 3/4"-36
FR2593PL	9/16"-26 X 3/4"-36 POLISHED
FR2594	3/4" DD X 3/4" DD
FR2594PL	3/4" DD X 3/4" DD POLISHED

## Stainless Steel Double Universal Joints

PART No.	DESCRIPTION
FR2598-2	1" DD X 1"-48
FR2598-22	17MMDD X 3/4" DD
FR2598-22PL	17MMDD X 3/4" DD POLISHED
FR2598-2PL	1" DD X 1"-48 POLISHED

POLISHED U-JOINTS ARE NON-RETURNABLE

# Chrome Moly

Up To

35°



Flaming River has designed and manufactured a new low-profile Chrome Moly U-Joint. These needle bearing universal joints do not require lubrication, can accommodate up to a 35° angle and will outlast pin and block universal joints in racing applications. With a strength rating of 400+ ft. Lbs., these can be used for street use. Black oxidized finish for corrosion resistance.

PART No.	DESCRIPTION
FR1909	3/4" x 3/4"-20
FR1910	3/4" x 3/4"-30
FR1911	3/4" x 3/4"-36
FR1912	3/4" x 13/16"-36
FR1913	3/4" x 5/8"-36C*
FR1914	3/4" x 5/8"-36
FR1916	3/4" x 3/4"
FR1917	3/4" x 9/16"-26
FR1918	3/4" x 17MMDD
FR1919	5/8"-36 x 5/8-36
FR1920	3/4"-DD x 3/4"-DD
FR1921	5/8"-36 x 3/4"-36
FR1922	3/4"-36 x 3/4"-36
FR1923	9/16"-26 x 3/4"-36
FR1924	9/16"-26 x 3/4"-DD

PART No.	DESCRIPTION
FR1925	3/4"-36 x 3/4"-DD
FR1926	3/4" x 3/4"-DD
FR1927	5/8"-36 x 3/4"-DD
FR1928	3/4"-DD x 3/4"-30
FR1929	13/16" x 3/4"DD
FR1930	17MMDD x 3/4"-48
FR1932	17MMDD x 3/4"-DD
FR1934	1"DD x 3/4"-DD
FR1935	1"DD x 3/4"
FR1939-1	3/4"-36 x 1"DD
FR1939-10	5/8"-36C x 3/4"-DD
FR1939-11	1"DD x 9/16"-26
FR1939-15	5/8"-36 x 1"DD

PART No.	DESCRIPTION
FR1939-21	3/4"-30 x 3/4"-36
FR1939-22	3/4"DD x 3/4"-20
FR1939-26	17MM-54 x 13/16"-36
FR1939-41	17MM-54 x 3/4"
FR1939-4	3/4"-36 x 17MMDD
FR1939-8	3/4"-30 x 1"DD
FR1939-9	1"DD x 1"DD
FR1963	17MM-54 x 3/4"DD
FR1964	17MM-54 x 1"DD
FR1967	17MM-54 x 17MM-54
FR1968	17MM-54 x 3/4"-36
FR1969	FR POWER x 3/4"DD
FR1971	17MM-54 x 3/4"
FR1977	FR POWER x 3/4"
FR1984	17MM-54 x 3/4"-20

\*CHRYSLER POWER BOX

Up To

80°



# Chrome Moly Double U-Joint



Flaming River has designed and manufactured a new Chrome Moly Needle-Bearing Double Universal Joint that allows for up to 80° angles. This Universal Joint is for applications where clearance and weight are primary concerns. These Needle Bearing U-Joints will outlast Pin and Block style U-Joints in racing applications and do not require lubrication. Standard strength rating is 300 foot Lbs.

PART No.	DESCRIPTION
FR2800	3/4" x 3/4"
FR2801	3/4" x 9/16"-26
FR2802	3/4" x 3/4"-36
FR2803	9/16"-26 x 3/4"DD
FR2804	3/4"-36 x 3/4"DD
FR2805	3/4"DD x 3/4"DD
FR2806	3/4"DD x 1"DD
FR2807	FR POWER x 3/4"DD
FR2808	17MM-54 x 3/4"DD

PART No.	DESCRIPTION
FR2809	17MM-54 x 1"DD
FR2810	13/16"-36 x 1"DD
FR2811	5/8"-36C x 1"DD
FR2812	3/4"-48 x 3/4"
FR2813	3/4" x 3/4"DD
FR2814	3/4"DD x 17MMDD
FR2815	17MM-54 x 17MM-54
FR2816	3/4"-30 x 3/4"-36

# COUPLERS, PIN & BLOCK, MIL-SPEC



## Steering Couplers

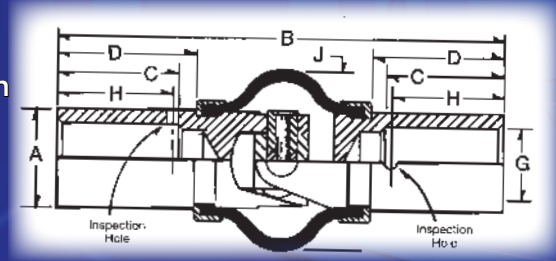
Couplers are available for direct steering connections where an angle is not required. Couplers can also be used to extend the steering shaft. Overall length is 2" with an outside diameter of 1" (except FR1942, which is 1-1/4")

PART No.	DESCRIPTION	PART No.	DESCRIPTION
FR1940	3/4" x 9/16"-26	FR1944	3/4" x 3/4"-30
FR1941	3/4" x 3/4"-36	FR1945	3/4"-DD x 3/4"-DD
FR1942	3/4"-36 x 3/4"-36	FR1946	3/4" x 3/4"-DD
FR1943	3/4" x 5/8"-36	FR1948	3/4" x 11/16"-36

FR1948 required for Microsteer Installation

## Mil-Specification Universal Joints

These Universal Joints are similar to military specification joints for aircraft and have become the select choice of drag racers due to their lightweight design. A lubricant-filled silicone boot provides maintenance-free operation for extended universal joint life. This boot is designed to operate under high temperature conditions, with a continuous rating of 650°F. Please note nominal size is the outside diameter. Not intended for street use.



Not For Street Use



This is a lightweight application that is not designed for circle track, street or highway use and not recommended for steering. Ideal for shifter linkages. See chart right.

PART No.	NOMINAL SIZE O.D.	O.D. "A" +.000 - .002	I.D. "G" + .004- .001	MAX DIA. "J" +1/64	LENGTH "B" +/- 1/	MAX "C"	MIN "D"
FR1800B8	1/2"	.495	.375	29/32	2-5/16"	5/8"	11/16"
FR1800B10	5/8"	.620	.500	1-3/32"	2-3/4"	3/4"	13/16"
FR1800B12	3/4"	.745	.625	1-1/32"	3-3/16"	7/8"	15/16"
FR1800B14	7/8"	.870	.750	1-1/2"	3-5/8"	1"	1-1/16"
	"H" +/- 1/64	WT. (Lbs.)	MIN. ULT. STATIC TORQUE (IN LBS.)	AXIAL TENSION & COMP. (LBS.)	TENSIONAL PLAY MAX DEGREES	ENDURANCE TORQUE TEST (IN. LBS)	
FR1800B8	9/16"	.079	675	1,000	0.62	90	
FR1800B10	11/16	.133	1,200	1,500	0.50	162	
FR1800B12	13/16	.212	2,100	2,000	0.42	285	
FR1800B14	15/16	.314	3,500	3,500	0.36	450	

## Steel Pin & Block Universal Joints

The preferred choice of drag racers for their sleek and lightweight design. These are available in both 1-1/4" and 1" diameter designs.

Note: For racing applications only – NOT recommended for street use. Frequent lubrication required.

PART No.	DESCRIPTION	O.D.
FR1900	3/4" x 3/4"	1-1/4"
FR1901	3/4" x 9/16"-26	1-1/4"
FR1902	3/4" x 3/4"-36	1-1/4"
FR1903	3/4" x 3/4"-30	1-1/4"
FR1904	3/4" x 5/8"-36	1-1/4"
FR1905	9/16"-26 x 3/4"-36	1-1/4"
FR1906	3/4" x 13/16"-36	1-1/4"
FR1907	5/8"-36 x 7/8"	1-1/4"
FR1820	3/4" x 3/4"	1"
FR1821	3/4" x 9/16"-26	1"



# SHAFTS & SUPPORT BEARINGS



Quality Steering Systems

## Stainless Steel Splined Shafts

Available in 3/4"-36 Spline, these stainless shafts are manufactured in 2" increments, ranging from 4" to 36" lengths. Each shaft has 2" of spline on each side to allow for up to 1" of trimming per side.

PART No.	DESCRIPTION
FR1870-4	4" STAINLESS STEEL
FR1870-4SS	4" POLISHED STAINLESS
FR1870-6	6" STAINLESS STEEL
FR1870-6SS	6" POLISHED STAINLESS
FR1870-8	8" STAINLESS STEEL
FR1870-8SS	8" POLISHED STAINLESS
FR1870-10	10" STAINLESS STEEL
FR1870-10SS	10" POLISHED STAINLESS
FR1870-12	12" STAINLESS STEEL
FR1870-12SS	12" POLISHED STAINLESS
FR1871-18	18" STAINLESS STEEL
FR1871-18SS	18" POLISHED STAINLESS
FR1871-20	20" STAINLESS STEEL
FR1871-20SS	20" POLISHED STAINLESS
FR1871-22	22" STAINLESS STEEL
FR1871-22SS	22" POLISHED STAINLESS
FR1871-30	30" STAINLESS STEEL
FR1871-30SS	30" POLISHED STAINLESS
FR1871-32	32" STAINLESS STEEL
FR1871-32SS	32" POLISHED STAINLESS
FR1871-36	36" STAINLESS STEEL
FR1871-36SS	36" POLISHED STAINLESS

## Frame Mount Support Bearing Kit

This frame bracket allows for easy mounting of support bearing. Slotted for adjustability. Available in an Angled or Straight design.

## Stainless Steel Shafts

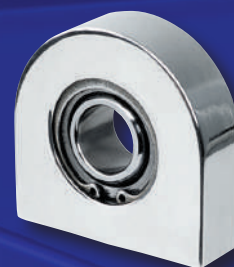
Flaming River now offers a line of stainless steel shafts manufactured from high quality 303 stainless. This is one of the best alloys of stainless steel for strength, corrosion resistance and shine. Our stainless shafts are available with 3/4"-36 spline or 3/4" DD (3/4" Round with two flats) and come in different lengths which can be cut down to size. Available with or without polishing.

PART No.	DESCRIPTION
FR1851-10	10" DD CARBON STEEL
FR1851-10SS	10" DD STAINLESS STEEL
FR1850	18" DD CARBON STEEL
FR1850SS	18" DD STAINLESS STEEL
FR1850SSPL	18" DD POLISHED STAINLESS
FR1850-22	22" DD CARBON STEEL
FR1850-22SS	22" DD STAINLESS STEEL
FR1850-22SSPL	22" DD POLISHED STAINLESS
FR1851	36" DD CARBON STEEL
FR1851SS	36" DD STAINLESS STEEL
FR1851SSPL	36" DD POLISHED STAINLESS

PART No.	DESCRIPTION
FR1810KA	ANGLED BRACKET & SUPPORT BEARING
FR1811KAC	ANGLED BRACKET & SUPPORT BEARING CHROME FINISH
FR1811KS	STRAIGHT BRACKET & SUPPORT BEARING
FR1811KSC	STRAIGHT BRACKET & SUPPORT BEARING CHROME FINISH

## Support Bearing

When using a three-joint steering system, a Double U-Joint, or a Vibration Resistor, a Support Bearing is necessary to complete the installation. Available in Zinc, Stainless, and Polished Stainless finishes.



PART No.	DESCRIPTION
FR1810	SUPPORT BEARING - ZINC PLATED
FR1811	SUPPORT BEARING - STAINLESS
FR1811PL	SUPPORT BEARING - POLISHED



# TRUCK AND JEEP SLIP SHAFTS

## DODGE TRUCKS & JEEP CJ/TJ



### Truck Steering Slip Shaft Kits – Ideal for Lift Kits

These unique steering systems are designed to completely update the OEM steering system. The slip shaft kit includes a universal joint for the column, a slip-universal joint for the steering box or rack and pinion, a 36" DD shaft—which can be cut to size—and protective bellows. The system allows for up to two inches of slip and collapsibility.

- Vibration upgrade available
- Plating and polishing available
- All kits include two universal joints

### 1997-2000 Jeep TJ Steering Slip Shaft Kit

This new slip and collapsible steering shaft kit is designed to eliminate any play in the factory system and to accommodate lift applications. It features three inches of slip and collapsibility. Includes two sealed needle bearing universal joints, protective bellow and slip-shaft. Ideal for off-road use or for daily drivers.

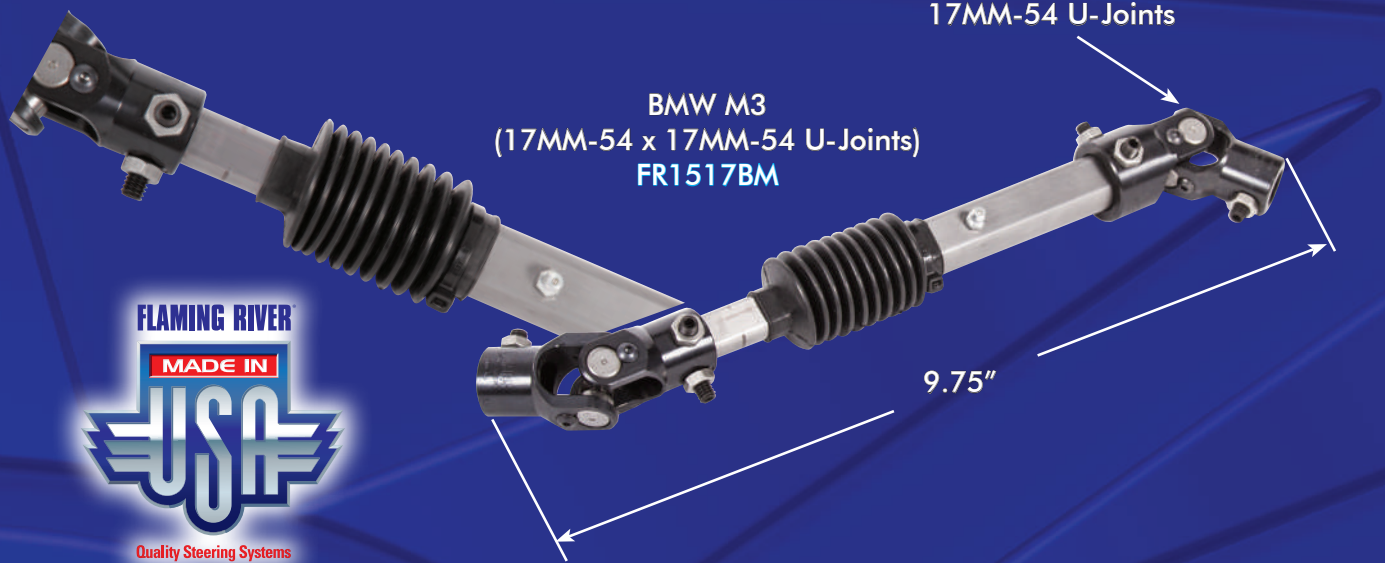
**FR1519-97**

PART No.	YEAR
<b>DODGE TRUCK</b>	
FR1517-76P	1976-78 POWER
FR1517-76M	1976-78 MANUAL
FR1517-79P/M	1979-82 POWER/MANUAL
FR1517-83S	1983-90 STRAIGHT COLUMN
FR1517-83T	1983-90 TILT COLUMN
FR1517-79P/M	1991-93
FR1517-94V	1994 w/ VIBRATION UPGRADE
FR1517-96V	1995-98 w/ VIBRATION UPGRADE
FR1517-94	1994
FR1517-96	1995-98
<b>FORD F150 / F250 / F350</b>	
FR1518-36	1974-79
FR1518-1DD	1984-94
<b>JEEP CJ-5 / CJ-6 / CJ-7 / CJ-8</b>	
FR1519-76P	1972-86 POWER STEERING
FR1519-76M	1972-86 MANUAL STEERING
FR1519-PTLT	72-86 POWER STEERING w/ FR COLUMN
FR1519-MTLT	72-86 MANUAL STEERING w/ FR COLUMN
<b>JEEP WRANGLER</b>	
FR1519-87P/M	1987-95



# OTHER SLIP SHAFTS

## BMW SHAFT



BMW M3  
(17MM-54 x 17MM-54 U-Joints)  
FR1517BM

17MM-54 U-Joints

9.75"

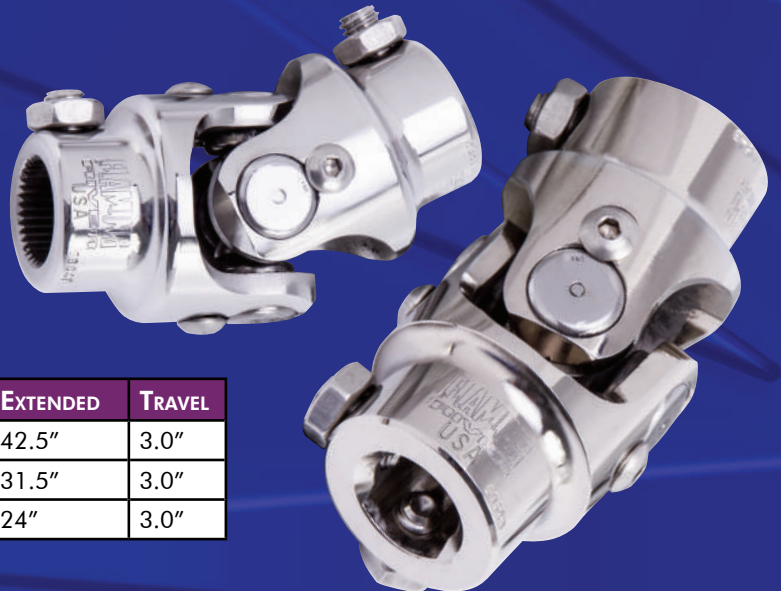
## SLIP SHAFT KIT (NO UNIVERSAL JOINT)

Use one of these steering shafts to update the OEM steering system in your vehicle. The kit includes a 1" DD shaft, a 3/4" DD shaft and protective bellows. The slip joint system allows for almost 3" of movement to compensate for chassis twist and eliminate binding. Overall length of 30".

Note: Requires U-joints that must be ordered separately.



Create your own Slip Shaft Kit. Simply order the FR1856 Slip Shaft, then add the U-Joints to connect to your column and rack or steering box.



PART No.	DESCRIPTION	COLLAPSED	EXTENDED	TRAVEL
FR1856	COLLAPSIBLE SLIP SHAFT	39.5"	42.5"	3.0"
FR1856-S	COLLAPSIBLE SLIP SHAFT	28.5"	31.5"	3.0"
FR1856-24	COLLAPSIBLE SLIP SHAFT	21"	24"	3.0"

# RACK & PINION CRADLE SYSTEMS

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67-69 Camaro Manual	•••••••	112
70-81 Camaro Power/Manual	••	113
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67-72 C-10 Power	••••••••••	120
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## NEW S-10 MANUAL RACK AND CRADLE SYSTEM



# Rack & Pinion Cradle Systems

## CRADLE YOUR RIDE



### The Most Complete Cradle Kits on the Market!

All-New Bolt-in Rack and Pinion Cradle Systems for Classic, Performance, and Muscle Cars. Flaming River's Rack and Pinion Steering Systems continue to expand by customer demand. Our Rack and Pinion Kits enable classic vehicles to have the benefits and safety of modern steering, without any chassis modification—no cutting, drilling, or welding required!

The jig welded cradle concept bolts right in to the original mounting location—

eliminating worn steering parts and maintaining the original suspension. The cradle also correctly positions the steering rack, and adds independent support of the suspension parts.

Rack and Pinion steering is lighter and more responsive than the original recirculating ball steering box. All Flaming River Rack and Pinion Systems retain the full factory turning radius and are Made in the USA in Berea, OH.

- Today's Steering Technology...
- All-new parts
- Made in the USA with Lifetime Serviceability
- Bolts into the original steering box location and provides full turning radius!
- Patented cradle technology



Note: All Flaming River Rack and Pinion Cradle Systems have been designed and tested using a factory original platform vehicle. Any variation or modification from the vehicle's original chassis, suspension, drivetrain, or drive height may require additional modification for installation. If you have any questions regarding your vehicle's set-up, please call us at 1-800-648-8022.

The Flaming River Certified imprinted logo indicates that each of our products have been tested to exacting standards.



*If It Doesn't Say Flaming River...  
It Just Isn't Good Enough!*

# '55-'56 CHEVY POWER OR MANUAL CRADLE SYSTEM



Flaming River has now engineered the popular rack and pinion cradle systems for the 55-57 Chevy with power or manual steering. This system replaces the early long shaft steering box with an optional new Tilt column. All mounting hardware, pump, bracket, reservoir and universal joints are also included for a complete kit—hoses are sold separately. By mounting the rack on the cradle

system, we not only reinforce the chassis, but also provide increased ground clearance. This true fixture welded mounting cradle fits between the frame rails and bolts in place using the original chassis location. No suspension modification is required and the system installs easily with hand tools. Full turning radius is engineered into the system.

**Manual Rack and Pinion Kit Includes:**

- Paintable or Polished Tilt Column
- Mounting Hardware
- Wiring Connector

- Universal Joints
- Patented Rack & Pinion Cradle System
- Swivel Floor Mount for easy column installation



PART NO.	DESCRIPTION
TILT FLOOR SHIFT	
FR306KT	55-56 MANUAL CRADLE SYSTEM
FR307KTPW	55-56 POWER CRADLE SYSTEM
TILT COLUMN SHIFT	
FR309KT	55-56 MANUAL CRADLE SYSTEM
FR309KTPW	55-56 POWER CRADLE SYSTEM
NO COLUMN - (DOES NOT INCLUDE U-JOINTS)	
FR306NM	55-57 MANUAL CRADLE SYSTEM
FR307NP	55-57 POWER CRADLE SYSTEM



Ultra-Angle Exhaust Headers  
**FR5001C**

# '57 CHEVY CRADLE SYSTEM

RACK AND PINION CRADLE SYSTEMS: '57 CHEVY CRADLE SYSTEM

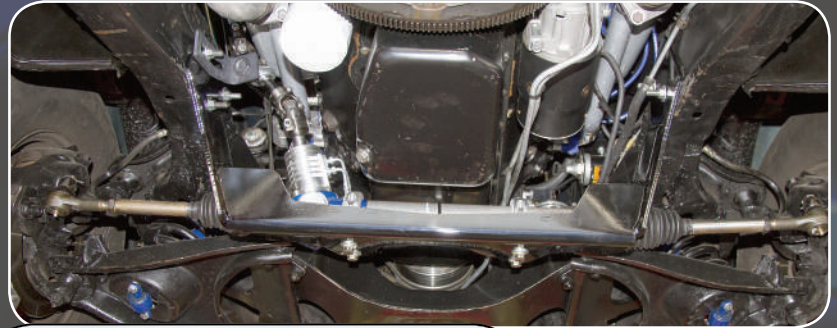


**NOW AVAILABLE FOR BIG BLOCK!**

Exhaust modification may be necessary with big block

Power Rack and Pinion Kit Includes:

- Paintable or Polished Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack & Pinion Cradle System
- Power Steering Pump with Bracket and Pulley
- Aluminum Reservoir (Hoses sold separately)
- Swivel Floor Mount for easy column installation
- New 6" Hi-Rev Pulley for higher RPM applications!



PART No.	DESCRIPTION
TILT FLOOR SHIFT	
FR308KT	57 MANUAL CRADLE SYSTEM
FR308KTPW	57 POWER CRADLE SYSTEM
TILT COLUMN SHIFT	
FR310KT	57 MANUAL CRADLE SYSTEM
FR311KTPW	57 POWER CRADLE SYSTEM
No COLUMN - (DOES NOT INCLUDE U-JOINTS)	
FR306NM	55-57 MANUAL CRADLE SYSTEM
FR307NP	55-57 POWER CRADLE SYSTEM



Power Steering Hose Kit **FR1610**  
Sold Separately



# '67-'69 CAMARO POWER CRADLE SYSTEM



Flaming River has designed a direct bolt-in steering system that utilizes a power rack and pinion engineered for your Classic Camaro! Like the manual kit, the power rack and pinion provides a quick steering ratio with full turning radius! The power rack and pinion installs easily (within hours) using the existing chassis hole locations. Available with or without steering column.

- Designed for Big Block and Small Block Chevy applications with stock style oil pans
- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension modification
- Fluid and Pressure Tested and Certified



### Power Rack and Pinion Kit Includes:

- Paintable or Polished Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack & Pinion Cradle System
- Power Steering Pump with Bracket and Pulley
- Aluminum Reservoir (Hoses sold separately)
- Swivel Floor Mount for easy column installation

PART NO.	DESCRIPTION
<b>BIG BLOCK</b>	
FR303PWB	67-68 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR304PWB	69 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
<b>SMALL BLOCK</b>	
FR303PW	67-68 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR304PWK	69 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
<b>No COLUMN KITS</b>	
FR304RCPW	67-69 POWER CRADLE - THIS KIT DOES NOT INCLUDE P/S PUMP, U-JOINTS OR ACCESSORIES.
FR304NCPW	67-69 POWER CRADLE - THIS KIT INCLUDES P/S PUMP, U-JOINTS AND ACCESSORIES.

New 6" Hi-Rev Pulley for Smoother Higher RPM Operation!





# '67-'69 CAMARO MANUAL CRADLE SYSTEM



Flaming River has designed a direct bolt-in steering system that utilizes a manual rack and pinion engineered for your Classic Camaro! The rack and pinion has a travel and ratio with full turning radius that feels almost like power steering! The best part of this system is that it installs easily (within hours) using the existing chassis hole locations. Complete kit with everything needed except the steering wheel. Patented cradle technology and the most complete kit on the market.

- Maintains original suspension
- No Welding - Bolts into existing chassis holes
- Manual steering that feels like power
- Installation hardware and U-Joints/shaft kit included
- Tilt Column Kits include mounting clamp and female wiring adapter
- Designed for small block Chevy applications

### Manual Rack and Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack and Pinion Cradle System
- Billet Swivel Floor Mount

PART NO.	DESCRIPTION
<b>BIG BLOCK</b>	
FR303KTB	67-68 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMN
FR304KTB	69 MANUAL CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
<b>SMALL BLOCK</b>	
FR303PW	67-68 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR304PWK	69 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
<b>No COLUMN KITS</b>	
FR303RC	67-69 MANUAL CRADLE - THIS KIT DOES NOT INCLUDE P/S PUMP, U-JOINTS OR ACCESSORIES.
FR303NC	67-69 MANUAL CRADLE - THIS KIT INCLUDES P/S PUMP, U-JOINTS AND ACCESSORIES.



# '70-'81 CAMARO POWER/MANUAL CRADLE SYSTEM



This new bolt-in rack and pinion cradle is available for both power and manual steering systems. This unique new style of steering system utilizes the original inner and outer tie rod ends. This makes for simple installation and maintains the original pivot position. No cutting, welding or drilling to the chassis—it bolts into the existing steering box holes. Easily converts this steering box application to rack and pinion steering without any modification.

- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified

#### Power Rack and Pinion Kit Includes:

- Tilt Key Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount

PART No.	DESCRIPTION
FR316KTPW	70-81 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
FR316KTMN	70-81 MANUAL STANDARD RATIO (20:1) CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
FR316KTQR	70-81 MANUAL QUICK RATIO (15:1) CRADLE KIT WITH PAINTABLE TILT KEY COLUMN

New 6" Hi-Rev Pulley for Smoother Higher RPM Operation!



Quality Steering Systems

# '63-'82 CORVETTE POWER/MANUAL CRADLE SYSTEM

RACK AND PINION CRADLE SYSTEMS: '63-'82 CORVETTE POWER/MANUAL



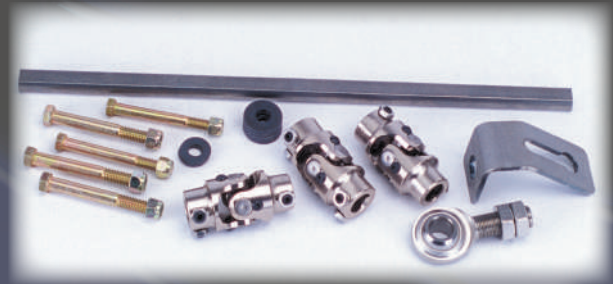
A new Power Rack and Pinion Cradle System is now available for improved horsepower, performance and road handling. Kit includes hardware, universal joints, cradle and quick ratio rack and pinion.

- All New Components
- Bolts into existing chassis and original mounting locations with no suspension modification
- More Than 6" of Travel for Full Turning Radius!
- Stronger Rack Shaft
- Longer Cylinder and Overlapping Tube Design
- Lifetime Serviceability

### Power Rack and Pinion Kit Includes:

- Universal Joints
- Patented Rack and Pinion Cradle System
- Universal Joints and Shafting
- Mounting Hardware
- Stainless Braided Hose Kit
- Support Bearing Kit

**POWER STEERING PUMP KIT TO CONVERT YOUR MANUAL STEERING TO POWER W/ NEW 6" HI-REV PULLEY!**

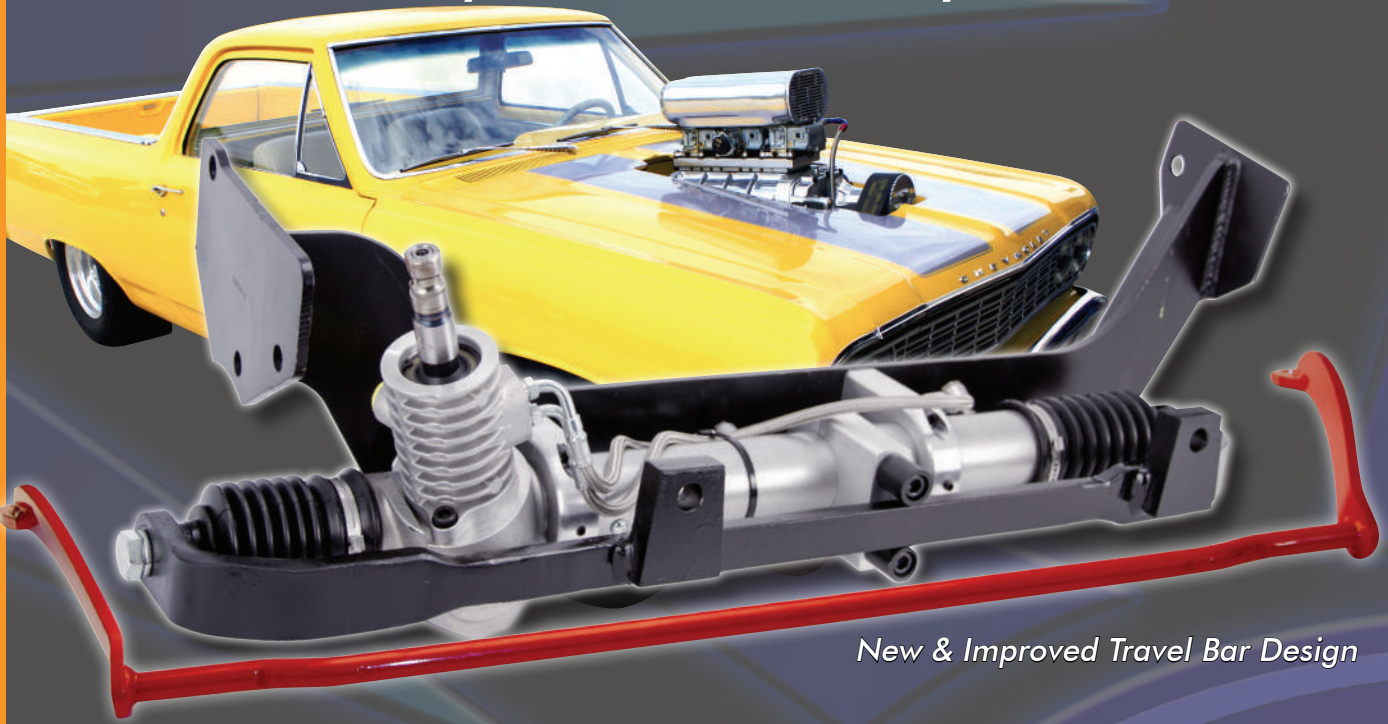


PART NO.	DESCRIPTION
FR312KT	MANUAL RACK & PINION CRADLE KIT
FR312PW	67-82 POWER RACK & PINION CRADLE KIT - FOR USE WITH STOCK POWER STEERING PUMP
FR312PW-1	63-66 POWER RACK & PINION CRADLE KIT - FOR USE WITH STOCK POWER STEERING PUMP
FR312PW1	POWER RACK & PINION CRADLE KIT - FOR USE WITH FLAMING RIVER POWER STEERING PUMP KIT
FR312PK	POWER STEERING PUMP KIT - SMALL BLOCK
FR312PK2	POWER STEERING PUMP KIT - BIG BLOCK



Note: This kit works with the factory steering column and power steering pump-column and pump not included.

# '64-'67 CHEVELLE/EL CAMINO POWER/MANUAL SYSTEM



*New & Improved Travel Bar Design*

The Rack & Pinion Cradle System for the 1964-65 Chevelle uses a travel bar design to properly position the steering pivot points to the original location and deliver original turning radius. The travel bar system features a stabilizer clamp that provides added stability while driving. This kit uses the factory tie rods to connect the travel bar to the vehicle's spindles. It installs in the original mounting holes for the steering box and idler arm assembly, and does not require any cutting, drilling, or welding, and installs easily using basic hand tools.

PART No.	DESCRIPTION
FR330KT	64-65 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR330KTM	64-65 MANUAL STANDARD RATIO (20:1) CRADLE KIT WITH PAINTABLE TILT COLUMN
FR366KT	66-67 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR366KTM	66-67 MANUAL STANDARD RATIO (20:1) CRADLE KIT WITH PAINTABLE TILT COLUMN

**Power Rack and Pinion Kit Includes:**

- Tilt Key Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount
- New 6" Hi-Rev Puller for smoother operation at higher RPM!



Power Steering Hose Kit **FR1610** Sold Separately



# '68-'72 CHEVELLE/EL CAMINO POWER/MANUAL SYSTEM

RACK AND PINION CRADLE SYSTEMS: 68-72 CHEVELLE/EL CAMINO POWER/MANUAL



Flaming River has introduced a Rack & Pinion Cradle System for the 1968 to 1972 Chevrolet Chevelle and El Camino, plus other sister GM Intermediate cars of the same period – Pontiac GTO/LeMans, Oldsmobile 4-4-2/Cutlass and Buick GS/Skylark, plus the GMC Conquistador.

The system is designed for cars powered by small or big block Chevrolet engines, and uses a unique Travel Bar system that connects new tubular inner tie-rod ends to the original pivot points, reducing bump steer.

The Chevelle Rack and Pinion Cradles are precision jig-welded and install in the stock steering system mounting holes. No drilling, cutting or welding is required.

- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified

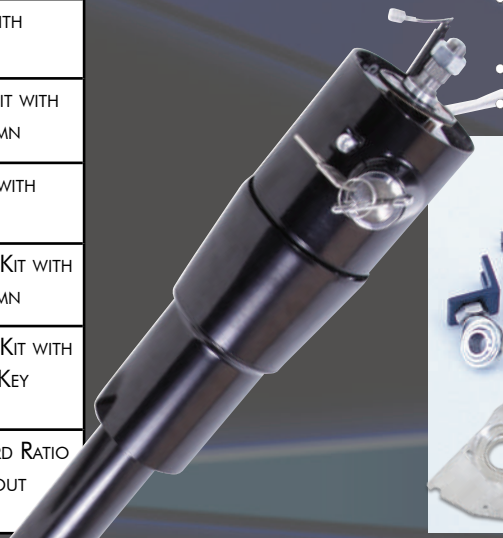


Ultra-Angle Exhaust Headers  
FR50001C

Power Rack and Pinion Kit Includes:

- Tilt Key Column
- Mounting Hardware & Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount

PART NO.	DESCRIPTION
FR313KT	68 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR313KTK	69-72 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
FR315KT	68 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMN
FR315KTK	69-72 MANUAL CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
FR315KTKBK	69-72 MANUAL CRADLE KIT WITH BLACK POWDERCOAT TILT KEY COLUMN
FR315KTNC	68-72 MANUAL STANDARD RATIO (20:1) CRADLE KIT WITHOUT COLUMN.



# '58-'60 IMPALA POWER/MANUAL CRADLE SYSTEM

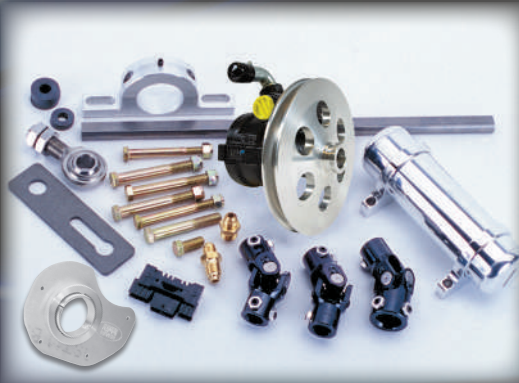


The new Flaming River 1958-60 Impala Power Rack and Pinion Cradle Kit has over 6" of travel, provides full lock-to-lock turning radius, and has an adjustable pinion angle. This kit uses a travel bar design to properly position the steering pivot points to the original location and deliver the original turning radius. The travel bar system features a stabilizer guide clamp that provides added stability while driving. Our Rack and Pinion system uses the factory tie rods to connect the travel bar to the vehicle's spindles. This kit installs in the original mounting holes for the steering box and idler arm assembly, and does not require any cutting, drilling, or welding, and installs using basic hand tools. This is a completely new unit, and is Made in the USA.

### Power Rack and Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount

PART NO.	DESCRIPTION
FR331KT	58-60 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR332KT	58-60 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR334KT	58-60 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR335KT	58-60 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR337KT	58-60 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR338KT	58-60 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK
FR340KT	58-60 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR341KT	58-60 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK



# '61-'64 IMPALA POWER/MANUAL CRADLE SYSTEM



The new Flaming River 1960-64 Impala Power Rack and Pinion Cradle Kit has over 6" of travel, provides full lock-to-lock turning radius, and has an adjustable pinion angle. This kit uses a travel bar design to properly position the steering pivot points to the original location and deliver the original turning radius. The travel bar system features a stabilizer guide clamp that provides added stability while driving.

Our Rack and Pinion system uses the factory tie rods to connect the travel bar to the vehicle's spindles. This kit installs in the original mounting holes for the steering box and idler arm assembly, and does not require any cutting, drilling, or welding, and installs using basic hand tools. This is a completely new unit, and is Made in the USA.

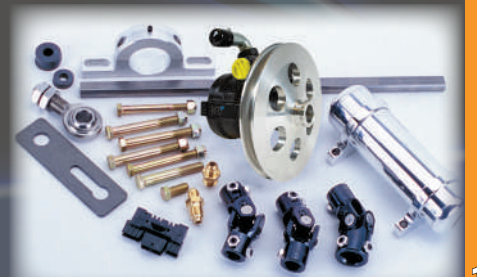


PART NO.	DESCRIPTION
FR343KT	61-62 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR344KT	61-62 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR346KT	61-62 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR347KT	61-62 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR349KT	61-62 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR350KT	61-62 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK
FR352KT	61-62 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR353KT	61-62 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK

#### Power Rack and Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount

PART NO.	DESCRIPTION
FR355KT	63-64 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR356KT	63-64 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR358KT	63-64 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - SMALL BLOCK
FR359KT	63-64 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - SMALL BLOCK
FR361KT	63-64 POWER CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR362KT	63-64 POWER CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK
FR364KT	63-64 MANUAL CRADLE KIT WITH PAINTABLE TILT FLOORSHIFT COLUMN - BIG BLOCK
FR365KT	63-64 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMNSHIFT COLUMN - BIG BLOCK



# '65-'66 IMPALA/CAPRICE POWER CRADLE SYSTEM



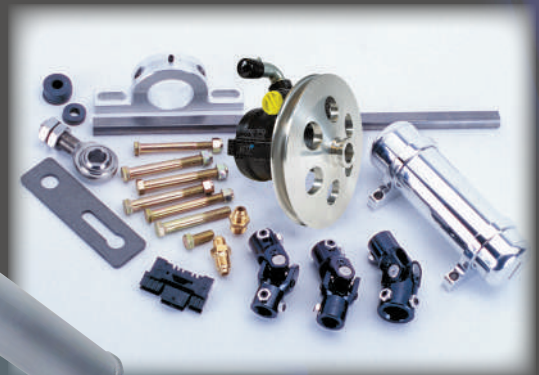
The new Flaming River 1965-66 Impala/Caprice Power Rack and Pinion Cradle Kit has over 6" of travel, provides full lock-to-lock turning radius, and has an adjustable pinion angle. This kit uses a travel bar design to properly position the steering pivot points to the original location and deliver the original turning radius. The travel bar system features a stabilizer guide clamp that provides added stability while driving. Our Rack and Pinion system uses the factory tie rods to connect the travel bar to the vehicle's spindles. This kit installs in the original mounting holes for the steering box and idler arm assembly, and does not require any cutting, drilling, or welding, and installs using basic hand tools. This is a completely new unit, and is Made in the USA. No core charge required.



Power Steering Hose Kit **FR1610**  
Sold Separately

### Power Rack and Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley



PART No.	DESCRIPTION
FLOOR SHIFT TILT COLUMN	
FR369	65-66 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
NO COLUMN KITS	
FR369NC	65-66 POWER CRADLE - THIS KIT INCLUDES P/S PUMP, U-JOINTS AND ACCESSORIES.



Quality Steering Systems



# '67-'72 CHEVY C-10 POWER CRADLE SYSTEM

RACK AND PINION CRADLE SYSTEMS: '67-'72 CHEVY C-10 POWER



Flaming River offers a power rack and pinion cradle system for your Chevy C-10 pickup trucks. This system features a one piece formed cradle design with built in skid protection and is constructed from solid plate steel at 3/8" thick for increased strength. We feature a new front steer power tubular style rack and pinion with 0.98" rack shaft for increased strength and cast servo valve for cooler operation. Complete assembly comes with a tilt column with GM ignition key for easier installation. Lifetime serviceability and Flaming River tested and certified.

### Power Rack & Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints and shafting
- Rack and Pinion Cradle System
- Power Steering Pump and Pulley
- Aluminum Mounting Reservoir (Hoses sold separately)
- Billet Swivel Floor Mount



PART No.	DESCRIPTION
FR319KT	POWER CRADLE SYSTEM w/MILL FINISH COLUMNSHIFT TILT COLUMN
FR319KTPL	POWER CRADLE SYSTEM w/POLISHED COLUMNSHIFT TILT COLUMN
FR319KTFS	POWER CRADLE SYSTEM w/MILL FINISH FLOORSHIFT TILT COLUMN
FR319KTfPL	POWER CRADLE SYSTEM w/POLISHED FLOORSHIFT TILT COLUMN
FR319KTNC	POWER CRADLE SYSTEM w/NO COLUMN

# '73-'87 CHEVY C-10 POWER CRADLE SYSTEM



Flaming River offers a power rack and pinion cradle system for your Chevy C-10 pickup trucks. This system features a one piece formed cradle design with built in skid protection and is constructed from solid plate steel at 3/8" thick for increased strength. We feature a new front steer power tubular style rack and pinion with 0.98" rack shaft for increased strength and cast servo valve for cooler operation. Complete assembly comes with a tilt column with GM ignition key for easier installation. Lifetime serviceability and Flaming River tested and certified.

PART No.	DESCRIPTION
FR318KT	POWER CRADLE KIT WITH PAINTABLE TILT KEY FLOOR SHIFT COLUMN
FR318KTPL	POWER CRADLE KIT WITH POLISHED TILT KEY FLOOR SHIFT COLUMN

### Power Rack & Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints and shafting
- Rack and Pinion Cradle System
- Power Steering Pump and Pulley
- Aluminum Mounting Reservoir (Hoses sold separately)



**WARNING!**

This product can expose you to chemicals including hexavalent chromium, which is known to the State of California to cause cancer.

# '82-'92 CHEVY S10 MANUAL CRADLE SYSTEM



With the popularity of S10 (82-92) donor chassis, Flaming River has designed a cradle kit to replace the steering box quickly and easily with a manual rack and pinion. This kit includes only the unique rack, cradle and travel bar. Column, u-joints and V-Dog would need to be purchased separately for your particularly build.

Would you prefer power steering in your build? Just add part number electric power steering FR40200 Microsteer designed to mount at the firewall and provide a boost of power!

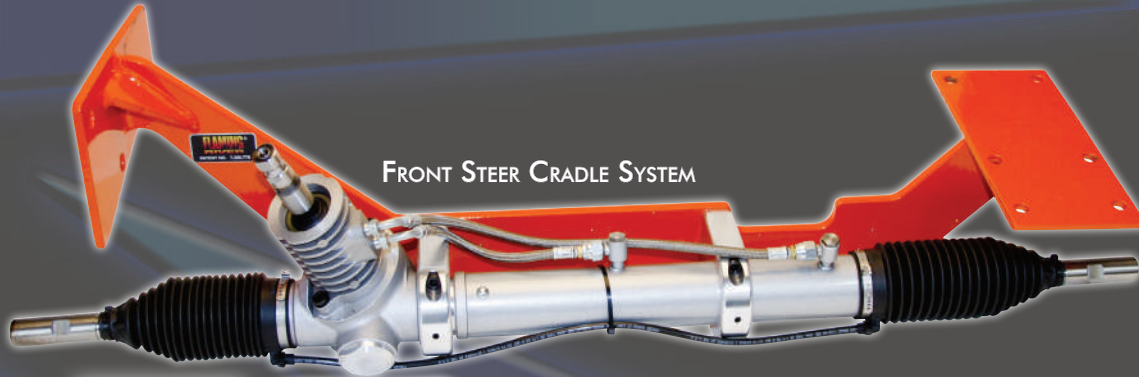
PART NO.	DESCRIPTION
FR320MNKTNC	MANUAL RACK AND PINION CRADLE KIT FOR 82-92 S10. DESIGNED FOR USE WITH MICROSTEER, COLUMN NOT INCLUDED



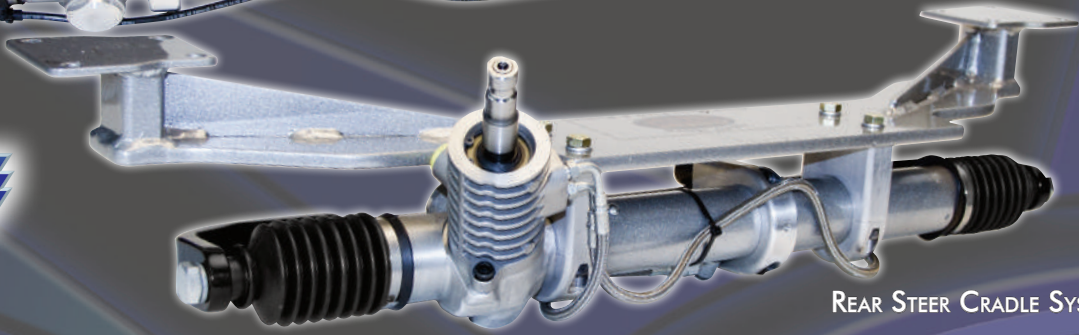
Add the VDOG® and a Microsteer Electric Power Assist Steering setup for a complete swap!



# '62-'67 NOVA/CHEV II POWER/MANUAL SYSTEM



FRONT STEER CRADLE SYSTEM



REAR STEER CRADLE SYSTEM

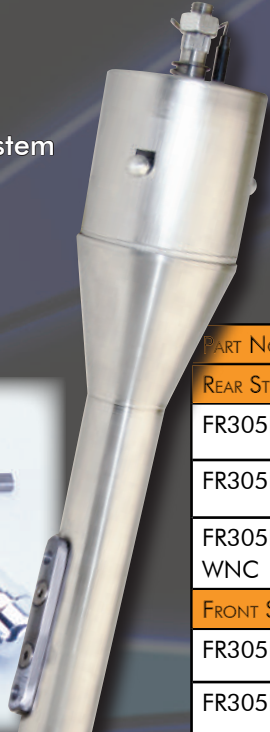
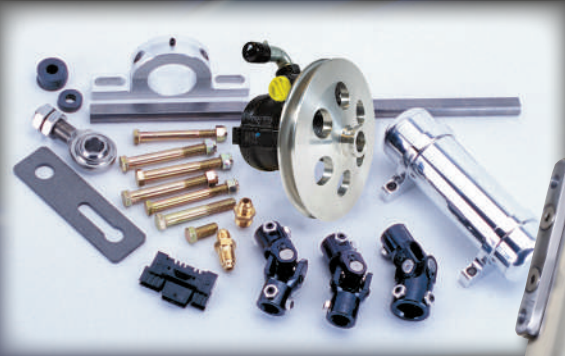
Front Steer Rack and Pinion improved clearance allows the use of virtually any oil pan. The front steer design is achieved by reversing the OE spindle arms. This moves the rack forward and out of the way of the oil pan as well as accommodating both Big Block and Small Block Engines. The Quick Ratio Power Rack and Pinion Cradle Systems replace the early long shaft steering box in the 62-67 Nova. The true fixture welded mounting cradle fits between the frame rails and bolts in place using the original chassis location. The system installs easily using simple hand tools, and provides Full Turning Radius with a much more responsive steering system than the original.

- All NEW Power Rack and Pinion with adjustable billet mounts
- Full Turning Radius with more than 6 inches of travel
- Bolts into existing chassis with no suspension modification
- Tilt Column and mounting hardware included
- Pressure and Fluid Tested and Certified

**Power Rack and Pinion Kit Includes:**

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump with new 6" Hi-Rev Pulley

The Quick Ratio Manual and Power Rack and Pinion Cradle Systems replace the early long shaft steering box in the 62-67 Nova. The true fixture welded mounting cradle fits between the frame rails and bolts in place using the original chassis location. The system installs easily using simple hand tools, and provides Full Turning Radius with a much more responsive steering system than the original



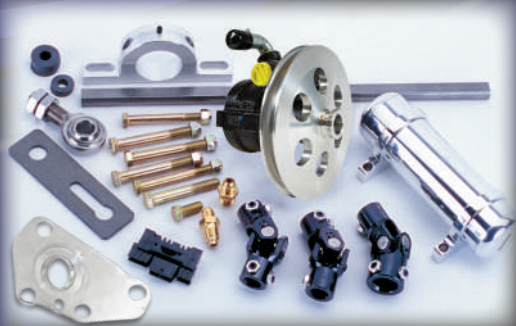
PART No.	DESCRIPTION
REAR STEER	
FR305KT	62-66 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMN
FR305KTPW	62-66 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR305P-WNC	62-67 POWER CRADLE KIT - NO COLUMN
FRONT STEER	
FR305FS	62-66 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR305FSM	62-66 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMN

# '68-'74 NOVA POWER/MANUAL CRADLE SYSTEM



Flaming River has designed a direct bolt-in steering system that utilizes a power rack and pinion engineered for your Nova! The power rack and pinion provides a quick steering ratio with full turning radius, installs easily (within hours) using the existing chassis hole locations and is available with or without steering column.

- Designed for Big Block and Small Block Chevy applications with stock style oil pans.
- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified



Power Rack and Pinion Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley
- Billet Swivel Floor Mount

PART NO.	DESCRIPTION
<b>FLOOR SHIFT TILT COLUMN</b>	
FR367PW	68 POWER CRADLE KIT WITH PAINTABLE TILT COLUMN
FR367MN	68 MANUAL CRADLE KIT WITH PAINTABLE TILT COLUMN
FR368PW	69-74 POWER CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
FR368MN	69-74 MANUAL CRADLE KIT WITH PAINTABLE TILT KEY COLUMN
<b>No COLUMN KITS</b>	
FR367NC	68-69 POWER CRADLE - THIS KIT INCLUDES P/S PUMP, U-JOINTS AND ACCESSORIES.



Power Steering Hose Kit FR1610 Sold Separately



# NEW! Bump Steer Kits



- CORRECT BUMP STEER ISSUES
- RE-ALIGN YOUR RACK FOR YOUR CURRENT RIDE HEIGHT
- IMPROVE YOUR VEHICLE'S HANDLING



65-70 Mustang  
FR1619MU

Has the height of your suspension been altered from the original specs? Flaming River now has a solution to improve your handling issue. Our new bump steer kit has been designed to assist you in re-aligning your steering geometry. Simply replace your current outer tie rod ends with the new tie rod ends, using the provided spacers to adjust the angle as needed. These adjustable outer tie rod end replacements feature 6061 T-6 aluminum, fully machined sleeve with a black anodized finish, a Teflon lined 5/8" heim joint and 4140 steel pin. The pin is machined with the correct taper for the spindle. Teflon-lined heim reduces noise and does not require lubrication.

Viewed from the front of the car, the tie rods should be parallel to the A-arms. Figure A shows the tie rod too high. Need to add more spacers between the spindle and tie rod end. Figure B is an example of the correct spacing. Figure C shows the tie rod too low. Need to add fewer spacers between the spindle and tie rod end.

Mustang kit designed for the Granada spindle.

BUMP STEER KITS		
PART No.	APPLICATION	SPINDLES
FR1619MU	65-70 MUSTANG	GRANADA



# '65-'70 MUSTANG ROAD RACE POWER CRADLE



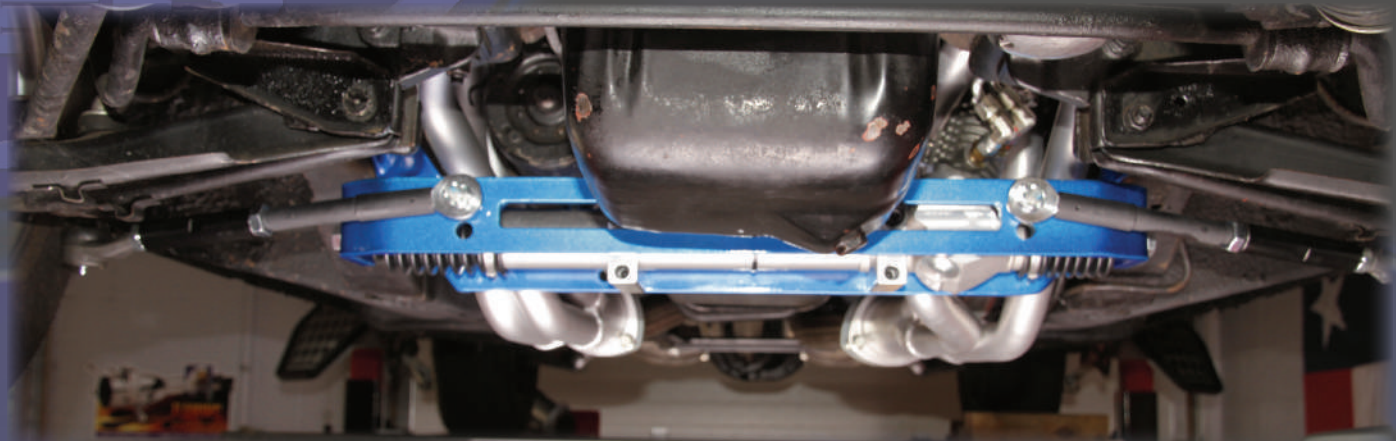
Quality Steering Systems



Road Race 1965-70 Mustang Bolt-in Power Rack and Pinion Cradle Kit with Travel Bar  
 New road race kit is adjustable to accommodate lowered cars, as well as various front end and steering geometry configurations for road racing. American made.

Features and Benefits:

- One-piece travel bar has two mounting holes on each side to easily adjust the pivot points to accommodate lowered vehicles and reduce bump steer
- All-new power rack and pinion offers a full 6" of travel
- Made in USA



## Laser-Cut Collapsible Straight Motorsports Column **FR3307**

PART No.	DESCRIPTION
FR330PWKT	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN
FR330PWKTPL	POWER KIT - FLOOR SHIFT POLISHED TILT COLUMN
FR330PWNC	POWER KIT - No COLUMN



This basic, straight-tube design is for competition use. Mill finish 304 Grade Stainless tube with 1.75" Dia. Features 3/4"-36 output shaft. Upper shaft end is 3/4" smooth to accept a quick-release steering wheel hub. Diamond laser-cut collapsible column is also available for added safety.

# '65-'70 MUSTANG POWER CRADLE SYSTEM



An all-new power steering conversion system is now available for the classic Mustang—adding modern driving comfort and performance. Our patented cradle design mounts in the original chassis location—no suspension modification required and the center support does not have to be removed. All kits available with or without Tilt Column. Fits 289 – 302 cubic inch engines. Flaming River Exhaust Headers recommended. 351 Windsor and 351 Cleveland engines will require custom headers.

**Rack and Pinion Kit Includes:**

- All new Billet-Power™ Rack and Pinion
- Patented Rack and Pinion Cradle System
- All Mounting Hardware required for installation
- Wiring Connector
- Universal Joints and Shafts
- Power Steering Pump w/ new 6" Hi-Rev Pulley for smoother high RPM operation
- Aluminum Mounting Reservoir



PART NO.	DESCRIPTION
FR300PW1	POWER KIT, FORD SPLINE - FLOOR SHIFT PAINTABLE TILT COLUMN
FR300PW1PL	POWER KIT, FORD SPLINE - FLOOR SHIFT POLISHED TILT COLUMN
FR300PW2	POWER KIT, GRANADA SPLINE - FLOOR SHIFT PAINTABLE TILT COLUMN
FR300PW2PL	POWER KIT, GRANADA SPLINE - FLOOR SHIFT POLISHED TILT COLUMN
FR300NP1	POWER KIT - NO COLUMN

Riser Kit will allow for ride height adjustment.



65-70 Mustang Ultra-Angle Exhaust Headers Recommended for Installation **FR50003C**



Tilt Column included with Cradle Kits

PART NO.	DESCRIPTION
FR20060MU	CRADLE RACK & PINION RISER KIT



# '65-'70 MUSTANG MANUAL CRADLE SYSTEM



Flaming River has designed a direct bolt-in manual rack and pinion steering system for your Classic Mustang! The custom designed quick ratio rack and pinion offers full turning radius and travel with 3-1/2 turns lock to lock. The patented cradle technology mounts in the original chassis hole locations with no modification required. Kits are designed to work with Small Block Ford engines. 351 Windsor and 351 Cleveland engines will require custom headers.

- Full turning radius
- Quick Ratio Rack & Pinion with 3-1/2 turns lock to lock
- No chassis or suspension modifications required
- Kits can be purchased with or without Tilt Steering Column
- Lifetime Serviceability

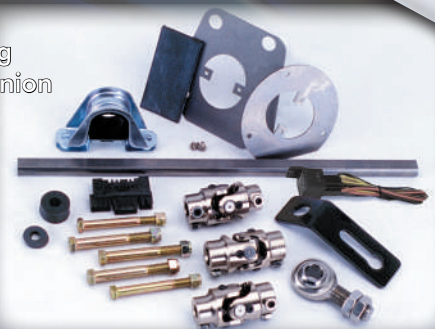
See pg. 30 for Electric Power Assisted Steering Kits with Manual Cradle



PART No.	DESCRIPTION
FR300-65HR	ORIGINAL SPINDLE - PAINTABLE TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR300-65MUHR	ORIGINAL SPINDLE - PAINTABLE TILT COLUMN FOR FORD MUSTANG STEERING WHEEL
FR300KTHR	GRANADA SPINDLE - PAINTABLE TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR300KTHRPL	GRANADA SPINDLE - POLISHED TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR300KTMUHR	GRANADA SPINDLE - PAINTABLE TILT COLUMN FOR FORD MUSTANG STEERING WHEEL
FR300KTMUHRPL	GRANADA SPINDLE - POLISHED TILT COLUMN FOR FORD MUSTANG STEERING WHEEL
FR300-65HRNC	ORIGINAL SPINDLE - NO COLUMN
FR300KTHRNC	GRANADA SPINDLE - NO COLUMN

Rack and Pinion Cradle Kit Includes:

- Tilt Column
- Grade 8 Mounting Hardware
- Wiring Connector
- Universal Joints
- Shaft Support Bearing
- Patented Rack and Pinion Cradle System



# '49-'51 FORD POWER CRADLE SYSTEM

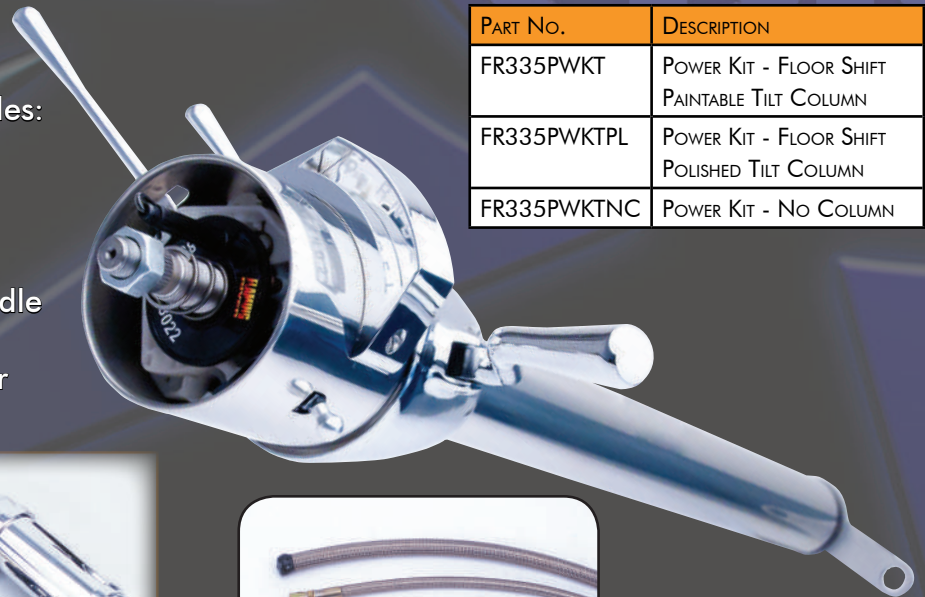


Add an all NEW Power Rack and Pinion with Lifetime Serviceability to your 49-51 Ford Street Rod! Flaming River's stronger rack gear is 1" in diameter and offers more than 6" of travel and a full turning radius. The cradle is designed to bolt into the existing chassis with no necessary suspension modification. All rack and pinions from Flaming River are fluid tested, pressure tested and Flaming River Certified.

### Rack and Pinion Cradle Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)

PART NO.	DESCRIPTION
FR335PWKT	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN
FR335PWKTPL	POWER KIT - FLOOR SHIFT POLISHED TILT COLUMN
FR335PWKTNC	POWER KIT - No COLUMN



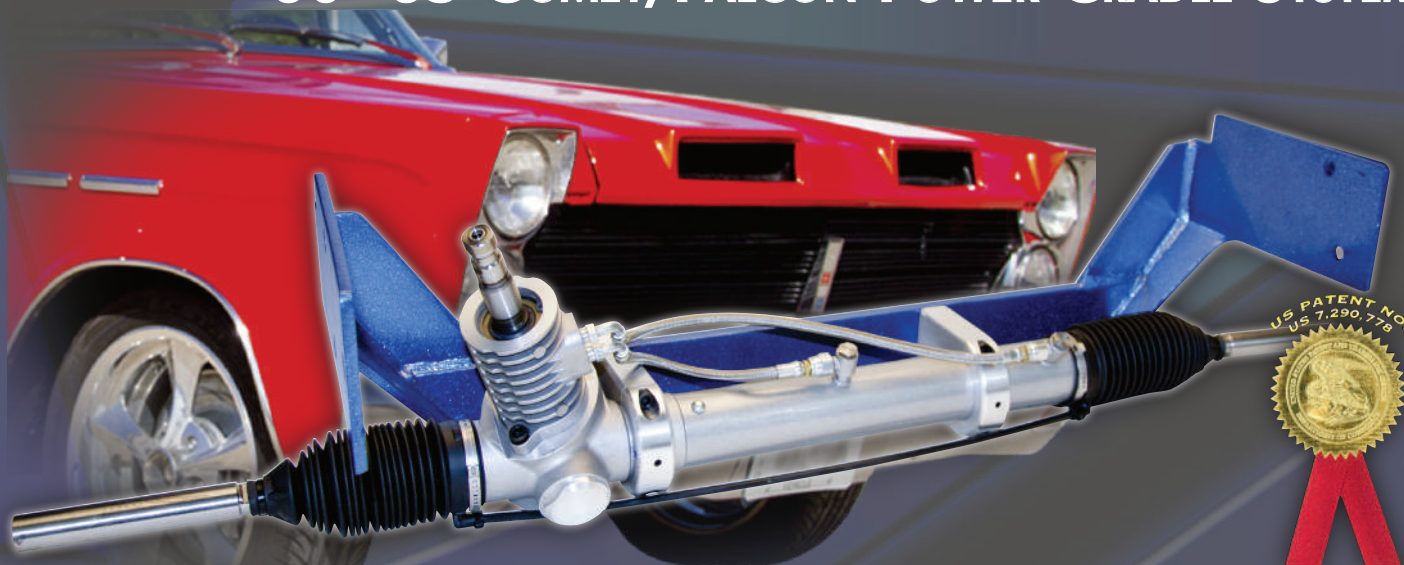
FR1610 Hose Kit Sold Separately



Quality Steering Systems

# '60-'65 COMET/FALCON POWER CRADLE SYSTEM

RACK AND PINION CRADLE SYSTEMS: 60-65 COMET/FALCON POWER



A complete Power Rack and Pinion Conversion System is now available for the 1960-65 Ford Comet/Falcon for improved steering and handling performance. No cutting, drilling, or welding is required for installation—the kit simply bolts into the vehicle's original mounting holes using basic hand tools. This power rack kit is available with a Floor Shift Tilt Steering Column, Column Shift Tilt Steering Column, or no column at all. A brand new Billet-Power™ Rack and Pinion is included and provides more than 6" of travel and full turning radius: Lock-to-Lock, Stop-to-Stop. Every Flaming River Power Rack and Pinion is Made in the USA, is fluid and pressure tested before it leaves our facility and comes with lifetime serviceability.

### Rack and Pinion Kit Includes:

- All new Billet-Power™ Rack and Pinion
- Patented Rack and Pinion Cradle System
- All Mounting Hardware required for installation
- Wiring Connector
- Universal Joints and Shafts
- Power Steering Pump and Pulley
- Aluminum Mounting Reservoir



PART NO.	DESCRIPTION
FR301PWNC	POWER KIT - NO COLUMN
FR301PWFS	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN
FR301PWCS	POWER KIT - COLUMN SHIFT PAINTABLE TILT COLUMN



FR1610 Hose Kit Sold Separately

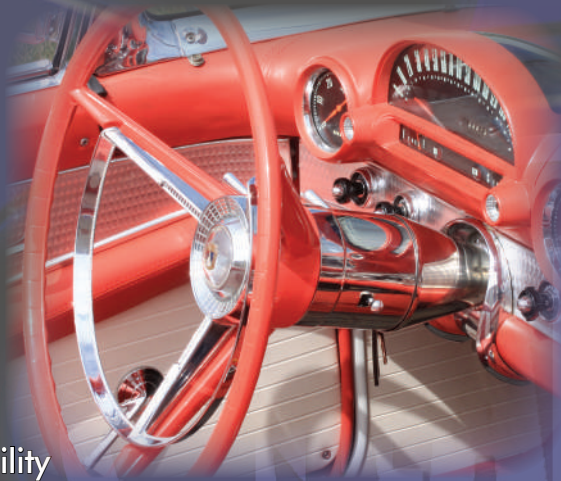


Column manufactured with a GM-Style 11/16"-36 top shaft. Use with aftermarket Steering Wheel



FR21018 Comet/Falcon Floor Shift Paintable Tilt Column

# '55-'57 THUNDERBIRD POWER CRADLE SYSTEM



The Classic T-Bird Rack & Pinion Cradle System uses Flaming River's unique Travel Bar which connects new tubular inner tie-rod ends at the original pivot points, reducing bump steer. Also, included are the power steering pump and the remote mount reservoir. Hoses not included.

- All NEW Power Rack and Pinion with Lifetime Serviceability
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified

PART No.	DESCRIPTION
FR314KT1	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR314KT1PL	POWER KIT - FLOOR SHIFT POLISHED TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR314KT2	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN FOR STOCK STEERING WHEEL
FR314KT2PL	POWER KIT - FLOOR SHIFT POLISHED TILT COLUMN FOR STOCK STEERING WHEEL



Rack and Pinion Cradle Kit Includes:

- Paintable or Polished Tilt Column
- Mounting Hardware and Wiring Connector
- Universal Joints
- Patented Rack & Pinion Cradle System
- Power Steering Pump with Bracket and new 6" Hi-Rev Pulley
- Aluminum Mounting Reservoir (Hoses sold separately)

# '62-'64 GALAXIE POWER CRADLE SYSTEM

RACK AND PINION CRADLE SYSTEMS: 62-64 GALAXIE POWER

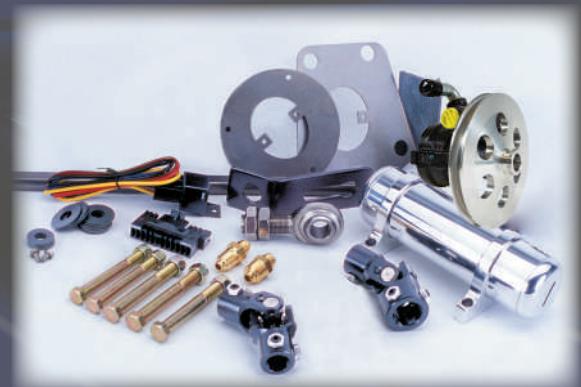


New Cradle Rack & Pinion system designed for Ford Galaxie and other full-size Fords provides power steering for modern driving comfort - especially when parking. The cradle mounts in the original chassis location with no chassis modification and the center support does not have to be removed. Note: Outer Tie Rod Ends should be 11/16"-18 Male thread

### Rack and Pinion Cradle Kit Includes:

- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)

- All NEW Power Rack and Pinion with Lifetime Serviceability
- Stronger Rack Gear -1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Includes adapter fitting for your existing pump
- Mustang II style tie-rod ends required for this application
- Fluid and Pressure Tested and Certified



Tilt Column included with Cradle Kits

PART No.	DESCRIPTION
FR317KT	POWER KIT - FLOOR SHIFT PAINTABLE TILT COLUMN FOR AFTERMARKET STEERING WHEEL
FR317KTPL	POWER KIT - FLOOR SHIFT POLISHED TILT COLUMN FOR AFTERMARKET STEERING WHEEL
NOTE: FOR MODULAR MOTORS ONLY. STANDARD COLUMN IS DESIGNED FOR AFTERMARKET STEERING WHEEL - FORD SPLINE ALSO AVAILABLE.	



Quality Steering Systems

# RIGHT HAND DRIVE POWER CRADLE SYSTEM

The new Right Hand Drive Rack and Pinion Systems were requested by the Australian marketplace and we delivered. These Power Rack kits provides easy conversion from steering box to an all new rack and pinion steering system. The kit features our new Billet-Power™ Rack and Pinion with more than 6 inches of travel for full turning radius.

- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified



US PATENT NO.  
US 7,290,778



PART NO.	DESCRIPTION
<b>CORVETTE</b>	
FR312PWRHC	63-82 RHD PWR VETTE CONVERSION - W/O COLUMN, PUMP
FR312RH	63-82 VETTE MANUAL KIT RHD
<b>55-57 CHEVY</b>	
FR322PWRH	57 CHEVY RHD US CONV KIT NO COL
FR322PWRHGS	57 CHEVY RHD US CONV KIT W/GS
FR323NPP	RHD TRI-5 PWR KIT W/O COL&PMP
FR325PWRHUS	55-56 CHEVY RHD US CONV PAINT FS
FR326PWRH	57 CHEVY RHD KIT W/ FS COL
FR326PWRHPL	57 CHEVY RHD KIT W/ FS COL POL
FR327PWRH	57 CHEVY RHD KIT W/ GS COL
FR327PWRHPL	57 CHEVY RHD KIT W/ GS COL POL
<b>MUSTANG</b>	
FR328PWRH	65-70 RHD MUST POWER KIT
FR328PWRHPL	65-70 RHD MUST POWER KIT POL
FR329RH	65-70 RHD MUST MANUAL KIT V8
FR329RHPL	65-70 RHD MUST MNL KIT V8 POL

# EXHAUST HEADERS

By relocating the primary tube, our Ultra-Angle headers are designed to ensure the clearest path for your steering universal joints. We've collaborated with a top-notch manufacturer to develop coated headers that work exclusively with our Rack and Pinion Cradle Kits, so that you get the steering clearance you need with the performance you desire. Available for the 1955-57 Chevy, 1962-67 Nova, 1968-1970 Camaro, and for 1965-70 long tube Mustangs.



FR50003C

FR50003C Shown Installed

PART NO.	COATING	APPLICATION
FR50001C	COATED	57 CHEVY, CHEVELLE, CAMARO
FR50003C	COATED	65-70 FORD MUSTANG, COMET 289-302 WITH FR POWER CRADLE KIT
FR50004C	COATED	62-67 NOVA WITH FR FRONT OR REAR STEER CRADLE KIT



FR50004C



FR50001C



# RACING



## SELF-POWERED TIMING LIGHT

Single Wire Timing Light - FR1001  
Timing Light with 20FT Lead- FR1020

- State-of-the-art single-wire design (operated on two D-Cell batteries)
- Excellent for use with magnetos and all spark ignition systems
- Bright xenon strobe clearly visible in daylight
- Accurate timing up to 14,000 RPM
- Can be used to test circuits



### FR1013 Combination Battery and Alternator Kill Switch

This combo kill switch designed to completely shut down the battery and charging system in an emergency situation. Ideal for racing, vehicle storage, marine and RV applications. Prevents battery drain, theft, and reduces the risk of electrical fire

- Push Off for emergency shut-down and color-coded to indicate operating position- ON or OFF, with a durable spring-loaded design
- Meets IHRA, NHRA and SCCA sanctioning body requirements
- Rated Capacity:
- Battery - 1200 Amp Surge
- 150 Amp Continuous
- Alternator - 120 Amp



### FR1003-2 The Big Switch with Lever Kit

The lever kit allows for remote actuation of the Big Switch. The kit includes an 18" long, aluminum threaded rod, T-handle, mounting bracket and necessary hardware. A "push off" decal is included. Accepted for NHRA/IHRA competition use.

#### FR1006 Lever Kit Only



### FR1010 Combination Battery and Magneto Kill Switch

Dual circuit switch simultaneously shuts down both the battery and magneto. Waterproof spring-loaded design with silver plated brass contacts. Rated at 250 Amps continuous service, 2500 Amps for 5 second surges. Accepted for NHRA/IHRA competition use. Furnished with an easy grip T-Handle and anodized aluminum mounting bracket.



### FR1050 Dual Battery Disconnect Switch

The Dual Battery Disconnect Switch allows for two batteries to operate independent of one another, or for both to be in the ON or OFF position at the same time.

- Rated at 300 Amps continuous service, and 1000 Amps for 5 second surges.
- 12 or 24 Volts
- IP 54 Rating
- 300 Amps Continuous
- 1000 Amps Surge for 5 Seconds
- Silver Plated Contacts



Coming Soon!  
500 Amp Switch  
with Lever Kit

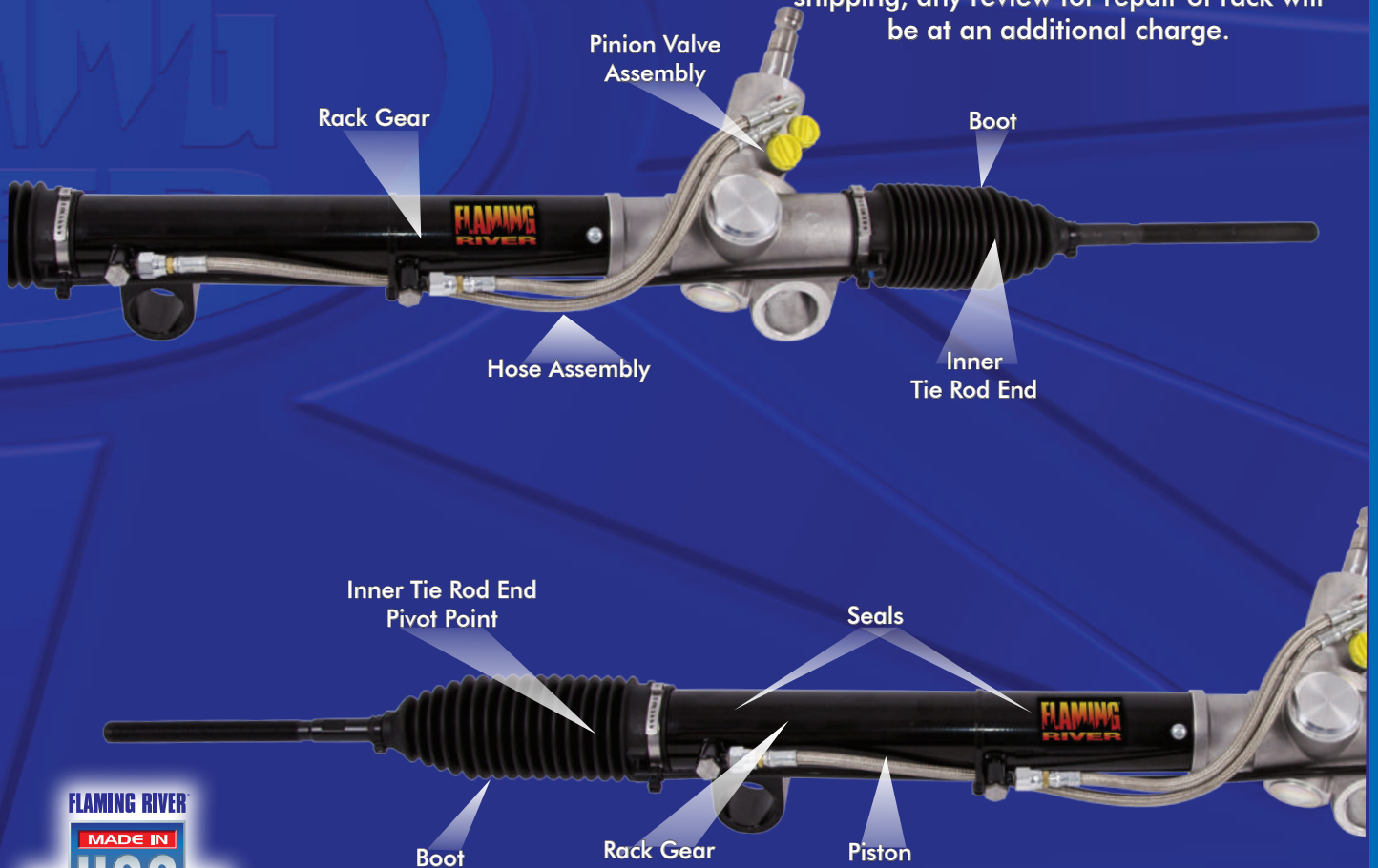


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Every rack and pinion built at Flaming River is pressure and fluid tested.

Please note: Contamination in the system will void any warranty on rack and pinions. Since every rack has been tested prior to shipping, any review for repair of rack will be at an additional charge.



# RACK AND PINIONS



FRONT STEER POWER RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR40001	74-78 MUSTANG II 16" MOUNTS	45"	FRONT STEER	24.25"	2.7
FR40002	79-93 MUSTANG 15 1/2" MOUNTS	45"	FRONT STEER	24.25"	2.7
FR40003	94-04 MUSTANG 15 1/2" MOUNTS	48.5"	FRONT STEER	24.25"	2.7



OMNI REAR STEER MANUAL RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR1507-2	45" OAL MANUAL REAR STEER RACK	45"	REAR STEER	17.5"	3.5
FR1507-3	41.7" OAL MANUAL REAR STEER RACK	42"	REAR STEER	13.77"	3.5



FRONT STEER MANUAL RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR1502	74-78 MUSTANG II 16" MOUNTS	45"	FRONT STEER	24.5"	3.92
FR1503	79-93 MUSTANG 15 1/2" MOUNTS - 20:1 RATIO	43.75"	FRONT STEER	24.5"	3.75
FR1520	79-93 MUSTANG 15 1/2" MOUNTS - 15:1 RATIO	43.5"	FRONT STEER	24.5"	3.4
FR1508	94-04 MUSTANG 15 1/2" MOUNTS - 20:1 RATIO	48.5"	FRONT STEER	24.5"	4.4
FR1508Q	94-04 MUSTANG 15 1/2" MOUNTS - 16:1 RATIO	47.5"	FRONT STEER	24.5"	3.4



PINTO FRONT STEER MANUAL RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR1501	PINTO MANUAL FRONT STEER RACK	45.5"	FRONT STEER	14.29"	3.9
FR1501-2	5" SHORTENED PINTO MANUAL FRONT STEER RACK	40.5"	FRONT STEER	18.75"	3.8



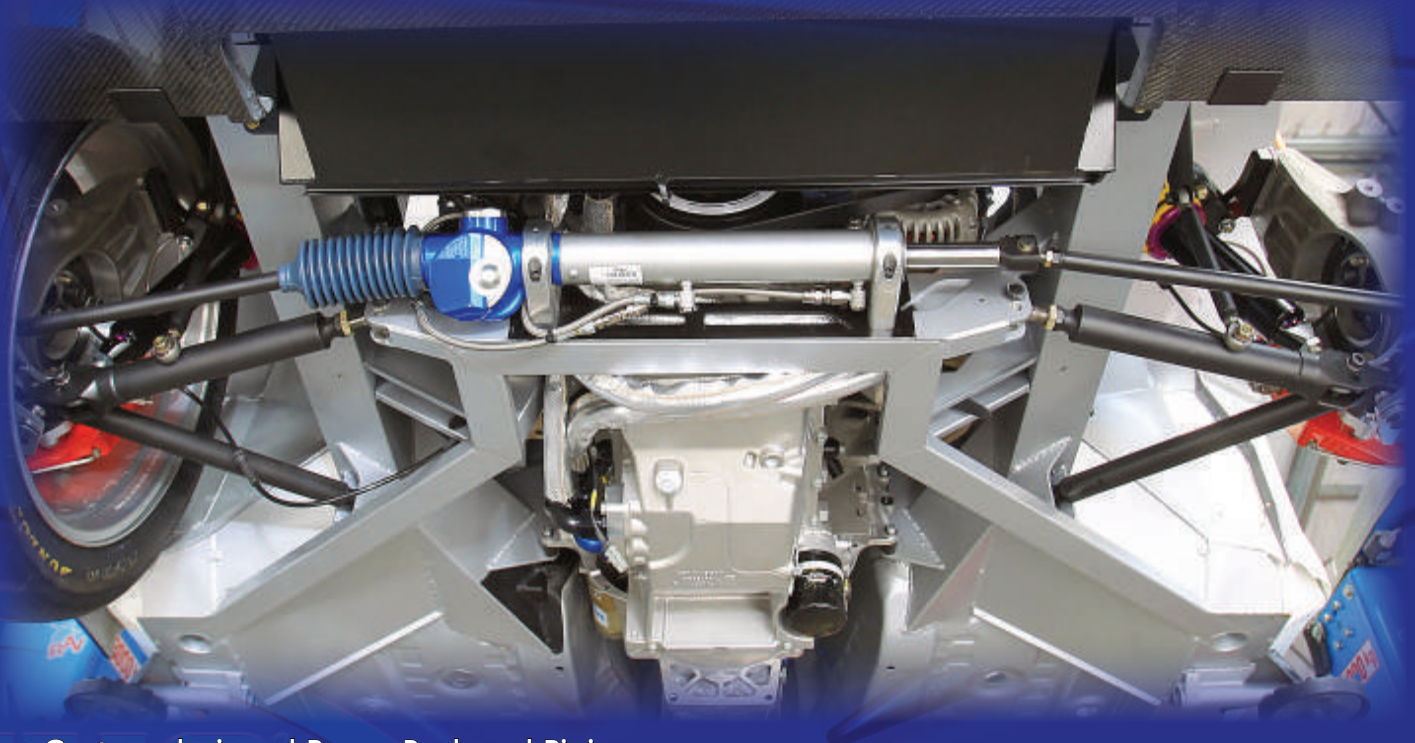
COBRA/MGB MANUAL RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR1512	MANUAL RACK & PINION, 3 TURNS LOCK TO LOCK	41"	COBRA/MGB	24"	3.0



CUSTOM FRONT STEER MANUAL RACK & PINION					
PART No.	DESCRIPTION	OVERALL LENGTH	DESIGN	PIVOT POINT	TURNS LOCK TO LOCK
FR1502-2x2	2" SHORTER 74-78 MUSTANG II 14" MOUNTS	43"	FRONT STEER	22.5"	3.92
FR1502-3x3	3" SHORTER 74-78 MUSTANG II 13" MOUNTS	41.75"	FRONT STEER	21.5"	4.8
FR1502-4x4	4" SHORTER 74-78 MUSTANG II 12" MOUNTS	41"	FRONT STEER	20.5"	4.8
FR1503-3x3	3" SHORTER 79-93 MUSTANG 12.5" MOUNTS	42"	FRONT STEER	21.5"	3.98

# ROAD RACE RACK AND PINION

RACK AND PINION: ROAD RACE RACK & PINION



Custom-designed Power Rack and Pinion designed for Road Racing.

Features:

- Quick Ratio Design – Rack gain of 2.27" per one revolution of the pinion
- Adjustable positive-lock rack gear will not back away from pinion
- Travel can be customized at the factory for specific applications
- Fluid and pressure tested and certified
- Braided stainless pressure lines for low-profile design and added clearance
- Made in the USA

Benefits:

- 1 inch dia. rack gear made of hardened and precision-ground 1040 steel for longevity and strength
- Maintains positive mesh between rack gear and pinion gear, which is ideal for racing applications
- All new components—including valve, piston, seals, bearings, bushings and rack gears
- Lifetime serviceability

**FR40040 - Custom**



FR40002 Installed in Custom Chassis



POSITIVE TORQUE ADJUSTMENT

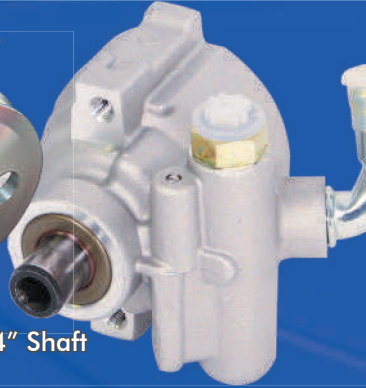


# Rack & Pinion Accessories

## Flaming River Pump



New 6" Hi-Rev Pulleys



3/4" Shaft

Variable Pressure Low-Flow Pump (3/4" Shaft Size)

- FR1570 (w/o Pulley)
- FRPMPSB-V (w/ V-Belt Pulley pre-assembled for easy installation)
- FRPMPSB-S (w/ 7 groove S-Belt Pulley pre-assembled for easy installation)

The intelligent design of this pump allows for pressure reduction at higher RPMs for maximum control during highway driving and easy steering in parking situations. Remote reservoir (FR1614) required.

## LS3 Power Steering Pump Extended AN Fitting Part No. - FR1634



AN Fitting Kit (To allow clearance for LS Motors) Part No. - FR1632



- Includes:
- (1) M14 X 1.5-AN6 Pressure Fitting
  - (1) M16 X 1.5-AN6 Return Fitting
  - (2) O-Rings

PUMP SPEED	PRESSURE	FLOW
465 RPM	4.58 MPA	2.16 LPM
1500 RPM	1 MPA	6.8 LPM
5000 RPM	1 MPA	5.16 LPM



Power steering pumps require a hose with a vacuum rating of 28 INCHES/HG on the inlet side, and a minimum 1/2" inside diameter. This is required to keep the hose from collapsing at higher RPMs. As seen in Photo 1 to the left, common hydraulic hose may have a -10 fitting on them, but the inside diameter is smaller than -6 (.265"). This will damage the pump because there is no way for the pump to intake enough fluid to meet its requirement through such a small hole.

Push-lock hose may be the proper inside diameter, but the vacuum rating is only 18 INCHES/MG. As the fluid warms up, this rating actually goes down. Push-lock hose will suck shut anywhere there is a bend in it, starving the pump of fluid and can cause severe damage to the internals of the pump. See Photo 2. The -6 pressure hose, leaving the pump, must have an operating pressure of 2,250 psi. and an inside diameter of .31". Common hydraulic hose may have the proper operating range, but their inside diameter is slightly smaller. See Photo 3. The smaller diameter can restrict the flow to the steering gear. This can cause problems in your steering, such as tight spots in the turns and increased driver effort. Also make sure the -10 feed line from the reservoir tank, remote tanks only, has a 1/2" inside diameter. Some companies have been importing tanks to the U.S. that have a 3/8" inside diameter. This will restrict flow to the pump and will damage the pump within a few races.

## Power Steering Hose Kit FR1610

- Crimped fittings on all pressure ends eliminates banjo fittings
- Can be mounted straight off AN fittings or at 90 degrees
- AN fittings included for convenience of assembly
- Hose angles can be rotated to almost any position
- Custom hose lengths available through our custom hose program



Hose Kit Sold Separately



Cradle Rack & Pinion Riser Kit for 65-70 Mustang Part No. - FR20060MU



Cane-style baffle design in Reservoir prevents foaming in fluid

**Ultra-Angle Exhaust Headers**  
 These unique angle exhaust headers are designed to give you maximum clearance for steering universal joints. Available for Small Block Ford - No hassle installation. **FR50003C**  
 (See page 134 for more information.)



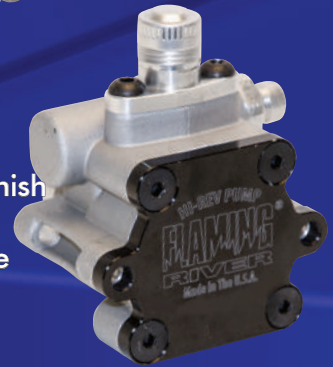
**Aluminum Remote Reservoir**  
 Our Remote Reservoirs feature a threaded cap and two machined billet brackets. A sleek radius design will complement any engine compartment. Recommended for use with Flaming River Power Rack Systems, but can also be used with other Stage II Pumps. Machine finish shown **FR1614**



5/8" Shaft

**KRC Hi-Rev Pump**  
**FR1590 - Satin Finish**  
**FR1590PL - Polished Finish**

- Street & Performance
- Adjustable Flow Valve
- Replaces GM Stage II



**FR41001**  
**Power Steering Fluid**



"Pillow Blocks" allow for universal mounting and the pinion shaft rotates to align with your vehicle's steering shafting. **FR1617P**

**Precision Steel Power Steering Pump Bracket**  
 This power steering pump bracket is for Stage II style pumps and features a revolutionary new design—made of black oxide steel and available for Small Block and Big Block vehicle applications. Features an adjustable design that allows for use with short neck and long neck water pumps. Includes a billet aluminum tension adjuster and mounting hardware. Manufactured using precision laser machinery.



PART NO.	DESCRIPTION
FR1612	BRACKET, SMALL BLOCK CHEVY FLAMING RIVER PUMP
FR1613	BRACKET, BIG BLOCK CHEVY FLAMING RIVER PUMP
FR1591	BRACKET, KRC PUMP SMALL BLOCK CHEVY

# MUSTANG II STYLE POWER RACK AND PINION



The only ALL NEW Mustang II (74-78) style Power Rack & Pinion available for Hot Rodders! The Billet-Power™ Front Steer Rack and Pinion (Mustang style) is designed to fit Mustang II applications (15.5" or 16" available). Made from all new components, including a new valve and piston, our Power Rack offers over 6-inches of travel, which provides the maximum turning radius for classic and street rod applications. Each Flaming River Power Rack is proudly Made in the USA, and is fluid and pressure tested and certified before leaving our facility.

- All new components – Including valve, piston, seals, bearings and bushings, and pinion and rack gears
- More than 6 inches of travel for full turning radius
- Lighter – Approximately 12 Lbs. lighter than OE
- Stronger – 1 inch diameter Rack Shaft
- Sleek, attractive powder coated design
- Longer cylinder and overlapping tube design for rack stability
- Lifetime Serviceability
- Test Certification included with each unit

### Precision Steel Power Steering Pump Bracket

This power steering pump bracket is for Stage II style pumps and features a revolutionary new design—made of black oxide steel and available for Small Block and Big Block vehicle applications. Features an adjustable design that allows for use with short neck and long neck water pumps. Includes a billet aluminum tension adjuster and mounting hardware. Manufactured using precision laser machinery.



PART NO.	DESCRIPTION
FR40001	16" MOUNTS
FR40001-V	16" MOUNTS - WITH P/S PUMP AND V-BELT PULLEY
FR40001-S	16" MOUNTS - WITH P/S PUMP AND SERPENTINE BELT PULLEY
FR40002	15-1/2" MOUNTS

The Flaming River Power Rack is the first new Power Rack and Pinion designed with the street rodder in mind. With the pump, it is properly calibrated to avoid over-steer. The Power Rack uses Mustang II 16-inch center mounts and FR1601 outer ends. Our Power Rack is designed for maximum front end vehicle weight of 1,750 Lbs.

PART NO.	DESCRIPTION
FR1612	SMALL BLOCK CHEVY
FR1613	BIG BLOCK CHEVY
FR1630	2.5" BELT TENSIONER ONLY
FR1631	3.5" BELT TENSIONER ONLY

# Power Steering Hoses

Things we all need to know and do when it comes to power steering:

1. Clean your system before you install your rack and pinion and your pump, reservoir and hoses.
2. After installation, do not start or crank your engine until you fill the system with high grade power steering fluid (do not use transmission fluid). We recommend KRC power steering fluid.
3. Follow instructions to bleed your system to remove all of the air.



Flaming River now manufactures Braided Stainless Hose Kits for our Power Steering Systems.

- All pressure ends are crimped fittings, eliminates banjo fittings
- Can be mounted straight off AN fitting or at 90° angle
- Hose angles can be rotated to almost any position
- Custom hose lengths available

Power steering pumps require a hose with a vacuum rating of 28 INCHES/HG on the inlet side, and a minimum 1/2" inside diameter. This is required to keep the hose from collapsing at higher RPMs.

As seen in Photo 1 to the left, common hydraulic hose may have a -10 fitting on them, but the inside diameter is smaller than -6 (.265"). This will damage the pump because there is no way for the pump to intake enough fluid to meet its requirement through such a small hole.

Push-lock hose may be the proper inside diameter, but the vacuum rating is only 18 INCHES/MG. As the fluid warms up, this rating actually goes down. Push-lock hose will suck shut anywhere there is a bend in it, starving the pump of fluid and can cause severe damage to the internals of the pump. See Photo 2.

The -6 pressure hose, leaving the pump, must have an operating pressure of 2,250 psi. and an inside diameter of .31". Common hydraulic hose may have the proper operating range, but their inside diameter is slightly smaller.

See Photo 3. The smaller diameter can restrict the flow to the steering gear. This can cause problems in your steering, such as tight spots in the turns and increased driver effort.

Also make sure the -10 feed line from the reservoir tank, remote tanks only, has a 1/2" inside diameter. Some companies have been importing tanks to the U.S. that have a 3/8" inside diameter. This will restrict flow to the pump and will damage the pump within a few races.

PART No.	DESCRIPTION
FR1610	FR POWER RACK & PINION - 30" PRESSURE & RETURN LINE
FR1625	GM POWER RACK - 24" PRESSURE AND RETURN LINE
FR1623	GM POWER BOX OR RACK GOING TO INTEGRAL RESERVOIR PUMP



Photo 1

Photo 2

Photo 3



**FR1614**  
P/S Reservoir  
Machine Finish

Cane-style baffle design in Reservoir prevents foaming in fluid



## Aluminum Remote Reservoir

Our Remote Reservoirs feature a threaded cap and two machined billet brackets. A sleek radius design will complement any engine compartment. Recommended for use with Flaming River Power Rack Systems, but can also be used with other Stage II Pumps.

PART No.	DESCRIPTION
FR1614	POWER STEERING MACHINE FINISH
FR1614BK	POWER STEERING BLACK POWDER COAT
FR1614PL	POWER STEERING POLISHED
FR1615	COOLANT OVERFLOW
FR1616	BRAKE FLUID



# '79-'04 MUSTANG POWER RACK AND PINION

**Streamliner Design!**



Quick Ratio Power Rack with a Sport Performance Steering Feel! This Power Rack & Pinion is designed to give you the steering control that is ideal for road racing and street performance racing. Mounting distance is 15-1/2 inches for direct bolt-in. Designed for use with stock oil pan. ALL NEW - not a rebuild! Made in the USA.

PART No.	DESCRIPTION
FR40037	1979-93 MUSTANG POWER RACK AND PINION
FR40039	1994-04 POWER RACK AND PINION



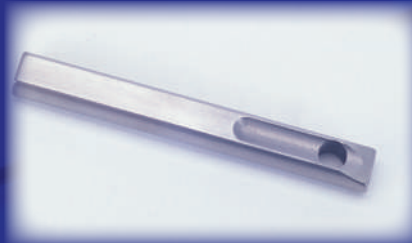
Check out our New Power Rack and Pinion! Featuring a larger rack gear and a new robotic welding process. OEM line position and an adjustable pinion housing allow for easier installation.

Made in the USA in Berea Ohio!

- OEM Line Position Stainless Steel Braided Hoses
- Robotically Welded In-House
- 12:1 Ratio
- 2 1/2 Turns Lock to Lock
- 6" of Travel

## Long Tongue FR9950TLG

Longer length tongue available for use with 79-93 Mustang shaft kits. This longer tongue is the perfect way to extend the universal joints down from the column to make even more room for larger tube headers. Sold Separately.



**79-93 Installation Kit  
FRRA100**

- Installation Kit Includes:
- Two Universal Joints/Shaft Kit
  - Outer Ends
  - Two-piece Urethane Bushing

Shaft Kit Only:  
79-93 FR1504P2  
94-04 FR1504P3



**94-04 Installation Kit  
FRRA101**



# '79-'04 MUSTANG MANUAL RACK AND PINION

RACK AND PINION: 79-04 MUSTANG MANUAL RACK AND PINIONS



FR1890 Shown

## 1979-93 Mustang Deluxe Manual Rack & Pinion Installation Kit – Standard Ratio - FR1890

This installation kit is a direct bolt-in replacement for the 1979-93 5.0L Mustang. It eliminates the power rack, pump, pulley, and rag joint for a total vehicle weight reduction of up to 30 Lbs., and provides smooth responsive vehicle steering.

### Kit Includes:

- Manual Rack and Pinion (FR1503)
- High Performance Needle-Bearing U-Joint Shaft Kit
- Manual Tie Rod Ends (FR1603)
- 2-Piece Mounting Bushings

## 1994-04 5.0L Mustang Manual Rack and Pinion Installation Kit - FR1892

This installation kit is a direct bolt-in replacement for the 1994-03 5.0L Mustang without hydro boost (non-modular motors). This kit allows for a total vehicle weight savings of up to 30 Lbs. off of the front end—where it matters most!

### Kit Includes:

- Manual Rack and Pinion (FR1508)
- Universal Joint
- Outer Tie Rod Ends (FR1603-L)
- 2-Piece Mounting Bushings

Also available: Deluxe Kit with FR1892D Complete Shaft Kit



## 1979-93 Mustang High Performance Shaft Assembly FR1504P Power Rack FR1504M Manual Rack

This high performance shaft kit utilizes two smooth, needle bearing Universal Joints, a prefabricated shaft to bolt directly into the column, and weldless intermediate shaft for easy installation. This long-wearing design eliminates the rag joint for better steering response, streamlined appearance and improved header clearance. An absolute must when using large tube headers. The overall length is 13 inches. Additional DD shaft can be ordered for applications requiring longer length. This can be used with our Manual Rack and Pinion or the factory Power Rack to eliminate the rag joint and improve steering response!

## 1994-04 Mustang Shaft Kit -

This shaft kit is a direct bolt-in replacement for the factory steering of the 1994-04 5.0L Mustang. With a 1-1/2" diameter, this kit greatly improves header clearance. Needle-bearing universal joint included.

FR1509P – Power Shaft Kit

FR1509M – Manual Shaft Kit

Vibration Dampener Kits also available:

FR1509-VP – Vibration Power Shaft Kit

FR1509-VM – Vibration Manual Shaft Kit



## 1979-93 Mustang Low-Profile Shaft Kits Forged True®

This lightweight, low-profile kit weighs only 2.5 Lbs. and features 40° angle capability and 1.25" diameter for increased header clearance. A black oxide finish resists corrosion. Rated at 350 ft. Lbs.

FR1504MFT – Low-Profile Manual Shaft Kit

FR1504PFT – Low-Profile Power Shaft Kit

FR1504MLP – Low-Profile Manual Shaft Kit (Chrome Moly)

FR1504PLP – Low-Profile Power Shaft Kit



## 1979-93 5.0L Mustang Manual Rack and Pinion – 15:1 Quick Ratio - FR1520

This quick steer unit is designed for the 1979-93 Mustangs and delivers exceptional performance. Ideal for road racing, street, drag, and other applications where a very responsive steering system is required.

3.3 turns lock-to-lock (25% faster than a standard unit)  
5.25" of rack travel, 45" overall length

# '05-'14 MUSTANG MANUAL RACK AND PINION



Our customers asked for it and we delivered – Introducing the 2005-2014 Mustang Manual Rack & Pinion! The newest addition to Manual Rack & Pinion steering is lighter than the factory Mustang power system - reducing vehicle weight by 10-15 Lbs. (depending on vehicle specifications) by eliminating hoses, pulleys and pumps. Also, the billet aluminum mounting brackets can be adjusted to modify the pinion angle for large tube headers and engine swaps in custom applications. **FR1515**

Please Note: This specific Rack requires a 9/16" -26 U-Joint for installation.

### Product Specs:

- Bolts into same mounting location as OEM Power Rack
- 54-1/2" overall length
- 3-3/4 turns lock to lock
- 14" mounts center to center
- 1/2" diameter mounting holes
- 9/16" -26 spline pinion shaft
- 13" inner ends
- M14 X 1.5 X 2.5" inner tie rod end thread
- Bolts up to OEM Mount
- Uses stock outer tie rod ends
- Weighs only 14 Lbs.
- Billet Mounts included
- Adjustable pinion angle
- Made in the USA with Lifetime Serviceability



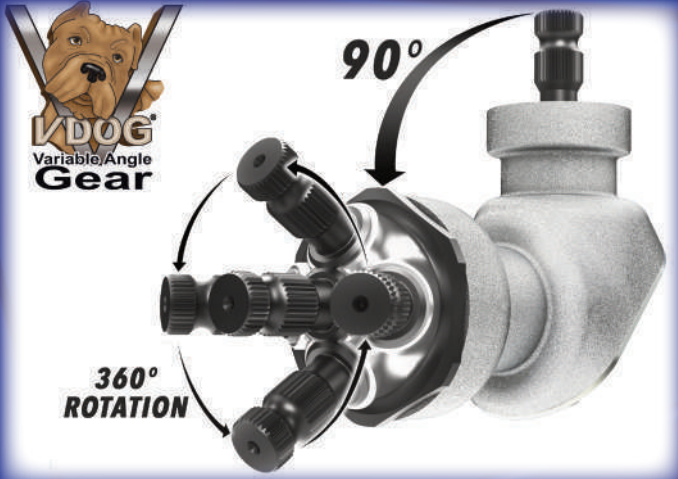
**FR1515**



Danny Thompson and the Hajek Motorsports Team used this Manual Rack & Pinion in their 2010 E-85 Mustang—the fastest production-based Mustang in the world!



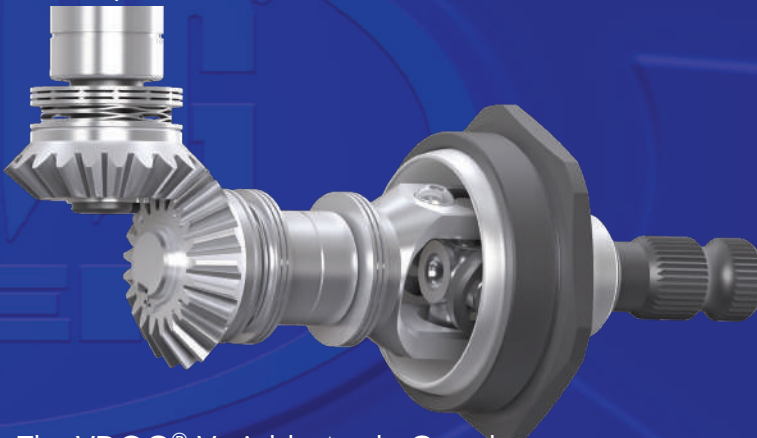
# A CLOSER LOOK AT THE VDOG<sup>®</sup> VARIABLE ANGLE GEAR



Flaming River makes a Pillow Block Mount that helps you affix the VDOG<sup>®</sup> to your fixed mount or bracket. This mount features two 3/16" threaded holes on the flat side of the block that you can use bolts to secure the unit to.

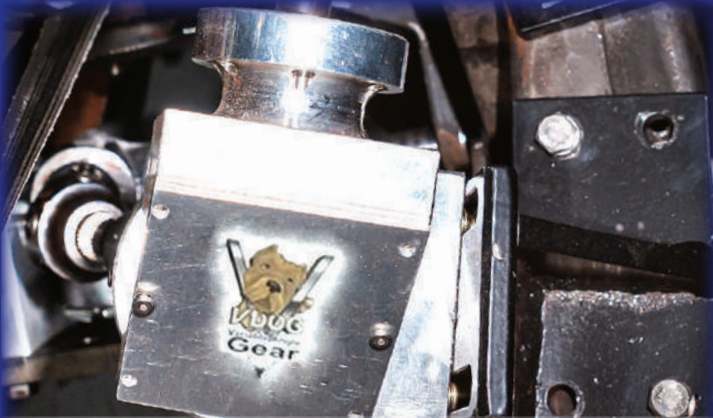


The VDOG<sup>®</sup> Variable Angle Gear is so versatile, it allows for a 90° angle plus an additional 35° angle out of the articulating ball valve which also boasts a 360° rotation. This is ideal for installs with tight clearance where you would need multiple connections to make your linkage mate up.



The VDOG<sup>®</sup> is available in many options! Our standard option is our cast aluminum housing. We also offer this same housing in a standard black or blue powder coat color, or we can powder coat it almost any color to match your ride. We also offer a billet aluminum show finish housing for the ultimate shine!

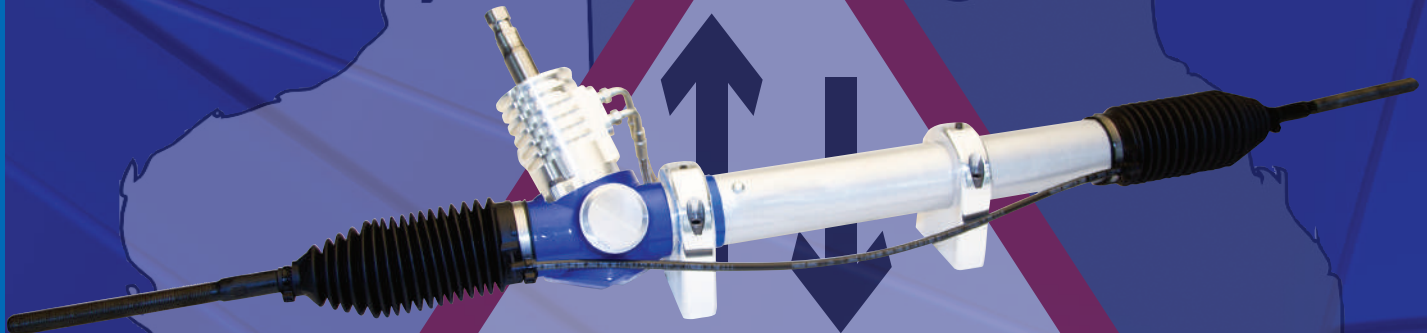
The VDOG<sup>®</sup> Variable Angle Gear has a hardened gear drive internal system which is lubricated for the life of the product by Flaming River. With no chains or sprockets to break, the VDOG<sup>®</sup> will last for a long time and maintain smooth operation.



VDOG<sup>®</sup> INSTALLED IN OUR 1949 DODGE PICKUP TRUCK WHICH ALSO FEATURES OUR NEW S10 MANUAL CRADLE KIT! (PG.122)



# RIGHT HAND DRIVE POWER RACK AND PINION



## Right Hand Drive

Made of all new components, including a new valve and piston, this Power Rack and Pinion is now designed for Right Hand Drive vehicles. As custom cars have become more popular around the world, we have had increasing interest in Rack and Pinions for custom Right Hand Drive applications. The most exciting aspect of the new RHD Power program is that it is not limited by core availability, since Flaming River Rack and Pinions are all new, and never rebuilt.

- All new components – Including valve, piston, seals, bearings and bushings, and pinion and rack gears
- Stronger rack shaft – almost 1 inch diameter
- More than 6 inches of travel for full turning radius
- Sleek, attractive powder coated design
- Universal, precision 6061 aluminum, billet mounting
- Billet finned housing provides heat reduction
- Lifetime Serviceability



Billet Pillow Block Mount  
FR1617P



Quality Steering Systems



Right Hand Drive Columns and Cradles are also available!

# BILLET-POWER REAR STEER/FRONT STEER RACK AND PINION

## BILLET - POWER™



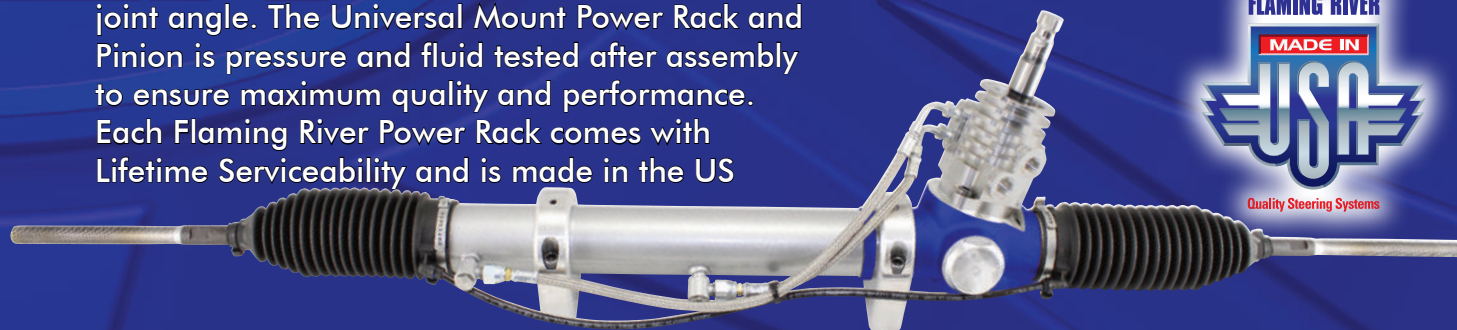
The Billet-Power® Rear Steer Rack & Pinion is made of all new components, including the valve and piston, and is designed to fit any classic rear steer vehicle (mounts behind the spindle). Billet mounting "pillow blocks" allow for universal mounting and the pinion shaft rotates to align with your vehicle's steering shafting. Billet finned housing provides heat reduction. Each system includes a new Power Rack and Pinion, Pump with aluminum pulley (V-Belt or Serpentine) and fittings for connecting hoses to the hose kit of your choice. Hoses, U-Joint, and Reservoir are not included.

- All new components – Including valve, piston, seals, bearings and bushings, and pinion and rack gears
- Stronger rack shaft – almost 1 inch diameter
- More than 6 inches of travel for full turning radius
- Sleek, attractive powder coated design
- Universal, precision 6061 Aluminum, billet mounting
- Lifetime Serviceability

## FRONT STEER POWER RACK & PINION

Dimensionally interchangeable with the Mustang or Omni Racks—with new mounting versatility! Precision-machined billet aluminum mounts retrofit to virtually any vehicle application and feature an adjustable pinion to improve universal joint angle. The Universal Mount Power Rack and Pinion is pressure and fluid tested after assembly to ensure maximum quality and performance. Each Flaming River Power Rack comes with Lifetime Serviceability and is made in the US

PART No.	DESCRIPTION
FR40020	45" REAR STEER POWER RACK
FR40020-V	45" REAR STEER POWER RACK - WITH P/S PUMP AND V-BELT PULLEY
FR40020-S	45" REAR STEER POWER RACK - WITH P/S PUMP AND SERPENTINE BELT PULLEY
FR40031	41.69" REAR STEER POWER RACK
FR40031-V	41.69" REAR STEER POWER RACK - WITH P/S PUMP AND V-BELT PULLEY
FR40031-S	41.69" REAR STEER POWER RACK - WITH P/S PUMP AND SERPENTINE BELT PULLEY

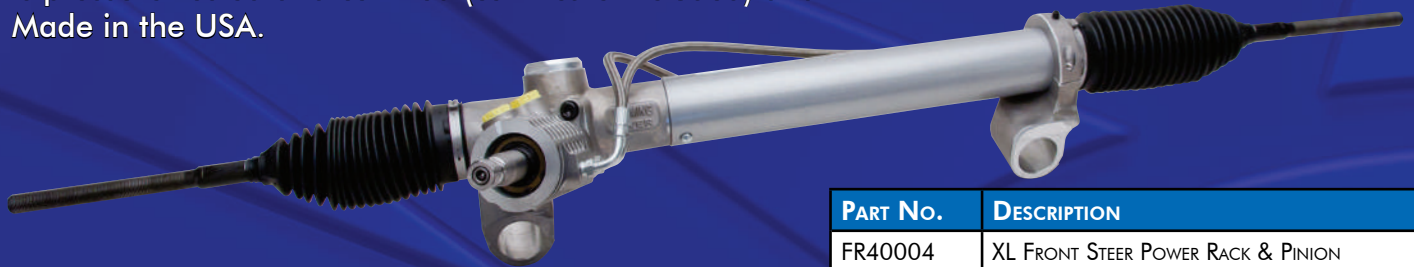


PART No.	DESCRIPTION
FR40022	FRONT STEER UNIVERSAL POWER RACK - BLUE RACK HOUSING
FR40022PLN	FRONT STEER UNIVERSAL POWER RACK - STANDARD CAST RACK HOUSING
FR40022XX	CUSTOM STEER UNIVERSAL POWER RACK - STANDARD CAST RACK HOUSING
FR40022-V	FRONT STEER UNIVERSAL POWER RACK - WITH P/S PUMP AND V-BELT PULLEY
FR40022-S	FRONT STEER UNIVERSAL POWER RACK - WITH P/S PUMP AND SERPENTINE BELT PULLEY

- All New Components – Including valve, piston, seals, bearings and bushings, and pinion and rack gears
- Stronger Rack Shaft – Almost 1 inch diameter
- More than 6" of travel for improved turning radius
- Braided stainless pressure lines for low profile design and added clearance
- Finned Valve acts as a heat sink for lower fluid temperatures
- Billet Pillow Blocks - Allow for adjustable pinion angle
- Racks available in 45" and 41.69" overall lengths - Custom designs also available
- Lifetime Serviceability

# XTRA LONG POWER RACK AND PINION

The all new XL Front Steer Power Rack and Pinion—designed for wide framed cars and trucks—eliminates the need for an extender and ensures that the bellow is never overextended. The new rack is based upon the popular front steer 1974-78 Mustang II platform, but is now offered in a design that is 4" longer, for a total length of 49" with a 28.5" pivot—perfect for pickup trucks with a Mustang II style front end. This is the only new power rack with over 6" of travel for full turning radius—lock to lock, stop to stop. Each rack is pressure-tested and certified (certificate included) and Made in the USA.

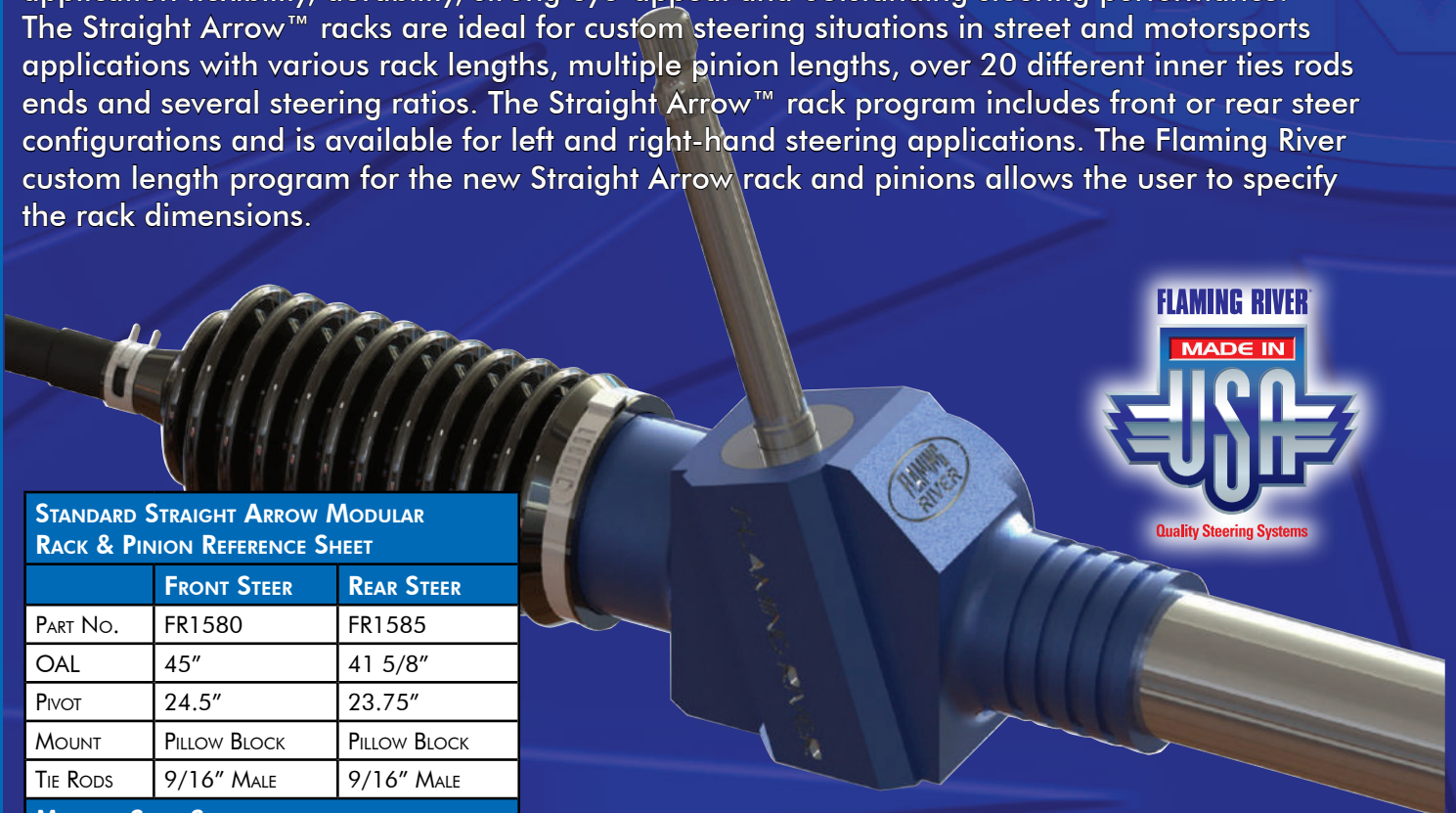


*4" Longer Than Stock (No Extender Necessary)*

PART No.	DESCRIPTION
FR40004	XL FRONT STEER POWER RACK & PINION
FR40004-V	XL FRONT STEER POWER RACK & PINION WITH P/S PUMP AND V-BELT PULLEY
FR40004-S	XL FRONT STEER POWER RACK & PINION WITH P/S PUMP AND SERPENTINE BELT PULLEY

# STRAIGHT ARROW MODULAR RACK AND PINIONS

Flaming River's new Straight Arrow™ billet aluminum custom manual rack and pinion features cutting-edge appearance coupled with all-new components to produce a rack that delivers application flexibility, durability, strong eye-appeal and outstanding steering performance. The Straight Arrow™ racks are ideal for custom steering situations in street and motorsports applications with various rack lengths, multiple pinion lengths, over 20 different inner tie rods ends and several steering ratios. The Straight Arrow™ rack program includes front or rear steer configurations and is available for left and right-hand steering applications. The Flaming River custom length program for the new Straight Arrow rack and pinions allows the user to specify the rack dimensions.



## STANDARD STRAIGHT ARROW MODULAR RACK & PINION REFERENCE SHEET

	FRONT STEER	REAR STEER
PART No.	FR1580	FR1585
OAL	45"	41 5/8"
PIVOT	24.5"	23.75"
MOUNT	PILLOW BLOCK	PILLOW BLOCK
TIE RODS	9/16" MALE	9/16" MALE

**MOUNTS SOLD SEPARATELY**

# STREET ROD MANUAL RACK AND PINION

FR1502



FR1507-2



FR1501



## 1971-72 Pinto Manual Rack and Pinion

This Manual Rack and Pinion is designed to meet top chassis builders' standards for a new drag race steering system. It is designed to be sleek, lightweight, and durable—using high-quality aluminum castings and has a chrome-plated steel center tube. Weighs only 12 Lbs. FR1501

- 3.75 turns lock-to-lock
- 5.25" of travel
- 45.5" overall length

## 1974-78 Mustang II Manual Rack and Pinion

This design features high-quality aluminum castings, two mounting holes (16" center to center) and a chrome-plated steel center tube.

- 5 turns lock-to-lock
- 6" of rack travel
- 45" overall length

Custom Length Mustang II Manual Rack and Pinion. Custom, shortened designs of our popular Mustang II Manual Rack and Pinion are now available for Willy's, Corvette, Anglia, and other custom chassis applications. Several popular custom sizes are now offered from stock.

FR1502 - 45" Length

FR1502-2X2 - Shortened 2"

FR1502-4X4 - Shortened 4"

## Mustang II Rack with Short Pinion

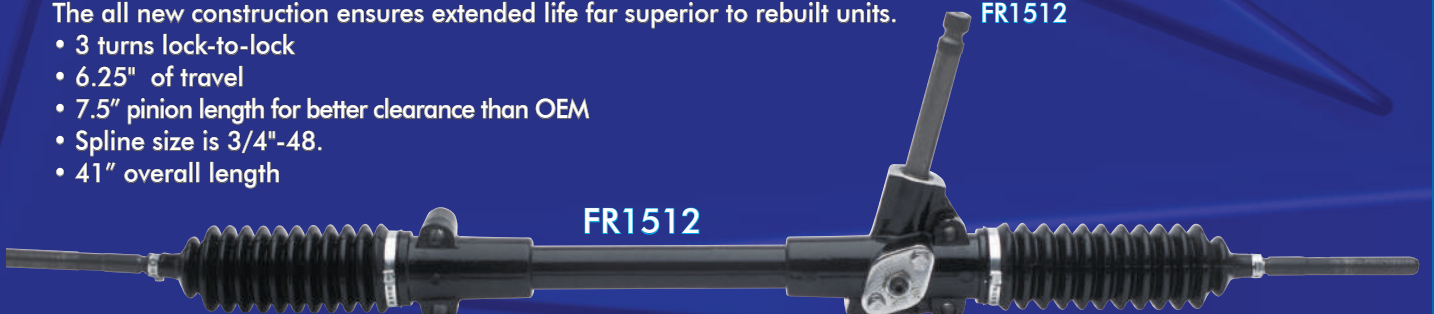
This new version of the popular 1974-78 Mustang rack features a 1-1/2" long input shaft, which makes mounting easier and reduces the universal joint angle. FR1502-5

## Cobra/MGB Manual Rack and Pinion

Flaming River now offers an all new manual rack and pinion for the Cobra and early MGB. Although this unit is dimensionally interchangeable with the original MGB rack, it uses today's technology for a smoother steering feel. The all new construction ensures extended life far superior to rebuilt units. FR1512

- 3 turns lock-to-lock
- 6.25" of travel
- 7.5" pinion length for better clearance than OEM
- Spline size is 3/4"-48.
- 41" overall length

FR1512



## Omni Manual Rack and Pinion (Rear Steer)

This rear steer design mounts behind the crossmember and provides oil pan clearance for a Ford engine. The rack features an aluminum housing with a chrome-plated steel center tube. Designed for use with Mustang II spindles and outer tie rod ends.

- Mounting Clamp (FR1507C) available.
- 4 turns lock-to-lock
- 5" of rack travel

FR1507-2 - 45" Overall Length

FR1507-3 - 41.69" Overall Length

FR1507-4 - 45" Overall Length, Standard Pinion, Wide Pivot (27")

FR1507-5 - Omni Rack with Short Pinion

# LATE MODEL RACING MANUAL RACK AND PINIONS



## Chevrolet Camaro

Overall length: Approx. 49"  
 Pivots: Approx. 30.25/30.38"  
 Mounts center to center: 11.75  
 (mount hole diameter: .420)  
 Short pinion, standard rack gain  
 (long pinion available)  
 Inner end thread is M16X1.5  
 Inner end length is approx.  
 10.38"



2016 Camaro - FR1515CAM16  
 2010-2015 w/ Hydraulic Steering - FR1515CAM10H  
 2010-2015 w/ Electric Steering - FR1515CAM10E



## Dodge Challenger

Overall length: Approx. 51.25"  
 Pivots: Approx. 26.01"  
 Mounts center to center: 18.21  
 (mount hole diameter: .500)  
 Short pinion, standard rack gain  
 (long pinion available)  
 Inner end thread is M16X1.5  
 Inner end length is approx. 14"

Dodge Challenger - FR1515MPR



## 2005-2014 Mustang Manual Rack and Pinion

This new Manual Rack and Pinion design replaces the power rack in the 2005-2010 Mustangs—resulting in significant weight savings and improved handling characteristics.

- Bolts into same mounting location as OEM Power Rack
- 54 1/2" overall length
- 3 3/4 turns lock to lock
- 14" mounts center to center
- 1/2" diameter mounting holes
- 9/16"-26 spline pinion shaft
- 13" inner ends
- M14 X 1.5 X 2.5" inner tie rod end thread

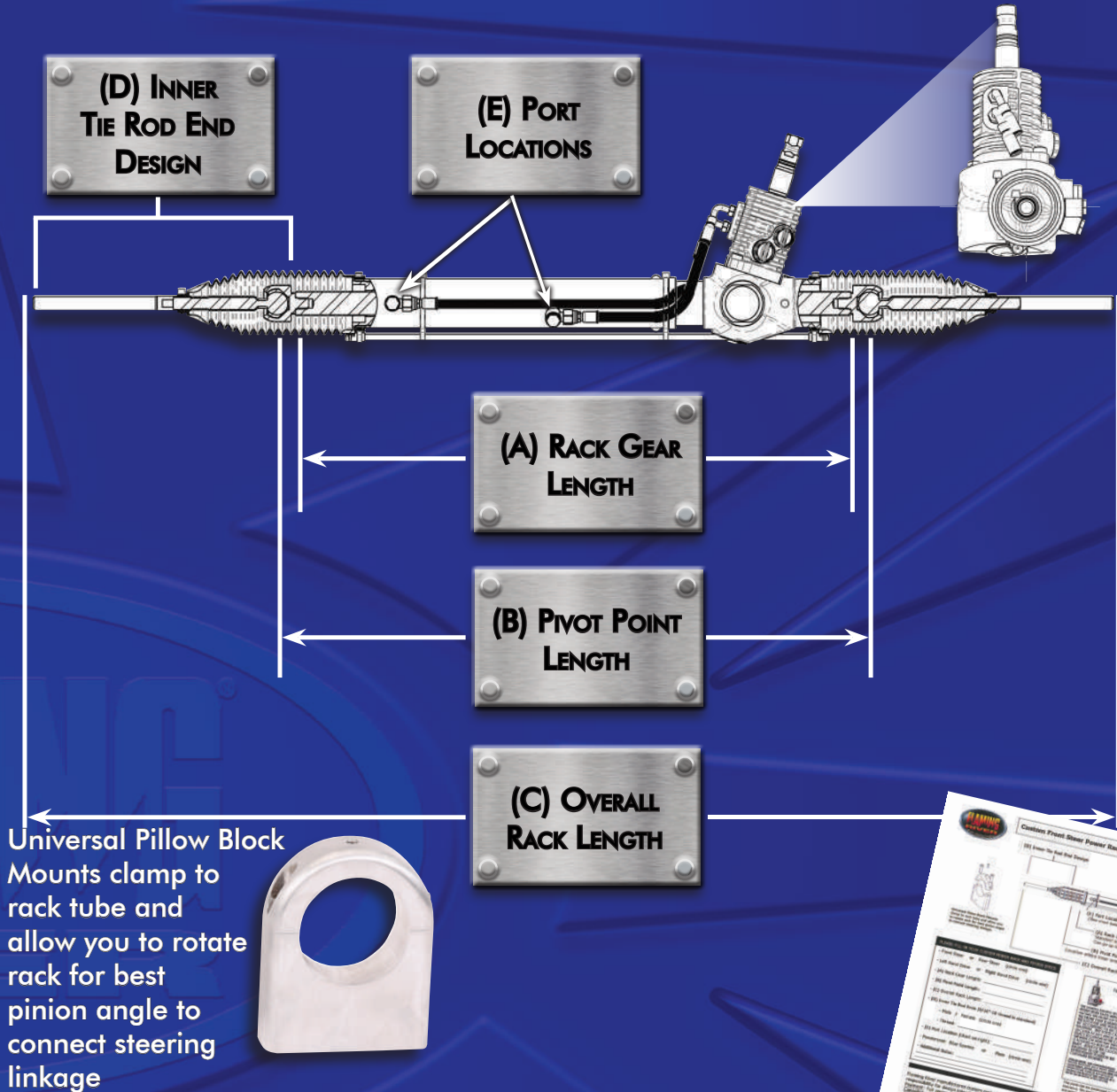
FR1515



Please Note: These Racks require a FR1709DD - 9/16"-26 U-Joint for installation.



# CUSTOM RACK AND PINIONS



Custom racks are pre-paid, non-cancelable and non-returnable. Rack specifications must be in writing and signed by customer. Please allow 4-6 weeks from time of order.

**Outer Tie Rod Ends**  
Designed to be the perfect complement to our Manual Rack and Pinions  
**FR1601** 1974-78 Mustang  
**FR1603** 1979-93 Mustang  
**FR1603-L** 1994-03 Mustang



**2-Piece Mounting Bushings FR2001**  
Custom designed thermoplastic rubber for firm vibration absorption. Two sets are required for installation.



**Mounting Bushings FR1600**  
Impact absorbing rubber bushings with steel core are used to mount the Mustang II Rack and Pinion (FR1502) Two required.

**Omni Rack Mount Clamp with Bushing FR1507C**



# SHOCKS, INNER TIE ROD ENDS, BELLWS, RACK ACCESSORIES



## Dual Adjustable Coil Over Shocks

- Polished Aluminum Twin-Tube with a clear anodized finish
- Double Adjustable – 19 Compression & 19 Rebound adjustments
- Piston – Precision Machined Aluminum with a deflective disk and P.T.F.E./bronze piston seal
- Piston Rod – 5/8" hard-chrome plated and centerless ground
- Advanced three-step sealing system
- Made in the U.S.A.



## Inner Tie Rod Ends

### MALE - MALE

PART No.	RACK END	RACK END SIZE	OUTER END	OUTER END SIZE	OAL	APPLICATION
100506	MALE	M14x1.5	MALE	9/16"-18	11.4"	FR40001/FR40002 Lt. SIDE
100587	MALE	M14x1.5	MALE	9/16"-18	11.4"	FR40001/FR40002 Rt. SIDE
FR1502IE	MALE	M14x1.5	MALE	9/16"-18	11.4"	FR1502 - 74-78 MUSTANG II
FR1503IE	MALE	M14x1.5	MALE	9/16"-18	11.4"	FR1503/FR1520 - 79-93 MUSTANG
FR1508IE	MALE	M14x1.5	MALE	9/16"-18	12.5"	FR1508/FR1508Q - 94-04 MUSTANG
100439	MALE	M16x1.5	MALE	M14x1.5	13"	05-10 MUSTANG

### MALE - FEMALE

PART No.	RACK END	RACK END SIZE	OUTER END	OUTER END SIZE	OAL	APPLICATION
100377	MALE	M14x1.5	FEMALE	11/16"-18	11.5"	C-10 CRADLE KIT

### FEMALE - MALE

PART No.	RACK END	RACK END SIZE	OUTER END	OUTER END SIZE	OAL	APPLICATION
FR1543IE	FEMALE	M14x1.5	MALE	M14x1.5	12"	GM A-BODY
FR1501IE	FEMALE	M14x1.5	MALE	1/2"-20	11.75"	FR1501 71-72 PINTO
FR1507-IE2	FEMALE	M16x1.5	MALE	9/16"-18	12"	FR1507-2 OMNI
FR1507-3QIE	FEMALE	M16x1.5	MALE	9/16"-18	10.25	FR1507-3Q OMNI

### FEMALE - FEMALE

PART No.	RACK END	RACK END SIZE	OUTER END	OUTER END SIZE	OAL
FR1E1003FM	FEMALE	M16x1.5	FEMALE	5/8"-18	10"
FR1E1004FM	FEMALE	M16x1.5	FEMALE	11/16"-18	7.75

# SHOCKS, INNER TIE ROD ENDS, BELLOWS, RACK ACCESSORIES

100163

FR1501-D

FR1501-P



BELLOW KIT	
PART No.	PARTS IN KIT
FR1501B	FR1501-P & FR1501-D
FR1502B	FR1501-D (QTY 2)

RACK BELLOW				
PART No.	INNER END SIDE	RACK BODY SIZE	STATIC LENGTH	APPLICATION
FR1501-P	7/16"	1-1/16"	7-1/2"	PASSENGER SIDE OF OMNI, PINTO, ALL MANUAL RACK KITS
FR1501-D	7/16"	1-11/16"	6-1/2"	DRIVER'S SIDE OF OMNI, PINTO, ALL MANUAL RACK KITS & ALL MUSTANG MANUAL RACKS (BOTH SIDES)
100163	1/2"	2"	8"	ALL FLAMING RIVER POWER RACKS (BOTH SIDES)



### Tie Rod Adjuster Sleeves - FR1620

- 1971-72 Monte Carlo, Cutlass, Lemans, Chevelle, El Camino, Malibu, 422, GTO
- 1973-77 Chevelle, El Camino, Regal, Malibu, Monte Carlo, Lemans & Cutlass
- 1970-81 Camaro & Firebird
- 1979-90 Caprice
- 1991-96 Caprice, Impala, & Roadmaster

Omni Rack Mount Clamp with Bushing - FR1507C



Mounting Bushings - FR1600  
Impact absorbing rubber bushings with steel core are used to mount the Mustang II Rack and Pinion (FR1502). Two required.



2-Piece Mounting Bushings FR2001  
Custom designed thermoplastic rubber for firm vibration absorption. Two sets are required for installation.



Outer Tie Rod Ends  
Designed to be the perfect complement to our Manual Rack and Pinions  
FR1601 1974-78 Mustang - 3.5" OAL  
FR1603 1979-93 Mustang - 5" OAL  
FR1603-L 1994-03 Mustang - 6" OAL



Ford Explorer Mounting Bushing Kit  
Fits 1995-2002 FR2002KT



FRLED - Led Indicator  
FRLEDOD - LED Indicator with  
Overdrive Indicator

LED Indicator is included with  
all Column Shift Key Columns  
Not Sold Separately  
Can be ordered for Non-Key  
Column Shift Columns through  
our Custom Column Program

New LED Indicator



1940 Ford with Flaming River Banjo Wheel and Dakota Digital Gauges

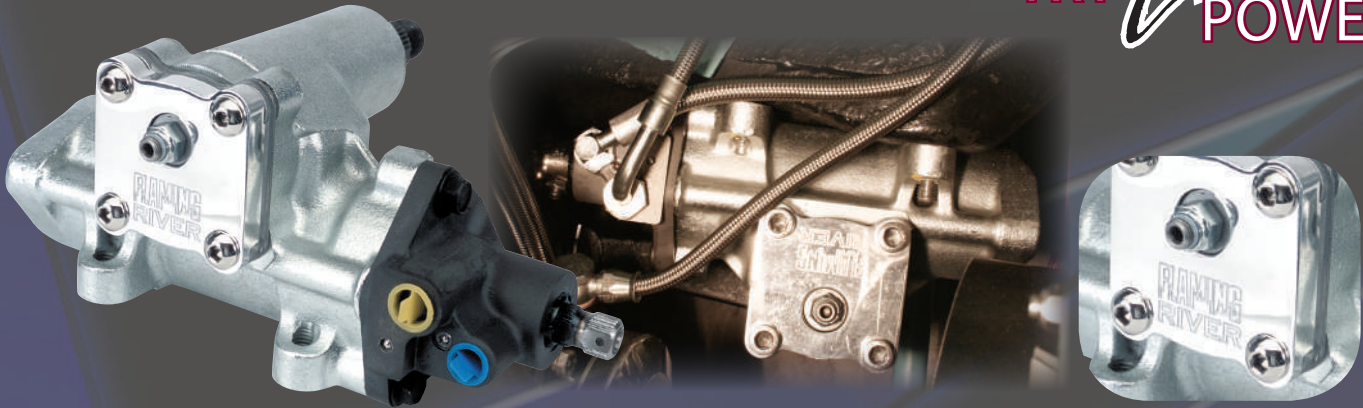


An ISO 9001:2015 and 14001:2015 registered company

# POWER STEERING PUMPS AND STEERING BOXES

## STEERING BOXES

TRY  POWER



Brought to you in collaboration with a leading OEM supplier, these power boxes fit most GM car and light truck applications from 1960 into the 1990s. Ideal for Camaro, Chevelle, GTO, El Camino, Jeep (CJ, Cherokee, Wrangler) and light pickup trucks (up to 1/2 ton).

- Available in three ratios (12:1, 14:1, 16:1) to fit virtually any application with the steering feel you prefer.
- Trivalent Chromium Free Plating offers ten times the corrosion resistance of a painted box.
- Unique Tech billet cap included.
- Rack and Pinion Valve Spool for smooth and precise steering and handling.
- Four bolt mounting pattern also interchanges to early three bolt application.
- 3/4" -30 splined input shaft

*Note: Ratios are approximate.*

PART No.	DESCRIPTION
FR1560	12:1 RATIO

Lifetime Serviceability



## POWER STEERING PUMPS & ACCESSORIES

Power Steering Made Easy

In most instances, the pumps provided with the rack and pinion are well matched and provide normal assist and driving stability. The Flaming River pump, which is 9.6 cc, will provide about 2.0 gpm at 1,500 rpm. The max. efficiency is reached at or about 1,350 rpm with an operating temp of 180°.

Street-driven cars have to consider ease of parking and highway stability. Pump speed at lower rpm should also be considered. Pulley size is normally 1:1 based on crankshaft pulley diameter. Generally, a heavy car with wider tires will require more assist, and lighter cars with narrower tires will require better road stability. The Flaming River pump provides a factory valve which will deliver approx. 2.0 gpm at approx. 1,500 rpm/pressure 145 psi.

For customers who want to tune or adjust the power steering system to maximize assist and road or track handling, we suggest our New High Rev Pump from KRC. This pump offers 9 different flow control valves. The valves are similar to jets in a carburetor. The I.D. B-E will improve assist, while the I.D. 4-7 will improve road handling. The lower the number, the greater the feel, but less assist. The higher the letter, the more assist, but less feel.

Keep in mind that adjusting your steering assist or stability is about finding the correct balance for your driving comfort.



**WARNING!**

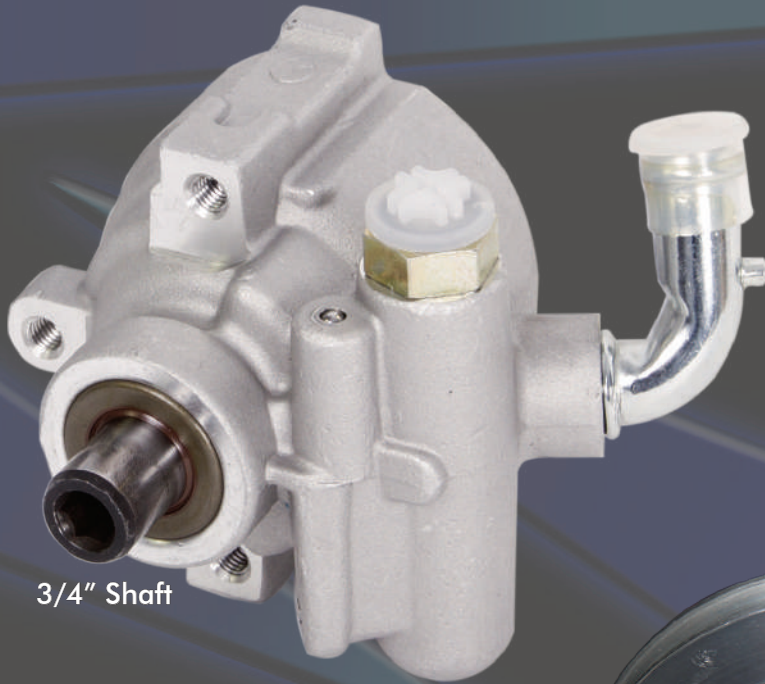
This product can expose you to chemicals including hexavalent chromium, which is known to the State of California to cause cancer.



# FLAMING RIVER POWER STEERING PUMPS

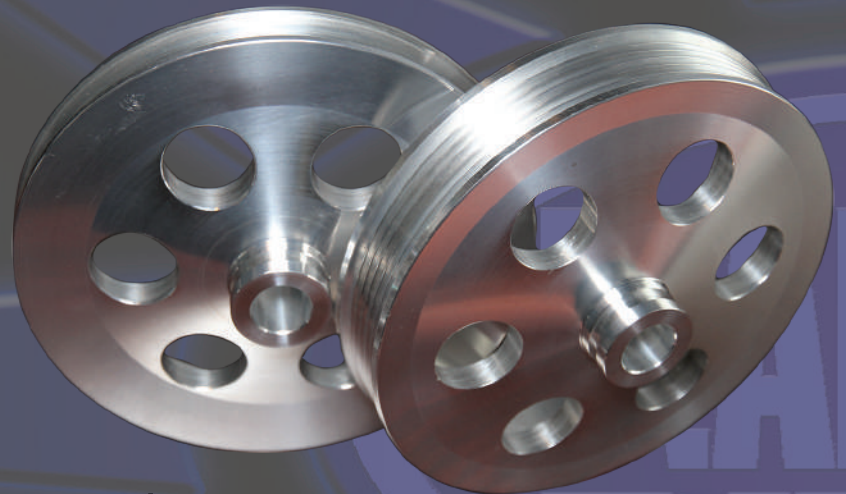
The intelligent design of this pump allows for pressure reduction at higher RPMs for maximum control during highway driving and easy steering in parking situations. Remote reservoir (FR1614) required.

Variable Pressure Low-Flow Pump  
(3/4" Shaft Size)



3/4" Shaft

PART No.	DESCRIPTION
FR1578	FLAMING RIVER PUMP w/ 6" V-BELT PULLEY INSTALLED
FR1579	FLAMING RIVER PUMP w/ 6" SERPENTINE PULLEY INSTALLED
FR1570	FLAMING RIVER PUMP ONLY (NO PULLEY)



Flaming River Power Steering Pumps now come with our new 6" Hi-Rev Pulley for smoother operation at higher RPM's!

PART No.	DESCRIPTION
FR1576	6" V-BELT PULLEY ONLY FOR FLAMING RIVER PUMP
FR1577	6" SERPENTINE PULLEY ONLY FOR FLAMING RIVER PUMP



Side view of Flaming River pump with V-Belt 6" pulley installed



Side view of Flaming River pump with Serpentine Belt 6" pulley installed



# FLAMING RIVER POWER STEERING PUMPS

## Precision Steel Power Steering Pump Bracket

This power steering pump bracket is for Stage II style pumps and features a revolutionary new design made of black oxide steel and available for Small Block and Big Block vehicle applications.

Features an adjustable design that allows for use with short neck and long neck water pumps. Includes a billet aluminum tension adjuster and mounting hardware. Manufactured using precision laser machinery.

PART No.	DESCRIPTION
FR1612	SMALL BLOCK CHEVY FLAMING RIVER PUMP
FR1613	BIG BLOCK CHEVY FLAMING RIVER PUMP
FR1591	KRC PUMP SB BRACKET



New larger diameter pulley (6") for better performance at higher RPM



LS3 Power Steering Pump Extended AN Fitting - **FR1634**

## Power Steering Hose Kit (FR1610)

Flaming River manufactures braided stainless hose kit for our power steering systems. All pressure ends are crimped fittings - eliminates banjo fittings. Can be mounted straight off AN fitting or at 90° angle and can be rotated to almost any angle. Custom lengths available.

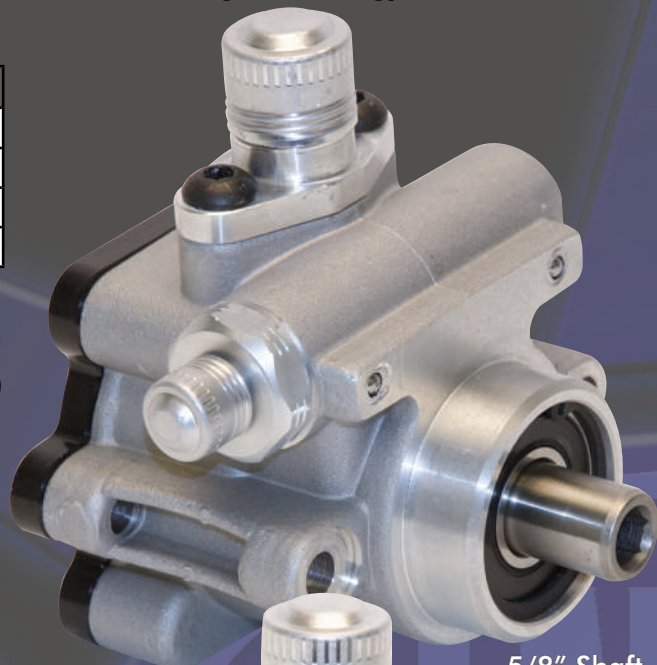


# KRC POWER STEERING PUMPS

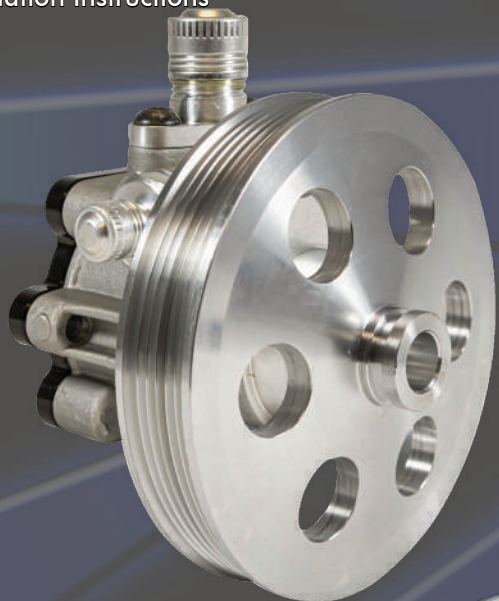
Flaming River now introduces a direct, bolt in replacement power steering pump for an alternative to all vehicles using GM II power steering systems. Engineered and assembled by KRC Power Steering, this pump was designed with the same standards as KRC's racing pumps. The High Rev Flaming River pump allows for adjustable flow control fitting technology.

PART No.	DESCRIPTION
FR1590	KRC HI-REV PUMP ONLY (NO PULLEY) SATIN FINISH
FR1590PL	KRC HI-REV PUMP ONLY (NO PULLEY) POLISHED FINISH
FR1590-V	KRC HI-REV PUMP w/ 6" V-BELT PULLEY INSTALLED
FR1590-S	KRC HI-REV PUMP w/ 6" SERPENTINE PULLEY INSTALLED

- Nine Changeable Flow Control Fittings To Aid In Driver Feel (sold separately)
- 2.22 Gpm Is The Standard Fluid Flow Rate; 1.05 Gpm To 3.17 Gpm Are Optional with Flow Control Fittings (Sold Separately)
- 1600Psi Pressure Relief Valve
- Press On Pulley (5/8" Shaft)
- Hard Coated Rear Cover For Pump Longevity
- Less Cavitation And More Durable Than GM Type II Pumps
- Fully Manufactured In The United States
- Packaged With Warranty Card, Registration Card, And Full Installation Instructions



5/8" Shaft



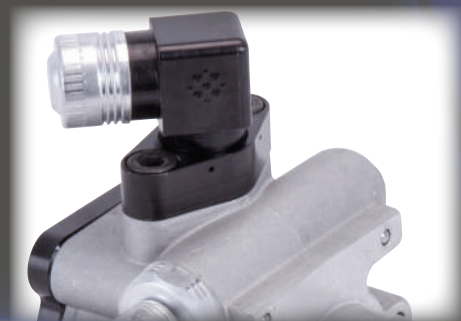
All new 6" diameter power steering pulleys for GM/KRC Pumps



PART No.	DESCRIPTION
FR1574	6" V-BELT PULLEY ONLY FOR GM/KRC PUMP
FR1575	6" SERPENTINE PULLEY ONLY FOR GM/KRC PUMP

Flow Control Fittings (sold separately)

PART No.	DESCRIPTION
FR1637KT	MORE ASSIST: B-C-D-E
FR1638KT	LESS ASSIST: 4-5-6-7



90° Fitting Only - FR1639





# YOUR COMPLETE STEERING COMPANY

Italian Leather Corvette  
Steering Wheel  
P/N FR20152BK

## Roadster Tilt Steering Column

- 5-position tilt steering column
- Ideal for roadsters, classic trucks and early Corvettes
- CNC machined from 304 Stainless Steel
- Available in many finishes and colors
- P/N FR21022-28

## Swivel Floor Mount

- Make installation of a Flaming River Column easy and beautiful with a swivel floor mount!

## VDOG™ Variable Angle Gear

- 90° gear box with articulating ball valve
- Hardened gear drive system - no chains or sprockets
- Available in Cast, Billet or Powdercoat finishes
- Pillow Block Mount available
- P/N FR20303 (Cast)



## Stainless Steel U-Joints

- Available in many different sizes and shaft diameters
- Made from 303 Stainless Steel for strength and corrosion resistance



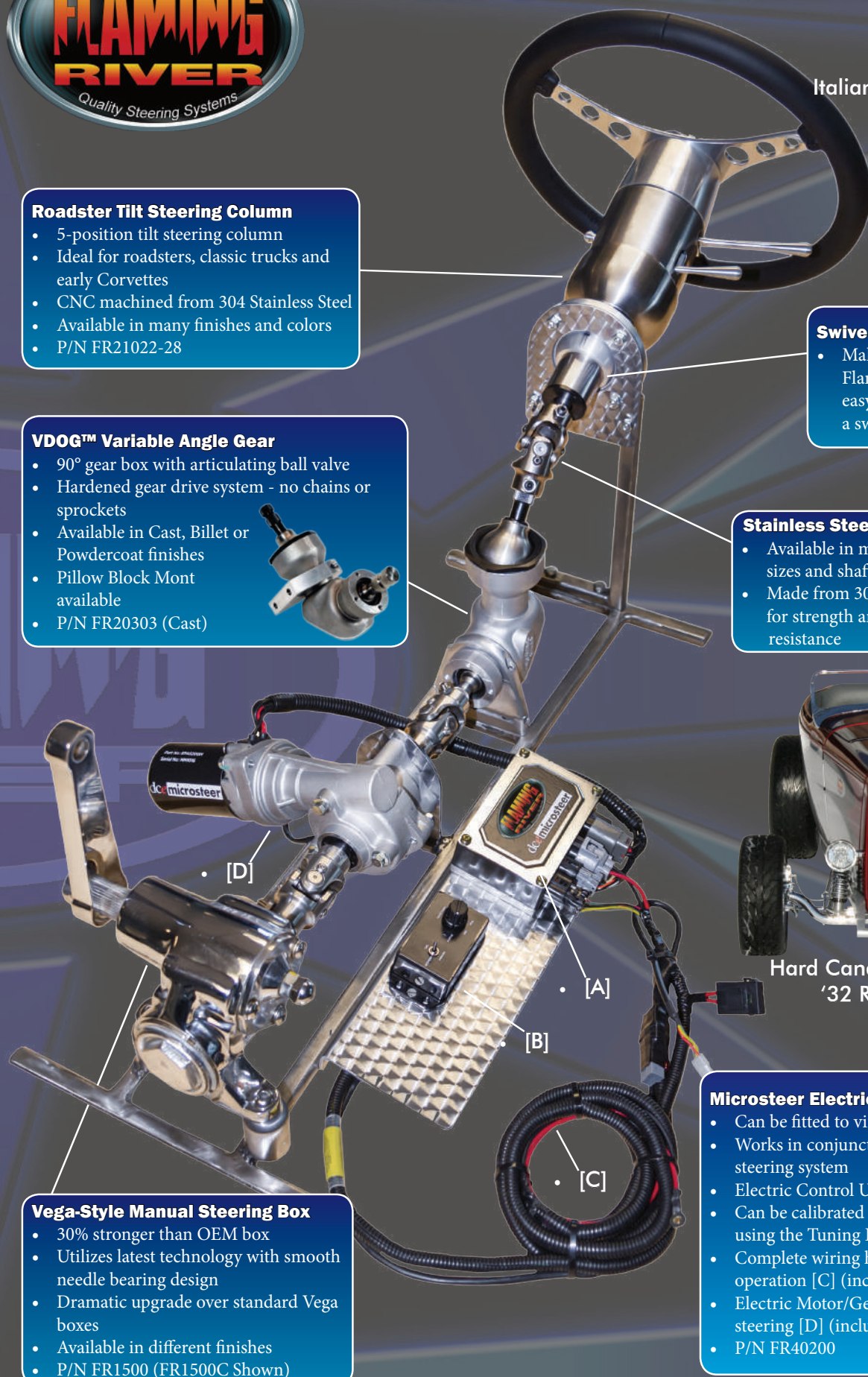
Hard Candy - Flaming River's '32 Roadster Coupe

## Vega-Style Manual Steering Box

- 30% stronger than OEM box
- Utilizes latest technology with smooth needle bearing design
- Dramatic upgrade over standard Vega boxes
- Available in different finishes
- P/N FR1500 (FR1500C Shown)

## Microsteer Electric Power Assisted Steering

- Can be fitted to virtually any vehicle
- Works in conjunction with your current manual steering system
- Electric Control Unit included for calibration [A]
- Can be calibrated to meet your steering needs using the Tuning Box [B] (included)
- Complete wiring harness for easy plug and play operation [C] (included)
- Electric Motor/Gearbox Unit assists with manual steering [D] (included)
- P/N FR40200

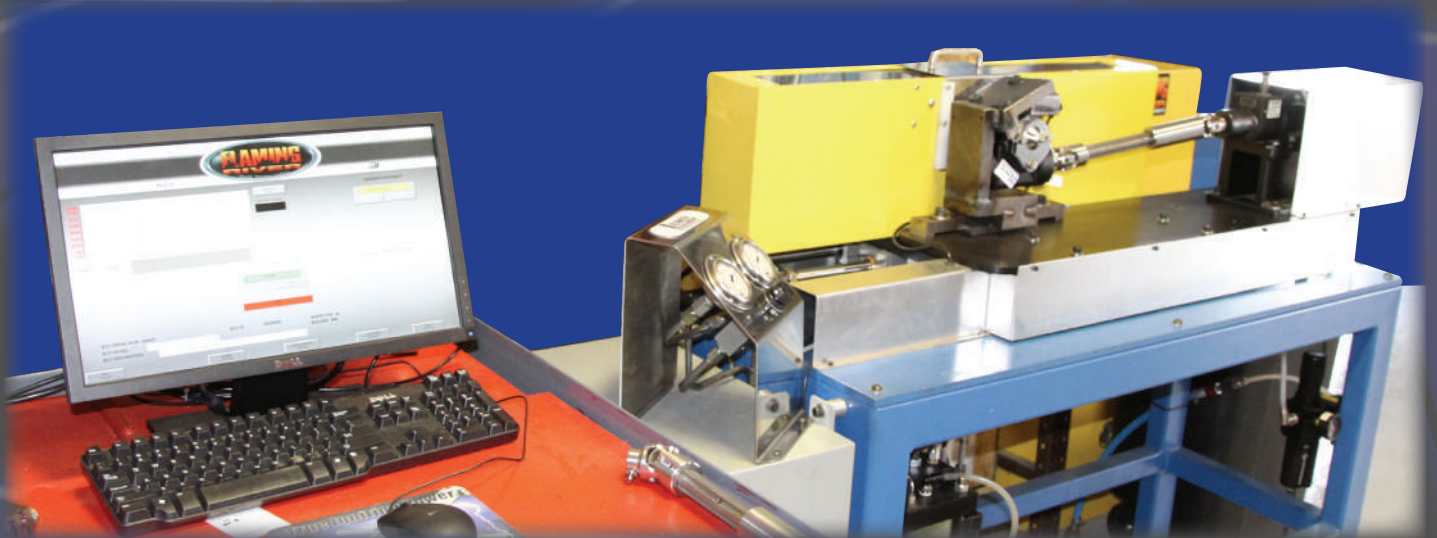
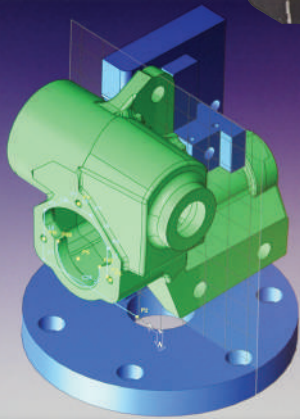


# STEERING BOXES

Steering Box Manufacturing  
Each steering box begins with a U.S.A. made casting which we precisely machine and assemble with new components and then cycle test for quality assurance.

## EACH STEERING BOX IS MADE WITH ALL NEW INTERNALS!

Lifetime Serviceability



Each Flaming River manual steering box is tested for proper steering torque and bearing adjustment...Flaming River Certified!

# STREET ROD / VEGA STYLE STEERING BOXES

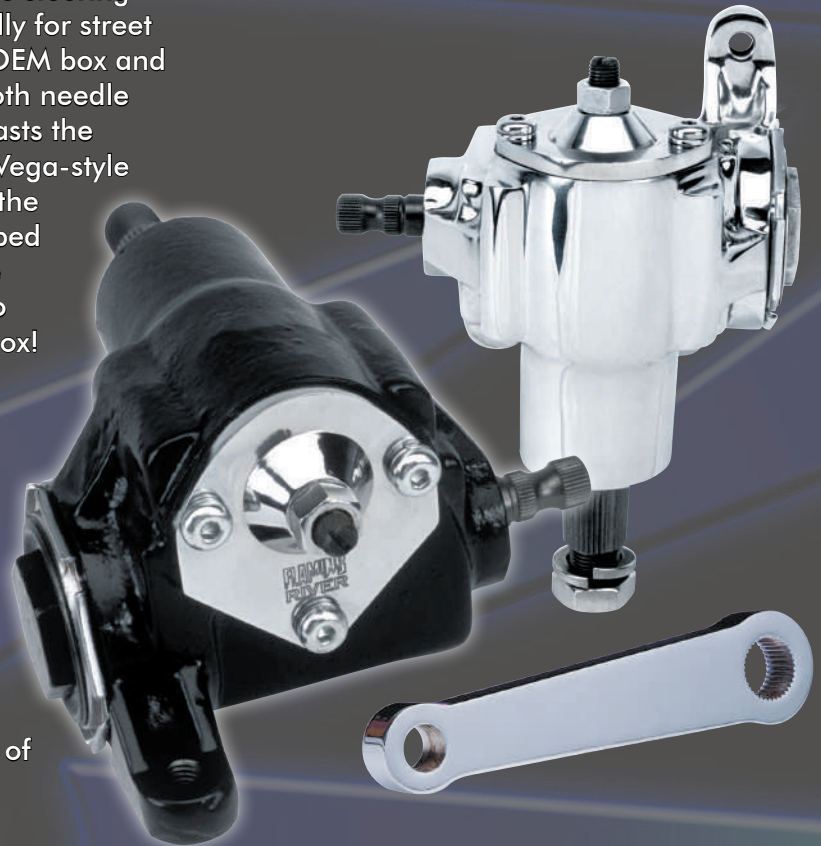
## Performance Vega Steering Boxes

The Flaming River Performance Vega style steering box is an all-new unit designed specifically for street rods. This box is 30% stronger than the OEM box and utilizes the latest technology with a smooth needle bearing design. This new design far outlasts the original bushing design of the 70's. The Vega-style box is preferred by most builders due to the steering geometry of straight-axle equipped cars. We have dramatically improved the Flaming River Vega-style box. There is no "VEGA" in the Flaming River Vega-style box!

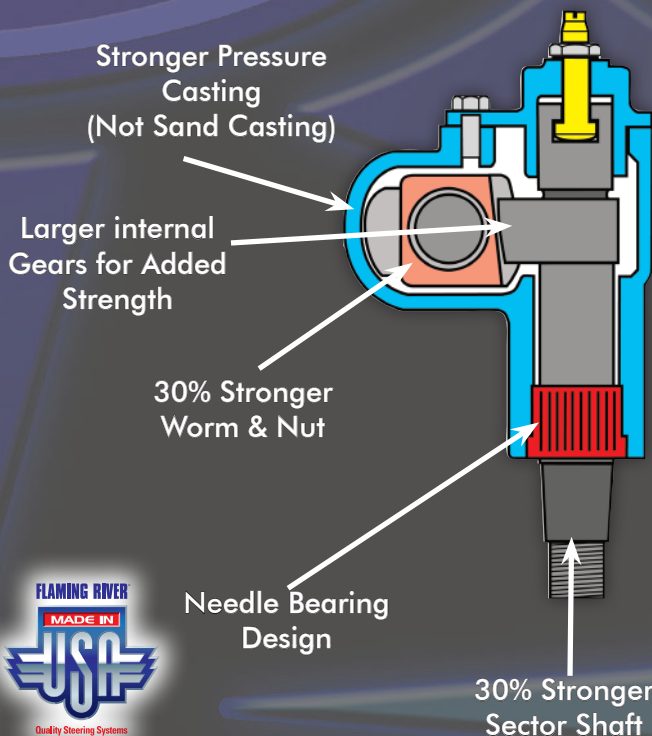
### Smooth Precise Steering:

- Direct bolt-in replacement
- New smooth needle bearing design for longer life
- Heavy-duty worm gear and roller bearing design is 30% larger than original for smoother, more comfortable steering end to end
- Crowned Sector - Higher torque at center position reduces vibration and provides for more natural return of steering wheel.
- Stronger Casting & Internals
- New double cupped seal
- NEW high tech chromed cap included.
- Factory marked center position.
- One-Year Warranty

Note: Not recommended for vehicles that exceed 3,000 lbs. Not intended for circle track racing. Use in Motorsports activities voids all warranties.



PART No.	DESCRIPTION
FR1500	20:1 RATIO - BLACK FINISH
FR1500Q	16:1 RATIO - BLACK FINISH
FR1500C	20:1 RATIO - CHROME FINISH
PITMAN ARMS	
FR1493	6" VEGA STYLE STEEL PITMAN ARM
FR1493PL	6" VEGA STYLE CHROME PITMAN ARM



### Vega Mounting Bracket **FR1500MP**

This bracket allows for mounting of the Vega Box and comes complete with mounting plate and gusset.

Note: Must be welded in place.



# VEGA STYLE STEERING BOXES

High-Performance Manual Steering Box Kits  
Increase Horsepower, Reduce ET!

These manual steering box kits are a direct replacement for power and larger manual boxes for most GM applications. The compact steering box weighs only 12 lbs. Can reduce front end weight by up to 30 lbs.

Kit Includes: Performance Steering Box, Pitman Arm, Needle Bearing U-Joint, Shaft Adapter



All new manual steering box designed specifically for racing and street use (weighs only 12 lbs.)

- Direct bolt-in replacement for most popular applications
- Installs easily in under one hour
- Streamlines engine compartment
- Gain header clearance

Note: Not recommended for vehicles that exceed 3,000 lbs. Not intended for circle track racing. Use in Motorsports activities voids all warranties.

PART No.	DESCRIPTION
FR1494	1973-77 CHEVELLE
FR1496	1975-79 SKYLARK - 1970-81 CAMARO - 1975-79 NOVA
FR1500BS	VEGA-STYLE BALL SOCKET MANUAL STEERING BOX KIT - 1967-69 CAMARO - 1967-68 FIREBIRD

## Vega-Style Ball Socket Manual Steering Box Kit FR1500BS

This kit is designed for the early Camaros, Novas, and Firebirds. Compact steering box weighs only 12 lbs. and reduces front end weight and improves header clearance. 20:1 Standard Ratio (16:1 Quick Ratio also available).

Kit Includes: Performance Steering Box and Ball Socket Pitman.

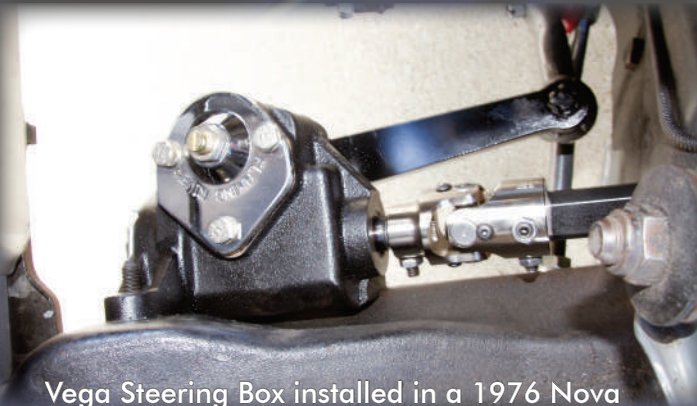
NOTE: Adapter is recommended for installation **FR1798-100, FR1798-148** (sold separately)

Fits the following applications:

- 1967-69 Camaro
- 1968-74 Nova
- 1967-68 Firebird,
- GMC Cyclone/Typhoon



Note: Not Recommended for Vehicles over 3,000 lbs. Not intended for circle track racing or for use in vehicles that are subject to wheel stands. Use in Motorsports activities voids all warranties.

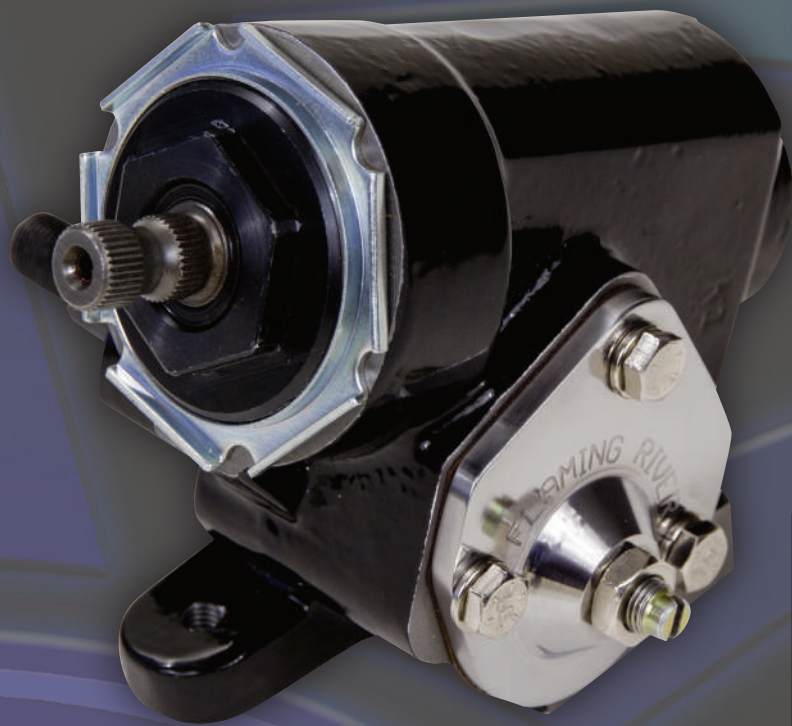


Vega Steering Box installed in a 1976 Nova



62-67 Nova manual box conversion - **FR302KT**

# T-BUCKET STEERING BOXES



## T-Bucket Steering Box (Reversed)

This steering box is manufactured from steel for improved strength and has a reversed design made specially for T-Bucket steering. An all-new needle bearing design with brand new castings and internals, allows for longer life and less vibration. 20:1 ratio.

PART No.	DESCRIPTION
<b>T-BUCKET STEERING BOX</b>	
FR1541	T-BUCKET STEERING BOX
FR1541C	CHROME - T-BUCKET STEERING BOX
FR1541TEC	"TECH T" CHROME - T-BUCKET STEERING BOX

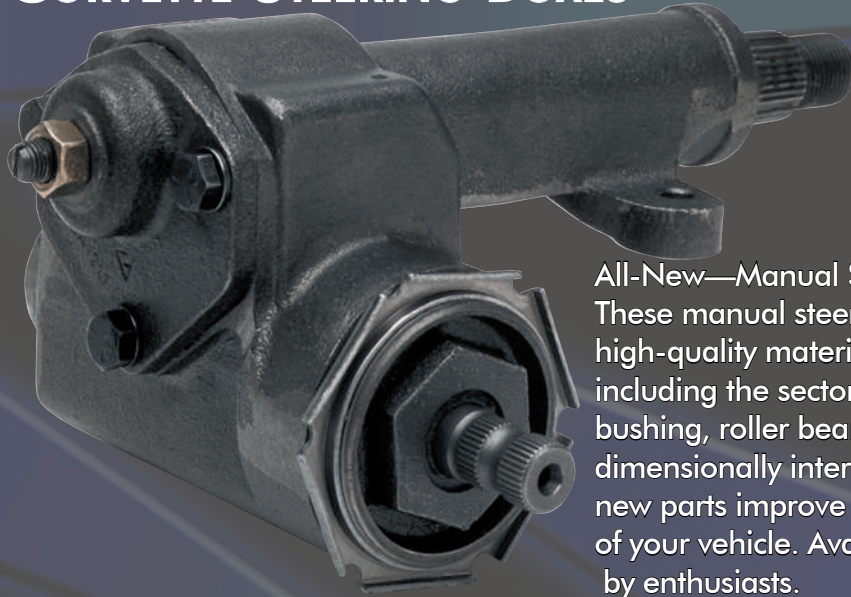


## New "Tech" Series Steering Boxes

A new fluted styling is machined into this new chrome series of steering boxes. With detailing normally only seen by top builders, you can now add a striking and unique look to your street rod—each one is virtually a work of art.



# CORVETTE STEERING BOXES



YEAR	PART No.	PINION SHAFT SIZE
1963-68	FR1513-36	3/4"-36
1969-82	FR1513-30	3/4"-30

**All-New—Manual Steering Boxes for the 1963-82 Corvette**  
 These manual steering boxes are manufactured from high-quality materials and contain all new components—including the sector, recirculating ball worm and nut, bushing, roller bearings, casting, and cap. This unit is dimensionally interchangeable with the original box, but all new parts improve the performance, steering, and handling of your vehicle. Available with quick 16:1 ratio preferred by enthusiasts.

## 1963-82 Corvette Manual Steering Box Rebuild Kit

Flaming River offers a parts kit to rebuild your own box. Most rebuilt boxes on the market only have new bearings, races and seals installed. The worn nut and sector, which are the critical parts that are needed for that new steering response, are not available new so the old parts are recycled into rebuilt boxes. We now offer all new internals so you can rebuild your box and get back on the road safely!

Note: Re-manufacturing your own steering box requires technical expertise and some machining may be necessary (i.e. bushings.)

YEAR	PART No.	PINION SHAFT SIZE
1963-68	FR1514-36	3/4"-36
1969-82	FR1514-30	3/4"-30



## 525 STYLE MANUAL STEERING BOX

This heavy-duty manual steering box is designed for heavier applications. It features a 3 bolt pattern and uses the stock manual pitman arm. Spline size is 3/4"-30 with a 20:1 ratio. Made with all-new parts—not rebuilt! **FR1543**



*The best reward is a satisfied customer!*



## Manual Steering Box for 1966-82 Mopar A/B/C/E Bodies - **FR1540**

This Manual Steering Box is an all-new unit designed to replace the original steering box in early Chrysler, Dodge, and Plymouth vehicles. This small sector steel box is much stronger than the original and has a quicker 16:1 ratio. Perfect for the Duster, Demon, Charger, Barracuda, and other popular Mopar vehicles.

Note: This box has a smaller sector than the original and may require a Pitman Arm.

### Mopar Coupler Kit

**FR1506P** - Power

**FR1506M** - Manual

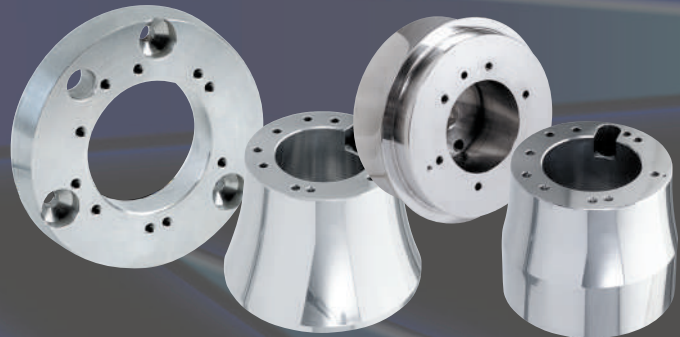
This adapter is ideal for increasing header clearance by eliminating the old rag joint from your stock power box. This box is resistant to corrosion with electroless nickel plating. With an overall length of 4-1/2", it can't be used for power to manual conversion, but is the best option for adding clearance to your existing setup.

### Mopar Steering Wheel Adapters

These Wheel Adapters allow for use of our WaterFall Wheel or a standard 5/6 bolt aftermarket wheel with the original 1970-74 Mopar "E" Body Steering Columns.

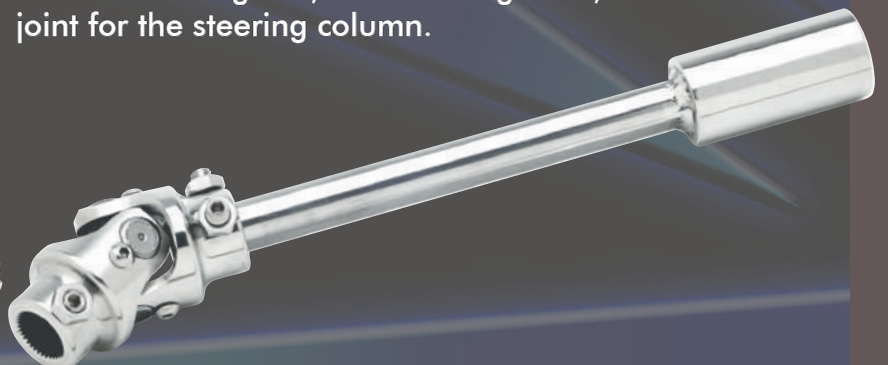
**FR20119DO** - 5/6 Bolt Patterns

**FR20119DO2** - WaterFall Wheel



### Mopar Coupler Shaft Kit – Power to Manual Conversion - **FR1505M**

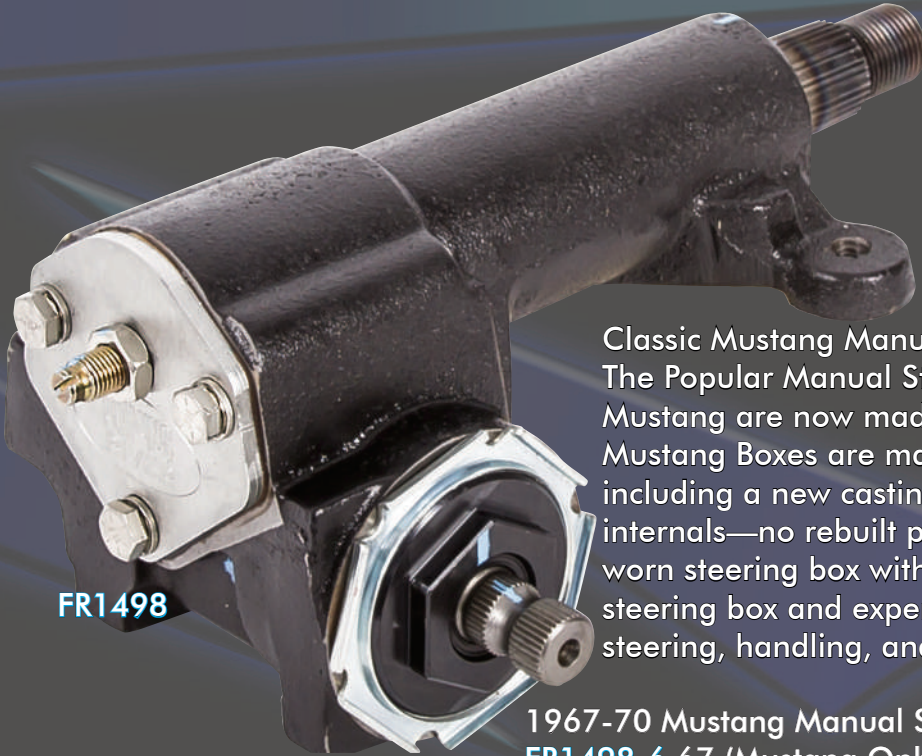
This kit simplifies installation by eliminating the factory coupler and is a must-have when converting from Power to Manual steering. Kit includes a coupler to fit the manual steering box, a connecting shaft, and a universal joint for the steering column.



PART No.	DESCRIPTION
FR20150HGAD	FR TILT COLUMN
FR20150OE	GM COLUMN
FR20150M69	DODGE 1966-69
FR20150M70	DODGE 1970-75
FR20161AD	FLAMING RIVER TUFF WHEEL ADAPTER
FR20180	5/6 BOLT 1966-69
FR20181	5/6 BOLT 1970-75



# '65-'70 CLASSIC MUSTANG STEERING



**FR1498**

**Classic Mustang Manual Steering Boxes**  
 The Popular Manual Steering Boxes for the 1965-70 Mustang are now made right here, in the USA. Our Mustang Boxes are made from all-new components including a new casting, sector gear shaft, and internals—no rebuilt parts in this box! Replace that worn steering box with an all-new needle bearing steering box and experience the difference in steering, handling, and performance!

**1967-70 Mustang Manual Steering Box FR1498**

**FR1498-6 67 (Mustang Only - Short Shaft 1" Sector)**

This Manual Steering Box comes with a 1-1/8" sector shaft and short steering shaft. Made with all-new components and comes with 16:1 ratio. Made in the USA.



**1965-66 Mustang Manual Steering Box**

This Manual Steering Box comes with a 1" sector shaft and 45" long steering shaft. Made with all-new components, it installs easily into the classic 1965-66 Mustangs. 16:1 ratio, but 19:1 ratio available upon request. Made in the USA. **FR1497Q**

PART NO.	DESCRIPTION
FR1497VLV	1965-66 P/S VALVE
FR1498VLV	1967-70 P/S VALVE
FR1498PWR	POWER STEERING CYLINDER
FR1498VLKT	1967-70 VALVE AND CYLINDER KIT

## 1965-70 Mustang Power Steering Replacement

These Power Steering Valves and Cylinders are all new pieces—not rebuilt. Minimum pump pressure at 465 RPM is 665 psi and .88 GPM. This system will not operate correctly without correct pump performance.

Note: 90 Day Warranty. Hoses/Pump not included.



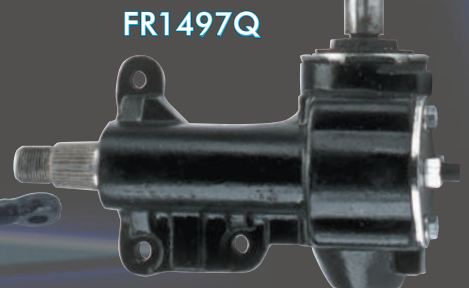
**FR1498VLV**



**FR1498PWR**



**FR1497VLV**



**FR1497Q**



# PERFORMANCE ALTERNATORS

ALTERNATORS, BATTERY DISCONNECT SWITCHES, ELECTRICAL ACCESSORIES



FR1108C  
Front



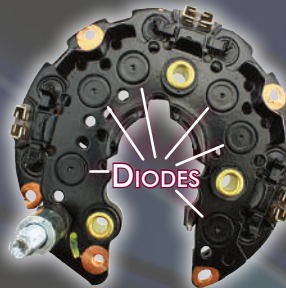
FR1108C  
Back

- Black, Natural, Polished and Chrome finishes available
- "Hairpin" stator design allows for more winding density and much higher output at engine idle RPM
- Much better high RPM stability solves high RPM charging problems that are common with OEM alternators
- Diodes - 12 press fit diodes (instead of the standard 6 found in most aftermarket alternators)
- Double stacked heat sinks for more surface area and greatly improved cooling

## 6-PHASE TECHNOLOGY

IT'S COMMON TO UNDERESTIMATE THE POWER YOU REALLY USE. THE FLAMING RIVER HIGH OUTPUT ALTERNATORS ARE AVAILABLE IN 170 AMP AND 350 AMP TO GIVE YOU THE POWER YOU NEED!

A/C.....	20 AMPS
FANS .....	30 AMPS
AUDIO/AMP .....	30 AMPS
EFI & PUMP .....	15 AMPS
LIGHTS .....	10 AMPS
AIR RIDE.....	40 AMPS
POWER ACC. ....	15 AMPS
ELEC. WATER PUMP	15 AMPS
	175 AMPS



Our Alternators have Twin Rectifiers with 12 press-fit diodes while other alternators have only one rectifier with 6 diodes



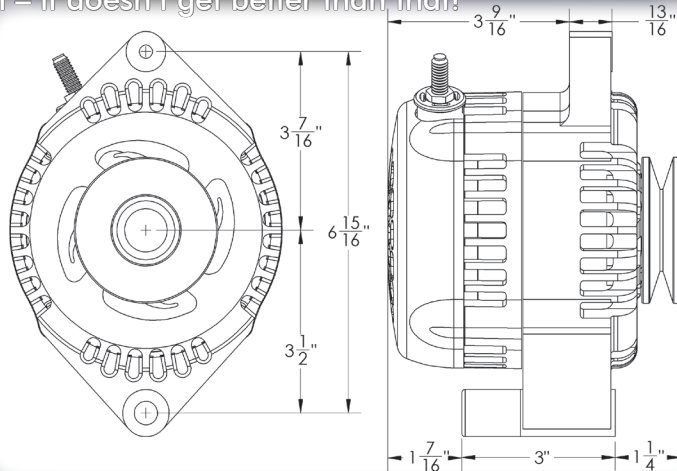
# HIGH OUTPUT PERFORMANCE ALTERNATORS

## 1963-85 GM Alternator (standard GM Bolt Pattern) 170 Amp Single Wire Design

This attractive design is sleek and smooth with your choice of finish. This technologically advanced design is perfect for early GM fitments. It features internal components similar to the 2017 Corvette alternator for true performance.

This 170 amp racing alternator with popular GM fitment drops into place easily but provides much more output at idle than traditional alternators. Simple Single Wire hook up makes installation easy.

It is available in your choice of chrome, polished, satin black or natural finish. Style and performance in your choice of finish – it doesn't get better than that!



FR1108C

- 63-85 GM, 170 amp,
- Std. bolt pattern, One-wire
- FR1108C Chrome Finish
- FR1108P Polished Finish
- FR1108B Satin Black Finish
- FR1108N Natural Finish

## 1963-85 GM 170 AMP SATIN BLACK



FR1108B  
Front View



FR1108B  
Back View



# High Output Performance Alternators

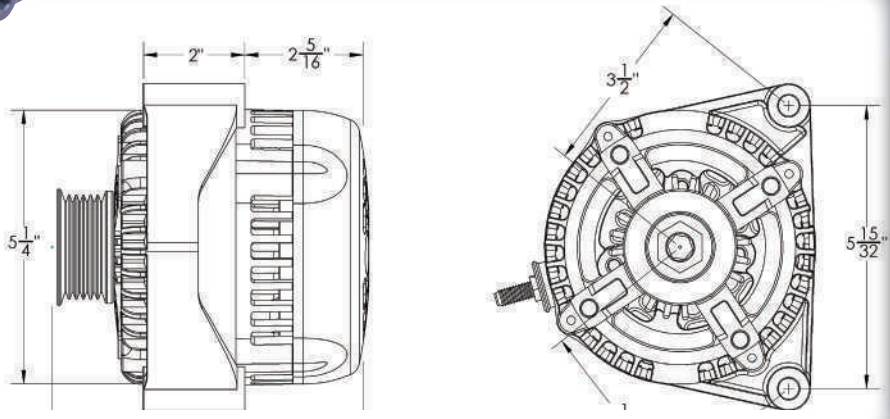
## ONE-WIRE LS ENGINE SWAP ALTERNATORS

### 240 AMP SINGLE WIRE DESIGN

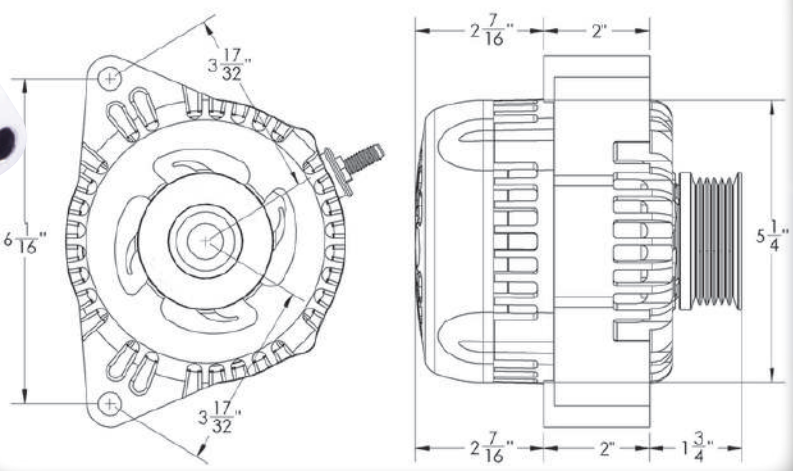


This 240 Amp racing alternator features a simple one-wire hookup and side exit battery cable connection stud for increased clearance behind the alternator. This unit also features a seamless aluminum rear cover for a clean, smooth look. With over 120 amps at standard engine idle rpm and a smaller housing than a large case truck alternator. This alternator is an easy to install upgrade for any LS engine swap application using a GM truck or 98-02 F body bolt pattern adapter.

LS Swap using 96-17 truck or 98-02 F body brackets 240 amp One-wire  
**FR1194C** Chrome Finish  
**FR1194P** Polished Finish  
**FR1194B** Satin Black Finish  
**FR1194N** Natural Finish



## 05-13 CORVETTE - EXCEPT ZR1 ALTERNATOR - SINGLE WIRE DESIGN



**FR1152** 170 Amp Natural Finish  
**FR1153** 170 Amp Polished Finish  
**FR1153C** 170 Amp Chrome Finish  
**FR1154** 170 Amp Satin Black Finish



# PERFORMANCE ALTERNATORS

PART No.	AMPS	FINISH
<b>63-85 GM DIE CAST HOUSING, ONE-WIRE</b>		
FR1108C	170	CHROME
FR1108B	170	SATIN BLACK
FR1108P	170	POLISHED
FR1108N	170	NATURAL
<b>88-95 C/K TRUCK ONE-WIRE SIDE OUTPUT STUD</b>		
FR1116	240	NATURAL
FR1116C	240	CHROME
FR1117	240	POLISHED
FR1118	240	SATIN BLACK
<b>92-96 CORVETTE ALL - EXCEPT ZR1 DIRECT FIT/ TURBO CHARGED BUICK GRAND NATIONAL DIRECT FIT</b>		
FR1143	250	NATURAL
FR1144	250	POLISHED
FR1145	250	SATIN BLACK
<b>05-13 CORVETTE - EXCEPT ZR1 DIRECT FIT, ONE-WIRE</b>		
FR1152	170	NATURAL
FR1153	170	POLISHED
FR1153C	170	CHROME
FR1154	170	SATIN BLACK
<b>65-85 FORD V8, 85-95 FORD MUSTANG 6 &amp; 12 O'CLOCK BOLT PATTERN</b>		
FR1167	170	NATURAL
FR1167C	170	CHROME
FR1168	170	POLISHED
FR1169	170	SATIN BLACK
FR1170	240	NATURAL
FR1170C	240	CHROME

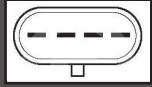
PART No.	AMPS	FINISH
FR1171	240	POLISHED
FR1172	240	SATIN BLACK
<b>63-85 MOPAR</b>		
<b>SINGLE V PULLEY</b>		
FR1173	150	NATURAL
<b>DOUBLE V PULLEY</b>		
FR1174	150	NATURAL
FR1175	240	NATURAL
<b>11-17 5.0L COYOTE CRATE MOTOR, ONE-WIRE</b>		
FR1176	240	NATURAL
<b>96-17 GM TRUCK BRACKET, 98-02 F BODY LS1 BRACKET, ONE-WIRE</b>		
FR1194C	240	CHROME
FR1194P	240	POLISHED
FR1194B	240	SATIN BLACK
FR1194N	240	NATURAL
FR1195N	250	NATURAL
FR1195B	250	SATIN BLACK
FR1195B350	350	SATIN BLACK
<b>96-04 GM TRUCK REAR OUTPUT STUD</b>		
FR1197B350	350	SATIN BLACK
FR1197N350	350	NATURAL
FR1198B	250	SATIN BLACK
FR1198N	250	NATURAL
<b>05-13 GM TRUCK REAR OUTPUT STUD</b>		
FR1199B350	350	SATIN BLACK
FR1199	250	SATIN BLACK
<b>14-17 GM TRUCK SIDE OUTPUT STUD</b>		
FR1200B350	350	SATIN BLACK



# High Output Performance Alternators

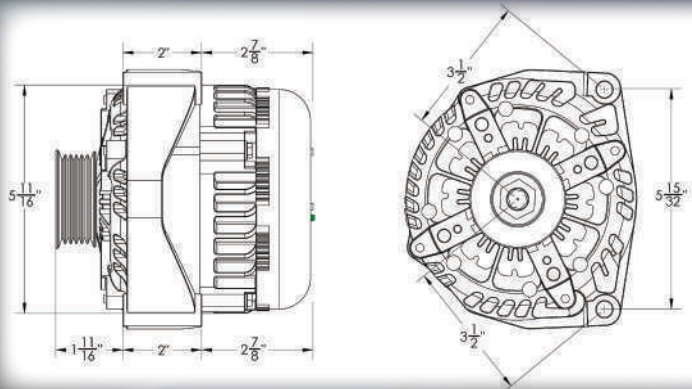


1996-2004  
GM V8 TRUCKS

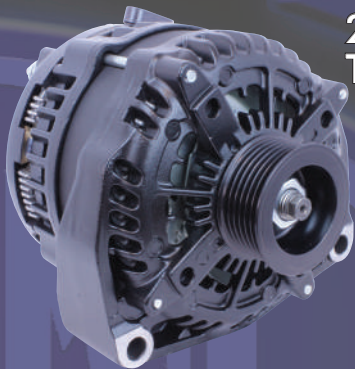


USES 4-PIN  
GM PLUG

**FR1197N350**  
350 Amp Natural  
**FR1198N**  
250 Amp Natural

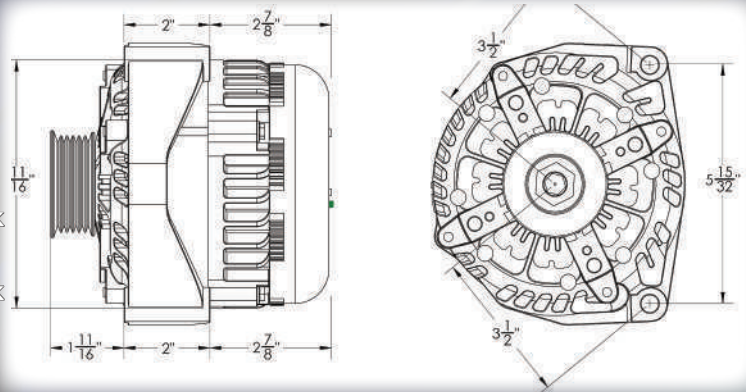


The Big Block of Alternators provides massive low RPM output. This high performance alternator features large case, rectifier and 12 press fit diodes for long service life under the most intense conditions. This alternator is ideal for high RPM racing applications running multiple fuel pumps and cooling fans and, of course, Full Size GM trucks requiring a lot of power. Available in 250 amp or 350 amp for the most intense applications. The 350 amp alternator is perfect for commercial and car audio applications that draw a lot of power.



2005-13 GM  
TRUCK AND SUV

**FR1199B350**  
350 Amp Satin Black  
**FR1199**  
250 Amp Satin Black

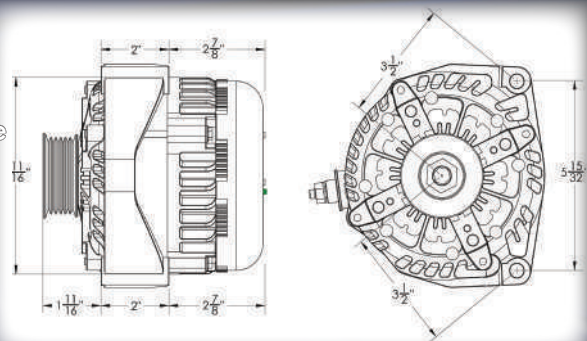


05-17  
Alternators  
Use 2-pin GM  
Plug



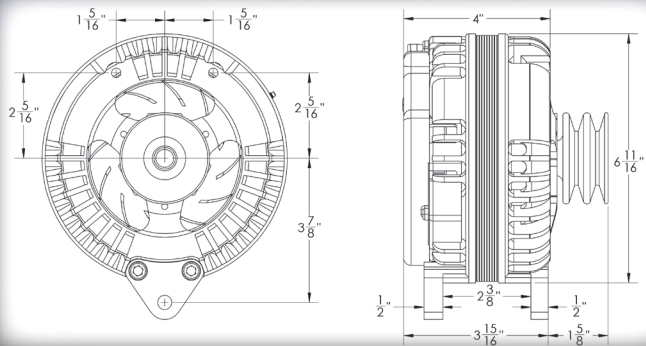
2014-17 GM  
TRUCK AND SUV  
With side output stud  
to clear LT series engine

**FR1200B350**  
350 Amp Satin Black



1963-85 MOPAR

**FR1173**  
150 Amp Single Groove Pulley  
**FR1174**  
150 Amp Double Groove Pulley  
**FR1175**  
240 Amp Double Groove Pulley



- 100-120 amps at idle with a stock Mopar crankshaft pulley
- Single Rectifier Plate with eight diodes
- 3 times the output at idle
- Longer-lasting and more durable than OEM alternators

- 3 Year / 36,000 Mile Warranty
- Self-exciting or "one-wire" hookup
- Fits 1963-85 Mopar applications with "square back" or "round back" alternator design
- Built in the USA

# BATTERY RELOCATION KIT & ALTERNATOR INSTALL KIT

IMPROVED FLEXIBILITY

EASIER TO WORK WITH



## PARTS LIST

Quantity	Description
20'	Red 2 awg Ultra-Flexible Battery Cable
8'	Black 2 awg Ultra-Flexible Battery Cable
6	Heavy Duty Copper Cable Ends
2	Battery Clamp Terminals
12	Insulated Cable Mounting Clamps
12	Self Drilling/Tapping Screws
3	Red Heat Shrink Tubing
3	Black Heat Shrink Tubing
12	Plastic Cable Ties

### FR1063 Battery Relocation Kit

Flaming River® has introduced a new battery relocation kit! The 20 foot 2 gague positive cable and 8 foot 2 gague ground cables are ultra flexible and allow for easier installation. Complete kit comes with the ultra flexible 2 awg cables, heavy duty copper cable ends, battery clamp terminals, insulated mounting clamps, heat shrink tubing and all fastening hardware necessary for installation. The FR1063 Relcation Kit is ideal for adding a second battery to your system or relocating your battery to the trunk or rear of the vehicle.

## Alternator Cable Install Kit

Alternator Cable Installation Kit  
(with 250 Amp Fuse) **FR1061**

Kit Includes:

- 250 Amp fuse and fuse holder
- zero gauge positive and ground cables
- no crimp cable ends

**FR1062FS** 250 Amp Fuse for 0 to 4 gauge cable



# THE LITTLE SWITCH (BATTERY DISCONNECT)

## FR1002 The Little Switch

### FR1002-1 The Little Switch (No Mounting Bracket)

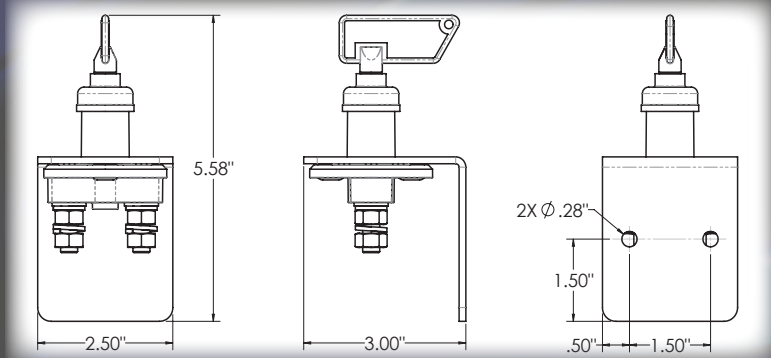
The Little Switch is rated at 100 amps continuous service and 500 amps for 10 second surges making it ideal for street rods, classics and passenger cars. In addition to preventing battery drain, this unique switch is also a cost effective anti-theft device. A rubber boot seals the neck from moisture and dirt.

- Competition approved by IMSA, ARCA, and SCCA.
- Inexpensive Anti-theft Device
- Prevents Battery Drain
- Water Resistant
- Removable Key



Part No.	FR1002
Warranty	1 Year
Voltage	6V/12V/24V
Max Continuous Current	100 Amps
Max Surge Current	500 Amps (10 seconds)
Environmental Protection Rating	IP4X
Operating Temperature Range	-40°C to +50°C, -40°F to +122°F
Contact Terminals	Copper
Contact Hardware	Zinc Plated Steel
Stud Diameter	M8
Available Stud Length	0.50"
Max Tightening Torque	4.43 ft-lbs / 6 N-m
LED ON/OFF Indicator	No
Lock-Out Capability	Yes – Removable Key
Replacement Key Part No.	FR1002K

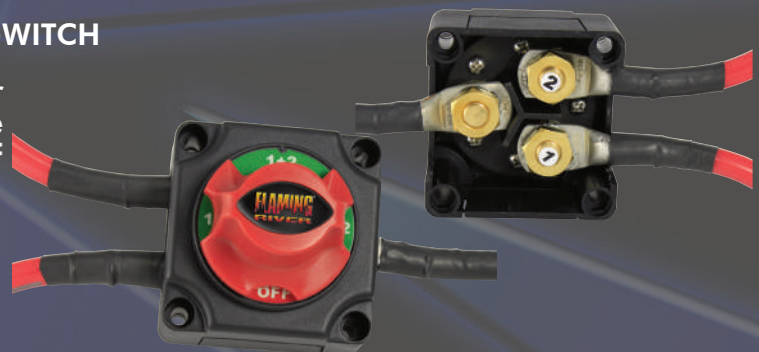
Mounting Bracket Included	Yes
Mounting Bracket Part No.	FR1004
Protective Cover Included	Yes - Protective Rubber Boot
Protective Cover Part No.	FR1002BT
Approved for IMSA, ARCA and SCCA Competition Use	



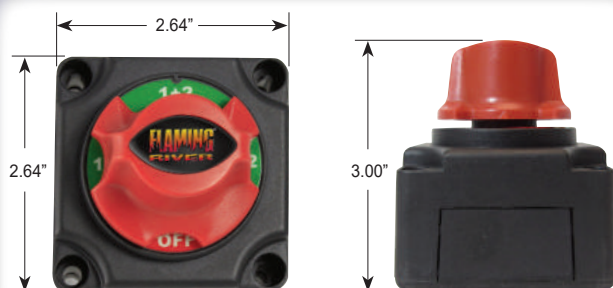
## FR1050 DUAL BATTERY DISCONNECT SWITCH

The Dual Battery Disconnect Switch allows for two batteries to operate independent of one another, or for both to be in the ON or OFF position at the same time.

- Rated at 300 Amps continuous service, and 1000 Amps for 5 second surges.
- 12 or 24 Volts
- IP 54 Rating
- 300 Amps Continuous
- 1000 Amps Surge for 5 Seconds
- Silver Plated Contacts



Description	Dual Battery Disconnect Switch
Part No.	FR1050
Warranty	1 Year
Voltage	12V and 24V
Max Continuous Current	300 Amps
Max Surge Current	1,000 Amps (5 seconds)
Environmental Protection Rating	IP54
Operating Temperature Range	-40°C to +50°C -40°F to +122°F
Internal Contacts:	Silver Plated Copper
Contact Terminals	Copper
Contact Hardware	Brass
Stud Diameter	M10 Available
Stud Length	0.5" (1/2 in)
Tightening Torque	11-13 ft-lbs
Switch Modes	4 Modes: #1 On, #2 On, Both On, Both Off



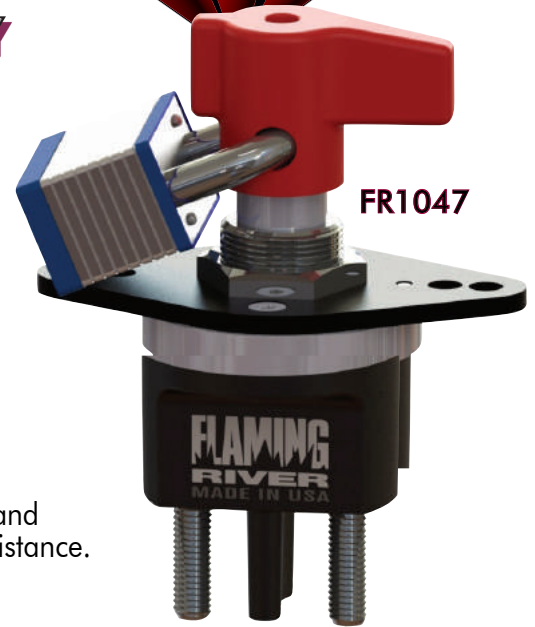
# BIG SWITCH 500 - 500 AMP BATTERY DISCONNECT SWITCH

500 Amp  
005

- FR1046 The Big Switch 500 with Lock-Out Bracket
- FR1047 The Big Switch 500 Lock-Out Hole with Lever Handle w/ Retrofit Diamond Bracket



- 500 AMPS
- DURABLE HIGH-IMPACT MOLDED BODY
- RIVETED DESIGN
- WATERPROOF AND CORROSION-RESISTANT
- SILVER-PLATED STUDS
- SILVER-PLATED CONTACTS
- MADE IN USA



Heavy-duty battery disconnect switch with 500 amp rating. Silver pads and terminals and glass nylon material provide impact and temperature resistance. New waterproof/corrosion-resistant design. Made in USA. Features and Benefits:

- Heavy-duty battery disconnect switch that boasts a 500 amp continuous rating
- Silver pads and terminals provide higher rating
- Innovative glass-filled nylon material is impact and extreme temperature resistant
- Sealed waterproof and corrosion-resistant design
- Can withstand extreme vibration—making it ideal for racing and heavy-duty truck applications
- Optional lock-out feature allows switch to be locked in the OFF position to comply with OSHA lock-out/tag-out regulation 1910.147
- Made in the USA with American-made components and materials



FR1046

FR1046LED w/LED Indicator

Lock Not Included

Corrosion-Resistant Nickel-Plated Brass Fasteners



# BIG SWITCH 500 - 500 AMP BATTERY DISCONNECT SWITCH

## 500 Amp Battery Disconnect Switch

VOLTAGE	12V/24V
MAX CONTINUOUS CURRENT	500 AMPS
ENVIRONMENTAL PROTECTION RATING	IP65
CORROSION RESISTANT	YES
OPERATING TEMPERATURE	-40°F TO + 176°F (-40°C TO +80°C)
SWITCH BODY MATERIAL	GLASS-FILLED NYLON
INTERNAL CONTACTS	AG <sub>2</sub> SN <sub>2</sub> O <sub>2</sub> (SILVER TIN OXIDE) PLATED COPPER
CONTACT TERMINALS	AG <sub>2</sub> SN <sub>2</sub> O <sub>2</sub> (SILVER TIN OXIDE) CONTACTS
STUD DIAMETER	M10
AVAILABLE STUD LENGTH	1.18 IN (1-3/16 IN)
CONTACT HARDWARE	NICKEL-PLATED BRASS
M10 TIGHTENING TORQUE	11-13 FT·LBS

**NOTE: TERMINALS ON BATTERY DISCONNECT SWITCHES ARE LIVE PARTS OF THE ELECTRICAL SYSTEM AND SHOULD BE TREATED JUST LIKE BATTERY TERMINALS. COVERS ARE RECOMMENDED, BUT NOT INCLUDED, FOR EACH KIT. CONTACT YOUR VEHICLE'S MANUFACTURER TO DETERMINE PROPER PLACEMENT AND SUITABILITY.**



Lock-out Ready

Non-Corrosive Plunger Assembly

M30 Diameter

Dual Springs/  
Vibration Resistant

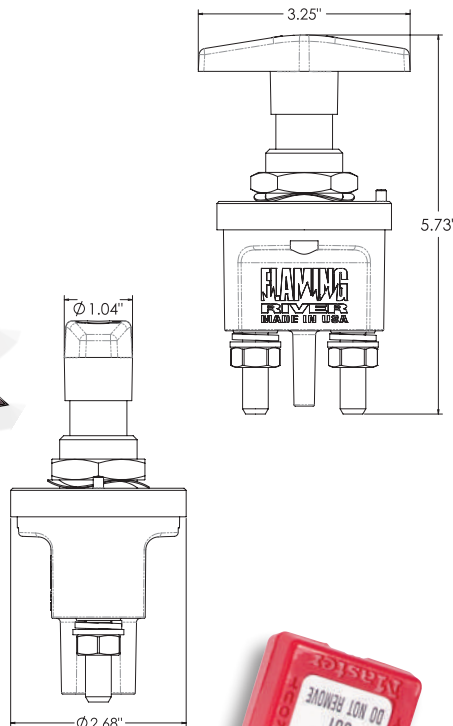
Sealed and Corrosion-Resistant

High Amp Silver Contacts

Silver-Plated Copper Terminals

High-Impact Molded Material

Terminal Diameter: M10, Terminal Length: 1-3/16"



Lock Not Included. Shown for representation purposes only

# 250 AMP BATTERY DISCONNECT SAFETY SWITCHES

## FR1044 New XL Terminal Big Switch Battery Disconnect Switch



- INCREASED TERMINAL SPACE
- 250 Amps continuous service
- 2500 Amps for 5 second intervals (12V/24V)
- silver-plated copper electrical contacts
- nickel-plated brass hardware
- completely sealed, waterproof design
- three (3) year warranty
- Complies with OSHA lock-out/tag-out regulation 1910.147

LONGER STUD LENGTH FOR EASIER CABLE INSTALLATION

.95"

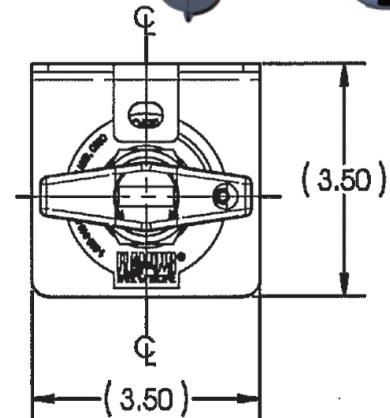
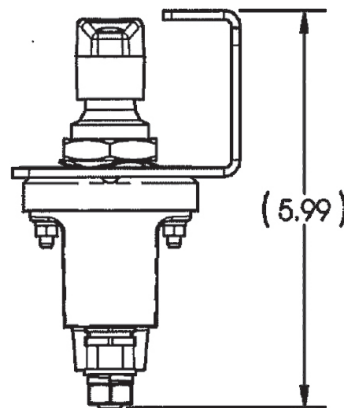
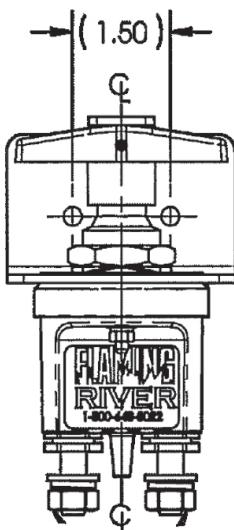


Nickel-Plated Brass fasteners Lock Not Included for corrosion resistance

WARRANTY	3 YEARS
VOLTAGE	12V/24V
MAX CONTINUOUS CURRENT	250 AMPS
MAX SURGE CURRENT	2500 AMPS
ENVIRONMENTAL PROTECTION RATING	IP65
WATERPROOF	YES
OPERATING TEMPERATURE	-40°F TO + 176°F (-40°C TO +80°C)
CONTACT TERMINALS	SILVER-PLATED COPPER
CONTACT HARDWARE	NICKEL-PLATED BRASS
STUD DIAMETER	M10
AVAILABLE STUD LENGTH	.95 IN (APPROX. 61/64 IN)
MAX TIGHTENING TORQUE	11-13 FT-LBS

### FR1014TM Terminal Covers for Grooved Terminal Stud

Sold in sets of two. Can be used to cover cables on all Battery Disconnect Switches. Sold separately from switch.



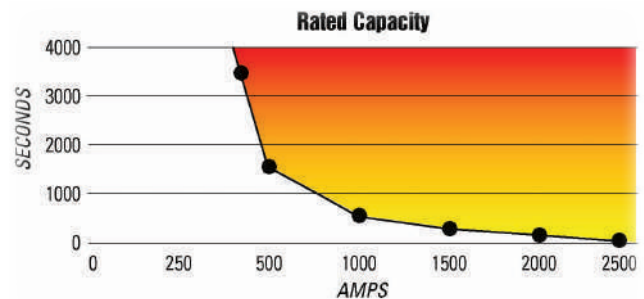
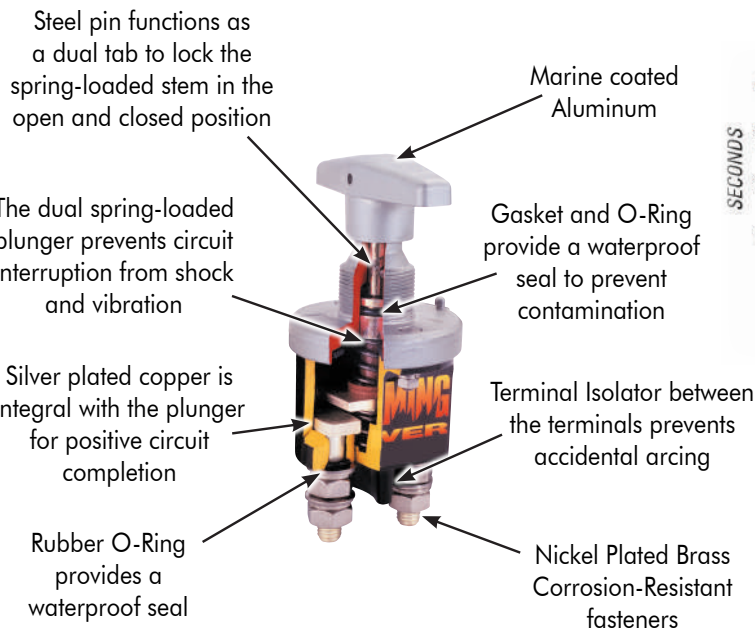
# 250 AMP BATTERY DISCONNECT SAFETY SWITCHES

## FR1044LED Big Switch Battery Disconnect with LED Indicator

The Big Switch is now available with an illuminated LED that provides a visual cue that easily identifies whether the switch and electrical system are ON or OFF for proper shut down procedure.

- LED Indicator Light - Clear indicator that system is ON or OFF
- Rated Capacity 2500 Amps / 250 continuous
- Stainless Steel Fasteners for corrosion resistance
- Waterproof
- Silver-plated copper internal contact plates
- M10 studs
- Lock-out feature enables use of padlock for OSHA Lock-out/Tag-Out compliance regulation 1910.147

PART No.	DESCRIPTION
FR1044LED	BIG SWITCH BATTERY DISCONNECT WITH LED INDICATOR
FR1008LED	LOCK-OUT BRACKET AND LED INDICATOR ONLY (FOR RETROFIT TO EXISTING "BIG SWITCH")



**NOTE: TERMINALS ON BATTERY DISCONNECT SWITCHES ARE LIVE PARTS OF THE ELECTRICAL SYSTEM AND SHOULD BE TREATED JUST LIKE BATTERY TERMINALS. COVERS ARE RECOMMENDED, BUT NOT INCLUDED, FOR EACH KIT. CONTACT YOUR VEHICLE'S MANUFACTURER TO DETERMINE PROPER PLACEMENT AND SUITABILITY.**

## FR1043 350 AMP Battery Disconnect Safety Switch

### HD Amp Battery Disconnect Switch with Terminal Covers

This heavy-duty battery disconnect switch, with larger diameter terminal studs, is ideal for Class 8 Trucks, RVs, Chippers and other construction vehicles. Clip on terminal covers are designed to protect against arcing. Proprietary brass attaching nut allows 180 degree rotation. Higher Amp capacity – 2500 amps/350 continuous.

- Waterproof
- Silver plated copper internal contact plates
- Increased insulation to H Class rating
- Larger diameter studs – .4725 inch (M12)
- Longer studs – 1.25" to allow easier double cable connection
- Stainless Steel Fasteners for corrosion resistance
- LED option: Illuminated LED indicates whether system is on or off
- Lock-out option: Enables use of padlock for security



# 250 AMP BATTERY DISCONNECT SAFETY SWITCHES

**FR1003** The Big Switch Battery Disconnect Switch

Top racers realize that using a low amp switch creates resistance and actually reduces power. Flaming River's heavy duty battery disconnect switch is top of the line designed for complex electrical systems and 16 Volt batteries. Rated at 250 amps continuous service (12/16/24V) and 2500 amps for 5 second surges. Spring-loaded, vibration resistant, waterproof design. Accepted by most sanctioning bodies including IHRA/NHRA. Furnished with an easy-grip T-handle, anodized aluminum bracket and zinc plated mounting hardware.



FR1007 MOUNTING BRACKET FOR THE BIG SWITCH  
 SW-HANDLE REPLACEMENT HANDLE FOR THE BIG SWITCH



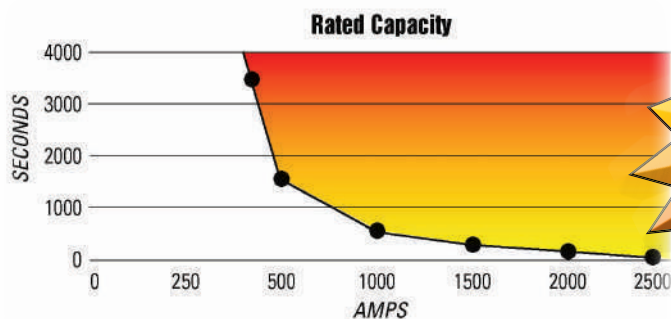
## FR1009 The Big Switch with Removable Key

The Big Switch with removable laser cut, stainless steel key enhances the security and safety features available with the Big Switch. This unit is rated at 250 amps continuous service and 2500 amps for 5 second intervals (12V / 24V) It is a heavy duty, waterproof switch. The removable key feature is ideal for construction, farm equipment and passenger cars. An absolutely essential theft deterrent.

## FR1009K Additional Laser Cut Key

## FR1003TM Terminal Covers

Sold in sets of two, can be used to cover cables on all Battery Disconnect Switches. Sold separately from switch.



## FR1010 Combination Battery and Magneto Kill Switch

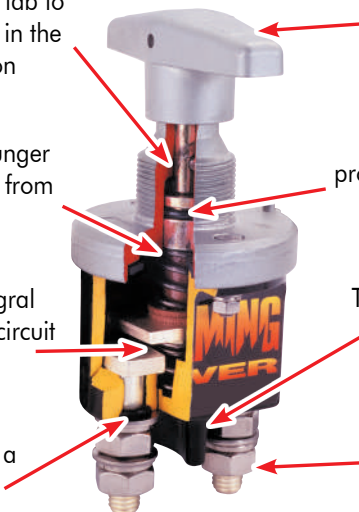
Dual circuit switch simultaneously shuts down both the battery and magneto. Waterproof spring-loaded design with silver plated brass contacts. Rated at 250 Amps continuous service, 2500 Amps for 5 second surges. Accepted for NHRA/IHRA competition use. Furnished with an easy grip T-Handle and anodized aluminum mounting bracket.

Steel pin functions as a dual tab to lock the spring-loaded stem in the open and closed position

The dual spring-loaded plunger prevents circuit interruption from shock and vibration

Silver plated copper is integral with the plunger for positive circuit completion

Rubber O-Ring provides a waterproof seal



Marine coated Aluminum

Gasket and O-Ring provide a waterproof seal to prevent contamination

Terminal Isolator between the terminals prevents accidental arcing

Stainless Steel corrosion resistant fasteners



### FR1003-2 The Big Switch with Lever Kit

The lever kit allows for remote actuation of the Big Switch. The kit includes an 18" long, aluminum threaded rod, T-handle, mounting bracket and necessary hardware. A "push off" decal is included. Accepted for NHRA/IHRA competition use.

### FR1003-4 The Big Switch with Extension Kit

#### FR1003-EXT Extension Only

This industrial lever kit allows for remote mounting of the Big Switch. Kit includes a custom 15" aluminum rod, handle, and the switch.

- Rated at 250 amps continuous service (12/16/24V) and 2500 amps for 5 second surges.
- Spring-loaded, vibration resistant waterproof design.
- Accepted by most sanctioning bodies including IHRA/NHRA.
- Furnished with an easy-grip T-handle, anodized aluminum bracket and zinc plated mounting hardware.

### FR1006 Lever Kit Only



**NOTE: TERMINALS ON BATTERY DISCONNECT SWITCHES ARE LIVE PARTS OF THE ELECTRICAL SYSTEM AND SHOULD BE TREATED JUST LIKE BATTERY TERMINALS. COVERS ARE RECOMMENDED, BUT NOT INCLUDED, FOR EACH KIT. CONTACT YOUR VEHICLE'S MANUFACTURER TO DETERMINE PROPER PLACEMENT AND SUITABILITY.**

## FR1048 - 500 AMP Big Switch 500 - With Mounting Bracket

Flaming River now offers an alternative to the **FR1003** switch for racing. Rated at 500 amps continuous service (12/16/24V) and 2500 amps for 5 second surges, this switch also has the added benefit of weight savings over the FR1003 switch:

**FR1003 22.4 oz. • FR1048 19.2 oz**

Spring-loaded, vibration resistant, waterproof design. Accepted by most sanctioning bodies including IHRA/NHRA. Furnished with an easy-grip T-handle, anodized aluminum bracket and zinc plated mounting hardware.



## FR1070 BA PROFESSIONAL JUMPER CABLE

The Professional Jumper Cables are heavy-duty, 23 feet long, and ultra-flexible. Robust brass clamps designed to hold firm and thick, yet flexible cables safely allow you to jumpstart your vehicle. The set comes with one black and one red cable with clamps. Conveniently stores in a rugged carrying case.

Strong Brass Jaw Clamps with Copper Connection for Maximum Continuous Current



- Nominal Voltage 12V/24V
- Clamps Material: casting brass
- Cable Material: copper (cross section 50 mm<sup>2</sup>)
- Cable Insulation: highly flexible PVC
- Max Current Carrying Capacity: 1000 A for 30s
- Short-term Current Capacity: 2000 A for 5s

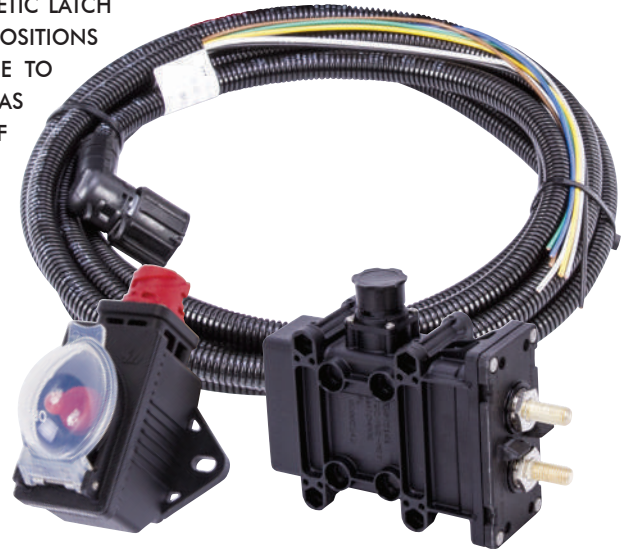


# Automatic Battery Disconnect Safety Switch

**FR1057 WATCH DOG® – THE NEXT LEVEL**

## AUTOMATIC BATTERY DISCONNECT SWITCH

THE WATCH DOG® IS CAPABLE OF HANDLING 300 AMPS OF CURRENT CONTINUOUSLY AND DESIGNED WITH VERSATILITY IN MIND TO FUNCTION ON BOTH 12V AND 24V SYSTEMS. UTILIZING BISTABLE "MAGNETIC LATCH" TECHNOLOGY, THE WATCH DOG® SECURES ITS ON/OFF POSITIONS WITHOUT CURRENT DRAW AND REQUIRES OVER 80G OF FORCE TO MECHANICALLY SEPARATE THE CONTACTS. THE WATCH DOG® HAS SOME OF THE HIGHEST INTERNATIONAL PROTECTION RATINGS OF IP76 AND IP69K, ENSURING THAT WATER AND DUST STAY OUT. THE WATCH DOG® HAS BUILT-IN PROGRAMMABLE TIME DELAY SETTINGS AND A MANUAL EMERGENCY TOGGLE SWITCH WITH A SYSTEM STATUS LED INDICATOR.



### INCLUDED IN THE PACKAGE:

- WATCH DOG® MAIN BATTERY DISCONNECT SWITCH
- EMERGENCY TOGGLE SWITCH
- 4-WAY WIRE HARNESS (8.33 FEET)
- 7-WAY WIRE HARNESS (13.25 FEET)
- MOMENTARY PUSH BUTTON

### TOP 5 REASONS TO USE WATCH DOG®:

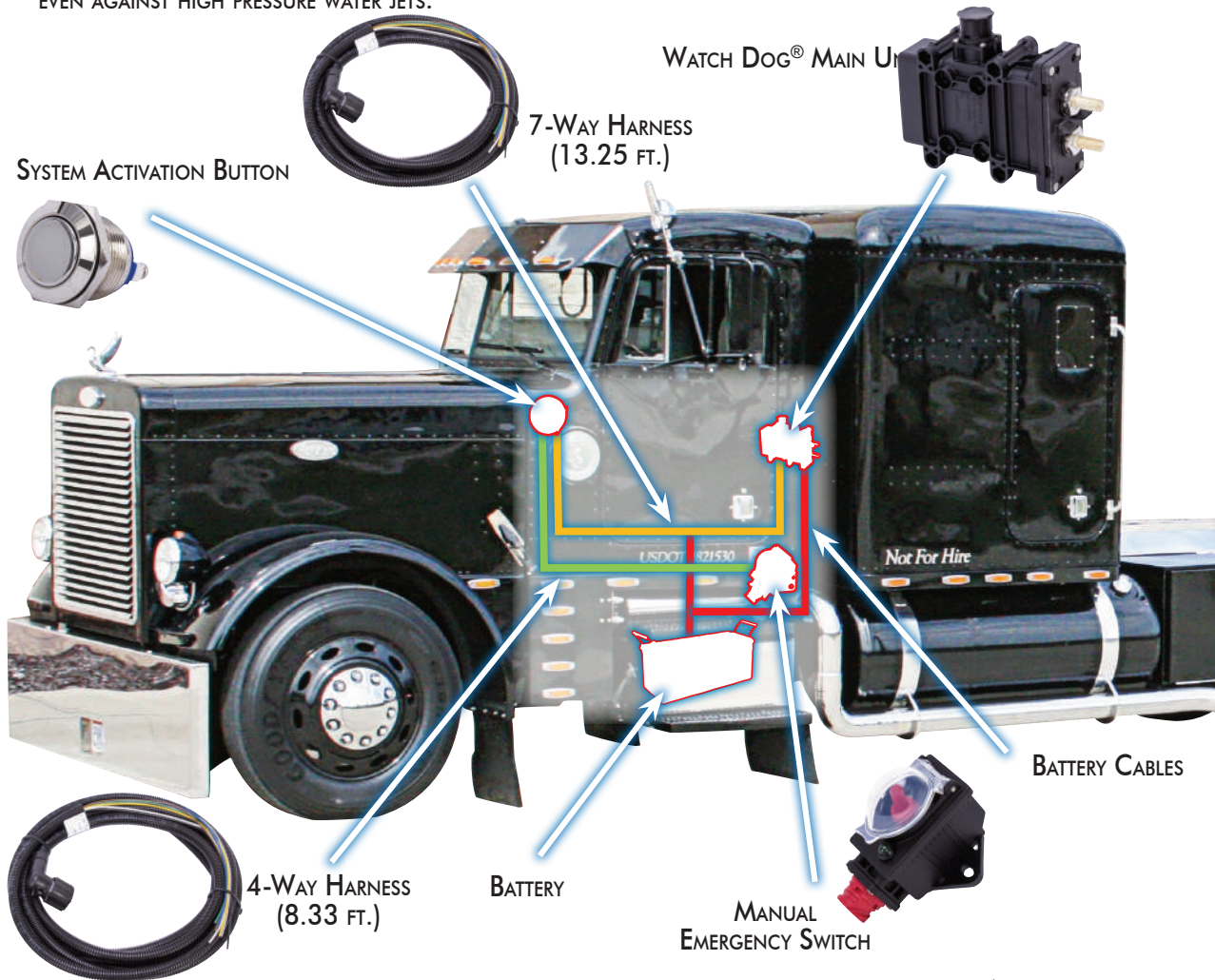
- SIMPLIFY YOUR SHUTDOWN ROUTINE WITH AUTOMATIC BATTERY DISCONNECTION AND A PROGRAMMABLE TIME DELAY (DEFAULT 6 MIN).
- BISTABLE "MAGNETIC LATCH" TECHNOLOGY. MAIN SWITCH CAN MAINTAIN THE ON AND OFF POSITIONS WITHOUT CURRENT CONSUMPTION.
- MAX CONTINUOUS CURRENT LOAD OF 300 AMPS. SUPPORTS 12V AND 24V SYSTEMS OUT OF THE BOX.
- INCREDIBLY DURABLE. DUST AND WATER TIGHT, EVEN AGAINST HIGH PRESSURE WATER JETS.
- SAFETY IS A PRIORITY WITH THE INCLUDED EMERGENCY TOGGLE SWITCH FOR MANUAL WATCH DOG® CONTROL.

**\*NOTE:** THE WATCH DOG® SYSTEM IS AN ELECTROMECHANICAL BATTERY DISCONNECT SWITCH. THE EMERGENCY EXTERNAL SWITCH WILL ONLY DISCONNECT THE BATTERY FROM THE ELECTRICAL SYSTEM. THIS PRODUCT IS **NOT** DESIGNED TO DEACTIVATE THE ALTERNATOR OR SHUT DOWN THE VEHICLE COMPLETELY. \*

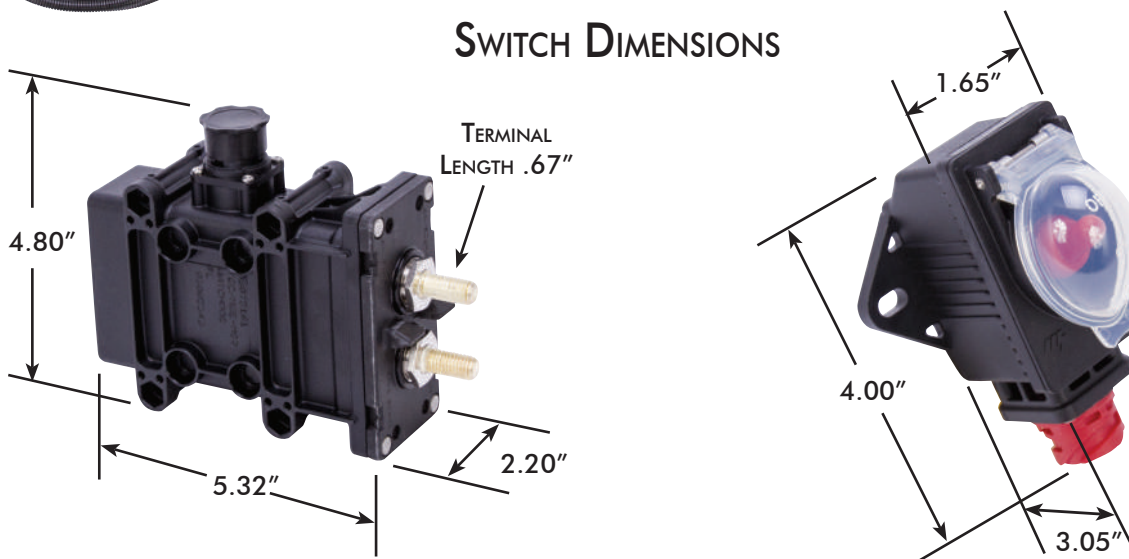
DESCRIPTION	300 AMP WATCH DOG® BATTERY DISCONNECT
PART NO.	FR1057
VOLTAGE	12V/24V
MAX CONTINUOUS CURRENT	300 AMPS
MAX SURGE CURRENT	1,000 AMPS (30 SECONDS) 2,000 AMPS (5 SECONDS)
ENVIRONMENTAL PROTECTION RATING	IP67 AND IP69K (WATER PRESSURE CLEANING)
WATERPROOF	YES
CORROSION RESISTANCE	SALT SPRAY TEST: 300H
TERMINAL LENGTH	0.670" (APPROX. 43/64 IN)
TERMINAL DIAMETER	M10
OPERATING TEMPERATURE RANGE	-40°C TO +85°C -40°F TO +185°F
INTERNAL CONTACTS	SILVER-PLATED COPPER WITH SILVER PADS
CONTACT TERMINALS	SILVER-PLATED COPPER WITH SILVER PADS
CONTACT HARDWARE	NICKEL-PLATED BRASS
AUTOMATIC SHUT-OFF	YES
MANUAL EMERGENCY SHUT-OFF	YES
PROGRAMMABLE TIME DELAY	6 MIN. (DEFAULT), 3 MIN., 1 MIN., 30 SEC.
BATTERY DISCONNECT MODE	POSITIVE AND NEGATIVE
TERMINAL COVERS INCLUDED	YES

### BISTABLE MAGNETIC LATCH

- BISTABLE "MAGNETIC LATCH" TECHNOLOGY. MAIN SWITCH CAN MAINTAIN THE ON AND OFF POSITIONS WITHOUT CURRENT CONSUMPTION.
- MAX CONTINUOUS CURRENT LOAD OF 300 AMPS. SUPPORTS 12V AND 24V SYSTEMS OUT OF THE BOX.
- INCREDIBLY DURABLE. DUST AND WATER TIGHT, EVEN AGAINST HIGH PRESSURE WATER JETS.



### SWITCH DIMENSIONS



ELECTRONIC COMPONENTS ARE NON-RETURNABLE

# AUTOMATIC BATTERY DISCONNECT SAFETY SWITCH



"Electro-Wizard" Automatic Battery Disconnect Switch



- Ideal Protection For:
- Construction & Farm Equipment / Mining & Off-Highway Vehicles
  - Heavy-Duty Trucks
  - Automotive / Racing
  - Marine
  - DEF System Compatible
  - 12 Volt Electronic Battery Disconnect Switch. 24V system available upon request.
  - Passive Magnetic Solenoid Operation – No mechanical switch to forget to operate
  - Sealed Waterproof Design Can withstand severe operating condition

CHARACTERISTICS	RATINGS
VOLTAGE	12 VOLTS
MAX CONTINUOUS CURRENT	250 AMPS
MAX SURGE CURRENT	2500 AMPS
ENVIRONMENTAL PROTECTION RATING	IP65
CORROSION RESISTANCE	SALT SPRAY TEST: 300H
OPERATING TEMPERATURE	-40°F TO +185°F
TERMINAL SPECS	M10 (DIAMETER) 0.89 IN. (LENGTH)
INTERNAL CONTACTS	SILVER PLATED COPPER
CONTACT TERMINALS	TIN PLATED BRASS

PART No.	DESCRIPTION
FR1051	12V ELECTRO WIZARD – GROUNDED SOLENOID (POSITIVE DISCONNECTION ONLY)
FR1052	12V ELECTRO WIZARD – INSULATED SOLENOID (POSITIVE AND NEGATIVE DISCONNECTION SUPPORTED)

PART No.	DESCRIPTION
FR1053	3 MINUTE TIME DELAY RELAY
FR1055	6 MINUTE TIME DELAY RELAY

ELECTRONIC COMPONENTS ARE NON-RETURNABLE

## Low-Voltage Battery Disconnect Safety Switch - FR1058

Stop battery drain with the Flaming River Low Voltage Disconnect!

- Automatic disconnection through battery voltage measurement.
- Disconnects auxiliary loads when battery has drained past a specified threshold. This is a safe battery level designed to allow the user to restart the vehicle.
- Battery charging will automatically reconnect the load
- Positive voltage from the ignition line will prevent load disconnection while the vehicle is operating
- Manual disconnection operated by dash mounted toggle ON/OFF switch
- System status can be monitored via LED indicator
- 1-3 mA current draw while monitoring battery voltage
- Thermal protection from overheating
- Environmentally sealed device for maximum life span (IP6K7/IPX9K ratings).
- Includes 4-way wire harness (13 feet long) with connections to Vehicle Ignition, Ground, Command Button, and Indicator Light



CHARACTERISTICS	RATINGS
OPERATING VOLTAGE (FULLY CHARGED BATTERY)	13.5V (12V SYSTEM) 28V (24V SYSTEM)
PRESET THRESHOLD VOLTAGE	12.1V
MAX CONTINUOUS CURRENT	250 AMPS
MAX SURGE CURRENT	800 AMPS (30 SECONDS) 2000 AMPS (5 SECONDS)
ENVIRONMENTAL PROTECTION RATING	IP6K7/IPX9K
CORROSION RESISTANCE	SALT SPRAY TEST: 300 HRS
OPERATIONAL TEMPERATURE	-40°F TO +185°F
TIME DELAY	60 SECONDS
CONTACTS/TERMINALS	SILVER PLATED COPPER
TERMINAL DIMENSIONS	M10 (DIAMETER) 0.94 IN. (LENGTH)



# Battery and Alternator Disconnect Switch

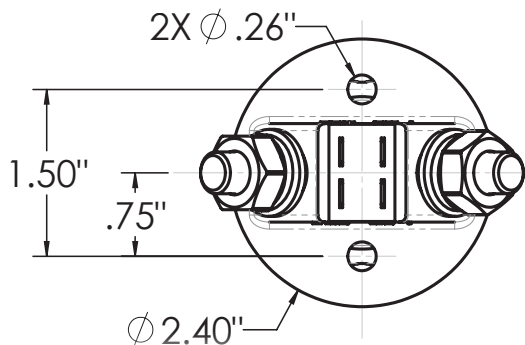
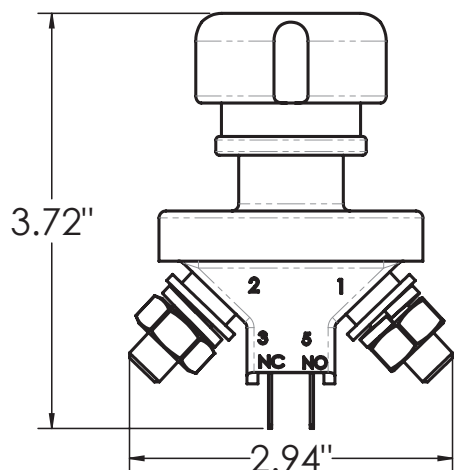
## FR1013 Combination Battery and Alternator Kill Switch

THIS COMBO KILL SWITCH DESIGNED TO COMPLETELY SHUT DOWN THE BATTERY AND CHARGING SYSTEM IN AN EMERGENCY SITUATION. IDEAL FOR RACING, VEHICLE STORAGE, MARINE AND RV APPLICATIONS. PREVENTS BATTERY DRAIN, THEFT, AND REDUCES THE RISK OF ELECTRICAL FIRE.

- PUSH OFF FOR EMERGENCY SHUT-DOWN AND COLOR-CODED TO INDICATE OPERATING POSITION - ON OR OFF, WITH A DURABLE SPRING-LOADED DESIGN
- MEETS IHRA, NHRA AND SCCA SANCTIONING BODY REQUIREMENTS

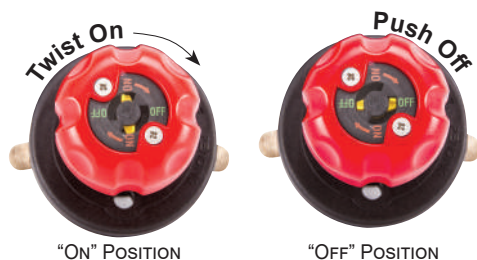
RATED CAPACITY:

- BATTERY - 2000 AMP SURGE
- 150 AMP CONTINUOUS
- ALTERNATOR - 120 AMP

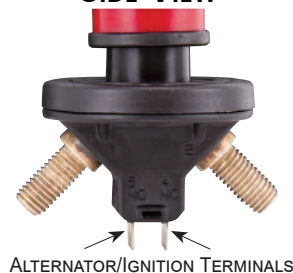


Description	Combination Battery and Alternator Kill Switch
Part No.	FR1013
Warranty	1 Year
Voltage	12V/24V
Max Continuous Current	150 Amps (battery)
Max Surge Current	1,200 Amps (5 seconds)
Max Current for Auxiliary Terminals	5 Amps
Environmental Protection Rating	IP65
Alternator	120 Amps
Waterproof	Yes
Operating Temperature Range	-30°C to +60°C -22°F to +140°F
Contact Terminals	Silver Plated Copper
Contact Hardware	Brass
Stud Diameter	M10
Available Stud Length	0.813" (approx. 13/16 in)
Max Tightening Torque	11-13 ft-lbs
LED ON/OFF Indicator	No
Lock-Out Capability	No
Mounting Bracket Included	No
Protective Cover Included	No
Extension Handle/Lever	No
Additional Notes	Approved for IHRA, NHRA, and SCCA competition use

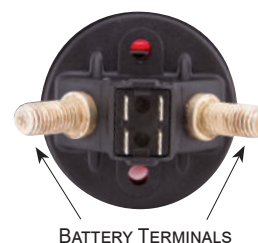
**TOP VIEW**



**SIDE VIEW**



**BOTTOM VIEW**



**NOTE: TERMINALS ON BATTERY DISCONNECT SWITCHES ARE LIVE PARTS OF THE ELECTRICAL SYSTEM AND SHOULD BE TREATED JUST LIKE BATTERY TERMINALS. COVERS ARE RECOMMENDED, BUT NOT INCLUDED, FOR EACH KIT. CONTACT YOUR VEHICLE'S MANUFACTURER TO DETERMINE PROPER PLACEMENT AND SUITABILITY.**



# Littelfuse® by

# FLAMING RIVER

## Flaming River is now an authorized distributor for Littelfuse products!

We now carry a variety of Littelfuse emergency fuse kits that cover OEMs such as Ford, GM, and Chrysler, as well as diagnostic kits that can be used to test and replace fuses on the go. Adding a fuse to a circuit? Grab an inline fuse holder for quick and convenient installation.

Perhaps you need a larger selection? Look for the Super Value Packs of fuses that include ATO, MINI, MAXI, JCASE, MICRO2, MICRO3, or MCASE fuses. Automatically identify faulty fuses with the Smart Glow options available in the ATO and MINI series. These packs include up to 60 fuses to keep you stocked and ready.

The Littelfuse Red Box modules offer bulk fuses in multiple types and configurations stored inside one compact, portable, and organized carrying case. Cover almost any of your circuit protection needs with the hundreds of fuses available with Red Box! Specialty products such as 12V/40A plug-in relays and small, inexpensive anti-theft battery disconnect switches are ready to assist and protect your vehicle when you need them most.

### FR80000



ATO® Emergency Fuse Kit  
Includes: ATO® fuses, 1 of each  
5A, 10A, 15A, 20A, 25A, 30A,  
ATO® Fuse Puller

### FR80001



ATO® Emergency Diagnostic Kit  
Includes: ATO® fuses, 1 of each  
5A, 10A, 15A, 20A, 25A, 30A,  
ATO® Fuse Tester/Puller

### FR80002



MINI® Emergency Fuse Kit  
Includes: MINI® fuses, 1 of each  
5A, 10A, 15A, 20A, 25A, 30A,  
ATO® Fuse Puller

### FR80003



MINI® Emergency Diagnostic Kit  
Includes, 1 of each  
5A, 10A, 15A, 20A, 25A, 30A,  
ATO® Fuse Tester/Puller

### FR80004



ATO®/MINI® Emergency Diagnostic Kit  
Includes: ATO® and MINI® fuses,  
1 of each 5A, 10A, 15A, 20A, 25A,  
30A, ATO® Fuse Tester/Puller

### FR80005



GM OEM Emergency Fuse Kit  
1 each: MINI® Fuses, 7.5A, 25A,  
30A, Low Profile MINI® 10A, 15A,  
JCASE® 20A, 30A, 40A, 50A, Low  
Profile JCASE® 30A, 40A. Plus 2x  
MINI® Fuses 20A and 3x MINI®  
Fuses 10A, 15A

Electronic Components are Non-Returnable



Littelfuse® by

FLAMING RIVER

ALTERNATORS, BATTERY DISCONNECT SWITCHES, ELECTRICAL ACCESSORIES

FR80006



Ford OEM Emergency Fuse Kit  
1 each: MINI® Fuses, 7.5A, 25A, 30A, Low Profile MINI® 10A, 15A, JCASE® 20A, 30A, 40A, 50A, Low Profile JCASE® 30A, 40A. Plus 2x MINI® Fuses 20A and 3x MINI® Fuses 10A, 15A

FR80007



Chrysler\* OEM Emergency Fuse Kit  
1 each: MINI® Fuses, 7.5A, 25A, 30A, JCASE® 20A, 30A, 40A, 50A, Plus 2x MINI® Fuses 20A and 3x MINI® Fuses 10A, 15A  
(\*for Chrysler, Dodge and Jeep)

FR80008



ATO® In-line Fuse Holder  
Includes 16 awg wire and supports max amperage of 20A

FR80009



ATO® In-line Fuse Holder  
Includes 12 awg wire and supports max amperage of 30A

FR80010



ATO® In-line Fuse Holder w/ fuse  
Includes 12 awg wire and supports max amperage of 30A. Includes one 30A fuse

FR80011



ATO® Sealed In-line Fuse Holder  
Includes 12 awg wire and supports max amperage of 30A. Sealed cap that protects fuse connection.

FR80012



12V/40A Plug-in Relay with Bracket  
40A relay for use in 12v systems, comes with snap in mounting bracket for installation.

FR80013



ATO®/MINI® Fuse Puller w/ Tester  
For ATO®/MINI® Fuses with a 1.5V fuse tester

FR80015



MICRO2™, MICRO3™ Fuse Puller for Micro Fuses



# Littelfuse<sup>®</sup> by

# FLAMING RIVER

### FR80016



MAXI Fuse Puller  
For MAXI Blade Fuses

### FR80017



ATO<sup>®</sup>/MINI<sup>®</sup> Fuse Puller (White)  
For ATO<sup>®</sup>/MINI<sup>®</sup> Fuses

### FR80018



RedBox<sup>™</sup> Low Profile Mini Fuses  
5x Low Profile 5A, 20A, 25A  
10x Low Profile 7.5A, 10A, 15A, 30A  
1x ATO<sup>®</sup>/MINI<sup>®</sup> Fuse Puller

### FR80019



RedBox<sup>™</sup> JCASE Fuses  
2x JCASE 32V 20A, 30A, 40A, 50A,  
60A Fuses  
1x JCASE Fuse Puller

### FR80020



RedBox<sup>™</sup> ATO<sup>®</sup>/MINI<sup>®</sup> MAXI Fuses  
10x ATO<sup>®</sup> fuses 5A, 7.5A, 40A  
25x ATO<sup>®</sup> fuses 10A, 15A, 20A, 25A, 30A  
10x MINI<sup>®</sup> fuses 5A, 7.5A, 25A, 30A  
20x MINI<sup>®</sup> fuses 10A, 15A, 20A

### FR80021



RedBox<sup>™</sup> MICRO2<sup>™</sup>, MICRO3<sup>™</sup>, Low  
Profile JCASE<sup>®</sup>, MCase<sup>®</sup> Fuses  
10x MICRO2<sup>™</sup> fuses 5A, 7.5A, 10A,  
15A, 20A, 25A  
10x MICRO3<sup>™</sup> fuses 5A, 7.5A, 10A  
10x MCASE<sup>®</sup> fuses 20A, 25A, 30A, 40A  
10x Low Profile JCASE<sup>®</sup> 20A, 25A,  
30A, 40A, 50A, 60A

### FR80022



Anti-Theft Battery Master Switch  
Detachable version features a special  
disconnect that allows the battery to  
be easily isolated. Perfect for seasonal  
vehicle storage and anti-theft  
protection. Its all standard top mount  
post batteries. Works on 12V-24V  
systems up to 135A

### FR80023



Anti-theft Battery Master Switch  
Fused version maintains current to all  
electrical circuits such as the alarm,  
on-board computer, central locking  
system, and radio memory presets.  
Fits all standard top mount post  
batteries Works on 12V-24V systems  
up to 135A

### FR80024



ATO<sup>®</sup> Fuse Super Value Pack 40 pcs  
5x 3A, 5A, 7.5A, 10A, 15A, 20A,  
25A, 30A and one Fuse Tester/Puller



Littelfuse® by

FLAMING RIVER

FR80025



ATO® Smart Glow Fuse Super Value Pack 42 pcs includes:  
7x 5A, 10A, 15A, 20A, 25A, 30A

FR80026



MINI® Fuse Super Value Pack, 40pcs  
5x MINI® 32V fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A  
1 Fuse Tester/Puller

FR80027



MINI® Smart Glow Fuse Super Value Pack  
36 pcs includes:  
6x MINI® Smart Glow 32V fuses 5A, 10A, 15A, 20A, 25A, 30A

FR80028



MINI®/ATO®/MAXI Fuse Super Value Pack  
21 pcs includes:  
1x ATO® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A  
1x MINI® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A  
1x MAXI fuses 20A, 30A, 40A, 50A, 60A

FR80029



MINI®/JCASE® Fuse Super Value Pack  
29 pcs includes:  
5x MINI® fuses 10A, 15A, 20A, 25A, 30A  
1x JCASE® fuses 20A, 30A, 40A, 50A

FR80030



MICRO2™, MICRO3™ & MCASE®  
Fuse Super Value Pack, 60 pcs  
5x MICRO2™ fuses 5A, 7.5A, 10A, 15A, 20A, 25A, 30A  
5x MICRO3™ fuses 5A, 7.5A, 10A, 15A  
1x MCASE® fuses 15A, 20A, 25A, 30A, 40A  
1x MICRO2™/MICRO3™ Fuse Puller  
1x MCASE® Fuse Puller



WARNING!

This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm.

# PUSH BUTTON AND ROCKER SWITCHES

## ILLUMINATED ROCKER SWITCHES



Blue FR1304

Red FR1303



CHARACTERISTICS	SPECIFICATIONS
LED COLOR	BLUE FR1304 • RED FR1303
MAX VOLTAGE	12VDC
MAX CURRENT	20 AMPS
TERMINATION STYLE	0.250 IN. BLADE
MOUNT TYPE	SNAP-IN, 0.5 IN. X 1.00 IN. RECTANGLE
SWITCH TYPE	ROCKER (ON/OFF), SPST

## ILLUMINATED PUSH-BUTTON SWITCHES



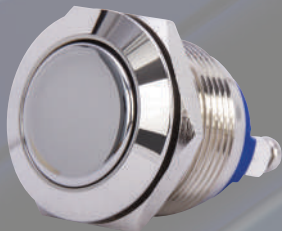
FR1305



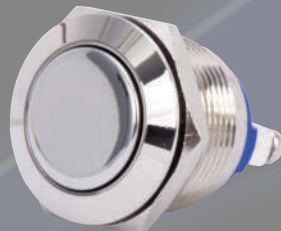
CHARACTERISTICS	SPECIFICATIONS
LED COLOR	GREEN FR1305
MAX VOLTAGE	50VDC, 125VAC
MAX CURRENT	125 MILLIAMPS
IP RATING	IP65
TERMINATION STYLE	SOLDER LUGS
MOUNT TYPE	PANEL, 0.535 IN. DIA W/ 0.508 IN. TO FLAT
SWITCH TYPE	MOMENTARY ON, SPST
CONTACT PLATING	GOLD

## STAINLESS STEEL PUSH-BUTTON SWITCHES

Flat FR1301



Dome FR1300



Raised Flat FR1302



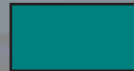
CHARACTERISTICS	SPECIFICATIONS
BUTTON STYLES	DOME FR1300 FLAT FR1301 RAISED FLAT FR1302
MAX VOLTAGE	48VDC
MAX CURRENT	2 AMPS
IP RATING	IP65
TERMINATION STYLE	SCREW TERMINALS
MOUNT TYPE	PANEL, 19MM DIAMETER CUTOUT
SWITCH TYPE	MOMENTARY ON, SPST
CONTACT PLATING	SILVER

**NEW!**

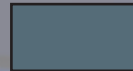


NEW!  
"ONE GOOD TURN"  
DESIGN HEATHER GRAY

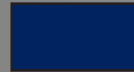
# FLAMING RIVER GEAR



TEAL



HEATHER GRAY



NAVY BLUE



BLACK

FRONT



BACK



NEW!  
"ONE GOOD TURN"  
DESIGN  
TEAL

FRTSHIRT18



PINSTRIPES DESIGN  
BLACK BACK



BLACK  
FRONT



NEW FLAMING RIVER  
OVAL LOGO METAL  
SIGN



SPORT-TEK SHIRT,  
BLACK



SPORT-TEK  
SHIRT, GRAY

**NEW!**



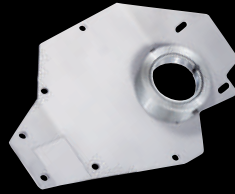
NEW CAN KOOZIE

# DEALERS

If you're a current dealer, or are interested in becoming an authorized Flaming River parts distributor, make sure that you're getting the newest information.

## WARNING!

This product can expose you to chemicals including chromium (hexavalent compounds), which are known to the State of California to cause cancer and birth defects or other reproductive harm.



### Improve Your Product Data:

If you're looking to add or expand your current Flaming River product offerings, all of our up-to-date product data is available through the SEMA Data Co-Op. Product data is available in ACES and PIES formats and includes current pricing, high-res product photography, vehicle application information, and much more!



Dealer Sign  
FRSIGN1D

The management systems and environmental management systems of Flaming River Industries are ISO 9001 and ISO 14001 registered. Flaming River is a proud member of SEMA, NSRA, HRIA, MPMC, PWA and SDC and also a NSRA Super Prize Sponsor.



An ISO 9001:2015 and 14001:2015 registered company







# YOUR COMPLETE STEERING COMPANY

ITALIAN LEATHER CORVETTE  
STEERING WHEEL  
P/N FR20152BK

## Roadster Tilt Steering Column

- 5-position tilt steering column
- Ideal for roadsters, classic trucks and early Corvettes
- CNC machined from 304 Stainless Steel
- Available in many finishes and colors
- P/N FR21022-28

## Swivel Floor Mount

- Make installation of a Flaming River Column easy and beautiful with a swivel floor mount!

## VDOG™ Variable Angle Gear

- 90° gear box with articulating ball valve
- Hardened gear drive system - no chains or sprockets
- Available in Cast, Billet or Powdercoat finishes
- Pillow Block Mont available
- P/N FR20303 (Cast)

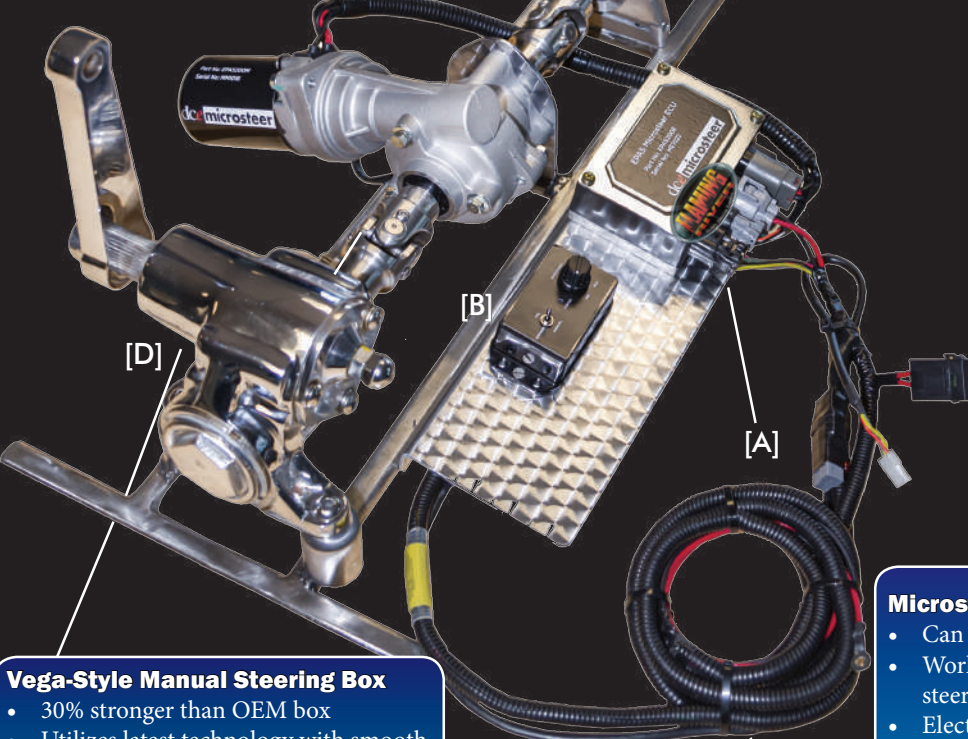


## Stainless Steel U-Joints

- Available in many different sizes and shaft diameters
- Made from 303 Stainless Steel for strength and corrosion resistance



HARD CANDY - FLAMING RIVER'S  
'32 ROADSTER COUPE



## Vega-Style Manual Steering Box

- 30% stronger than OEM box
- Utilizes latest technology with smooth needle bearing design
- Dramatic upgrade over standard Vega boxes
- Available in different finishes
- P/N FR1500 (FR1500C Shown)

## Microsteer Electric Power Assisted Steering

- Can be fitted to virtually any vehicle
- Works in conjunction with your current manual steering system
- Electric Control Unit included for calibration [A]
- Can be calibrated to meet your steering needs using the Tuning Box [B] (included)
- Complete wiring harness for easy plug and play operation [C] (included)
- Electric Motor/Gearbox Unit assists with manual steering [D] (included)
- P/N FR40200