

# HOT RODS



# RACING



**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 30 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.**



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 people. Our promise to you is: "To provide the best quality products and service possible."



Over the past 25 years, we have designed many award-winning products, using state-of-the-art engineering, technology, and quality control in our manufacturing process. Although this has been exciting, we know the best reward is a satisfied customer.

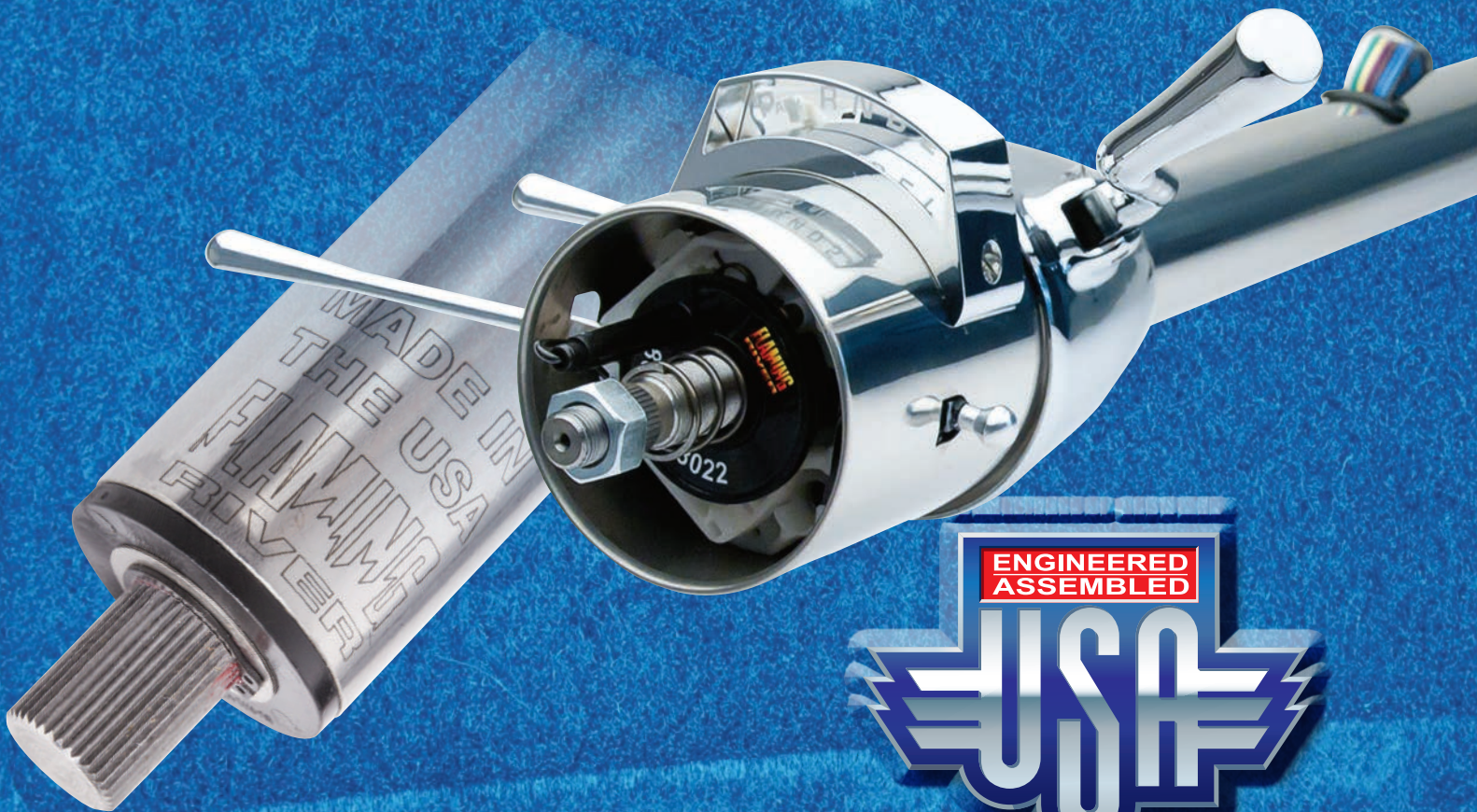


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2016 Street Scene  
Manufacturer of the Year



This is our new showroom. Come by and see us sometime. Our door is always open to hot rodding friends!



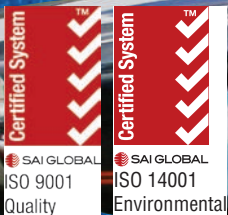
*If It Doesn't Say Flaming River® ...*

*It Just Isn't Good Enough!*

- Floor Shift Tilt and Column Shift Key Columns are available in a stylish, compact design.
- Through our Custom Column Program, we can build to your specifications. See pg 62
- Easily installs using one of our stylish Billet Mounts for a custom fit.
- Standard output on our columns is 1" DD. We also have a 1"-48 and 3/4"-36 splined style for a direct fit to your existing steering. Early Ford Keyway Columns can be ordered through our Custom Column Program.

**The key features:**

- Manufactured from 304 Stainless Steel. Streamlined design with radius slots for wiring.
- Precision laser-cut Floor Shift, Column Shift, "Roadster", and Racing Columns.
- Innovative Quality Manufacturing
- Flaming River focuses on designing products that meet our customers' demands.
- When designing new products, our priority is to include new features and improve upon the original performance and design.



An ISO 9001:2008  
and 14001:2004 registered company

# STEERING COLUMN INDEX

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See page 56



New LED Indicator

FRLED  
FRLEDOD

Led Indicator  
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



## WARNING!

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

# TILT KEY FLOOR SHIFT

**FLAMING RIVER**

**ENGINEERED  
ASSEMBLED**



Quality Steering Systems



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.



### 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. Order this when you order your Flaming River column and we will install it for you. Non-returnable.

**FR20118-4**



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



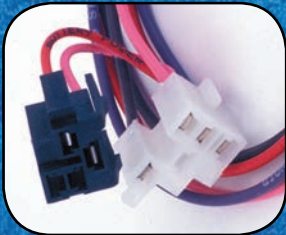
OEM Factory Style Dash Mount - Key Column  
Billet Aluminum clamp can be used with virtually all OEM applications to facilitate the installation of a Flaming River Tilt Key Column in to an existing dash. **FR20114K** See Pg 92

# 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.



Tilt Columns • Key Floor Shift/Key Column Shift



**FR20118-5**  
**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.)



**FR20300 Stramp Clamp**

Fits the original OEM dash mount with a rubber Isolator for vibration absorption. GM 69 and up. Pat. No. US 7,976,065 B2



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

# TILT FLOOR SHIFT

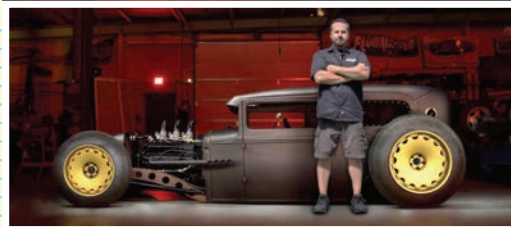
This sleek tilt column is designed for use with a floor shifter. With the choice of 1-3/4 inch or 2 inch tube diameter and a compact shroud, you create a unique, new custom look. Each column comes complete with a billet aluminum dress up kit, GM turn signal with hazards, a 4-1/4 inch connector and canceling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

O.D. x Length	Shaft Size	Mill Finish	Black Powdercoat	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

### Custom Sizes

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*





**FLAMING RIVER**

**ENGINEERED  
ASSEMBLED**



Quality Steering Systems

# TILT COLUMN SHIFT



Tilt Columns • Floor Shift/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.



Optional Overdrive lens,  
part number **FR20010LNO**  
Sold Separately

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. See Page 87

O.D. x Length	Shaft Size	Mill Finish	Black Powdercoat	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
<b>Custom Length</b>				
2 x Custom		FR20020XX	FR20020XXBK	FR20020XXSS

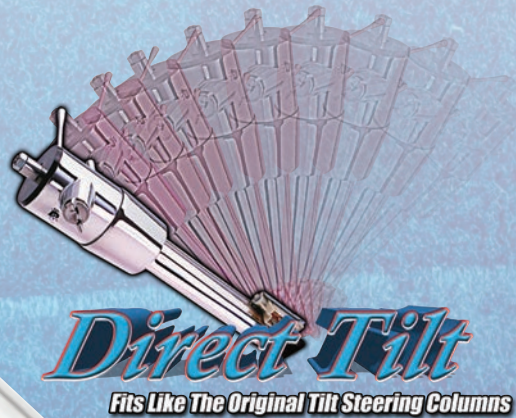
# '55-'56 CHEVY

# 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.

**Note:** If you recently purchased a wiring harness, check to see if "flashers" are included with the kit. Otherwise, you may need to purchase the Tri-5 Chevy Hazard Kit (shown on facing page).



## Floor Shift Tilt Column Part No. **FR20005** Shown



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

*Just Add Tilt*



**Column Shift Tilt Column**  
**Part No. FR20023SS Shown**

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. **Please Note: Wiring Adapter Kit (shown below) required for hazards if your wiring has not been updated.**

Application	Mill Finish	Black Powdercoat	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)

See pg 11 for Accessories

Tilt Columns • 55-56 Chevy

# '57 CHEVY



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. Note: [FR20101-57](#) Swivel Floor Mount is required for installation.



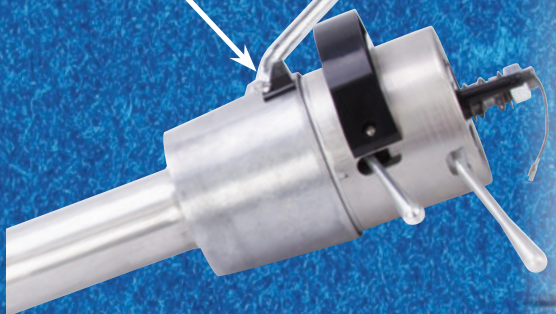
**Shortest you Can Find!**  
Only 6 3/8 Inches

**57 Chevy  
Floor Shift  
Tilt Column**  
Part No. [FR20005-57SS](#) Shown

**57 Chevy  
Column Shift  
Tilt Column**  
Part No. [FR20023-57SS](#) Shown

	Application	Mill Finish	Black Powdercoat	Polished	Floor Mount	Wiring Adapter	U-Joint
Floor Shift	57 Chevy	<a href="#">FR20005-57</a>	<a href="#">FR20005-57BK</a>	<a href="#">FR20005-57SS</a>	<a href="#">FR20101-57</a>	<a href="#">FR20117</a>	<a href="#">FR1707DD</a> (Stock Box)
	57 Chevy	<a href="#">FR20005-57</a>	<a href="#">FR20005-57BK</a>	<a href="#">FR20005-57SS</a>	<a href="#">FR20101-57</a>	<a href="#">FR20117</a>	<a href="#">FR1949</a> (Aftermarket Pwr)
Column Shift	57 Chevy	<a href="#">FR20023-57</a>	<a href="#">FR20023-57BK</a>	<a href="#">FR20023-57SS</a>	<a href="#">FR20101-57</a>	<a href="#">FR20117</a>	<a href="#">FR1707DD</a> (Stock Box)
	57 Chevy	<a href="#">FR20023-57</a>	<a href="#">FR20023-57BK</a>	<a href="#">FR20023-57SS</a>	<a href="#">FR20101-57</a>	<a href="#">FR20117</a>	<a href="#">FR1949</a> (Aftermarket Pwr)

**FR20023-57-CU** Shown with Shift Indicator



*It's a Direct Fit!*

Utilizes the original factory dash mount



**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.

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

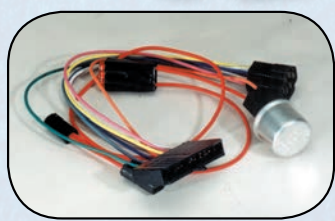
**FR20023-57-CU** Paintable Finish

## DON'T FORGET THE ACCESSORIES

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



OEM Style Flexible Rag Joint Recommended for use with power steering boxes to absorb vibration and power steering noise. **FR1949**



**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 Hazard Kit  
**FR20116** - 1956 Chevy Hazard Kit  
**FR20117** - 1957 Chevy Hazard Kit



**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** See pg 93



# 67-69 CAMARO

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 classic applications use our 2 inch 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.

**Direct Tilt**  
Fits Like The Original Tilt Steering Columns



67-68 Camaro  
1"48  
FR21019

69 Camaro 1"48  
FR30009BK

OEM Style  
Dash Mount

Columns			
Application	Paintable/Mill Finish	Black Powder Coat	Polished
67-68 Camaro	FR21019 - 1"48	FR21019BK - 1"48	FR21019PL - 1"48
	FR21020 - 1"DD	FR21020BK - 1"DD	FR21020PL - 1"DD
69 Camaro	FR30009 - 1"48	FR30009BK - 1"48	FR30009SS - 1"48
	FR30010 - 1"DD	FR30010BK - 1"DD	FR30010SS - 1"DD

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

# Muscle Series



Tilt Columns • 67-69 Camaro

67-68 Camaro 1"DD  
FR21020BK

Lifetime Serviceability  
**FLAMING RIVER  
CERTIFIED**

## DON'T FORGET THE ACCESSORIES



67-69 Camaro  
Aluminum Swivel Floor Mount  
FR20101FB  
See pg 93

**BILLET-JOINT®**

See pgs 96-98  
Refer to pg 15 for install Kit



Female Wiring Connector  
67-68 Camaro  
FR20118-2 See Page 87





# 70-81 CAMARO

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.

**Direct Tilt**  
Fits Like The Original Tilt Steering Columns

## Muscle Series

⊕ 70-81 Camaro ⊕  
Direct Tilt 1"48  
w/OEM Dash Mount  
**FR30015BK**

OEM Style Dash Mount



⊕ 70-78 Camaro 1"48  
**FR30009BK - 1"48**

Use Optional Stramp Clamp  
Dash Mount FR20300

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, see pg 15)</b>			
70-78 Camaro 1"48 Shaft	FR30009 - 1"48	FR30009BK - 1"48	FR30009SS - 1"48
79-81 Camaro 1"DD Shaft	FR30010 - 1"DD	FR30010BK - 1"DD	FR30010SS - 1"DD

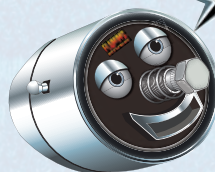




# DON'T FORGET THE ACCESSORIES



**Keyless Ignition**  
also available  
See pgs 58-59



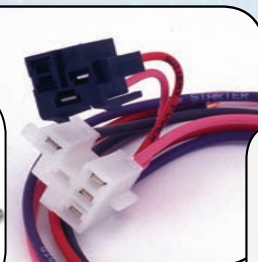
*Did You Know?*  
Flaming River® Columns are made from stainless steel so you can scuff to create your own finish

**70-81 Camaro Aluminum Swivel Floor Mount**  
[FR20101CA](#) See pg 93



**Wiring Harness Adapter for Key Column** [FR20118-5](#)

**Female Wiring Adapter 70-78 Camaro**  
[FR20118](#) See Page 87



**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	<a href="#">FR20300</a>	<a href="#">FR20101CA</a>	<a href="#">FR20118</a>
Universal Fit	<a href="#">FR20300</a>	<a href="#">FR20101CA</a>	N/A
Direct Tilt	N/A	<a href="#">FR20101CA</a>	<a href="#">FR20118</a>
Direct Tilt	N/A	<a href="#">FR20101CA</a>	N/A

# 53-62 CORVETTE



## 1953-62 Corvette Steering Column

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.



1953 Corvette Dash  
(Shown w/Original Column)



1958 Corvette Dash

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

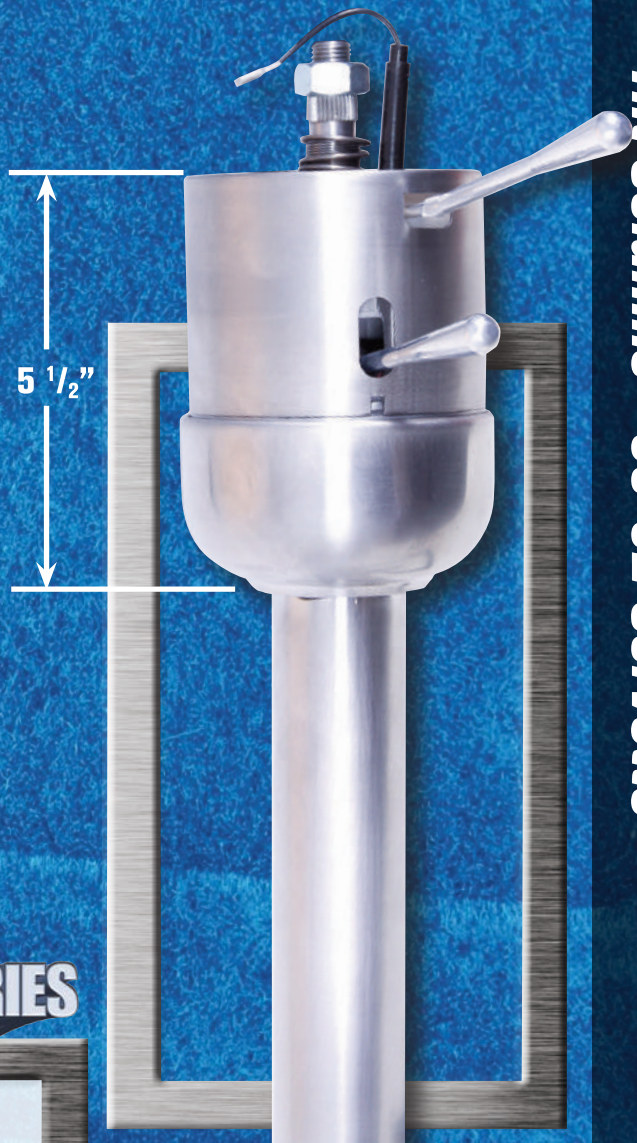


Part No	Style
<b>Straight Column (1-3/4" Dia)</b>	
FR1999VTR	Mill Stainless w/o Hazard
FR1999VTRSS	Polished Stainless w/o Hazard
FR1999VTR-H	Mill Stainless with Hazard
FR1999VTRSS-H	Polished Stainless with Hazard
FR1999XX**	Custom Length (XX) and Powder coat Color**
<b>Accessories</b>	
FR20118	Wiring Adapter
FR1941	Steering Coupler



3/4"-36 splined shaft

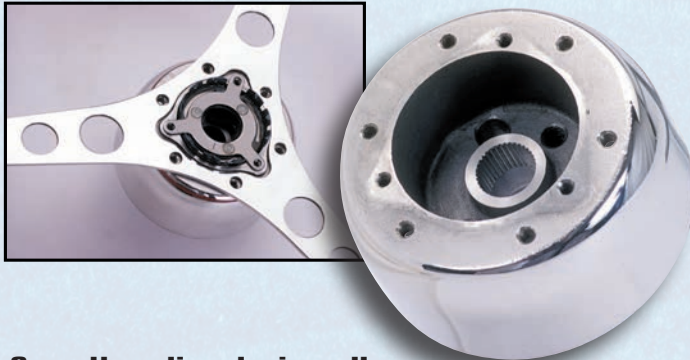
# Bella Tilt



Tilt Columns • 53-62 Corvette

## DON'T FORGET THE ACCESSORIES

### 1953-62 Corvette Steering Wheel Adapters



Smooth radius design allows for original or aftermarket steering wheels onto a Flaming River® 53-62 Steering Column (FR1999VTR style).

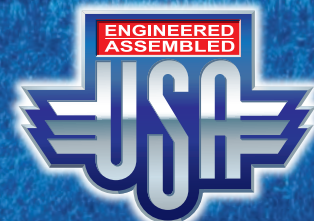
**FR20156SS** - Original Vette  
**FR20157SS** - Aftermarket 5/6 Bolt

3/4" Smooth X 3/4"-36 (1" OD)  
 (To Adapt to Original Steering Box)  
 Steering Coupler **FR1941**



Part No	Finish
<b>Tilt Column (1-3/4" Dia)</b>	
FR21021	Mill Stainless
FR21021PL	Polished Stainless
FR21021BK	Black Powder coat
FR21021XX**	Custom Length (XX) and Powder coat Color**
<b>Accessories</b>	
FR20118	Wiring Adapter
FR1941	Steering Coupler

\*\*Color from RAL Deck must be specified when ordering  
 Custom colors are non-returnable



# 63-68 CORVETTE

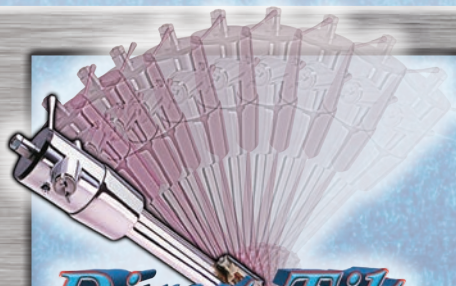
## 1963-68 Corvette Tilt Steering Column

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.



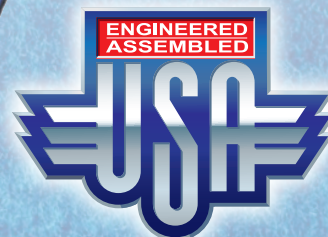
**FR2000VTSS**

1963-66 Corvette



**Direct Tilt**

*Fits Like The Original Tilt Steering Column*



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)
FR2000VBK	63-66 1-1/2" dia Black
FR2000VBKA	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)



## DON'T FORGET THE ACCESSORIES



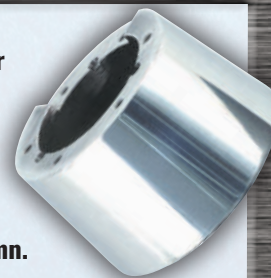
Later 68 Corvette  
Aluminum Swivel Floor Mount  
**FR20101VT** See pg 93

Hazard Kit (4-Way Flashers):  
Pre-1969 **FR20118-1**  
See Page 87



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  
See Page 88





**FR2103VTBK**

Later 1968 Corvette

OEM Shroud  
Not Included

**FR2003VT**

1967-68 Corvette

**FR2001VTSS**

1967-68 Corvette

OEM Style Brackets



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

All new mounts and  
dash bezel included  
with all columns

Lifetime Serviceability

**FLAMING RIVER  
CERTIFIED**

# 69-82 CORVETTE



## 1969-82 Corvette Tilt Key Column

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.

Output Shaft with  
1"-48 Spline



Quality Steering Systems

**FR30005SS**  
Polished Stainless

**FR30005BK**  
Black Powder coat



It's a  
Direct Fit!

Part No	Finish
FR30005	Mill Stainless
FR30005BK	Black Powder coat
FR30005SS	Polished Stainless
FRCA108	Column Installation Kit



**IF IT ISN'T  
MADE IN THE USA  
IT JUST ISN'T  
GOOD ENOUGH!**

Flaming River® Key Columns are  
manufactured with a GM coded key assembly

# DON'T FORGET THE ACCESSORIES

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



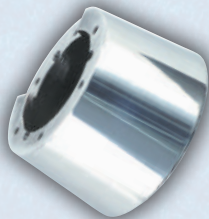
See pgs 94-96



Electronic Cruise Control  
**FR20118-4** See pg 4

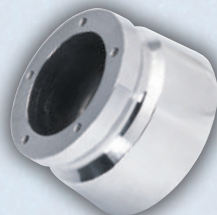


1969-82 Corvette Key  
Column Installation Kit  
**FRCA108**

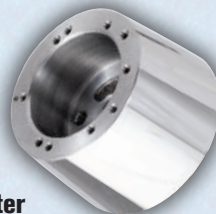


Corvette Wheel Adapter  
**FR2000VT-AD** Polished  
**FR2000VT-ADBK** Black Powder coat  
See pg 89

69-82 Corvette Swivel Mount  
**FR20101VT** See pg 93



5/6 Bolt Wheel Adapter for  
Flaming River® Column  
**FR20119TA** See pg 88



5/6 Bolt Bell-Style Wheel Adapter  
for Flaming River® Column  
**FR20119BA** See pg 88





# 64-72 CHEVELLE/EL CAMINO



1964-1966 Polished  
**FR20005SS**



Bolts to  
Original Mount



1967-1968  
Paintable/Mill Finish  
**FR21019**



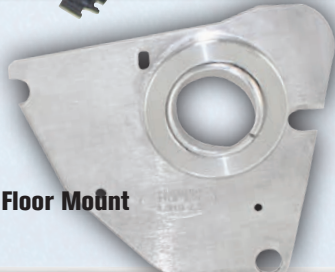
Quality Steering Systems



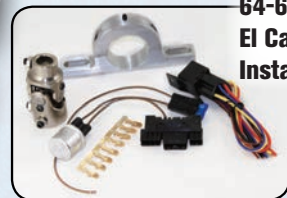
1969-1972  
Black Powder Coat  
**FR30009BK**



**FR20101CH**  
64-67 Chevelle Floor Mount  
See pg 93



**FR20101AB**  
68-72 Chevelle Floor Mount  
See pg 93



64-66 Chevelle/  
El Camino Column  
Install Kit **FRCA100**





**FR20101AB**  
68-72 Chevelle Floor Mount  
Shown Installed



**It's a Direct Fit!**

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
Paintable/Mill Finish Column	FR20005	FR20005	FR21019 - 1"48	FR21020 - 1"DD	FR30009 - 1"48
Black Powder Coat Column	FR20005BK	FR20005BK	FR21019BK - 1"48	FR21020BK - 1"DD	FR30009BK - 1"48
Polished Column	FR20005SS	FR20005SS	FR21019PL - 1"48	FR21020PL - 1"DD	FR30009SS - 1"48
Dash Mount	N/A	N/A	N/A	N/A	FR20300
Floor Mount	FR20101CH	FR20101CH	FR20101CH	FR20101CH	FR20101AB
Wiring Adapter	FR20118-1	FR20118-1	FR20118-1	FR20118-1	FR20118
U-Joint	FR1717DD FR1856 FR1758 (Power) FR1717DD FR1856 FR1714DD (Manual)	FR1707DD (Modify Stock Shaft)	N/A	FR1949T	N/A

## DON'T FORGET THE ACCESSORIES



**FR20300 Stramp Clamp**

69-72 Chevelle/  
El Camino Key Column  
Install Kit **FRCA110**



Utilize the original factory dash mount or use our patented Stramp Clamp

# 62-74 NOVA

## Muscle Series



1969-1974 Black Powder Coat

**FR30009BK**



1967 Paintable/Mill Finish

**FR21010**

OEM Dash Mount

Rag Joint Bowtie **FR1949T** Sold Separately



1962-1966 Polished

**FR20005SS**



Nova/Chevy II	62-66 Nova/Chevy II	67 Nova	69-74 Nova
Paintable/Mill Finish Column	FR20005	FR21010	FR30009 - 1"48
Black Powder Coat Column	FR20005BK	FR21010BK	FR30009BK - 1"48
Polished Column	FR20005SS	FR21010SS	FR30009PL - 1"48
Dash Mount	N/A	N/A	FR20300
Floor Mount	N/A	N/A	FR20101FB
Wiring Adapter	FR20118	FR20118	FR20118
U-Joint	FR1707DD (Stock Box)	N/A	FR1758 (Power) FR1716 (Manual)





# DON'T FORGET THE ACCESSORIES

**FR20300**  
Stramp Clamp

Fits the original OEM dash mount with a rubber isolator for vibration absorption. GM 69 and up. Pat. No. US 7,976,065 B2



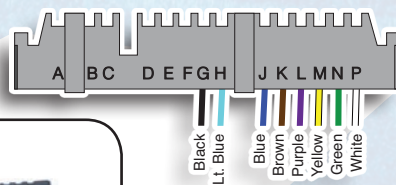
**FR20101FB**  
67-74 Nova  
Floor Mount  
See pg 93



1962-66 Nova Column  
Install Kit **FRCA100**



Cradle Kits Available  
See pg 123



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*

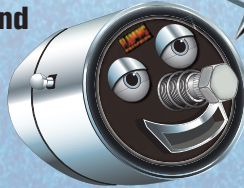
69-74 Nova Key Column  
Install Kit **FRCA110**



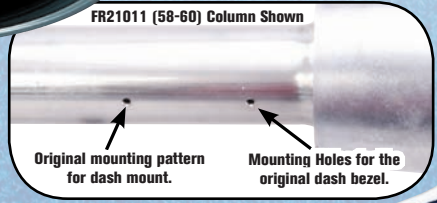
# 58-69 IMPALA/CAPRICE



Impala Tilt Steering Columns  
 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.



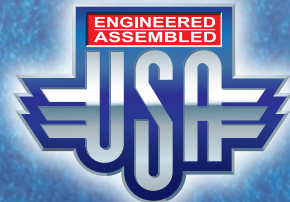
**Utilize Original Factory  
 Dash Mounts**

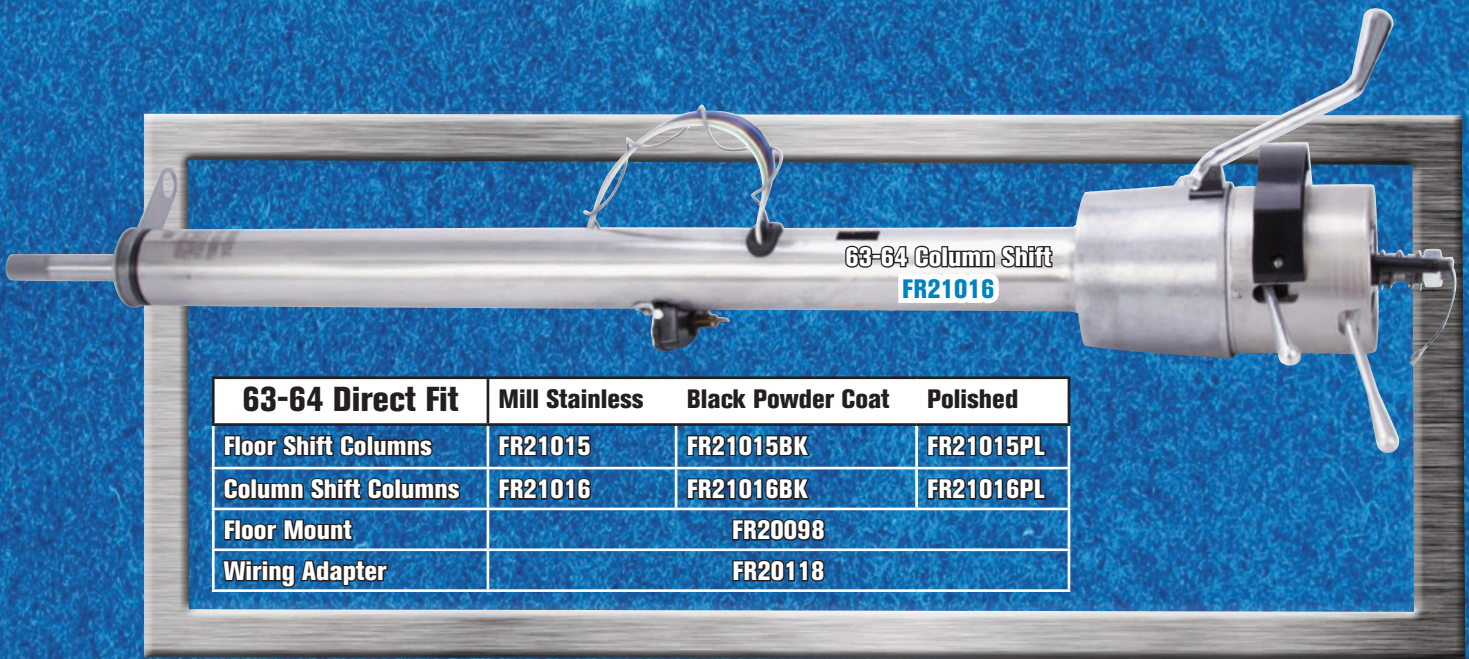


58-60 Direct Fit	Mill Stainless	Black Powder Coat	Polished
Floor Shift Columns	FR21011	FR21011BK	FR21011PL
Column Shift Columns	FR21012	FR21012BK	FR21012PL
Floor Mount		FR20098	
Wiring Adapter		FR20118	

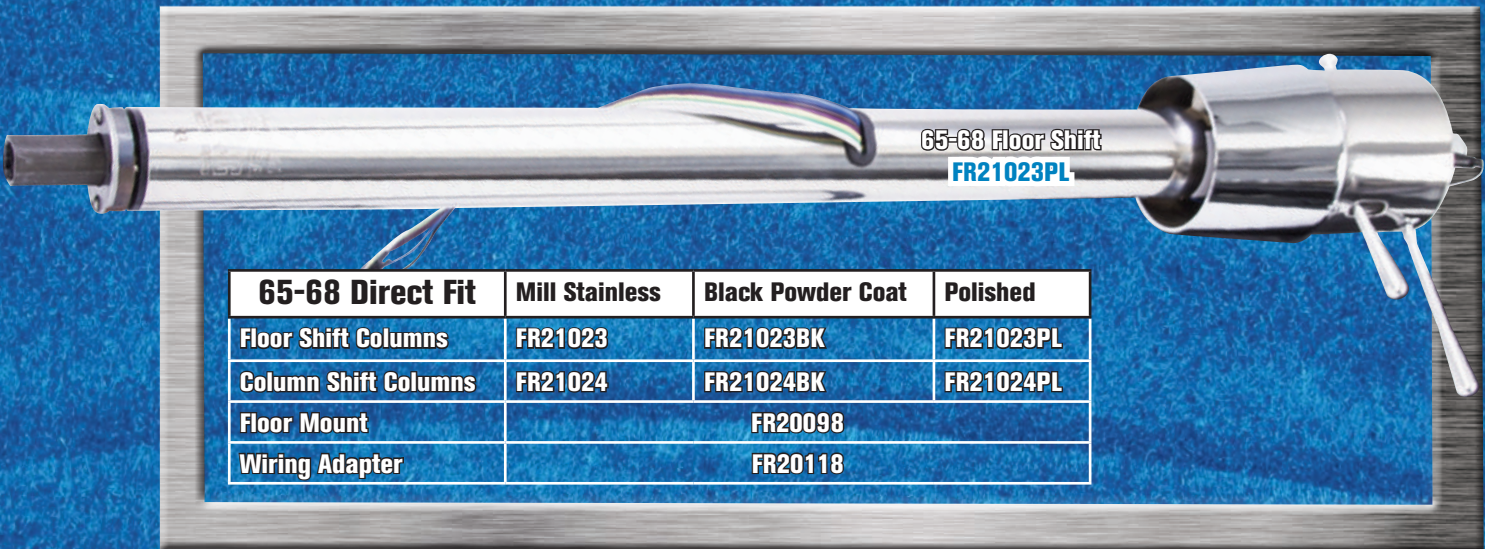


61-62	Mill Stainless	Black Powder Coat	Polished
Floor Shift Columns	FR21013	FR21013BK	FR21013PL
Column Shift Columns	FR21014	FR21014BK	FR21014PL
Floor Mount		FR20098	
Wiring Adapter		FR20118	





63-64 Direct Fit	Mill Stainless	Black Powder Coat	Polished
Floor Shift Columns	FR21015	FR21015BK	FR21015PL
Column Shift Columns	FR21016	FR21016BK	FR21016PL
Floor Mount	FR20098		
Wiring Adapter	FR20118		

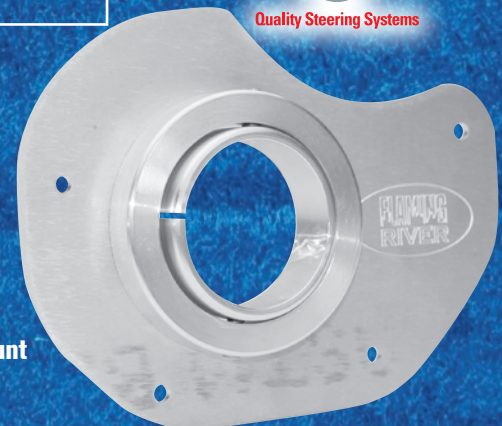


65-68 Direct Fit	Mill Stainless	Black Powder Coat	Polished
Floor Shift Columns	FR21023	FR21023BK	FR21023PL
Column Shift Columns	FR21024	FR21024BK	FR21024PL
Floor Mount	FR20098		
Wiring Adapter	FR20118		

69-70	Mill Stainless	Black Powder Coat	Polished Column
Floor Shift Columns	N/A	N/A	N/A
Column Shift Columns	FR30104	FR30104BK	FR30104PL
Floor Mount	N/A		
Wiring Adapter	FR20118		



58-64 Impala  
Swivel Floor Mount  
FR20098  
See pg 93



# GM CLASSIC TRUCKS 48-54 & 55-66



Original mounting pattern  
for dash mount. FR21000  
Column Shown

FR21000 shown with included  
Slip Shaft and Universal Joint

FR20021NE-PL



## 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

## Recommended Accessories:

Finish	Floor Shift	Column Shift	FR20114 - OEM Factory Style Dash Mount (2" Dia.) FR20119TA - 5/6 Bolt Steering Wheel Adapter
Mill Stainless - Manual	FR21000M	FR21100M	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.
Mill Stainless - Early Power	FR21000P1	FR21100P1	
Mill Stainless - Late Power	FR21000P2	FR21100P2	Black Powder coat available through our custom column program. Color from RAL Deck must be specified when ordering. Custom colors are non-returnable
Polished - Manual	FR21000MSS	FR21100MSS	
Polished - Early Power	FR21000P1SS	FR21100P1SS	
Polished - Late Power	FR21000P2SS	FR21100P2SS	
Custom Color	FR21000M-CLR	FR21100M-CLR	

# 67-72 GM C-SERIES TRUCKS



Quality Steering Systems



Shown with optional LED Indicator

67-72 C-10 Truck Swivel Floor Mount  
**FR20101C10**  
See pg 93

No mount necessary.  
Bolt into your original Dash Mount.  
Verify Neutral Safety Switch location before ordering

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



Chevy/GMC C/K 10 - C/K 20 1967-72		
Finish	Floor Shift	Column Shift
Mill Stainless	FR20007-36	FR20030
		FR20030-F
Polished Stainless	FR20007-36SS	FR20030PL
		FR20030PL-F

**NOTE:**  
FR20030/ FR20030PL NSS is measured 17" up from the shift arm  
FR20030-F / FR20030PL-F NSS is measured 10" up from the shift arm  
Order our new LED Shift Indicator for Non-Key Column Shift Columns through our Custom Column Program.

Tilt Columns • 48-66 GM Classic Trucks/67-72 GM C-Series Trucks

# 73-87 GM C-SERIES TRUCKS



It's a Direct Fit!

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



All of our Key Columns  
have GM-coded Ignitions



FR30006SS

FR30106BK

Shown with  
5/6 Bolt Wheel  
Adapter FR20119TA-BK



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.



Stock Floor Mount Shown

## Chevy/GMC C/K 10 - C/K 20 1973-87

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



If you want to upgrade your steering system, Flaming River® also offers bolt-in rack and pinion cradle kits for the 1973-87 C-10 truck. (See Pg. 121)



Tilt Columns • 73-87 GM C-Series Trucks

## DON'T FORGET THE ACCESSORIES



**FR20300**  
Stramp Clamp

Fits the original OEM dash mount with a rubber isolator for vibration absorption. GM 69 and up.  
Pat. No. US 7,976,065 B2

**Dimmer Switch Kit**  
**FR20118-8** See pg 87



**Column Dress Up Kit**  
Black Powdercoat  
**FR20112BK**



**Electronic Cruise Control**  
This aftermarket unit can be installed on your new Flaming River® Tilt Column to add the convenience of Cruise Control. Designed for non-computer engines. GM-style turn signal lever.  
**FR20118-4**



# 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.

Part No.	Description
<b>Aftermarket Steering Wheel</b>	
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
<b>Factory Ford Steering Wheel Only</b>	
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
<b>Installation Kit</b>	
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



*Street Machine Tilt*

**It's a Direct Fit!**



**FLAMING RIVER**

**ENGINEERED  
ASSEMBLED**

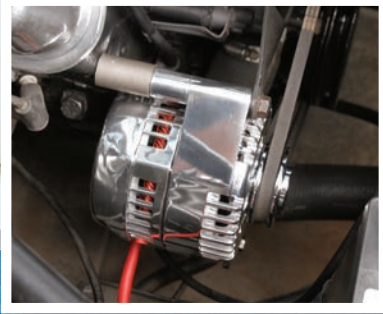


Quality Steering Systems



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

Check out our Alternators  
Pgs 179-183



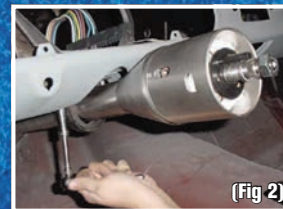
- Use your original dash support (Fig 1) to hold the column under the dash and tighten the two support nuts. (Fig 2) (Note: you must first place a shim that is included in your installation kit between the support and the column to ensure a tight fit),
- Make sure that the column is straight before securing 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.



(Fig 1)



(Fig 3)



(Fig 2)

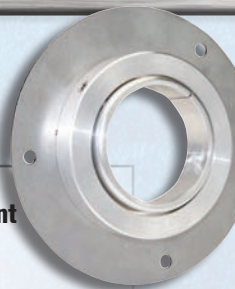


(Fig 4)

## DON'T FORGET THE ACCESSORIES



67-70 Mustang  
Swivel Floor Mount  
**FR20101M7**  
See pg 93



65-66 Mustang  
Swivel Floor Mount  
**FR20101M5**  
See pg 93

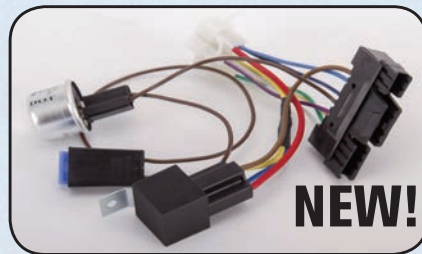
### Mustang Column Install Kits



Long Shaft **FR200MUKT**



Short Shaft **FR200MUKT2**



**NEW!**

**FR20301** 65-66 Mustang Wiring Harness

This adapter includes horn relay control and adds hazard functionality to the vehicle

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



# COUPES & ROADSTERS

FLAMING RIVER



Quality Steering Systems

FR1999ROSS

## 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	Mill Stainless
FR1999ROSS-30	Polished Stainless
FR1999ROBK-30	Black Powder coat
FR1999ROSS-30LC	Polished Laser Cut Collapsible
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

FR20001SS

Length	Paintable	Black Powder coat	Polished	Custom Color
28"	FR20000	FR20000BK	FR20000SS	FR20000**
30"	FR20001	FR20001BK	FR20001SS	FR20001**
Custom	FR20000XX	FR20000XX	FR20000XX	FR20000XX**

**\*\*Color from RAL Deck must be specified when ordering**  
Custom colors are non-returnable

**NEW!**

### Aluminum Roadster Column

Nostalgia Roadster Column manufactured from 6061 Aluminum for that vintage look in a classic hot rod. Back to basics - no wires to get in the way. **MADE IN THE USA**

*Choose Your Style of Column*



### FR1313W0E Nostalgia 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
- Robotically welded with dual bearings for smooth rotation
- Sleek compact nostalgia design (1-3/4" tube) without electronics
- Made in USA

Shown with optional Great Lakes Roadster Wheel



**SEMA NEW PRODUCT!**



# 39-40 FORD

*Bella Tilt*



**FLAMING RIVER**

**ENGINEERED  
ASSEMBLED**



Quality Steering Systems

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**



FR20005SS

*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*



## CUSTOM COLUMNS AVAILABLE

See pg 56 for ordering information



<p><b>Column Drop</b>  <b>FR20107PL</b>          See Page 92</p>	<p><b>Swivel Floor Mount</b>  <b>FR20101</b>          See Page 92</p>	<p><b>Floor Mount Firewall Cover</b>  <b>FR20100CVR</b>          See Page 92</p>
--	---	--

# 49-53 FORD



## Just Add Tilt

FLAMING RIVER

ENGINEERED  
ASSEMBLED



Quality Steering Systems



FR20029NE-PL

FR20007

Lifetime Serviceability



Custom Columns can be ordered through our Custom Column Program

Paintable	Black Powdercoat	Polished
Floor Shift		
FR20007	FR20007BK	FR20007SS
Column Shift With Neutral Safety Switch		
FR20029NE	FR20029NEBK	FR20029NE-PL
Custom Columns are Available Through Our Custom Column Program and are Non-Returnable		



# DON'T FORGET THE ACCESSORIES

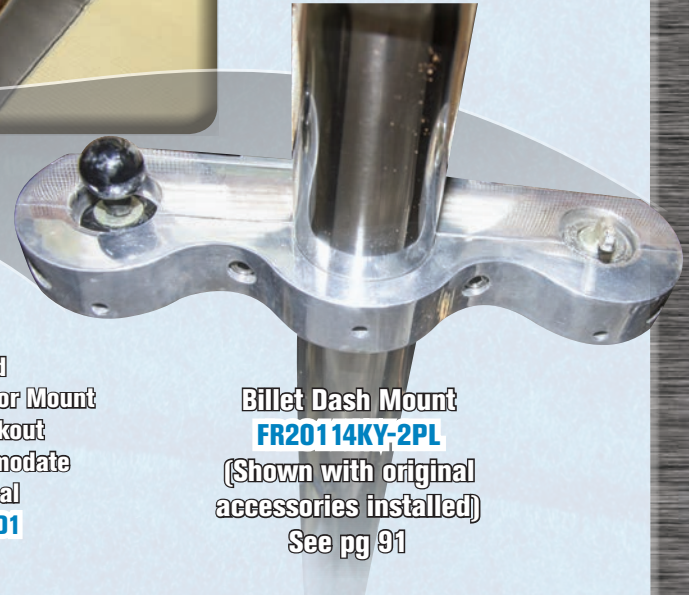
Tilt Columns • 49-53 Ford



Also available with our new LED Indicator through our Custom Column Program



49-53 Ford Swivel Floor Mount with Knockout to Accommodate Brake Pedal  
**FR20101FD1**  
See pg 93

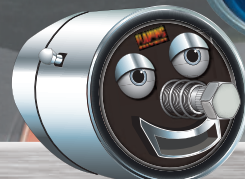
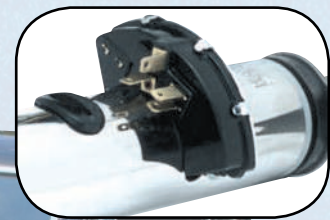


Billet Dash Mount  
**FR20114KY-2PL**  
(Shown with original accessories installed)  
See pg 91



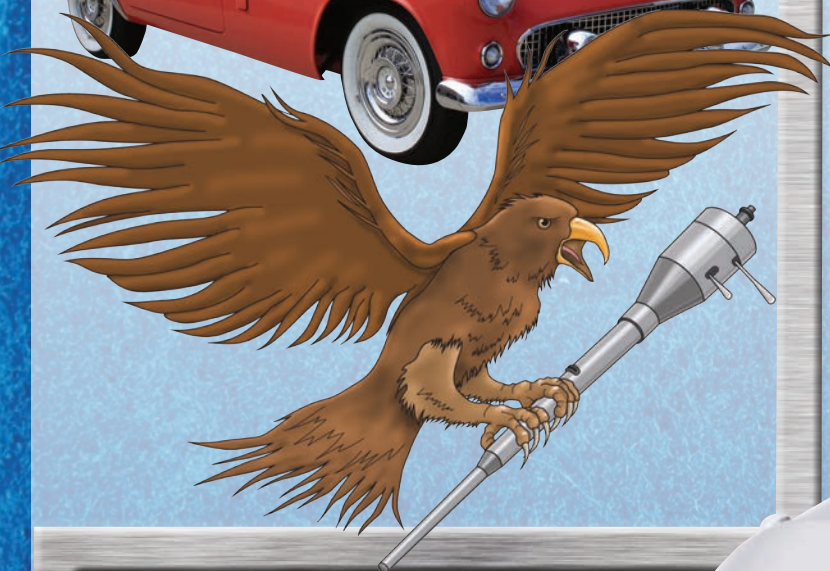
Electronic Cruise Control  
**FR20118-4** See pg 4

Combination back up and neutral safety switch also included.  
See Page 87

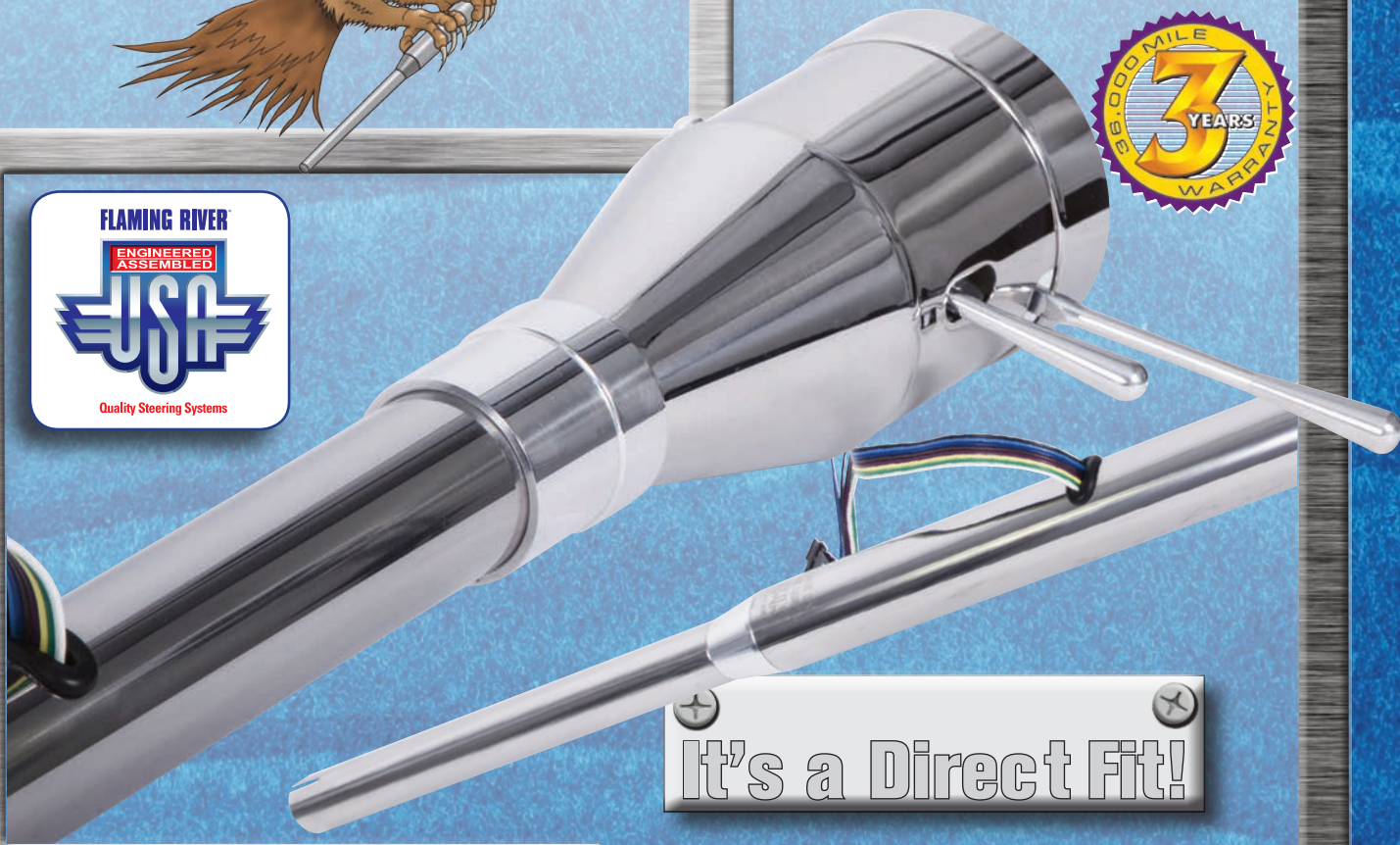


Our Columns can be custom Powdercoated to match your interior

# 55-57 THUNDERBIRD



1955-57 Thunderbird Tilt Steering Columns 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.



It's a Direct Fit!

Finish	Aftermarket Steering Wheel	Original Steering Wheel
<b>56-57 Thunderbird</b>		
Mill Stainless	FR20009	FR200090E
Polished Stainless	FR20009SS	FR200090ESS
<b>55 Thunderbird</b>		
Mill Stainless	FR20008	FR200080E
Polished Stainless	FR20008SS	FR200080ESS

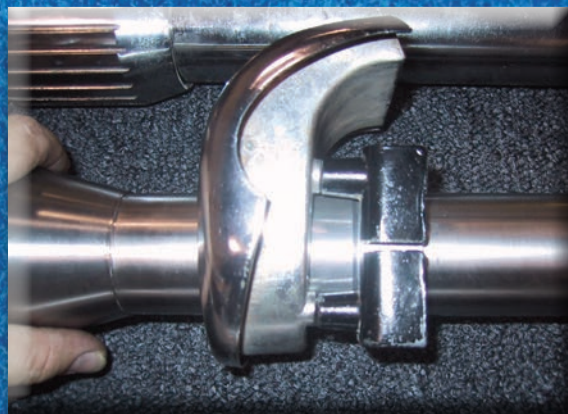
### Lifetime Serviceability



Flaming River Certified The Flaming River Certified imprint and the logo stamped on each product indicate that all have been tested to exacting standards.



Install the original dash bezel and column mounting bracket over the new split ring spacer onto the new Flaming River® Tilt Column.

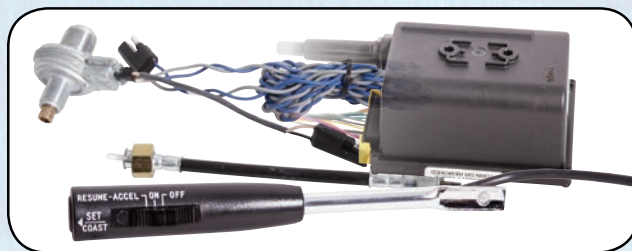


# DON'T FORGET THE ACCESSORIES

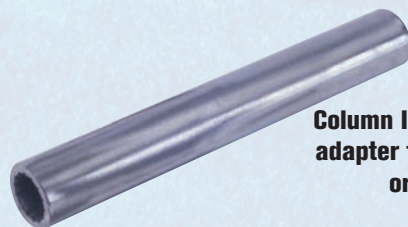
### Cruise Control Kit

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. Order this when you order your Flaming River column and we will install it for you. Non-returnable.

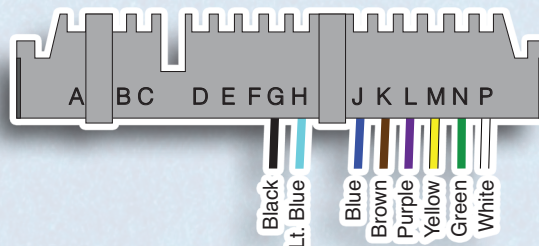
[FR20118-4](#)



Female Wiring Adapter [FR20118](#)



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



### Connecting the Electrical System

#### Wiring Circuit

Brake Light Switch  
 Right Rear Turn Signal  
 Left Rear Turn Signal  
 Turn Signal Power  
 Hazard Power  
 Right Front Turn Signal  
 Left Front Turn Signal  
 Horn

#### Pin Location

P  
 N  
 M  
 L  
 K  
 J  
 H  
 G

#### Column Wiring

White  
 Dark Green  
 Yellow  
 Purple  
 Brown  
 Dark Blue  
 Light Blue  
 Black

**Caution:** Before disconnecting your original steering column wiring harness please verify each wire color and function. Some wire colors may vary from year to year.

**Hazard Note:** Some vehicles did not have hazards from the factory, so no hazard power wire is present but can be added by purchasing part # [FR 20118-1](#)

# 60-65 COMET/FALCON



Manufactured with a GM-Style  
1 1/16"-36 top shaft.  
Use with aftermarket  
Steering Wheel  
See pgs 76-85



Place included rubber spacer into the factory  
under dash mount and trim away excess.

## 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

## DON'T FORGET THE ACCESSORIES



60-65 Comet/Falcon  
Swivel Floor Mount  
**FR20097**  
See pg 93

Shift Indicator  
Adjustment Kit  
**FR20059**  
See pg 90



# 60-64 GALAXIE



For use with aftermarket  
Steering Wheel  
See pgs 76-85

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**

Black  
Lt. Blue  
Blue  
Brown  
Purple  
Yellow  
Green  
White

**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*

Tilt Columns • 60-65 Comet/Falcon/60-64 Galaxie

# 48-56 FORD F150 TRUCKS



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.



**FLAMING RIVER**

ENGINEERED  
ASSEMBLED



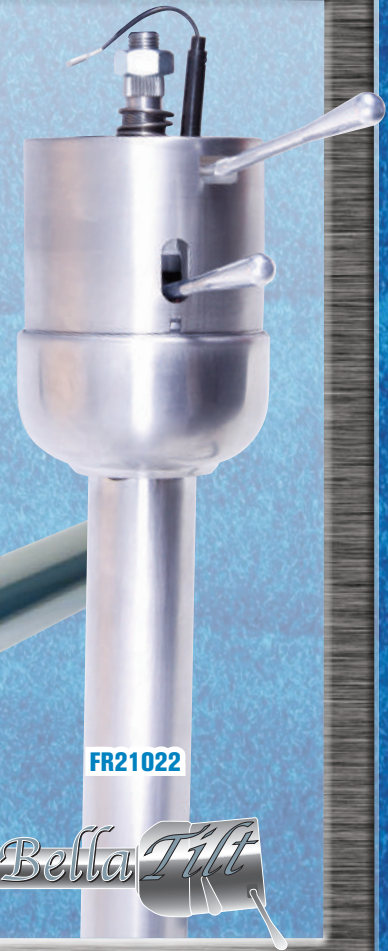
Quality Steering Systems



FR20005SS



FR20021NE-PL



FR21022



Application	Mill Stainless	Polished Stainless	Black Powdercoat	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



Shroud allows for installation of Stock Wheel



53-56 Ford F100 Tilt Steering Column  
FR20005F1SS

Features and Benefits:

- Designed with a custom shroud to fit seamlessly with a reproduction F100 steering wheel
- Wiring for turn signals, hazards, and horn functionality included
- Made in USA



1953-56 Ford F100 Tilt Steering Column (with Horn Contact) - Fits Reproduction Steering Wheel

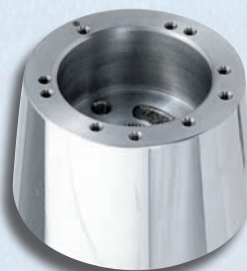


Stainless tilt column with horn kit. Custom shroud fits reproduction steering wheel. Paintable, polished, powdercoat finishes available. Includes dress up kit and turn signal wiring

# DON'T FORGET THE ACCESSORIES

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

FR20101F1  
See pg 93



Tapered Style  
5/6 Bolt Pattern - 2-1/2" Tall  
FR20119TA  
See pg 88

3-1/2" Polished Column Drop for easy column mounting  
FR20108PL  
See pg 92



# 66-77 FORD BRONCO



**NEW**

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 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 install

**Sold as a Complete  
Install Kit  
FR30017KT**



Ford Wiring Harness



Also available with a  
Floor Shift Tilt Column

OEM Style Dash  
Mount Bracket

**NEW!**  
66-71 Bronco  
Swivel Floor Mount  
**FR20101BR1**



Components with kit are non-returnable individually

66-71 Bronco Column Install Kits		
	Column Shift Column	Floor Shift Column
Mill Stainless	FR30017KT	FR30018KT
Polished Stainless	FR30017KTSS	FR30018KTSS
Black Powdercoat	FR30017KTBK	FR30018KTBK



Quality Steering Systems

**SEMA NEW PRODUCT!**



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



**Slip Shaft Kit  
with U-Joint**



**Swivel  
Floor Mount**



**OEM Style Dash Mounting Bracket**



**Column Installed with OEM Dash Bezel**

# DON'T FORGET THE ACCESSORIES

**Turn Signal: 7-5/8"**  
**Tilt: 5-3/4"**  
**Hazard: 1"**

**New Dress Up Kit**  
Longer turn signal arm  
and tilt lever **FR20122AL**

**New 66-71 Bronco  
Swivel Floor Mount**  
**FR20101BR1**  
See Pg 93

**NEW!**

**FR20301**  
66 Bronco  
Wiring Harness

# JEEP/OFF-ROAD



## 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**



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

**FR20005BK**

**FR30001-30SS**

Part No.	Description
<b>FOR USE WITH FLAMING RIVER SLIP SHAFT KIT (See Facing Page)</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



Quality Steering Systems

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



**FR20101CJ** Swivel Floor Mount  
Sold Separately

**OEM Style Dash Mount**

79-86 Jeep CJ Series	
FR30019	Mill Stainless Finish
FR30019SS	Polished Stainless Finish
FR30019BK	Black Powdercoat Finish
FR20101CJ	Swivel Floor Mount



Electronic Cruise Control  
**FR20118-4** See pg 4

This column does not include wiper, cruise control, or dimmer switch controls (Dimmer switch and cruise control available upon request)

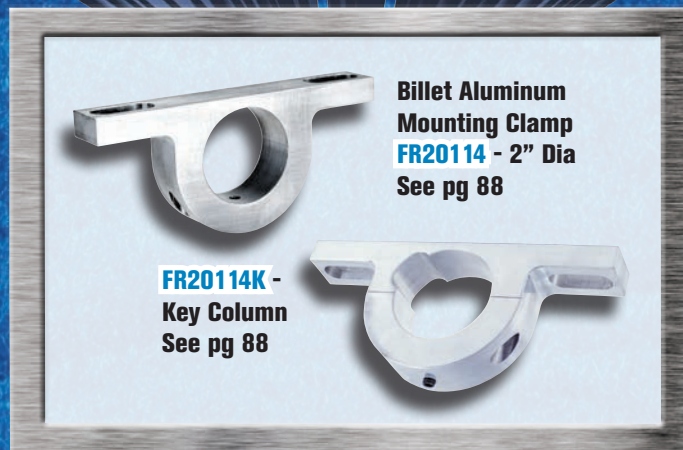
**JEEP SHAFT KITS**



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



**DON'T FORGET THE ACCESSORIES**



Billet Aluminum  
Mounting Clamp  
**FR20114** - 2" Dia  
See pg 88

**FR20114K** -  
Key Column  
See pg 88



# MOPAR

## Mopar Tilt Steering Columns

Each column comes with a slip shaft extension for an overall length of 45". The slip shaft extension allows for 1-1/2" of slip movement, and includes a Universal Joint for direct connection to the steering box. These Tilt Steering Columns are made from 304 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.

- 45" Overall Length
- Built-in Slip & Collapsible Shaft with 1-1/2" of Movement (Except where noted)
- Billet Joint® for Direct Connection to the Steering Box (Except where noted)
- Shaft Adjustable Tilt Column can be used for many applications
- Includes Female Turn Signal Wiring Adapter & Ignition Plug Harness
- Compact Shroud Design (only 8 inches) allows for driver positioning comfort
- All Stainless Steel (304) mill finish, polished or black powdercoat
- Made in the USA!



**A Body: Duster, Dart, Demon, Valiant & 64-69 Barracuda**

Part Number	Description
FR30011CM	70-76 Tilt Key - Manual Steering (Paintable)
FR30011GMBK	70-76 Tilt Key - Manual Steering (Black Powder Coat)
FR30011GMSS	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)

Collapsible Slip Shaft

Columns also available without slip shaft and u-joint. See website for details

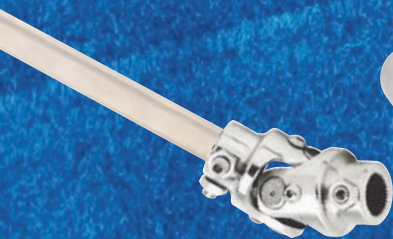
Unless otherwise noted, all Mopar Columns include a Collapsible Slip-Shaft and U-Joint



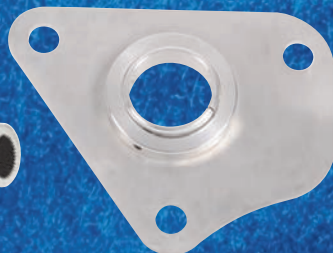
**B Body: 1962-70 Belvedere; 1975-78 Fury, GTX; 1968-75 Road Runner; 1965-74 Satellite, Charger; 1965-76 Coronet; 1978 Magnum; 1977-78 Monaco**

<b>KEY COLUMNS</b>	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)
<b>NON-KEY COLUMNS</b>	FR21025C	66-69 Tilt - w/o Slip Shaft & U-Joint (Paintable)
	FR21025CBK	66-69 Tilt - w/o Slip Shaft & U-Joint (Black Powder Coat)
	FR21025CSS	66-69 Tilt - w/o Slip Shaft & U-Joint (Polished)
	FR21025M	66-69 Tilt - Manual Steering (Paintable)
	FR21025MBK	66-69 Tilt - Manual Steering (Black Powder Coat)
	FR21025MSS	66-69 Tilt - Manual Steering (Polished)
	FR21025P	66-69 Tilt - Power Steering (Paintable)
	FR21025PBK	66-69 Tilt - Power Steering (Black Powder Coat)
	FR21025PSS	66-69 Tilt - Power Steering (Polished)

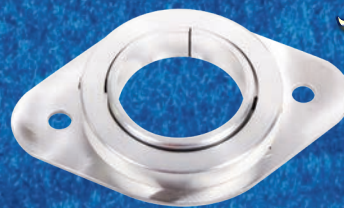
### Mopar Swivel Floor Mounts



U-Joint Included



A-Body Mopar Swivel Floor Mount  
**FR20101MPA**  
See pg 93



62-69 B-Body Mopar Swivel Floor Mount  
**FR20101MP**  
See pg 93



**FR20101MPE**  
New E Body Swivel Floor Mount

# MOPAR

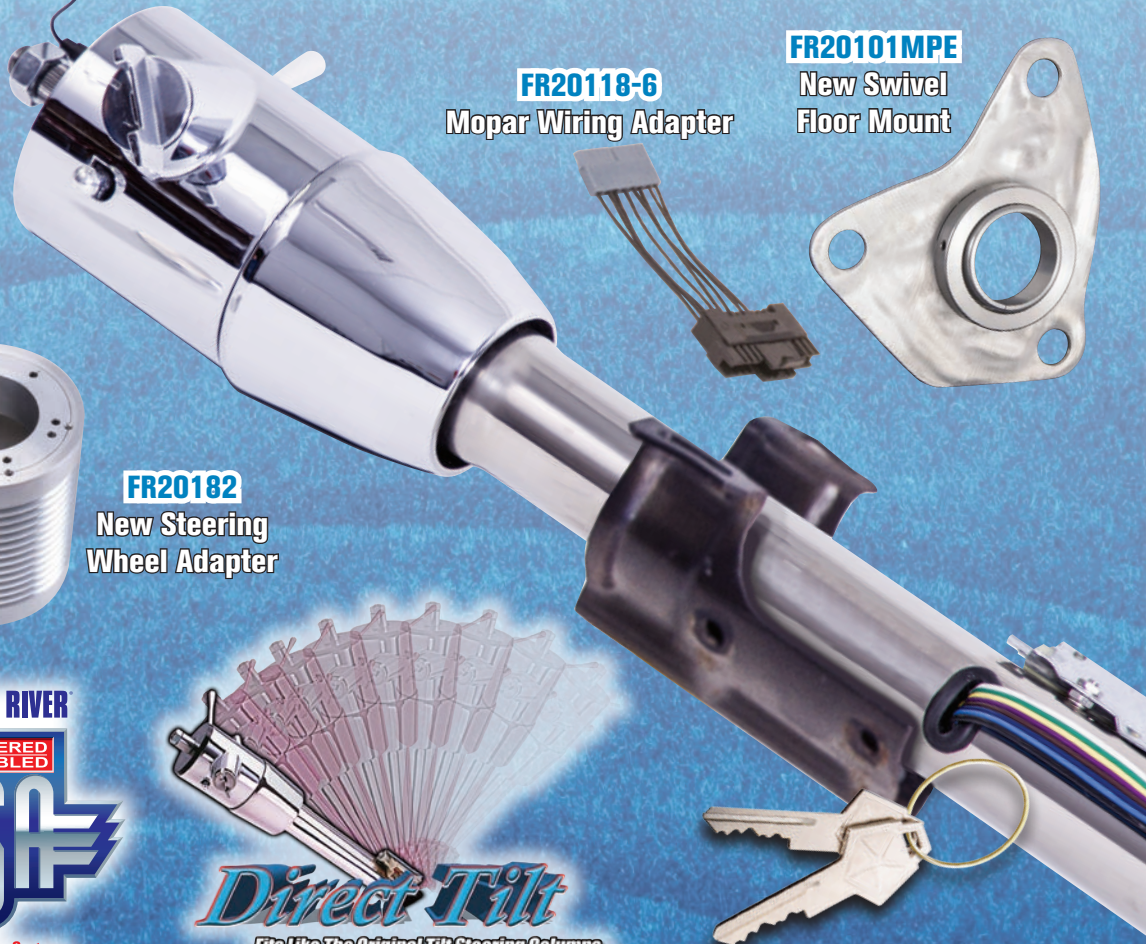
Flaming River has designed a Direct Tilt Ignition Steering Column for the Mopar E Body. This is a direct bolt-in column with the mounting holes in place to use the original bracket, and a collapsible slip shaft with universal joint is included for easy install. The new design is available with an exciting 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.



Gilbert Haas' 1971 Viper Cuda

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)

E-Body Column



**FR20118-6**

Mopar Wiring Adapter

**FR20101MPE**

New Swivel Floor Mount

**FR20182**

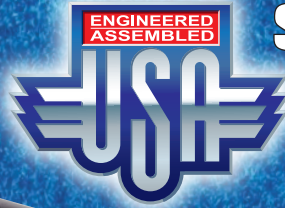
New Steering Wheel Adapter



*Direct Tilt*

Fits Like The Original Tilt Steering Columns

New E Body Column shown with new canister style wheel adapter, original dash mount bracket and Mopar Tuff Wheel



SEMA NEW PRODUCT!



**FR20161**  
Tuff Wheel  
See pg 81

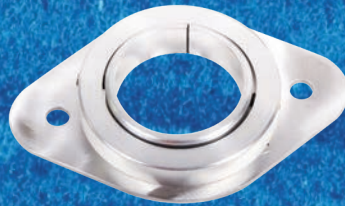
**FR20182BK**  
New Steering  
Wheel Adapter  
Black Powdercoat

## DON'T FORGET THE ACCESSORIES

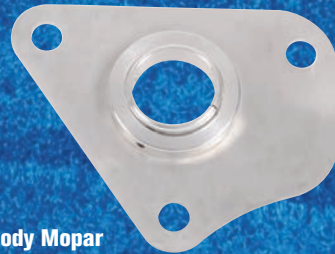
NEW E Body Swivel  
Floor Mount  
**FR20101MPE**



62-69 B-Body Mopar  
Swivel Floor Mount  
**FR20101MP**  
See pg 93



A-Body Mopar  
Swivel Floor Mount  
**FR20101MPA**  
See pg 93



Mopar Universal  
Joint Adapter  
Manual: **FR1506M**  
Power: **FR1506P**



Mopar Coupler  
Shaft Kit  
**FR1505M**



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



*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*

# NEW ELECTRIC POWER STEERING

## Custom Gearshift and Floorshift EPAS Columns

Flaming River now manufactures a variety of gear shift columns to complete the assembly with Electric Power Steering by EPAS Performance.

Columns (gearshift and floorshift) are available in Polished Stainless, Chrome, Black Powdercoat or Plain. The 1957 Chevy gearshift column pictured is a new product entry for the SEMA Show and features EPAS Performance unit which is available in either a 45 amp or 60 amp.

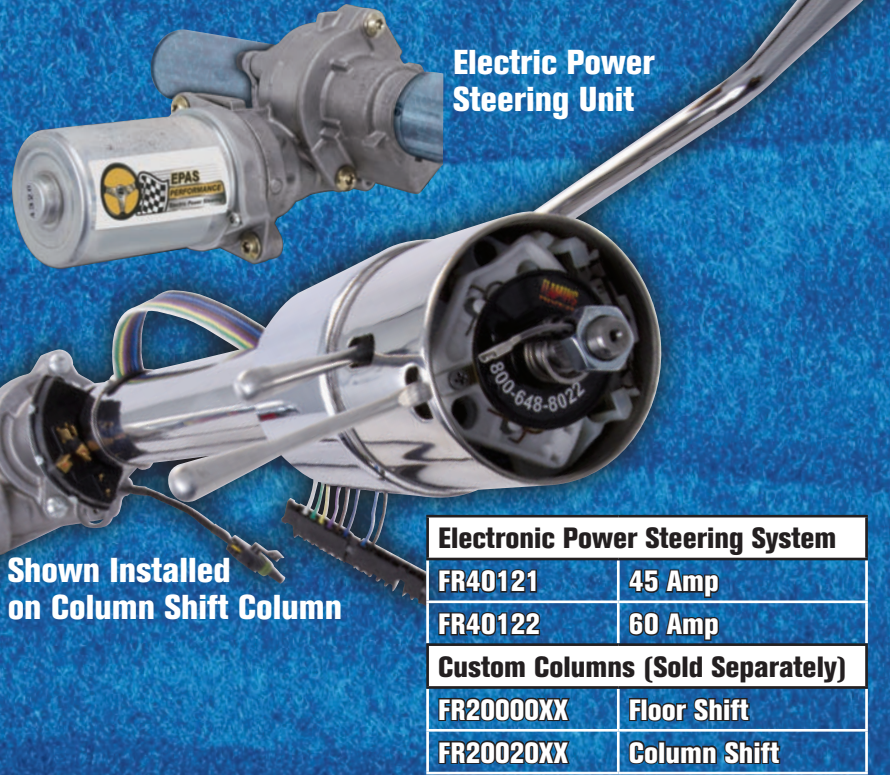
The EPAS gearshift column extends electric steering to vehicles that do not have a floor shift option making Hot Rodding more fun.

EPAS systems can be purchased separately, without the column (brackets and additional fabrication will be necessary for installation). All units are non-returnable.

There is a warranty on this electric power steering unit that is handled by EPAS Performance. (It excludes water damage and electrical short circuits. These units are serialized and the serial number must match for warranty). Columns are custom so they are non-returnable.



Also Available in Floor Shift



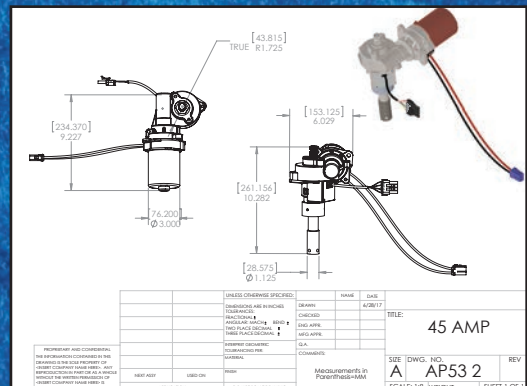
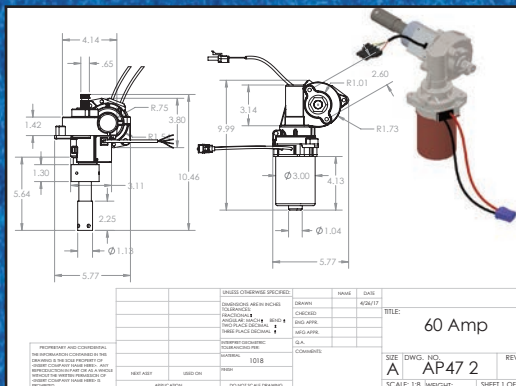
Electric Power Steering Unit

Shown Installed on Column Shift Column

Electronic Power Steering System	
FR40121	45 Amp
FR40122	60 Amp
Custom Columns (Sold Separately)	
FR20000XX	Floor Shift
FR20020XX	Column Shift



ECU/Potentiometer



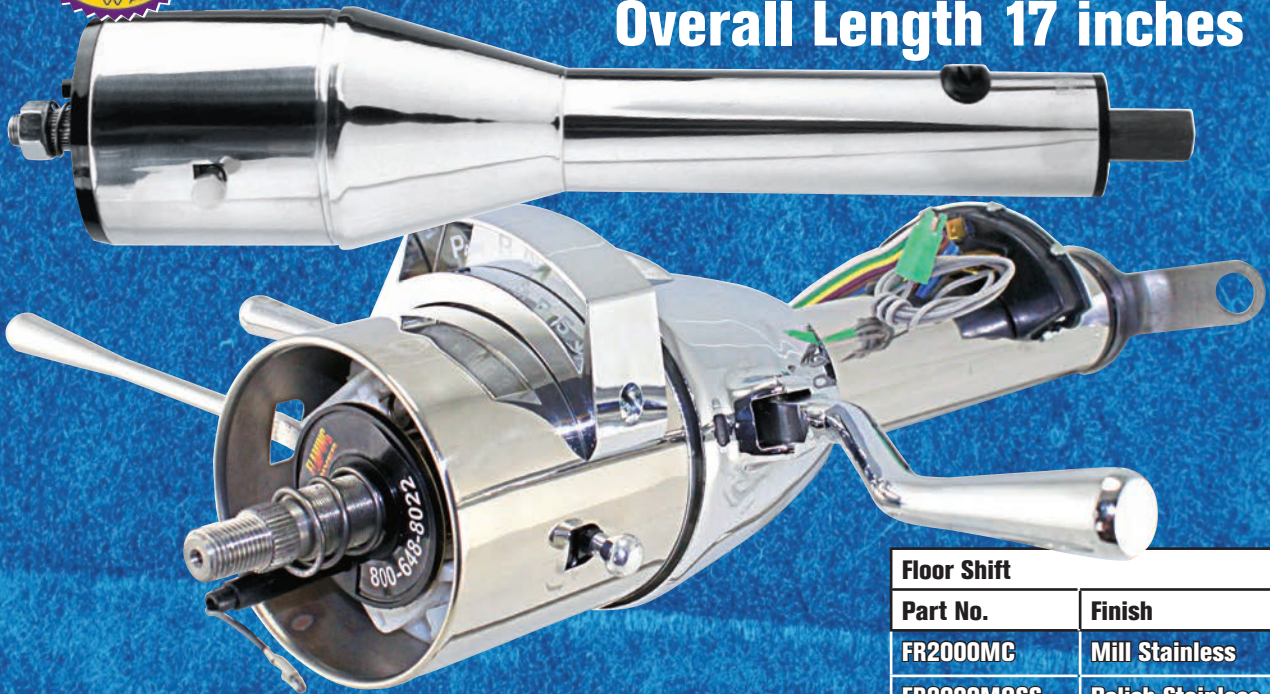
Electronic Components are Non-Returnable





# MICRO/DASH MOUNT

Overall Length 17 inches



### Micro Tilt Steering Columns

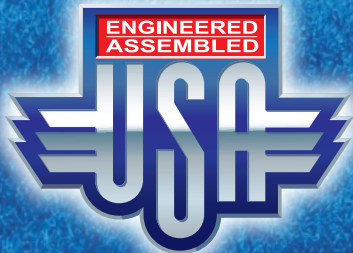
Available in Floor Shift and Column Shift designs, our Micro Columns are ideal for a variety of vehicle applications. At only 17" in length – these columns add tilt functionality, reduce universal joint angles, and remove the tube from the engine compartment for added clearance and safety. Available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



### 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

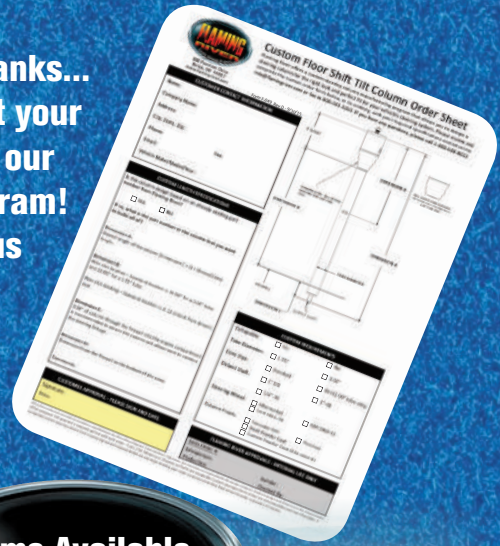
Tilt Columns • Mopar (Cont.)/Micro/Dash Mount

# CUSTOM COLUMNS

Chances are good that we have a column to fit your steering needs. Visit our website or contact Flaming River's Tech Support Department at 1-800-648-8022 or [tech-support@flamingriver.com](mailto:tech-support@flamingriver.com). 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!

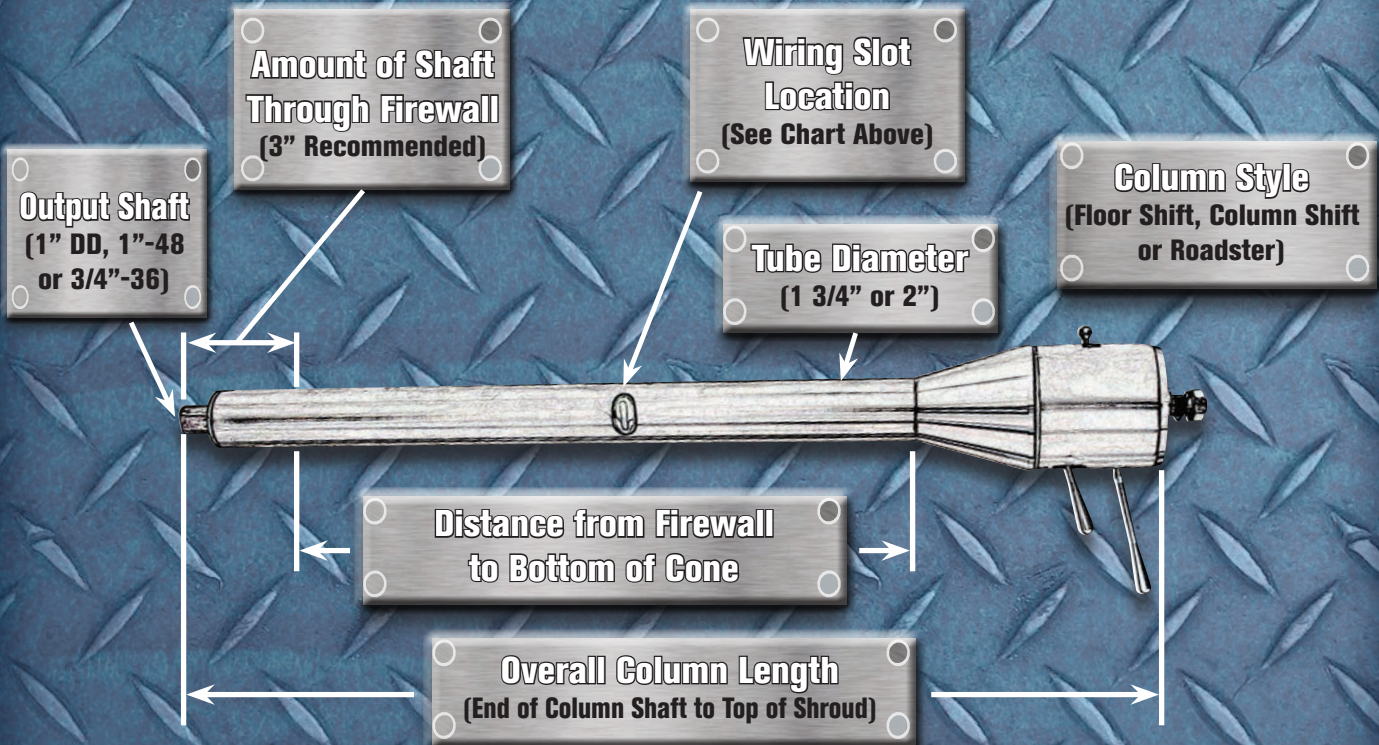
If you're interested in building a Custom Column, please review the appropriate custom column order forms on our website and then contact one of our Sales Reps. They'll take down your information, make sure they understand what you're looking for, and then we'll take care of the rest.

Fill In The Blanks...  
We'll make it your way through our Custom Program!  
Call or visit us on the web for a design worksheet.



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"

## Column Specifications:



**Steering Wheel Type:** Aftermarket, GM 69-93 or Ford 65-70

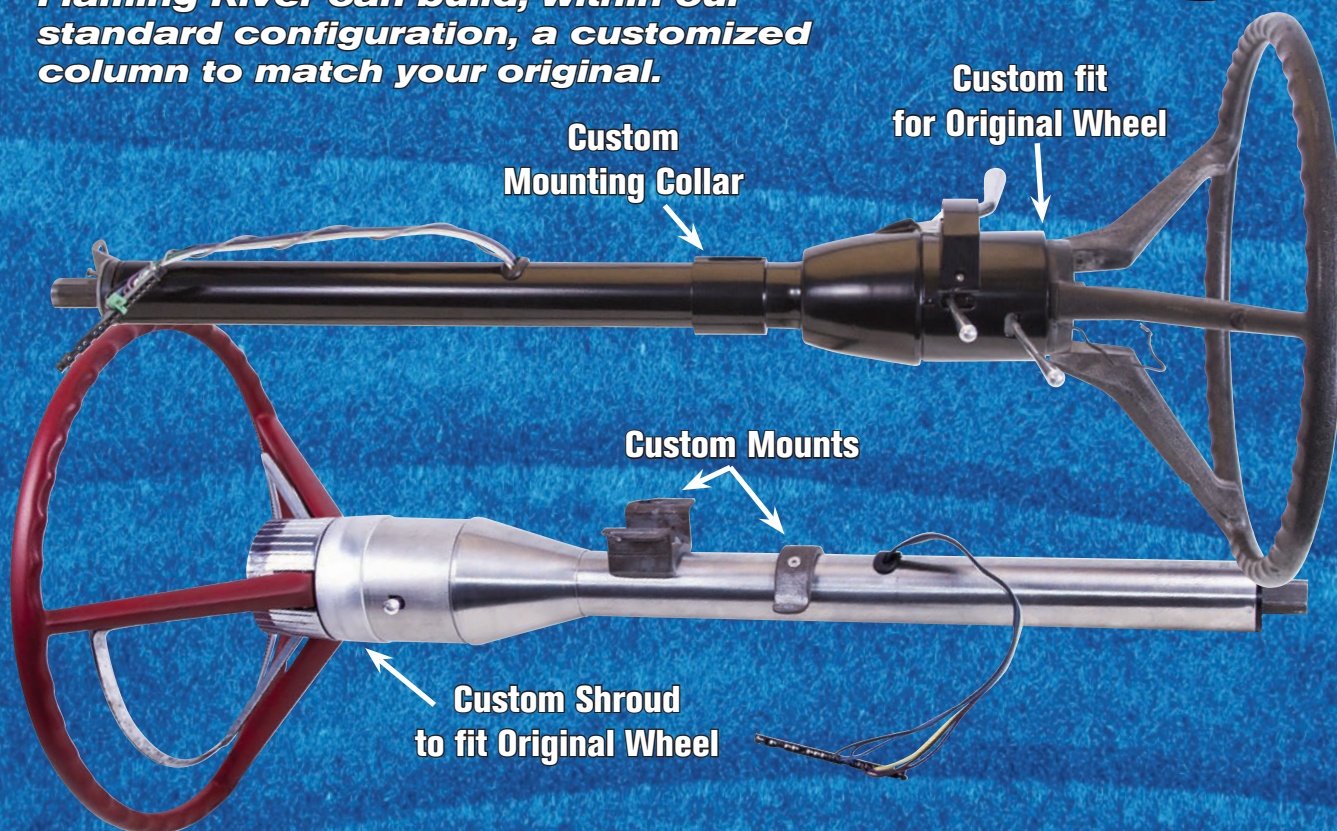
**Finish:** Mill Finish (Paintable), Black Powder Coat, Polished (Stainless) or Custom Powdercoat from RAL Deck

Original Column

New Custom Tilt Column



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



Custom Roadster Column Ordering Information

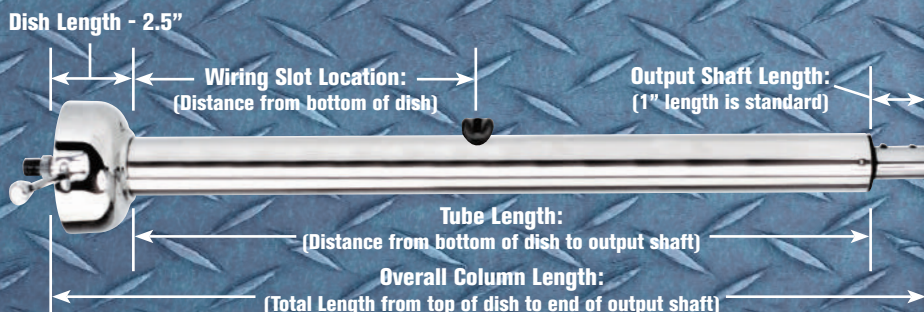
SPECIFY:

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.

# PROGRAMMABLE KEYLESS IGNITION SYSTEM



Blue Illuminated Button Standard  
Shown mounted in a 57 Chevy dash

Part No.	Description
FR60004	Programmable Keyless Ignition System - Dash mount
FR60005	Programmable Keyless Ignition System - Floor Shift Column Paintable
FR60006	Programmable Keyless Ignition System - Column Shift Column Paintable
FR60007	Programmable Keyless Ignition System - Street Machine Style Column Paintable - FR21019,FR21020 Style Steering Columns
FR60008	Programmable Keyless Ignition System - Street Machine Style Column Paintable - FR30009 Style Steering Columns

Add: BK for Black Powder coat,  
CLR for Custom Powder coat Color  
SS for Polished Stainless

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

- Comes with 2 key fobs and 5 programmable channels.
- Four channels are user programmable for Keyless Entry, Shaved Door "Pop", Trunk Release, and Automatic Window Roll Up.
- A 5<sup>th</sup> "proximity Channel" activates automatically as you approach your vehicle.
- 22mm brushed stainless start button with LED emulates all functionality of a traditional Key Switch.
- Emergency bypass Card with unique PIN# assures you can always start your vehicle.
- Advanced System Control Module has 60 Amp Ignition and 2 Accessory Circuits.
- Features Programmable Starter Delay and built in MSD™ Ignition filtering system.
- 100% American Made!



Note: Columns are built to order. Customer must specify length, tube diameter and output shaft size.

\*NON-RETURNABLE\*



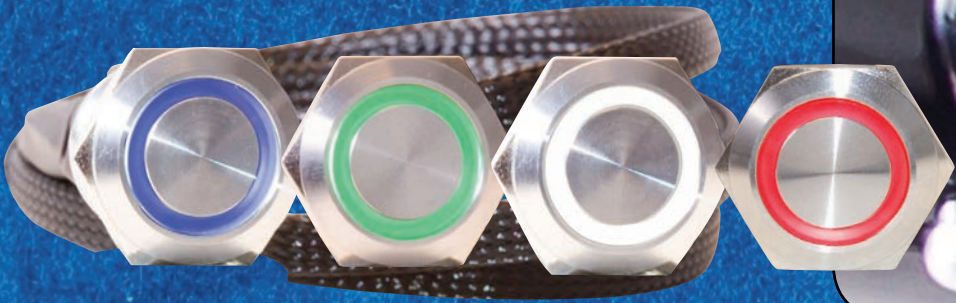
Shown installed in 1940 Ford



FR60007SS Street Machine Tilt Column with Keyless Ignition System

Tilt Columns • Programmable Keyless Ignition System

Part No.	Description
FR60004-WHITE-PB	White Ignition Push Button
FR60004-RED-PB	Red Ignition Push Button
FR60004-GREEN-PB	Green Ignition Push Button



# NON-TILT ROADSTER



## 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). **FR20150R0**



# BELLA TILT™ ROADSTER COLUMN



Shown with  
Banjo Steering Wheel

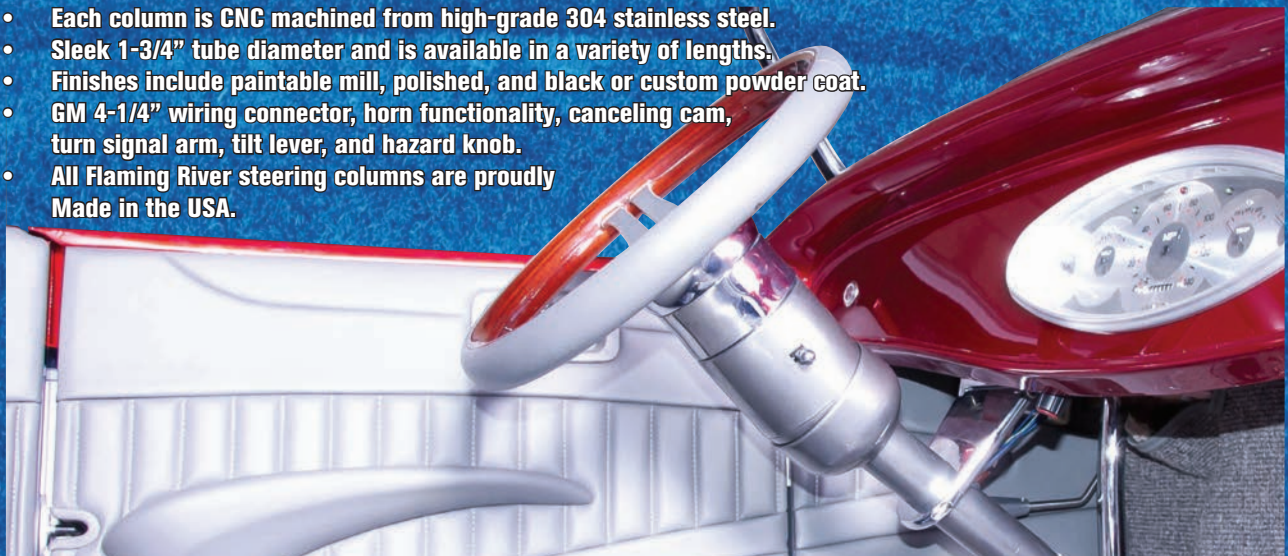


We've taken our popular Roadster style steering column and added the modern convenience of 5 position tilt. This new column is ideal for classic trucks and roadsters.



Quality Steering Systems

- 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.



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

Tilt Columns • Non-Tilt/Bella Tilt Roadster Columns

# TRU TELESCOPIC®



Memory circuit included with all power units.

- 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



## Telescopic Roadster Column - [FR1990TEPL](#)

The ultimate in adjustability!

A nostalgic look with a sleek telescoping tube that makes driving your Roadster much more comfortable. Available in Polished Stainless with a 2" tube diameter and 30" length. Note: Custom Column Drop required and sold separately.

Power		
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



## Telescopic Column Drops

A machined knob locks the column in position when used in conjunction with our Manual Telescopic Steering Columns. Available in 2" diameter, our polished column drops are available from 2-1/2" to 6-1/2" in length. Add TS to part no. of column drop when ordering.

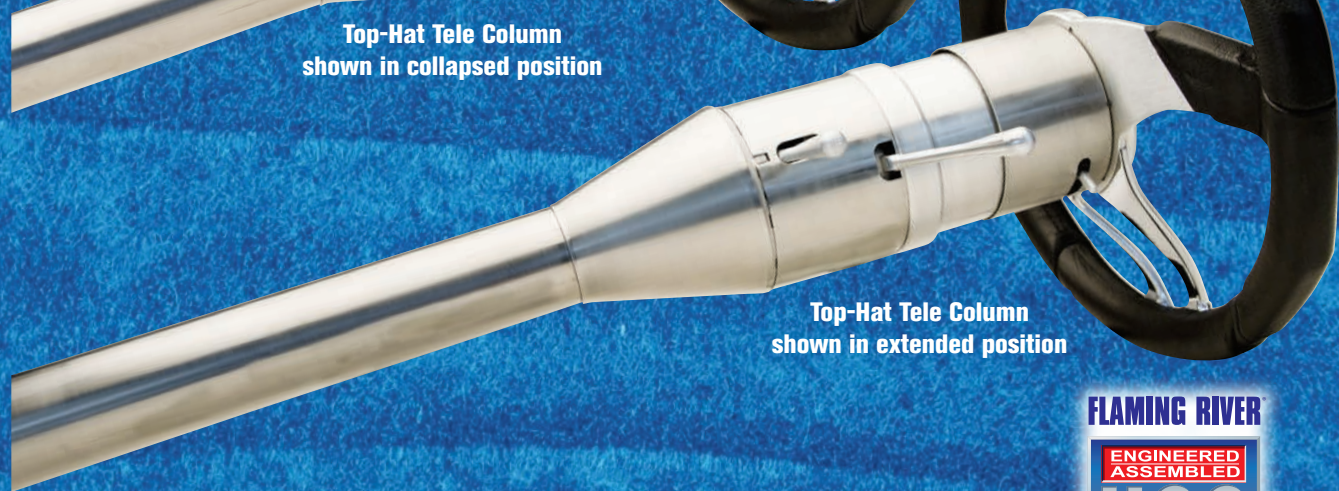
Manual		
Part No	Length	Finish
FR20005TS	30-32 Inch	Mill Stainless
FR20005TSPL	30-32 Inch	Polished Stainless
FR20006TS	32-34 Inch	Mill Stainless
FR20006TSPL	32-34 Inch	Polished Stainless



# TOP-HAT TELE



Top-Hat Tele Column shown in collapsed position



Top-Hat Tele Column shown in extended position

**“Top Hat Tele” Telescoping Tilt Column**  
 This new telescoping design enables 1 inch of column adjustability by simply moving the steering wheel towards or away from the driver.

**Note:** Customer must specify steering wheel prior to order.

**Features:**

- Styling based on the early Corvette steering column – sleek and streamlined with 2 inch dia. stainless tubing
- 1” of column adjustability for driver comfort and clearance
- Spring-loaded design utilizes a billet lever for easy adjustment
- Available in 30” or 32” lengths, or other lengths through custom manufacturing program
- Made in the USA

**Benefits:**

- Smooth telescoping movement away from or towards the driver’s seat
- 3 Year/36,000 mile warranty



Quality Steering Systems

Custom Top-Hat Tele Column



Part No.	Description
FR30007	30” Mill Finish “Top Hat Tele”
FR30007BK	30” Black Powder coat “Top Hat Tele”
FR30007SS	30” Polished “Top Hat Tele”
FR30008	32” Mill Finish “Top Hat Tele”
FR30008BK	32” Black Powder coat “Top Hat Tele”
FR30008SS	32” Polished “Top Hat Tele”

Other sizes available through our custom program.

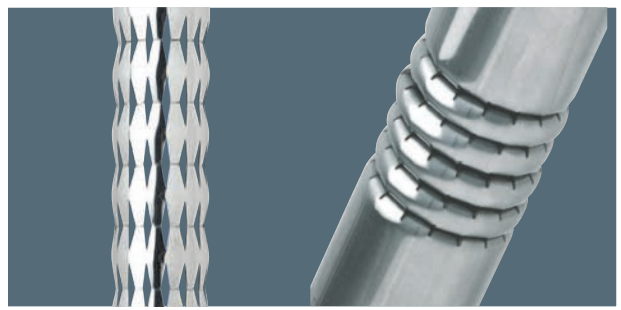
# COLLAPSIBLE



*Did You Know?*  
Any Flaming River® Column  
can be manufactured as a  
Collapsible Column



Quality Steering Systems



Un-Collapsed                      Collapsed

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

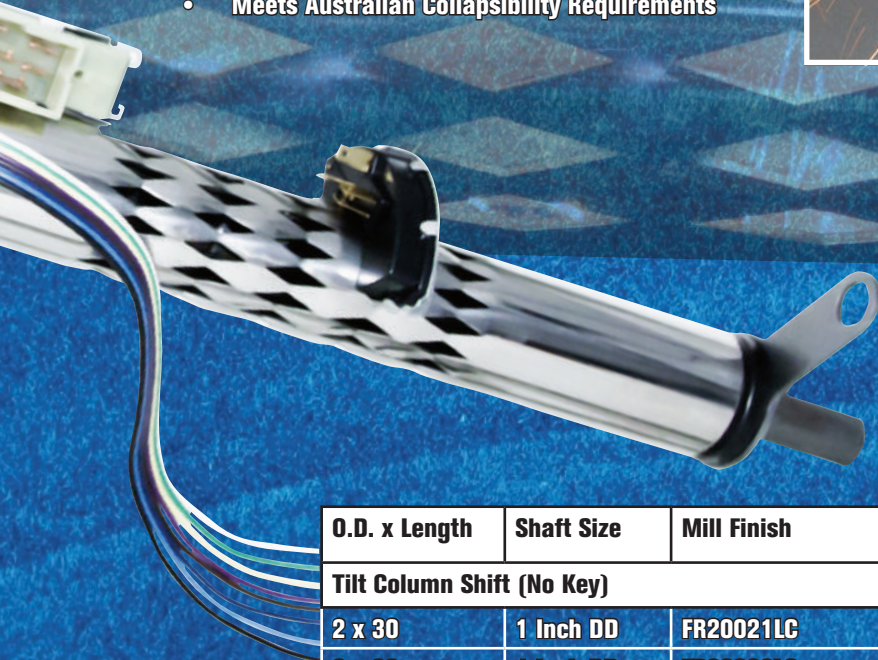
Also available on  
Roadster Style Columns  
(See website for details)





Flaming River pioneered the Laser Cut Stainless Tilt 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



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

# STRAIGHT → COLUMNS

## Non-Tilt!

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

### 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

### 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"



See page 159 for Straight Motorsports Column



# POWDER COATED CUSTOM COLORS

Straight Columns • Custom Colors

## Columns



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



RAL Book **FRPC100**

## Rack & Pinions



## Wheel Adapters



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.

# 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.

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

### 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.

Golf Cart Dress Up Kit	
Part No.	Description
FR400KT	Dress Up Kit
FR20014AD	5/6 Bolt Adapter

### Slip Fit Tilt Steering Column Conversions

Designed to slide over the existing steering column tube and add tilt steering to any Club Car or utility cart. Steering wheel not included.

Slip Fit Tilt Steering Columns	
Part No.	Finish
FR20014EZ	Polished Stainless Steel



Precedent Column

Custom Applications Also Available



Chrome Moly U-Joint

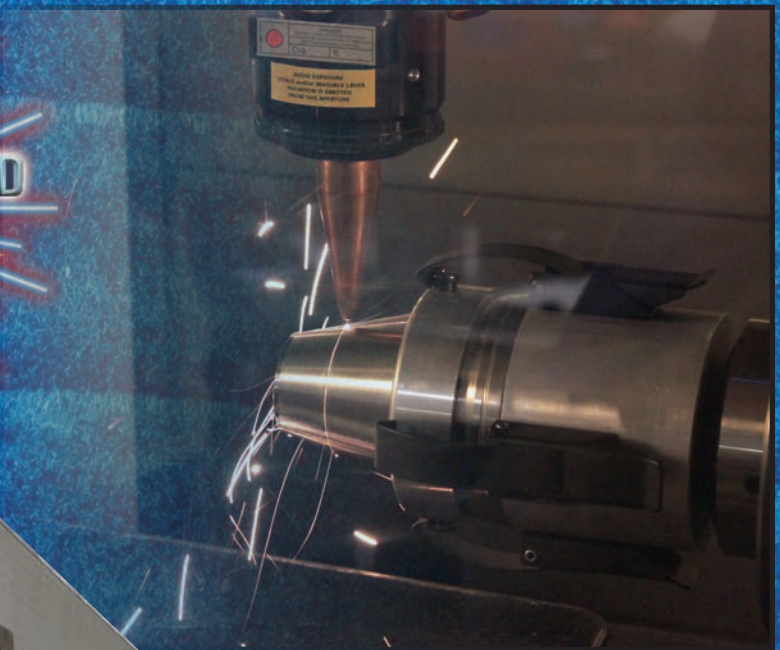
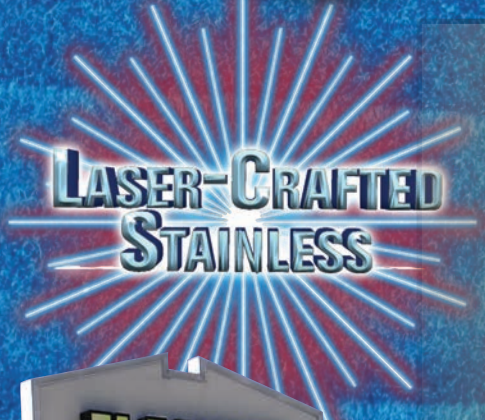
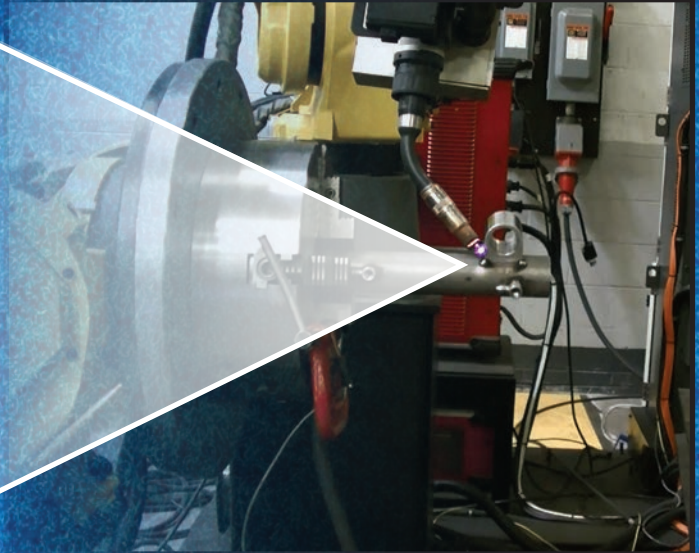


# STEERING COLUMN MANUFACTURING

Recreational/Steering Column Manufacturing



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



This year we have expanded our wide array of CNC machines and laser equipment by adding the latest technology 5-axis machining center.

# ANATOMY OF A COLUMN



Turn Signal Lever

Tilt Lever

Shift Indicator

Turn Signal Switch/Hazard Lights/Wiring

Tilt Ball

Gear Shift Lever

Wiring Slot  
4 1/4" Connector

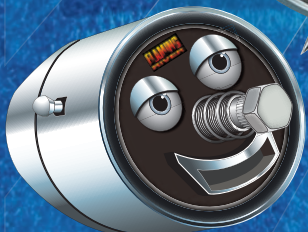
Tilt Spring

Hazard Knob

Our columns come in a variety of styles, lengths and finishes

Center Steering Shaft

Adjustable Shift Control Arm





# DESIGNING YOUR SYSTEM

Tilt Columns • LED Indicator/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.



# TILT STEERING COLUMN INSTALLATION

1. Determine the floor mount you intend to use and dash board clamp or column drop. (See Flaming River Catalog or [flamingriver.com](http://flamingriver.com))
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.

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

## INSTALLING THE STEERING WHEEL

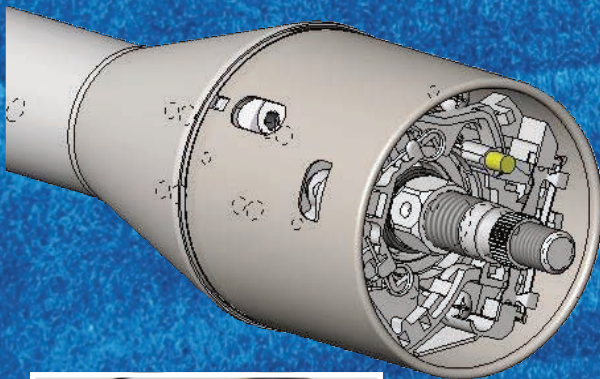
The spline on your new Flaming River steering column is a GM spline designed from 69 to present steering wheels without an airbag. The horn wire is furnished with your steering column and is pre-installed into the canceling cam.

For More Tech Tips Visit  
[flamingriver.com](http://flamingriver.com)  
or call 1-800-648-8022



Visit Flaming River Online

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



CANCELING CAM



SPRING

STEERING WHEEL  
RETAINING NUT



1. Position the canceling cam (as shown in figure A) between 10 and 11 o'clock.



2. The compression spring is positioned over the column shaft on top of the canceling cam.



3. Place the steering wheel or adapter on the steering column shaft. Then place the retaining nut on the shaft and tighten, drawing down the wheel or adapter to the desired gap (we recommend approx. 1/16"). (DO NOT OVER-TORQUE)

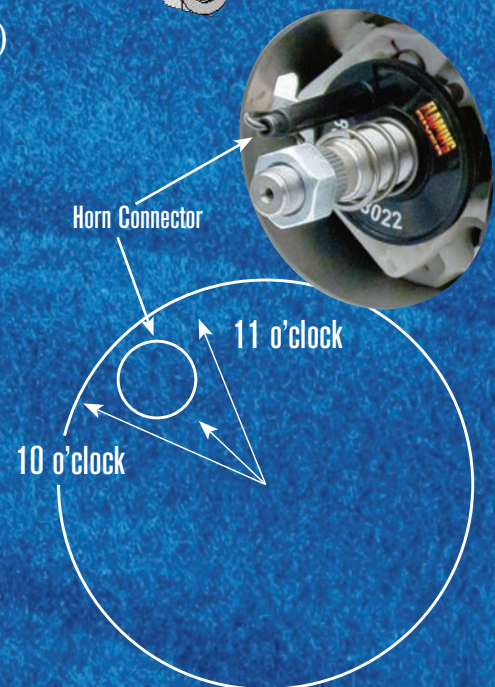
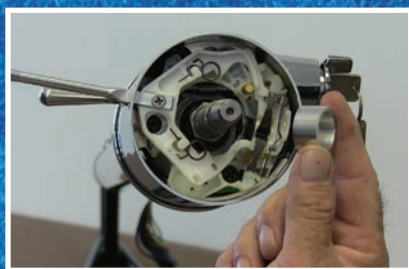
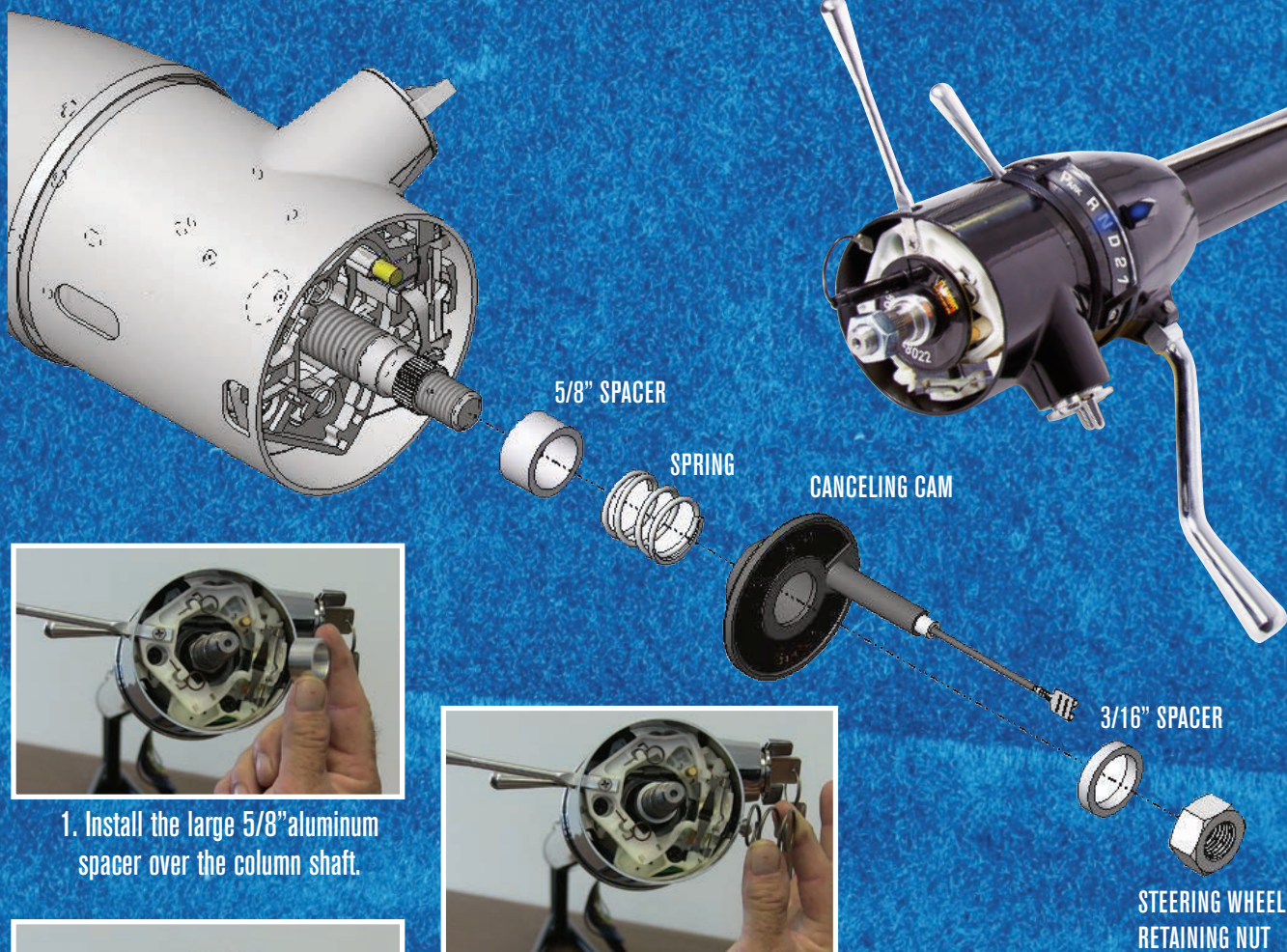
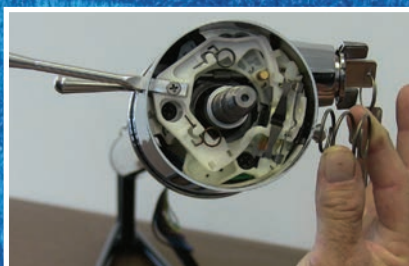


Figure A

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.

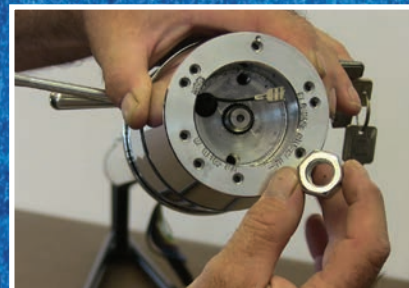


3. Then, slide the Canceling Cam over the column shaft and canceling cam spring.

*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 canceling cam. When connecting the canceling cam to your horn button, please note: 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.





# Check Out Our Spray Chrome Option



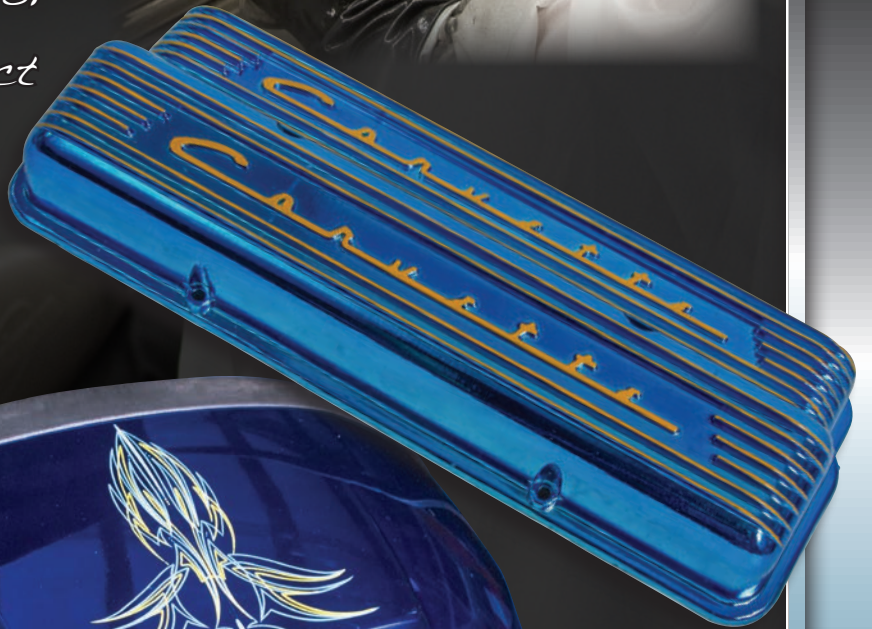
## CHROME

At Flaming River, we now have the ability to add a custom chrome finish, in a variety of colors, to virtually any surface that can be painted!



Colors for simulation purposes only and may not match finished product

*Choose from a variety of chrome colors to customize your project*



# Steering Wheels

WaterFall 76

Banjo 77

Navigator / Woody's III 78

Wood Wheels 79

Vette 80

Mopar Tuff 81

Muscle Tuff 82


Cascade 83

Great Lakes Wheel 84

D Wheels 85



# WaterFall



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  
**FR201500E** - OE Column  
**FR20150FD** - FR Ford Column

## Hand-Stitched Italian Leather Wheels



**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

## Banjo

Steering Wheels • Waterfall/Banjo



Style	Color
<b>Banjo 15" Steering Wheel</b>	
FR20128BJBK	Black - FR Column
FR20128BJLG	Light Gray - FR Column
FR20128BJTN	Light Tan - FR Column
FR20128GMBK	Black - GM Column
FR20128GMLG	Light Grey - GM Column
FR20113LHN	Large Horn Button for 9 Bolt Wheel - Included with Wheel

**FR20113LHN**  
Shown Installed In  
FR20128BJLT



**FR20128BJLG**  
Banjo Light Gray Leather

# Navigator / Woody's III

## Italian Wood

Woody's III (13.8" Dia. / 5 Bolt)

FR20123

Woody's III

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.

Style	Color
<b>Navigator - Leather/Wood</b>	
FR20163BK	Wood/Black
FR20163LT	Wood/Light Tan





# Wood Wheels

Steering Wheels • Wood



*Fruitwood Luxury Steering Wheels*

**FR20125FWBK**  
Fruitwood Luxury  
15" Dia. / 5 Bolt



**FR20125FW**  
Fruitwood Luxury  
15" Dia. / 5 Bolt



**FR20125FWTA**  
Fruitwood Luxury  
15" Dia. / 5 Bolt



# Nostalgia



*Hand Stitched  
Italian Leather*

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

**FR20156SS**

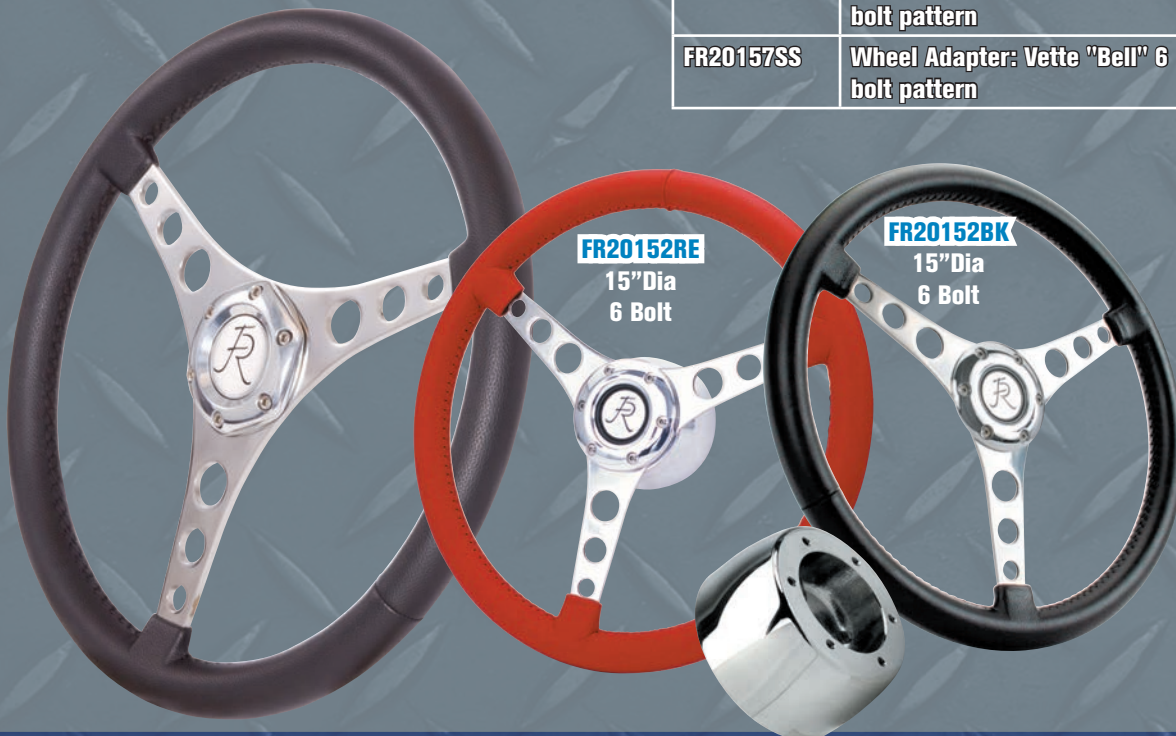
Std. Corvette

**FR20157SS**

6 Bolt

Part No.	Description
<b>Nostalgia / Corvette Steering Wheels Molded</b>	
FR20151HRN	Steering Column Access: Horn Button Assembly
FR20171BK	"Leather Like" Molded Black with OE "Vette" Bolt Pattern Center
FR20172BK	"Leather Like" Molded Black with FR 6 Bolt Pattern Center
FR20173BK	"Leather Like" Molded Black with FR 6 Bolt Pattern Powder Coat Black Center

Part No.	Description
<b>Nostalgia / Corvette Steering Wheels Italian leather</b>	
FR20152BK	Vette 6 Bolt Laser Chrome 15" (Black Leather)
FR20152LG	Vette 6 Bolt Laser Chrome 15" (Light Grey Leather)
FR20152RE	Vette 6 Bolt Laser Chrome 15" (Red Leather)
<b>53-62 Corvette Steering wheel adapters</b>	
FR20156SS	Wheel Adapter: Vette "Bell" Vette bolt pattern
FR20157SS	Wheel Adapter: Vette "Bell" 6 bolt pattern



**FR20152RE**

15" Dia  
6 Bolt

**FR20152BK**

15" Dia  
6 Bolt

# Tuff Wheels for Mopar

The popular Mopar "Tuff" Wheel is becoming more and more popular in muscle cars. Our Tuff Wheel features a molded comfort grip with a similar feel to the original, but is much more durable. This wheel also comes complete with a horn button and cover. 14" diameter.

Part No.	Description
FR20161LTBK	Leather w/Aluminum Spokes
FR20161	14" Tuff Wheel Chrome
FR20161S	14" Tuff Wheel Satin Sheen Powder Coat
FR20161AD	Wheel Adapter: For Tuff Wheel to FR Tilt column
FR20161CAP	Steering Wheel Access: Mopar "Tuff" Horn Cap



Tuff Wheel Horn Cover - included with Wheel  
**FR20161CAP**



**NEW!**



Mopar Canister Wheel Adapter  
**FR20182**



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

Tuff Wheel & Adapter mounted onto a Flaming River Mopar Tilt Column



Steering Wheels • Nostalgia/Tuff Wheels for Mopar

# Muscle Tuff Wheel

The popular "Tuff" Wheel is becoming more and more popular in muscle cars. Our Muscle Tuff Wheel features a molded comfort grip with a similar feel to the original, but is much more durable. This wheel also comes complete with a horn button and cover. 14" diameter. Includes billet polished aluminum Horn Button Assembly.



Part No.	Description
FR20174KT	14" Muscle Tuff Wheel with 9 Bolt Adapter and Polished Horn Button
FR20113	9 Bolt Wheel Adapter

- 14" Diameter
- Includes 9 Bolt Wheel Adapter
- Includes Polished Horn Button
- Chrome Spokes
- Molded Comfort Grip



9 Bolt Adapter  
(Included)  
**FR20113**

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



# Cascade



**Cascade Steering Wheel**  
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! Cascade  
Steering Wheel

**FR20160**  
Black  
13.8" Dia.

**FR20160TN**  
Tan  
13.8" Dia.

**FR20160DG**  
Slate Grey  
13.8" Dia.

**FR20160LG**  
Light Grey  
13.8" Dia.



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

*Hand Stitched  
Italian Leather*

# Great Lakes Roadster Wheel

*Hand Stitched Italian Leather*

**NEW!**

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

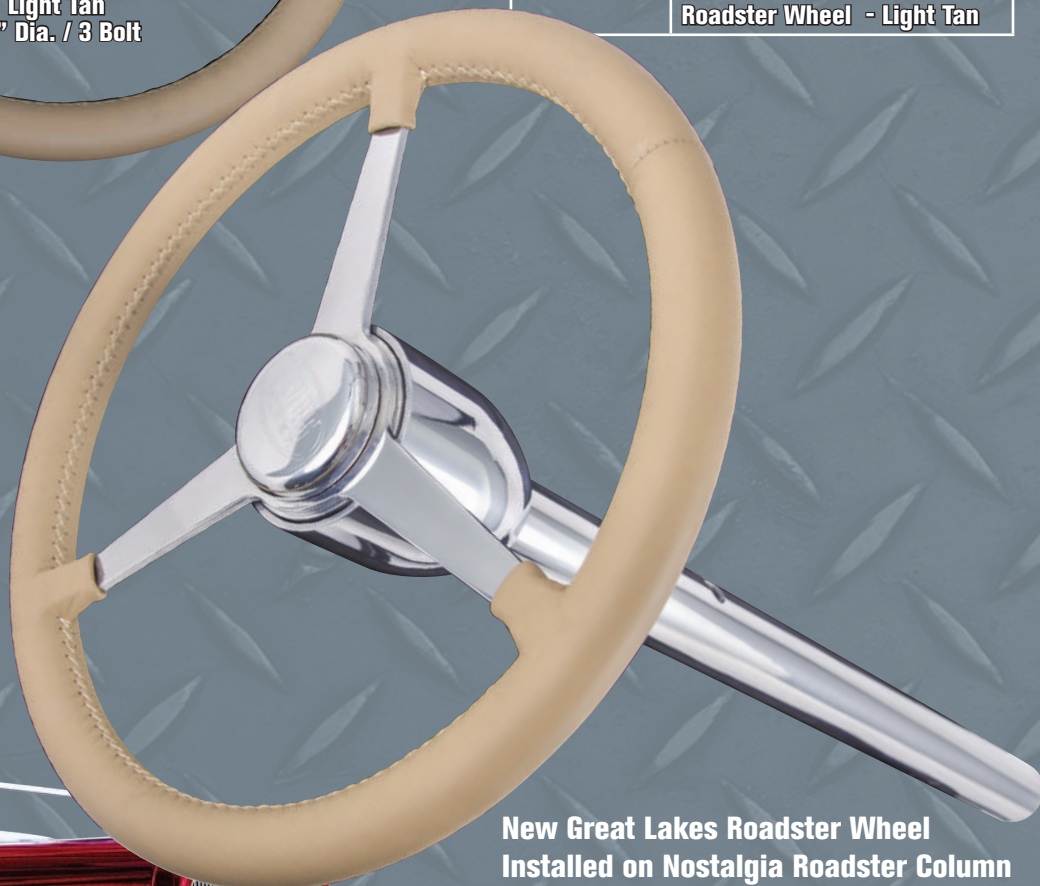
Part No.	Description
FR20175BK	Great Lakes Roadster Wheel - Black
FR20175RE	Great Lakes Roadster Wheel - Red
FR20175TA	Great Lakes Roadster Wheel - Light Tan



**FR20175TA**  
Great Lakes Wheel-  
Light Tan  
14" Dia. / 3 Bolt



**FR20119**  
Billet Roadster Column  
Steering Wheel Adapter



New Great Lakes Roadster Wheel  
Installed on Nostalgia Roadster Column

**SEMA NEW PRODUCT!**



# 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 Wheels • Great Lakes Wheel/D Wheel

# Accessories

Electrical Accessories	87
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Floor Mount Replacement Systems	93



## Column Dress Up Kits



FR20121PL

### New Machined Style

Turn Signal: 5-1/8"  
Tilt: 3"  
Hazard: 1"

FR20121BK

FR20121AL



Turn Signal: 7-5/8"  
Tilt: 5-3/4"  
Hazard: 1"

### New LONGER Machined Style

FR20122AL Mill Finish

FR20122BK Black Powdercoat Finish



FR20112APL

Turn Signal: 5-1/8"  
Tilt: 3"  
Hazard: 9/16"

### New Style Dimmer Switch Kit

FR20118-8



# Electrical Accessories



Programmable Keyless Ignition System

Part No.	Description
FR60004	Programmable Keyless Ignition System - Dash mount
FR60005	Programmable Keyless Ignition System - Floor Shift Column Paintable
FR60006	Programmable Keyless Ignition System - Column Shift Column Paintable



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. Order this when you order your Flaming River column and we will install it for you. Non-returnable.

**FR20118-4**



**New Style!**



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. Note: Installed on column only. Order this when you order your Flaming River column and we will install it for you. Non-returnable.

**FR20118-3**



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

**FR20120HN**

**FR20024SC**



Female Wiring Connector Kit (4-1/4")

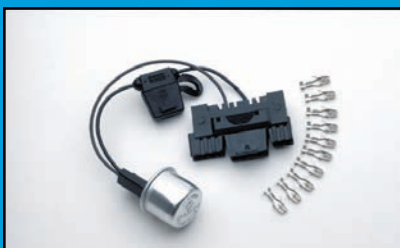
Female plug for Flaming River Tilt Columns. Supplied with terminals and can be used to adapt any existing wiring harness to mate with Flaming River 4-1/4" connector.

**FR20118**



Neutral Safety Switch

A Neutral Safety Switch is recommended for all Column Shift style columns. Add "NE" to end of part number when ordering. Must be ordered with column.



Hazard Kit (4-Way Flashers)

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.

**FR20118-1**



Female Wiring Connector Kit (67-68 Camaro)

Horseshoe-shaped connector used in 1967-68 Camaro. (FR20118 Plug Adapter could be used in place of this adapter).

**FR20118-2**

# Wheel Adapters



**FR20113LHN**

Polished Horn Button fits  
9 Bolt Wheel Adapter

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



## Tapered Style 5/6 Bolt Pattern - 2-1/2" Tall

FR20119TA	FR Column
FR201190E	GM Column
FR201190EBK	GM Column Black Powdercoat
FR20119TA-BK	FR Column Black Powder coat
FR20119TA-CLR	FR Column Clear Powder coat
FR20119TAS	FR Column Satin Finish
FR20119FD	FR Ford Column
FR20143	67 & Prior GM Columns
FR201440E-M	Motolita Wheel To GM Column

## WaterFall Steering Wheel Adapter - 2-1/2" Tall

FR20150HGAD	FR Column
FR201500E	GM Column
FR20150M69	Dodge 1966-69
FR20150M70	Dodge 1970-75
FR20150GM	67 & Prior GM Columns
FR20150FD	FR Ford Column

## 9 Bolt Pattern - 2-1/2" Tall

FR20113	FR Column
FR20113BK	FR Column Black Powder coat
FR20113FD	FR Ford Columns
FR201130E	GM Column
FR20145	Billet Specialties Wheel to FR Tilt Column



## Billet Roadster Column Steering Wheel Adapter

FR20119	3 to 5/6 Bolt Adapter
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## Bell Style 5/6 Bolt Pattern 2-1/2" Tall

FR20119BA	FR Column
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## Low Profile 5/6 Bolt Pattern 1-7/8" Tall

FR20119RA	FR Column
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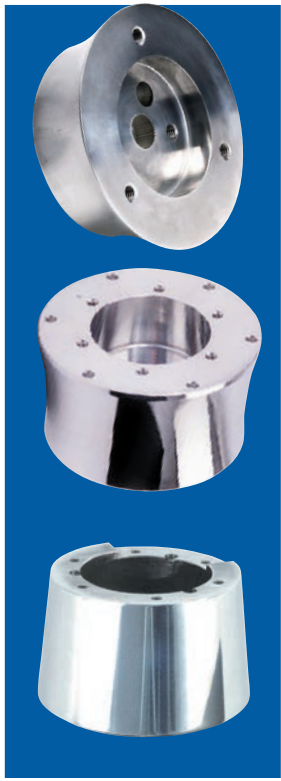
## 3 Bolt Steering Wheel Adapter - 2-1/2" Tall

FR3302	FR Column
FR33020E	GM Column
FR3302FD	FR Ford Column
FR3304	Roadster Column
FR3304BK	Roadster Column - Black Powder coat

## 1953-62 Corvette Steering Wheel Adapters for Flaming River FR1999VTR Columns 1-13/16" Tall

FR20156SS	Original Vette
FR20157SS	Aftermarket 5/6 Bolt

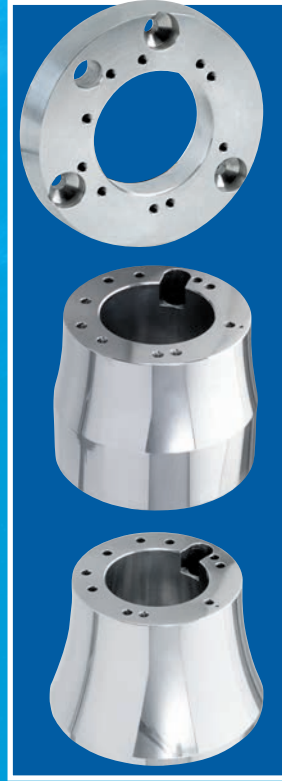
# Wheel Adapters



<b>Tuff Wheel Adapter</b> 1-13/16" Tall	
FR20161AD	Flaming River Tilt Column

<b>Cascade Wheel Adapter</b> 2-1/2" Tall	
FR20160AD	FR Tilt Column
FR20160AD0E	GM Column

<b>Corvette Wheel Adapter to a Flaming River Tilt - 2-1/2" Tall</b>	
FR2000VT-AD	Polished
FR2000VT-ADBK	Black Powder coat



<b>1970-74 Mopar "E" Body Steering Columns.</b>	
FR20119D0	5/6 Bolt Patterns
FR20119D02	WaterFall Wheel

<b>1966-69 Mopar 3-1/4" Tall</b>	
FR20180	5/6 Bolt

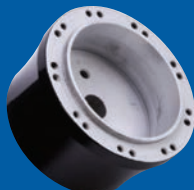
<b>1970-75 Mopar - 3-1/4" Tall</b>	
FR20181	5/6 Bolt

**NEW**



<b>NEW Mopar Canister Wheel Adapter</b>	
FR20182	Flaming River Tilt Column
FR20182BK	Flaming River Tilt Column - Black Powdercoat

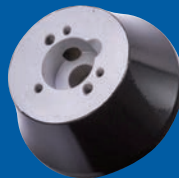
## Muscle-Series Wheel Adapters



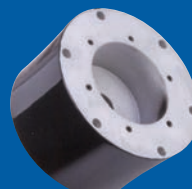
9 Bolt Pattern  
FR20113BK



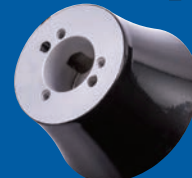
Tapered Style  
5/6 Bolt Pattern  
FR20119TA-BK



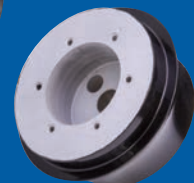
3 Bolt Pattern  
(Roadster Column)  
FR3304BK



Cascade  
FR20160BK



3 Bolt Pattern  
(FR Column)  
FR3302BK



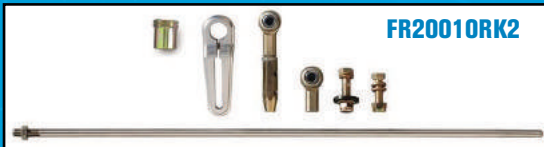
Waterfall  
FR20150HGADBK

# 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

## New Machined Style



**Kugel Components 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.



**Lokar 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 Speed Transmission

**FR20010LK**  
**FR20010LK-S**

## 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**



**Lokar Cable Shift Linkage kit**  
Lokar 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 5 ft. in length. Ready-to-install hardware and brackets included in kit - no cutting or measuring.

**FR20010CBL**

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 and Overdrive Lens
FR20010LN0	Overdrive Lens
FR20010PO	Pointer

# Column Mounts

## 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**

## 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, Chevelles, Street Rods, and limitless other applications. Ignition switch and boot included.

**FR20114KY-2PL** (Shown with Shim **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.



**FRIGN4PL**

**FRIGN3PL**

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



## 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



## Slanted Dash Mount

8 Degree Mounting Angle

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

# Column Drops



**Slanted Dash Mount**

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



**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

## 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.



**FR20114K** - Key Column

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

**FR20114-5** 69-82 Corvette  
Key Column Mount



**FR20114-3** G Body



**FR20114-4**  
Column Mount

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



## 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. 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.

Part No.	Description
FR20100	1-3/4" Floor Mount
FR20101	2" Floor mount
FR20100CVR	Floor Mount Cover
FR20100CVRBK	Floor Mount Cover - Black Powdercoat

## 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

# Floor Mount Replacement Systems

New Floor Mounts

**NEW!**

79-86 Jeep CJ Series  
**FR20101CJ**



**NEW!**



70-74 Mopar E-Body  
**FR20101MPE**

**NEW!**



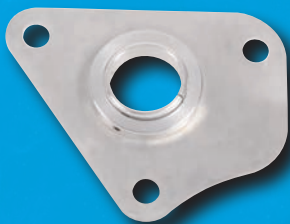
66-77 Ford Bronco  
**FR20101BR1**



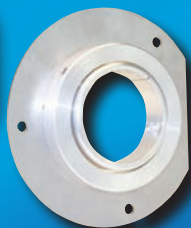
## Swivel Floor Mounts

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.

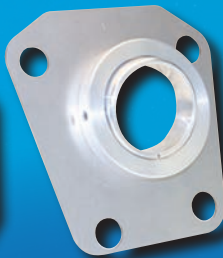
Polished Aluminum Swivel Floor Mounts With Satin Back Plates.



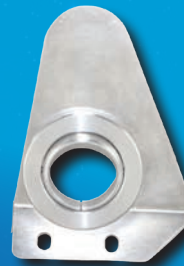
**FR20101MPA**  
A-Body Mopar



65-66 Mustang  
**FR20101M5**



67-70 Mustang  
**FR20101M7**

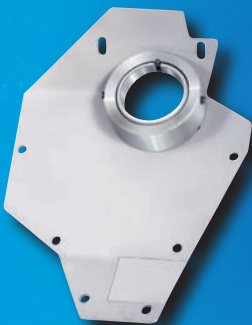


55-57 Chevy  
**FR20101-57**

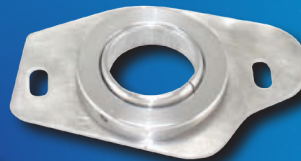


67-69 Camaro/69-74 Nova  
**FR20101FB**

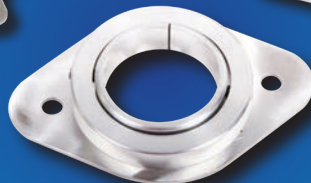
**FR20101FD1**  
49-53 Ford



70-81 Camaro  
**FR20101CA**

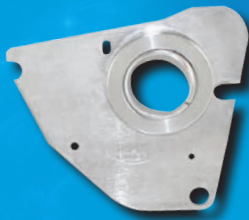
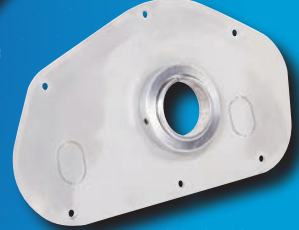


**FR20101F1**  
53-56 Ford F100 Truck

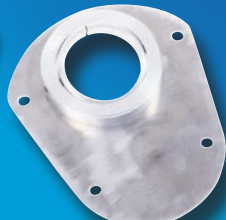


62-69 B-Body Mopar  
**FR20101MP**

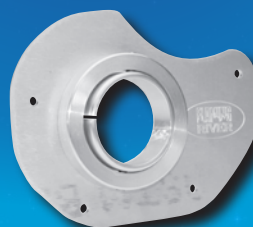
69-82 Corvette  
**FR20101VT**



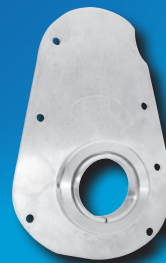
68-72 Chevelle  
**FR20101AB**



**FR20101C10**  
67-72 G-10 Truck



58-64 Impala  
**FR20098**



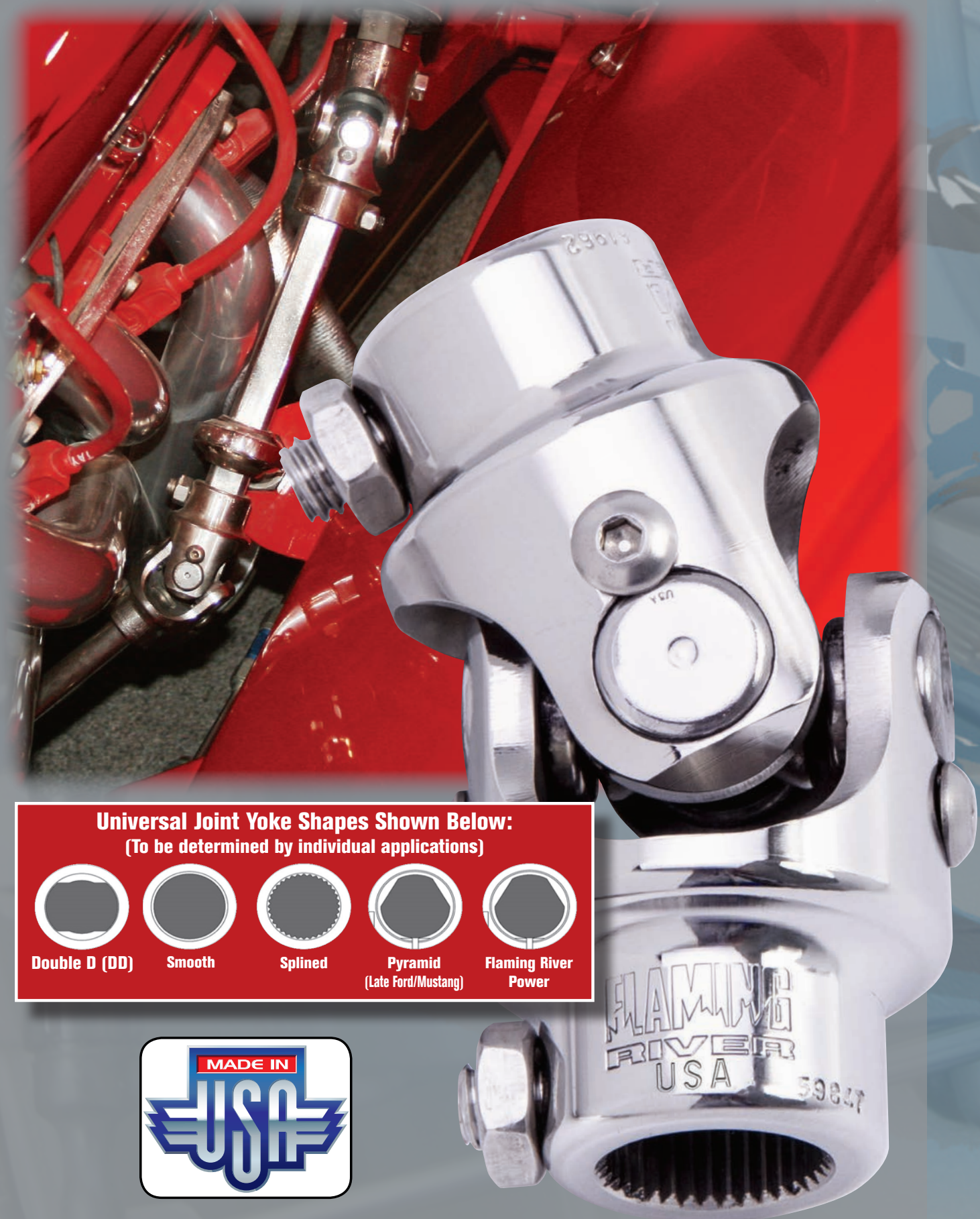
1960-65 Comet/Falcon  
**FR20097**



64-67 Chevelle  
**FR20101CH**

Accessories • Column Drops/Floor Mounts

# Universal Joints



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



Double D (DD)



Smooth



Splined



Pyramid  
(Late Ford/Mustang)



Flaming River  
Power





# 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"-30	.750	30
	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)	3/4"-30	.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



## Steering Column

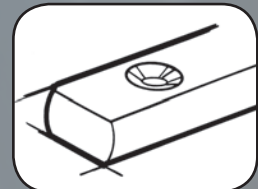
Application	Size	Spline Dia.	Spline
GM Column			
Small Spline	3/4"-36	.750	36
Large Spline	1"-48	1.00	48
Small DD	3/4"-DD	.750	DD
Large DD	1"-DD	1.00	DD
Ford Column			
Small Spline	3/4"-36	.750	36
Small DD	3/4"-DD	.750	DD
Large DD	1"-DD	1.00	DD

### 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.



# BILLET-JOINT®



## 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

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 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.

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



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

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)

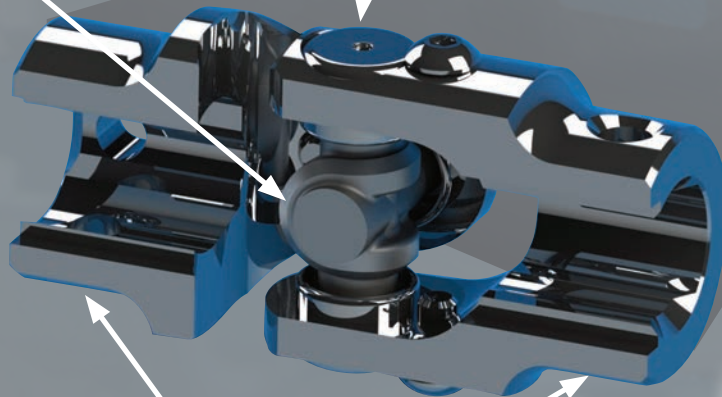
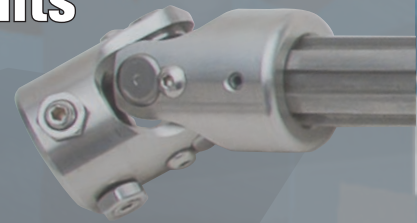
Part No.	Description
FR1750CPL	9/16"-26 X 5/8"-36(Chry) Polished
FR1750PL	3/4"DD X 7/8 Dia Polished
FR1754	1"DD X 1"DD
FR1754PL	1"DD X 1"DD Polished
FR1755	5/8"-36(Chry) X 3/4"DD
FR1755PL	5/8"-36(Chry) X 3/4"DD Polished
FR1756	5/8"-36(Chry) X 3/4"-36
FR1756PL	5/8"-36(Chry) X 3/4"-36 Polished
FR1757	5/8"-36(Chry) 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

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

U-Joint  
Cross

Bearing Cap



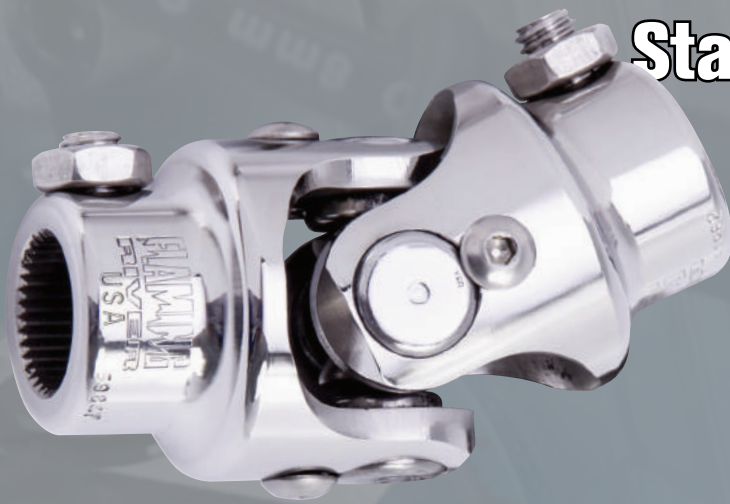
Yokes

**BILLET-JOINT**



Quality Steering Systems

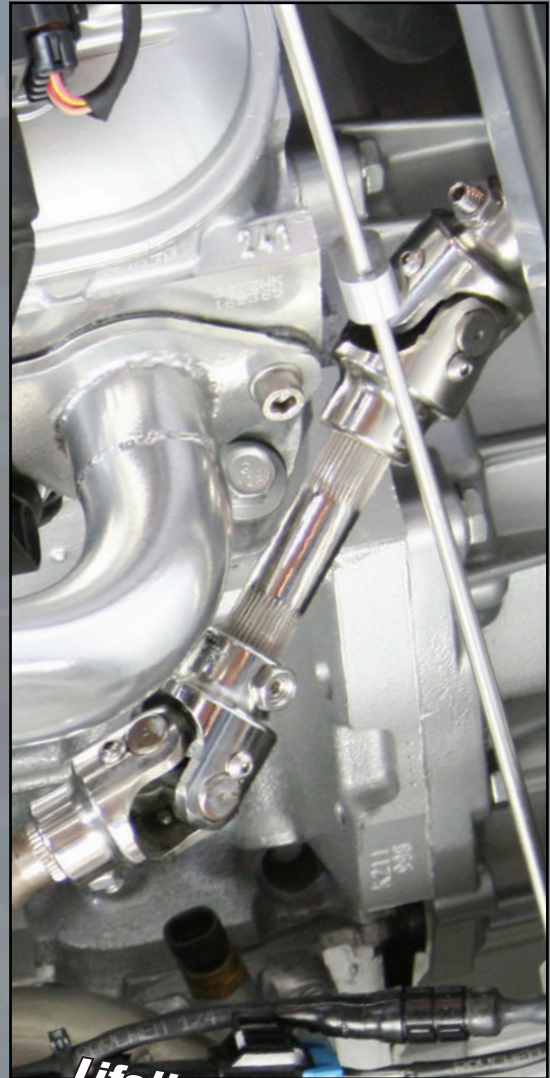
# Stainless Steel



Stainless Steel Universal Joints  
 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.

## Stainless Steel Quick Order Installation Kits

Save by Ordering U-Joints as a Kit! Each kit includes (2) two  
 Stainless Steel needle bearing universal joints and (1) one  
 extra-long 22" DD stainless shaft. Satin or Polished finish



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



Part No.	Description	Stainless Steel
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	

Part No.	Description	Stainless Steel
FR2556CPL	5/8"-36C X 3/4"-36 Polished	
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



# Pinch Bolt Universal Joints

## Stainless Pinch Bolt Universal Joints

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

## Forged True®



**Forged Universal Joints**  
 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

Part No.	Description
FR2637	3/4" X 3/4"-48
FR2638	3/4" X 17mm DD
FR2640	3/4" X 3/4"-20
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

Part No.	Description
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

Up To 60°



## 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

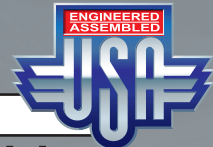
Up To 60°



## Stainless Steel Double Universal Joints

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

Part No.	Description
FR2594PL	3/4" DD X 3/4" DD Polished
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





Up To **35°**



## Chrome Moly

### Chrome Moly Universal Joints

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
FR1939-21	3/4"-30 x 3/4'-36
FR1939-22	3/4"DD x 3/4"-20

Part No.	Description
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



Universal Joints • Double/Chrome Moly/Double Chrome Moly

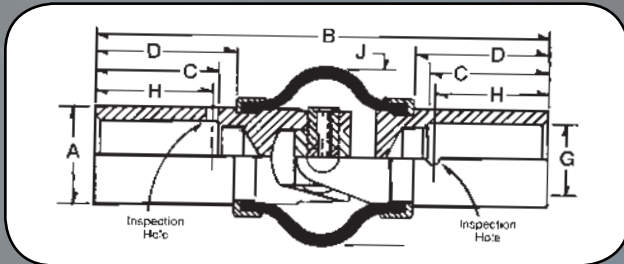
# Couplers, Pin & Block U-Joints & Mil-Spec



## 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



Part No.	Nominal Size O.D.	O.D. "A" +.000 - .002	I.D. "G" +.004 - .001	Max Dia. "J" +1/64	Length "B" +/- 1/16	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 and 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"
FR1822	3/4" x 5/8"-36	1"



## 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.

**IMPORTANT:** This is a lightweight application that is not designed for circle track, street, or highway use and not recommended for steering. Please see inch Lbs. Torque rating listed in the chart above to determine if this is suitable for your application. Ideal for shifter linkage.

**Not For Street Use**

# Shafts & Support Bearings

## 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.



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



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

## Frame Mount Support Bearing

### FR1812BI

This show-quality billet support bearing mounts using two 1/4"-20 fasteners. 2-1/2" length to fit a 3/4" shaft diameter. Polished aluminum finish.



## Frame Mount Support Bearing Kit

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

Part No.	Description
FR1810KA	Angled Bracket & Support Bearing
FR1810KAC	Angled Bracket & Support Bearing Chrome Finish
FR1810KS	Straight Bracket & Support Bearing
FR1810KSC	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

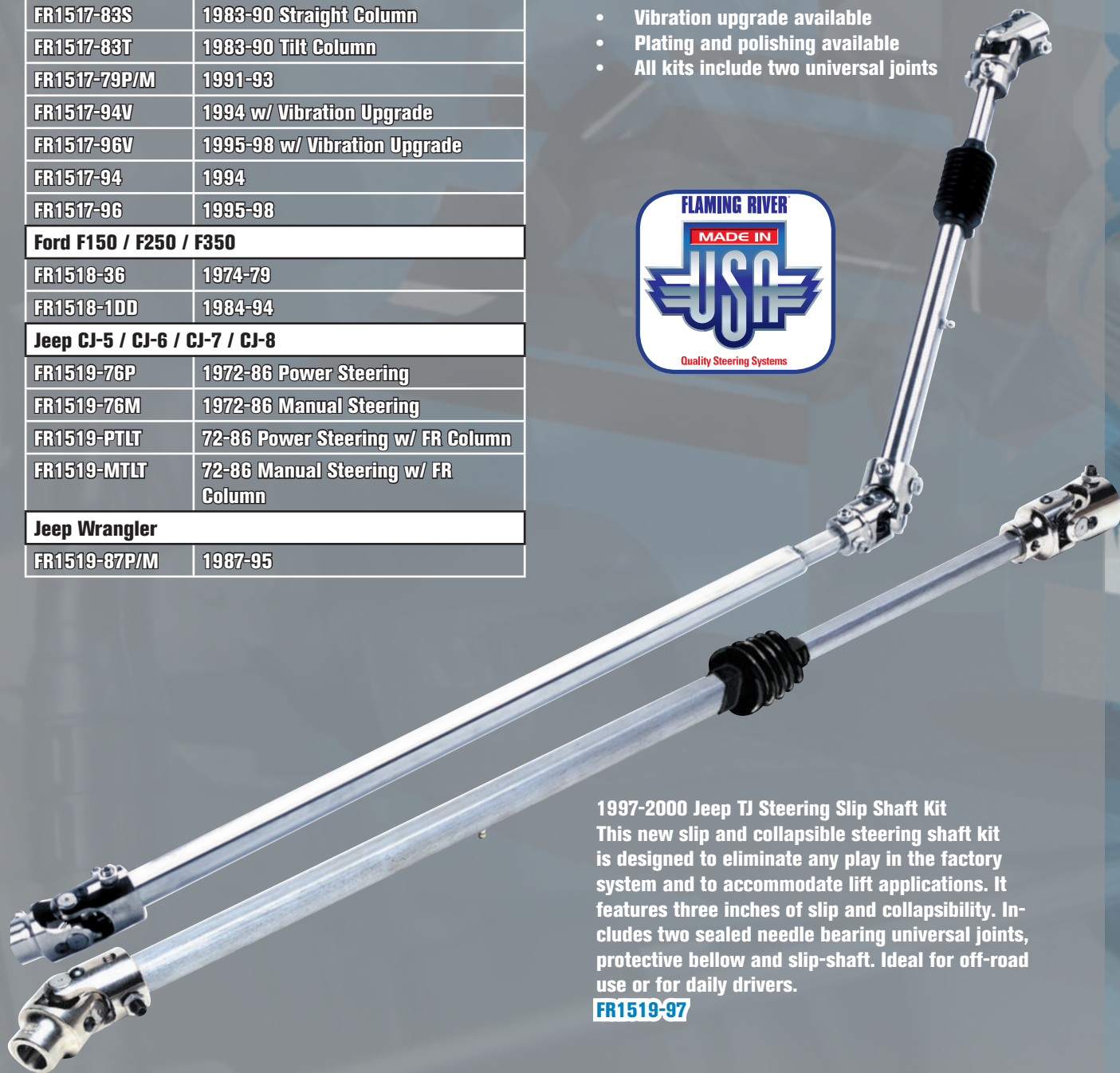
# Truck Slip Shaft

## Dodge • Ford • Jeep • Chevy

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

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



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**



# BMW Shaft

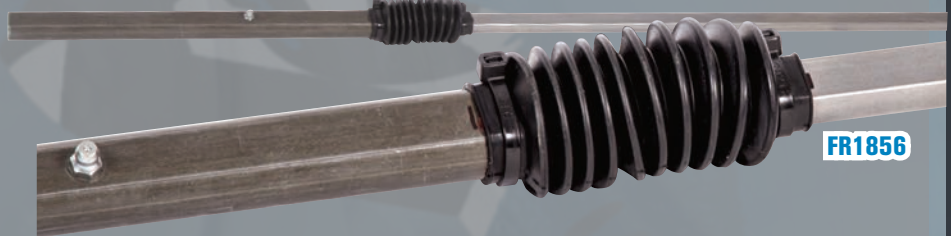
BMW M3  
(17MM-54 x 17MM-54 U-Joints)  
**FR1517BM**



## Slip Shaft Kit (No Universal Joint)

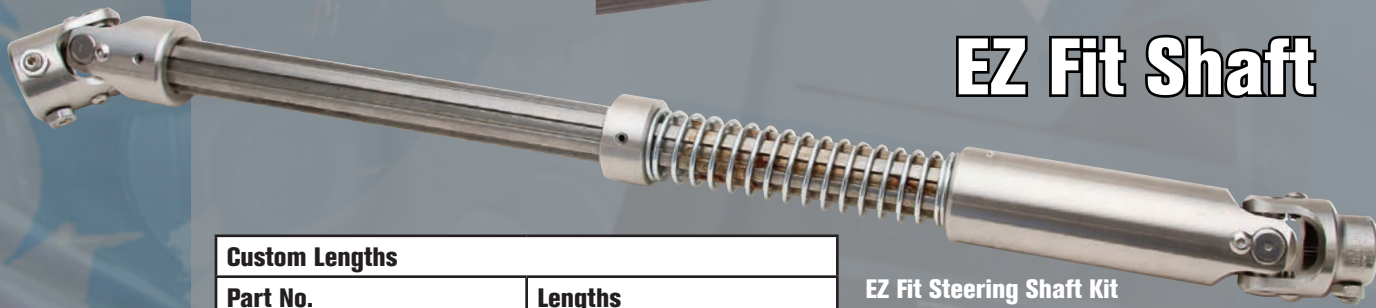
Use one of these steering shafts to update the OEM steering system in your vehicle. The kit includes a 1" DD shaft, a 3/4" DD shaft and protective bellows. The slip joint system allows for almost 3" of movement to compensate for chassis twist and eliminate binding. Overall length of 30".

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



**FR1856**

## EZ Fit Shaft



Custom Lengths	
Part No.	Lengths
FR1857-14S	12-14" OAL
FR1857-16S	14-16" OAL
FR1857-18S	16-18" OAL
FR1857-20S	18-20" OAL
FR1857-22S	20-22" OAL
FR1857-24S	22-24" OAL
FR1857-26S	24-26" OAL
FR1857-27S	25-27" OAL
FR1857-30S	28-30" OAL

**\*Must specify steering column yoke and steering gear yoke sizes**

**EZ Fit Steering Shaft Kit**  
EZ Fit Shaft Kit includes 3" of up and down movement to absorb chassis flex and will collapse in the event of collision. We can make an EZ Fit shaft for any two U-Joint system - just specify the length and column and box size.

- Shock-Absorbing Design
- Factory-assembled steering shaft system
- Installs easily in minutes with ordinary hand tools
- No cutting or measuring - EZ fit telescoping action
- Spring-loaded shaft absorbs road shock and chassis flex
- Hexagon shaft is the ultimate in strength and reliability
- EZ fit Shaft is plated for corrosion resistance

*Smooth Out The Road!*

Application	Part No.	Length	Column Size	Box Size
74-79 Ford F150 / F250 / F350	FR1857-FDS	19-22" OAL	3/4"-36	3/4"-36
80-94 Ford F150 / F250 / F350	FR1857-FD2S	19-22" OAL	1"DD	3/4"-36
79-80 Dodge 4WD w/Tilt & 77-78 Dodge Manual Steering	FR1857-DOS	24-26"	3/4"-36C	3/4"-36
79-80 Dodge 4WD w/o Tilt & 77-78 Dodge Manual Steering	FR1857-DO2S	24-26"	1" Smooth	3/4"-36

Shafts • Truck Slip/BMW/Slip Shaft Kit/EZ Fit

# Rack & Pinion Cradle Systems

- 110-111 55-57 Chevy
- 112-113 67-69 Camaro
- 114 70-81 Camaro
- 115 63-82 Corvette
- 116 64-67 Chevelle
- 117 68-72 Chevelle
- 118 58-60 Impala
- 119 61-64 Impala
- 120 65-69 Impala/Caprice
- 121 73-87 C-10
- 122 62-67 Nova - Chevy II
- 123 68-74 Nova
- 124 67-72 C-10 Manual
- 125 Power Steering Pumps
- 126-128 65-70 Mustang
- 129 49-53 Ford
- 130 60-65 Comet
- 131 55-57 Thunderbird
- 132 62-64 Galaxie
- 133 Right Hand Drive
- 134-135 Accessories
- 136 Ultra Angle Headers



**New Mustang Road Race  
Rack & Pinion 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.

*Lifetime Serviceability*

**FLAMING RIVER  
CERTIFIED**



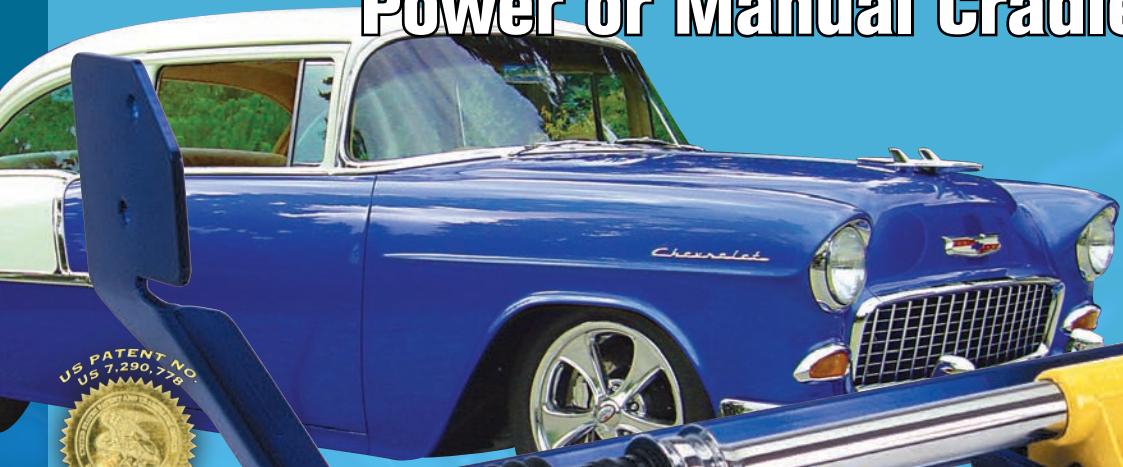
Flaming River Certified  
The Flaming River Certified imprinted logo indicates that each of our products have been tested to exacting standards.

**Bolts in place of  
Steering Box**



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

# 55-56 Chevy Rack & Pinion Power or Manual Cradle System



U.S. PATENT NO.  
US 7,290,778



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
<b>Tilt Floor Shift</b>	
FR306KT	55-56 Manual Cradle System
FR307KTPW	55-56 Power Cradle System
<b>Tilt Column Shift</b>	
FR309KT	55-56 Manual Cradle System
FR309KTPW	55-56 Power Cradle System
<b>No Column - (Does not include U-Joints)</b>	
FR306NM	55-57 Manual Cradle System
FR307NP	55-57 Power Cradle System

## Ultra-Angle Exhaust Headers **FR50001C**





# 57 Chevy Rack & Pinion 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



Power Steering Hose Kit **FR1610**  
Sold Separately See Pg. 134



Part No.	Description
<b>Tilt Floor Shift</b>	
FR308KT	57 Manual Cradle System
FR308KTPW	57 Power Cradle System
<b>Tilt Column Shift</b>	
FR310KT	57 Manual Cradle System
FR311KTPW	57 Power Cradle System
<b>No Column - (Does not include U-Joints)</b>	
FR306NM	55-57 Manual Cradle System
FR307NP	55-57 Power Cradle System

Rack & Pinion Cradle Systems • 55-56 Chevy/57 Chevy

# 1967-69 Camaro Power Rack & Pinion Cradle System

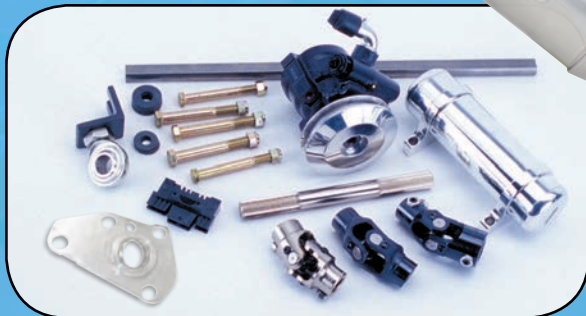


Flaming River has designed a direct bolt-in steering system that utilizes a power rack and pinion engineered for your Classic Camaro! Like the manual kit, the power rack and pinion provides a quick steering ratio with full turning radius! The power rack and pinion installs easily (within hours) using 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

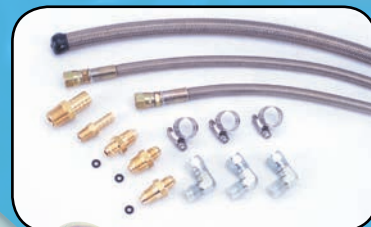
- All NEW Power Rack and Pinion with Lifetime Serviceability
- Billet-Joint® and Column Adapter included
- Stronger Rack Gear - 1 inch diameter
- More than 6 inches of travel and Full Turning Radius
- Bolts into Existing Chassis with no Suspension Modification
- Fluid and Pressure Tested and Certified

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.
FR304NGPW	67-69 Power Cradle - This kit includes P/S Pump, U-Joints and accessories.



**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



Power Steering Hose Kit **FR1610**  
Sold Separately See Pg. 134



# 1967-69 Camaro Manual Rack & Pinion Cradle System



Flaming River Certified  
The Flaming River Certified imprint and the logo stamped on each product indicate that all have been tested to exacting standards.



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

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.

#### Manual Rack and Pinion Kit Includes:

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



# 1970-81 Camaro Power & Manual Rack & Pinion Cradle System



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

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 Steering Hose Kit

**FR1610**

Sold Separately

See Pg. 134



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

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

# 1963-82 Corvette Power & Manual Rack & Pinion Cradle System



For Steering Column information, see pages 20-21

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

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

#### 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



*Lifetime Serviceability*



Flaming River Certified The Flaming River Certified imprint and the logo stamped on each product indicate that all have been tested to exacting standards.

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

# 1964-67 Chevelle Power & Manual Rack & Pinion Cradle 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.



Power Steering Hose Kit **FR1610**  
Sold Separately See Pg. 134



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



# 1968-72 Chevelle Power & Manual Rack & Pinion Cradle System



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

#### 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



Ultra-Angle Exhaust Headers  
FR50001C



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.



Official Sponsor of the  
2016 Road Tour

Rack & Pinion Cradle Systems • 64-67 Chevelle/68-72 Chevelle

# 1958-60 Impala Power Rack & Pinion 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 steer-

ing 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.



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

#### 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



Power Steering Hose Kit **FR1610**  
Sold Separately See Pg. 134

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



# 1961-64 Impala Power Rack & Pinion Cradle System



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
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

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

Rack & Pinion Cradle Systems • 58-60 Impala/61-64 Impala

# 65-69 Impala / Caprice Power Rack & Pinion Cradle System



The new Flaming River 1965-69 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.

Part No.	Description
<b>Floor Shift Tilt Column</b>	
FR369	65-68 Power Cradle Kit with Paintable Tilt Column
FR370	69-74 Power Cradle Kit with Paintable Tilt Key Column
<b>No Column Kits</b>	
FR369NC	67-69 Power Cradle - This kit includes P/S Pump, U-Joints and accessories.



Ultra-Angle Exhaust Headers  
**FR50001C**



## 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



# 1973-87 C-10 Power Rack & Pinion Cradle System

Rack & Pinion Cradle Systems • 65-69 Impala/Caprice/73-87 C-10



- One piece formed cradle design
- Built in skid protection
- Solid Plate Steel - 3/8 inch for increased strength
- Features new front steer power tubular style rack and pinion
- Rack and pinion features .98 inch rack shaft for increased strength and cast servo valve for cooler operation
- Includes Tilt Column with GM Ignition Key for easier installation and convenience
- Lifetime Serviceability and Flaming River Tested and Certified

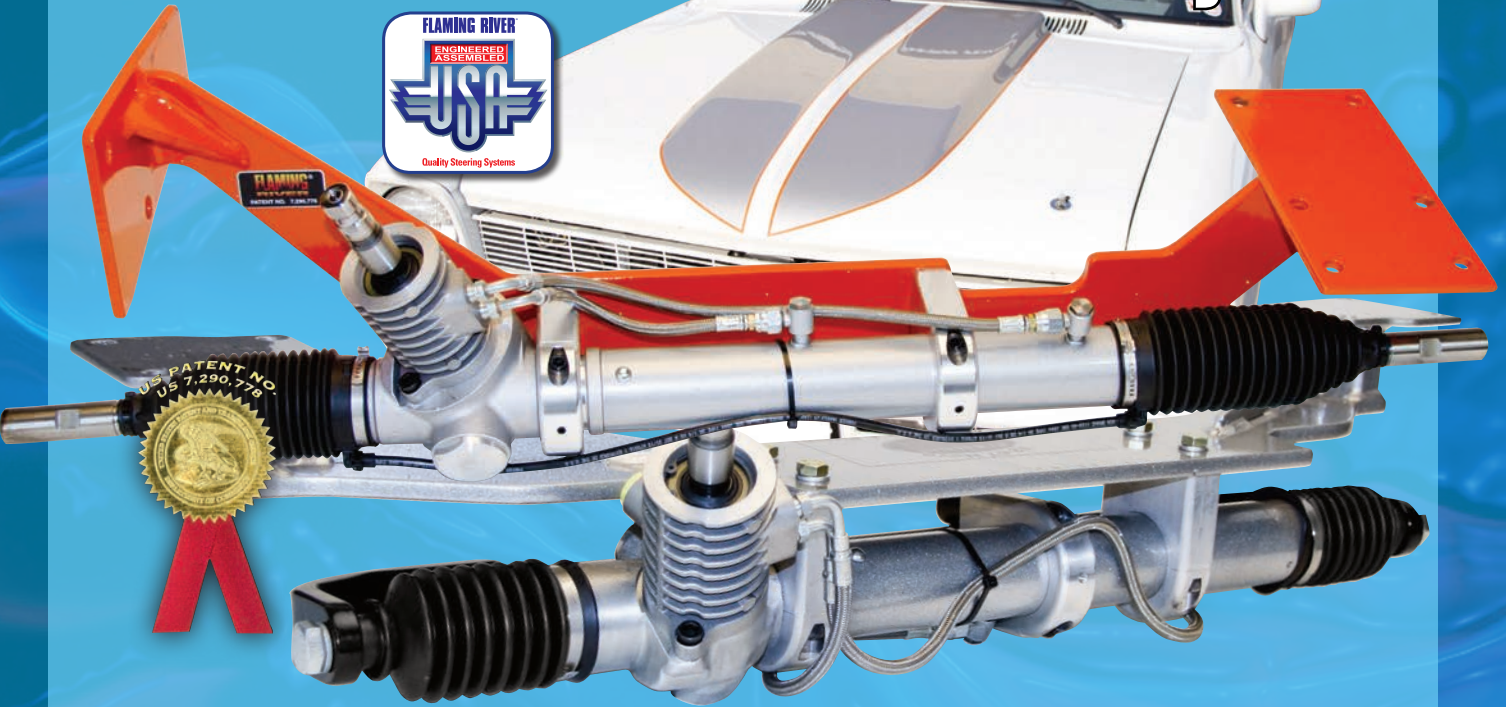
Part No.	Description
FR318KT	Power Cradle Kit with Paintable Tilt Key Floor shift Column
FR318KTPL	Power Cradle Kit with Polished Tilt Key Floor shift Column



**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)

# 1962-67 Nova - Chevy II Power & Manual Rack & Pinion 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
- Full Turning Radius with more than 6 inches of travel
- Adjustable Billet Mounts
- 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:

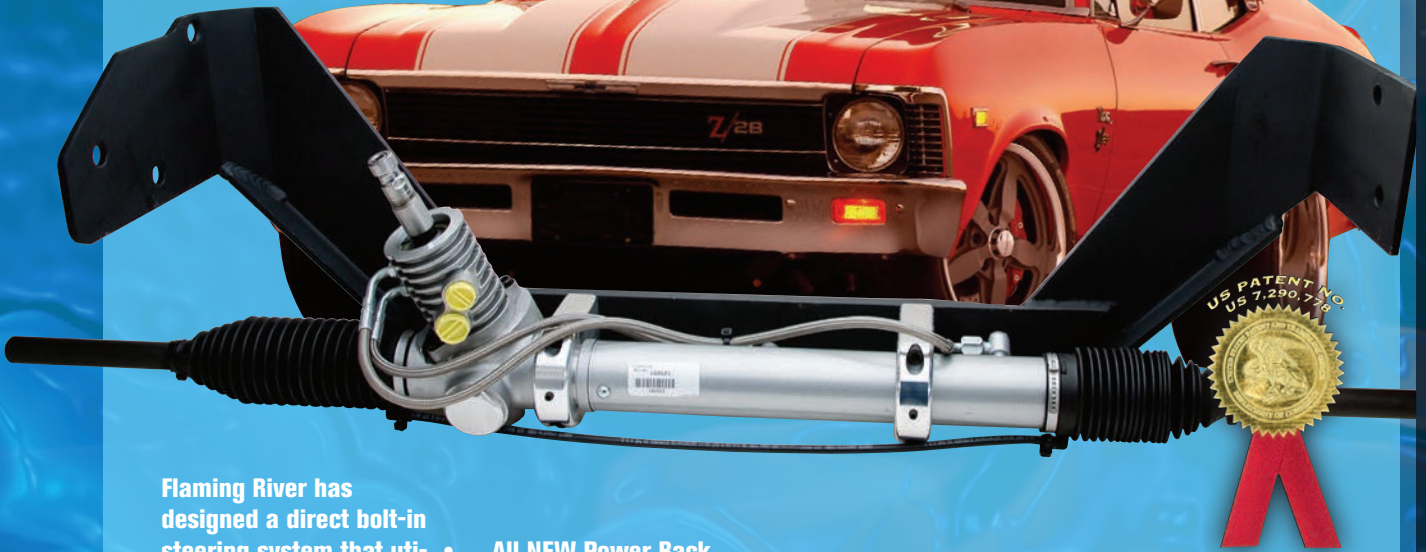
- Tilt Column
- Mounting Hardware
- Wiring Connector
- Universal Joints
- Patented Rack and Pinion Cradle System
- Aluminum Mounting Reservoir (Hoses sold separately)
- Power Steering Pump and Pulley

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
<b>Rear Steer</b>	
FR305KT	62-67 Manual Cradle Kit with Paintable Tilt Column
FR305KTPW	62-67 Power Cradle Kit with Paintable Tilt Column
<b>Front Steer</b>	
FR305FS	62-67 Power Cradle Kit with Paintable Tilt Column



# 68-74 Nova Power & Manual Rack & Pinion 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<sup>®</sup> 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

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	67-69 Power Cradle - This kit includes P/S Pump, U-Joints and accessories.

## 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



FR1610 Hose Kit Sold Separately



Rack & Pinion Cradle Systems • 62-67 Nova/68-74 Nova

# 1967-72 Chevy C-10 Power Rack and Pinion Cradle System



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
FR319KTFFPL	Power Cradle System w/Polished Floorshift Tilt Column
FR319KTNC	Power Cradle System w/No Column

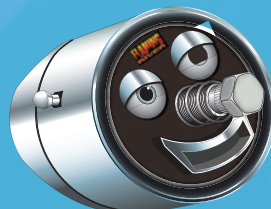


Shown with optional LED Indicator



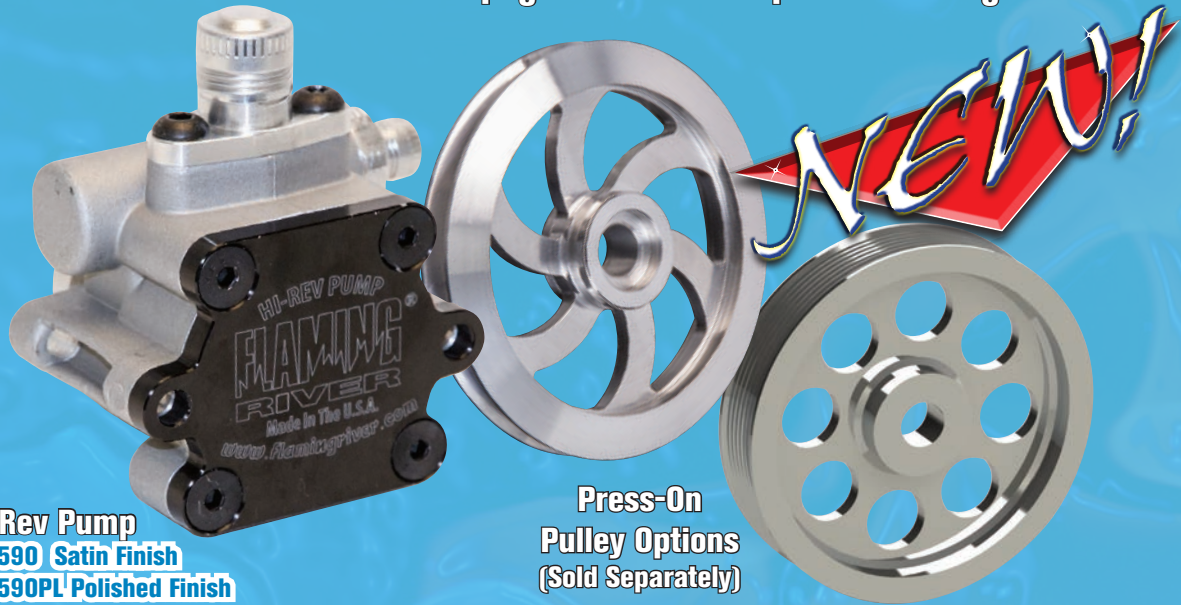
**Power Rack & Pinion Kit Includes:**

- 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



# KRC Power Steering Pump & Accessories

See page 168 for more power steering information



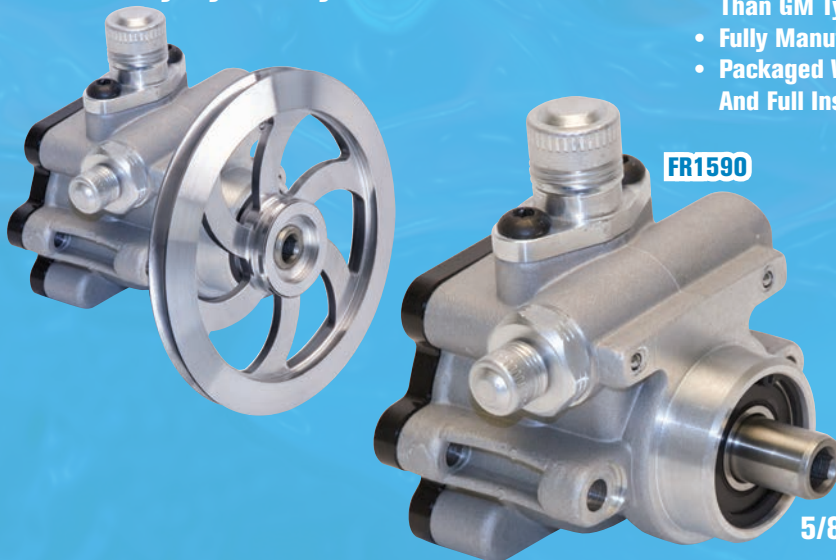
**Hi-Rev Pump**  
**FR1590 Satin Finish**  
**FR1590PL Polished Finish**

**Press-On  
 Pulley Options**  
 (Sold Separately)

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.

- 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

**FR1590 Pump with Optional  
 Rotary Style Pulley attached**



**FR1590**

**5/8" Shaft**



**FR1639**

**90° Fitting Only**

## Flow Control Fittings

Available in Standard and High Performance Flow Rates

Part No.	Description
FR1637KT	More Assist: B-C-D-E
FR1638KT	Less Assist: 4-5-6-7



**Sold Separately**

# 65-70 Mustang *Road Race* Power Rack & Pinion Cradle System

U.S. PATENT NO.  
US 7,290,578



## 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

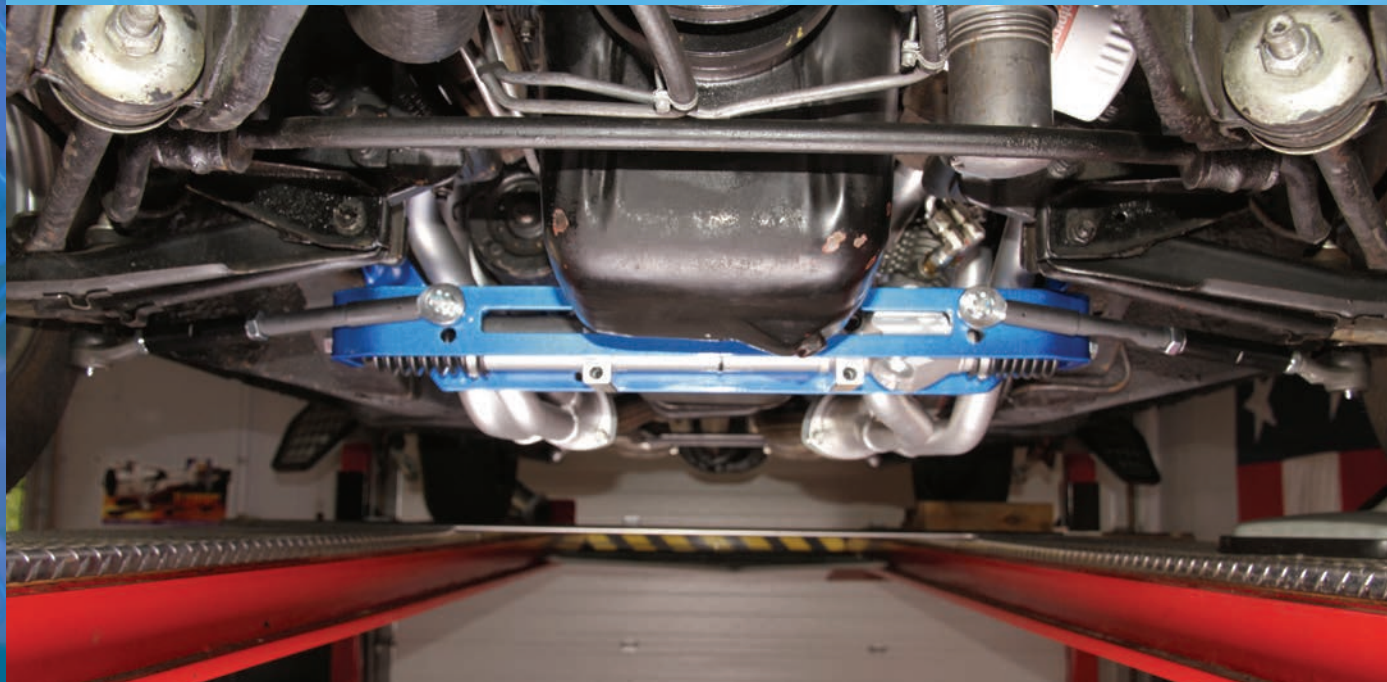


Quality Steering Systems

Part No.	Description
FR330PWKT	Power Kit - Floor Shift Paintable Tilt Column
FR330PWKTPL	Power Kit - Floor Shift Polished Tilt Column
FR330PWNC	Power Kit - No Column

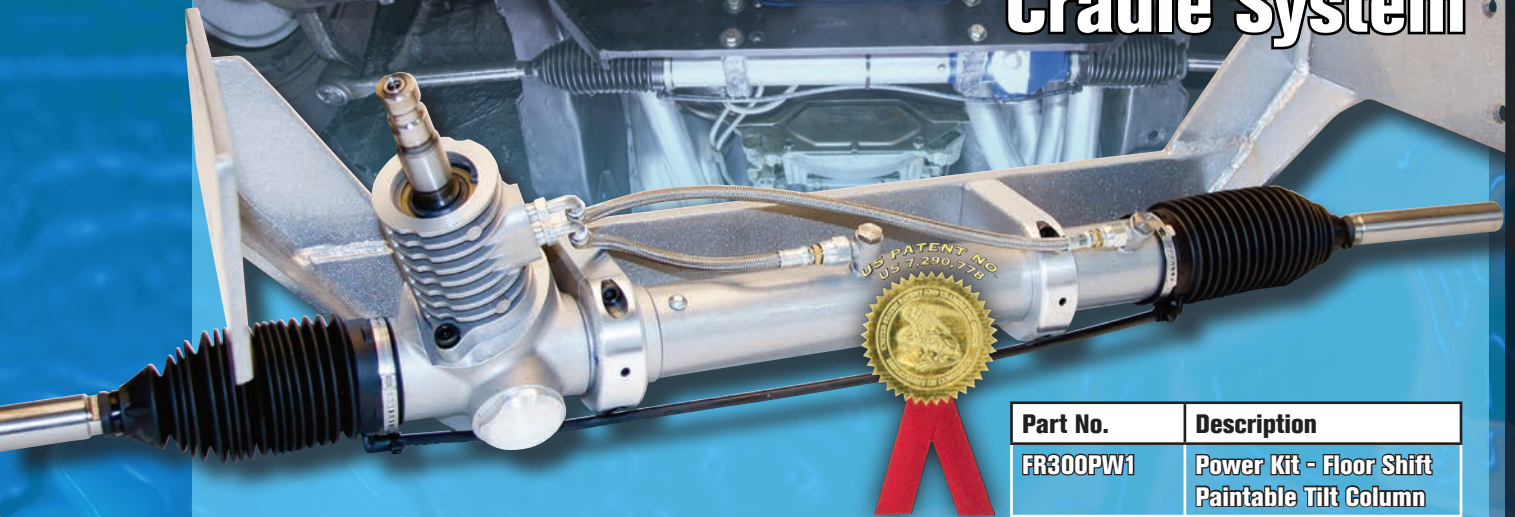
## Laser-Cut Collapsible Straight Motorsports Column FR3307

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 Rack & Pinion 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 ci engines. Flaming River Exhaust Headers recommended.

Part No.	Description
FR300PW1	Power Kit - Floor Shift Paintable Tilt Column
FR300PW1PL	Power Kit - Floor Shift Polished Tilt Column
FR300NP1	Power Kit - No Column



Tilt Column included with Cradle Kits

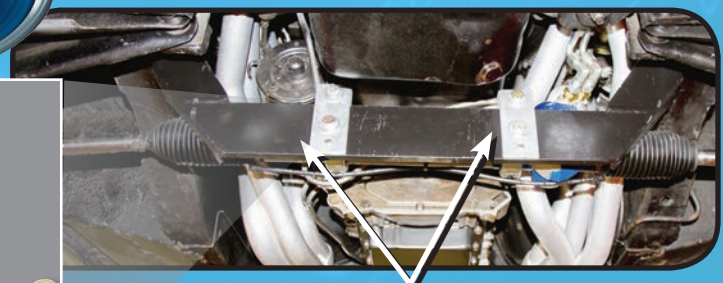
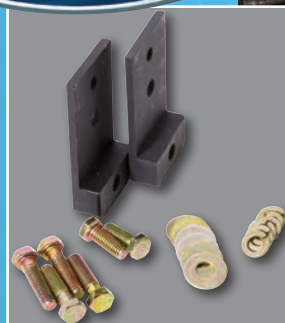
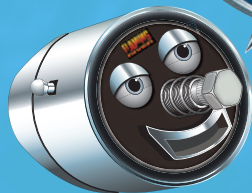


Ultra-Angle Exhaust Headers  
**FR50003C**

#### 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

Riser Kit will allow for ride height adjustment



Part No.	Description
FR20060MU	Cradle Rack & Pinion Riser Kit

Rack & Pinion Cradle Systems • 65-70 Mustang

# 65-70 Mustang Manual Rack & Pinion Cradle System



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

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,

Big Block, 351W and 351C engine styles (with or without headers)

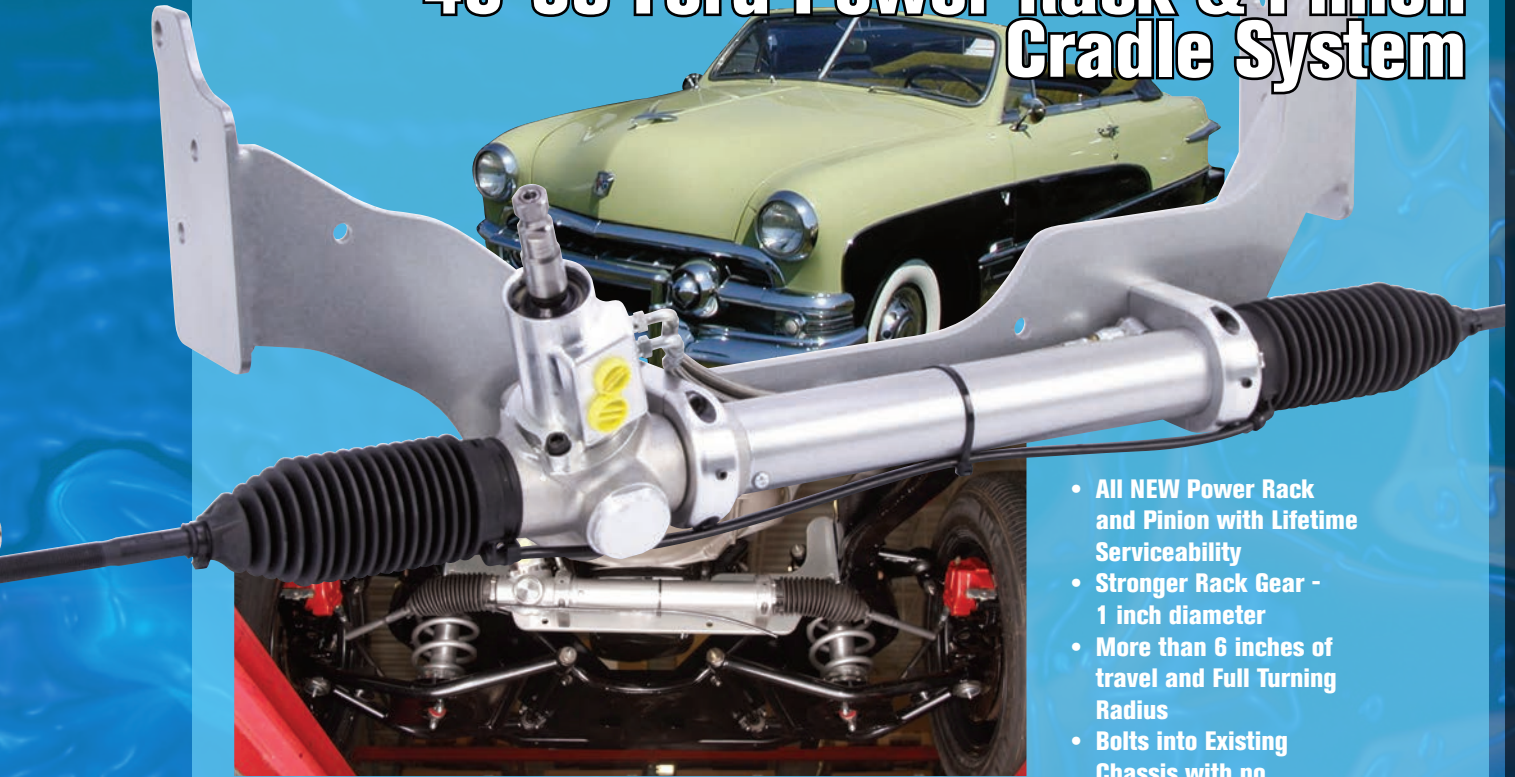
- Full turning radius
- Quick Ratio Rack & Pinion with 3-1/2 turns lock to lock
- No chassis or suspension modifications required
- Kits can be purchased with or without Tilt Steering Column Lifetime Serviceability

#### 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



# 49-53 Ford Power Rack & Pinion Cradle System



- 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
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



#### 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)

*Lifetime Serviceability*



Rack & Pinion Cradle Systems • 65-70 Mustang/49-53 Ford

# 60-65 Comet / Falcon Power Rack & Pinion Cradle Systems



Part No.	Description
FR301PWNC	Power Kit - No Column
FR301PWFS	Power Kit - Floor Shift Paintable Tilt Column
FR301PWCS	Power Kit - Column Shift Paintable Tilt Column

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.

Flaming River also offers coated Small Block Ford Long Tube Exhaust Headers to eliminate clearance issues **FR50003C**.



#### 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



Hose Kit Sold Separately

#### 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



Column manufactured with a GM-Style 11/16"-36 top shaft. Use with aftermarket Steering Wheel (See pgs 76-85)

**FR21018** Comet/Falcon Floor Shift Paintable Tilt Column

# 55-57 Thunderbird Power Rack & Pinion 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
- Wiring Connector
- Universal Joints
- Patented Rack & Pinion Cradle System
- Power Steering Pump with Bracket and Pulley
- Aluminum Mounting Reservoir (Hoses sold separately)

# 1962-64 Galaxie Power Rack & Pinion Cradle System



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.**

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**

- 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



#### 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)



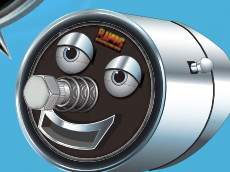
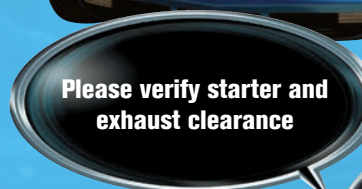
# Right Hand Drive Power Rack & Pinion Cradle System

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



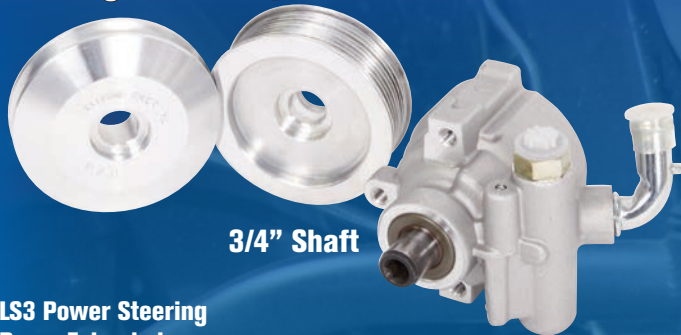
Part No.	Description
<b>Corvette</b>	
FR312PWRHG	63-82 RHD PWR VETTE CONVERSION - W/O COLUMN, PUMP
FR312RH	63-82 VETTE MANUAL KIT RHD
<b>55-57 Chevy</b>	
FR322PWRH	57 CHEVY RHD US CONV KIT NO COL
FR322PWRHGS	57 CHEVY RHD US CONV KIT W/GS
FR323NPP	RHD TRI-5 PWR KIT W/O COL&PMP
FR323PWRH	57 CHEVY RHD OEM KIT NO COL
FR324PWRHPL	55-56 CHEVY RHD OEM KIT POL GS
FR325PWRH	55-56 CHEVY RHD OEM KIT PAINT FS
FR325PWRHPL	55-56 CHEVY RHD OEM KIT POL FS
FR325PWRHPLC	55-56 CHEVY RHD OEM KIT PL COL FS
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



Rack & Pinion Cradle Systems • 62-64 Galaxie/Right Hand Drive

# Rack & Pinion Accessories

## Flaming River Pump



3/4" Shaft

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

**FR1570** (w/o Pulley)

**FRMP5B-V** (w/ V-Belt Pulley

pre-assembled for easy installation)

**FRMP5B-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

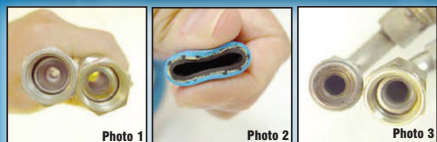
Pump Speed	Pressure	Flow
465 RPM	4.58 MPA	2.16 LPM
1500 RPM	1 MPA	6.8 LPM
5000 RPM	1 MPA	5.16 LPM



## Power Steering 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



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.



## Cradle Rack & Pinion Riser Kit for 65-70 Mustang

Part No. - **FR20060MU**

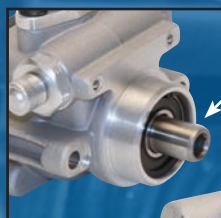




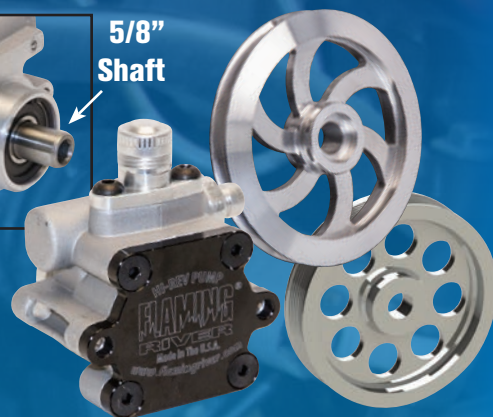
**Aluminum Remote Reservoir**  
Our Remote Reservoirs feature a threaded cap and two machined billet brackets. A sleek radius design will complement any engine compartment. Recommended for use with Flaming River Power Rack Systems, but can also be used with other Stage II Pumps. Machine finish shown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

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 following page for more information.)



5/8" Shaft



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

**Press-On Pulleys**  
(Sold Separately)

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



**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.



**FR41001** Power Steering Fluid

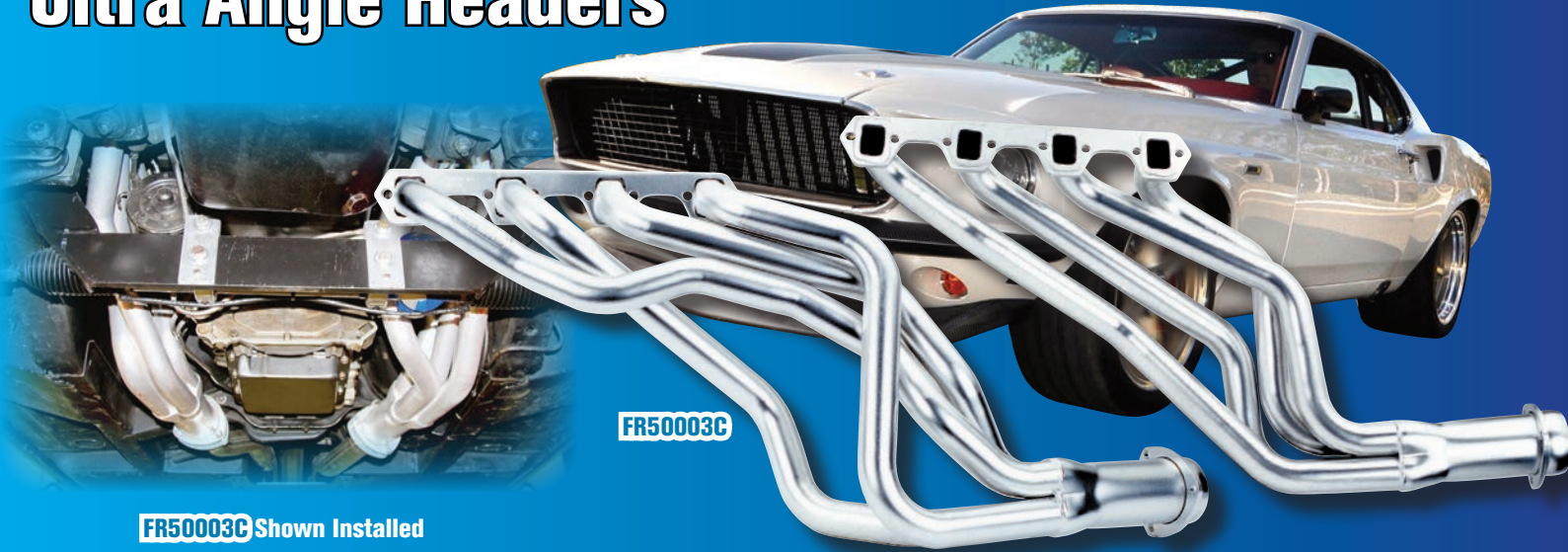


"Pillow Blocks" allow for universal mounting and the pinion shaft rotates to align with your vehicle's steering shafting. **FR1617P**



Part No.	Description
FR1612	Small Block Chevy Flaming River Pump
FR1613	Big Block Chevy Flaming River Pump
FR1591	KRC Pump SB Bracket

# Ultra Angle Headers



**FR50003C** Shown Installed

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.



**FR50004C**

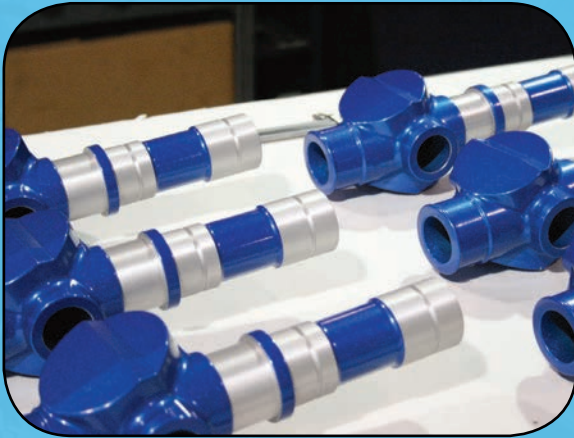
Part No.	Coating	Application
FR50001C	Coated	57 Chevy, Chevelle, Camaro
FR50003C	Coated	65-70 Ford Mustang, Comet 289-302 with FR Power Cradle Kit
FR50004C	Coated	62-67 Nova with FR Front or Rear Steer Cradle Kit



**FR50001C**



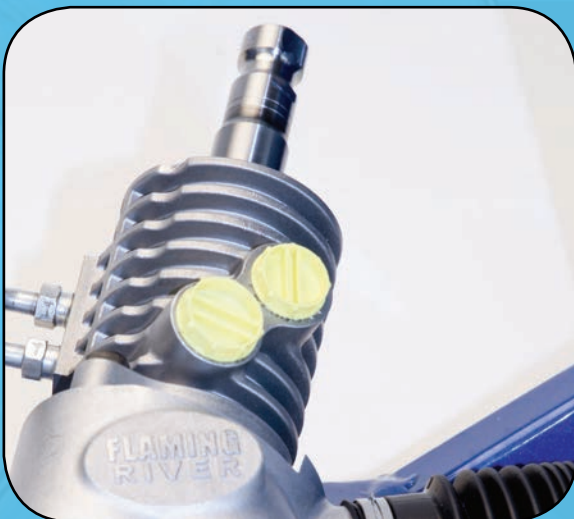
# Rack and Pinions



Flaming River incorporates state-of-the-art engineering, technology, precision machining and quality control in our manufacturing process.



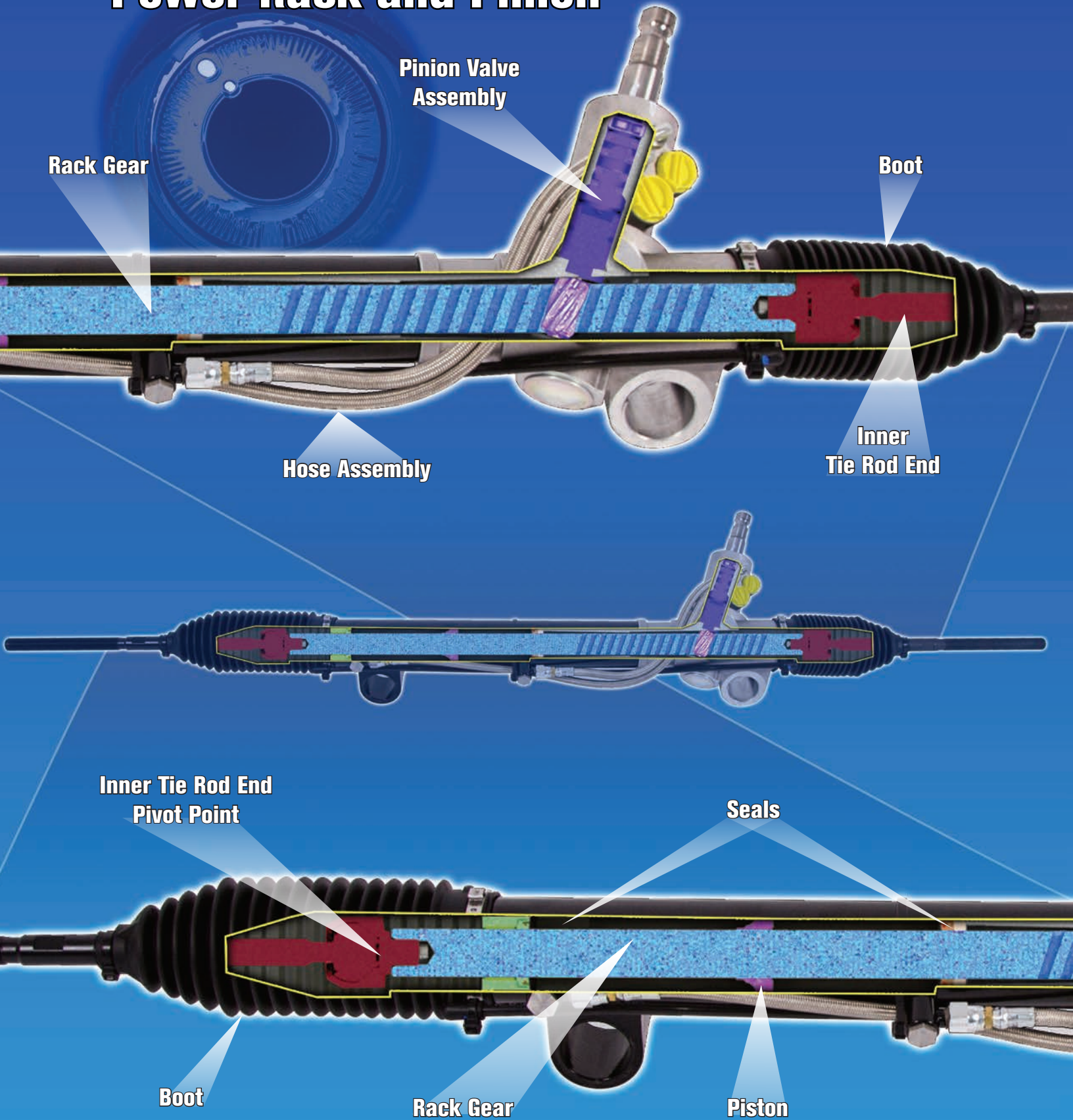
Each Flaming River Power Rack and Pinion is pressure and fluid tested...Flaming River Certified.



The Die Cast Valve Finned Housing takes production to a new level.

Road Race		141
Mustang Power		142-143
NEW! Chassis Builders' Choice Power		144-145
79-04 Mustang		146-147
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# Take a Closer Look at a Power Rack and Pinion



# Rack and Pinions



**Front Steer Power Rack & Pinion**

Part No.	Description
FR40001	74-78 Mustang II 16" Mounts
FR40002	79-93 Mustang 15 1/2" Mounts
FR40003	94-04 Mustang 15 1/2" Mounts

**Omni Rear Steer Manual Rack & Pinion**

Part No.	Description
FR1507-2	45" OAL Manual Rear Steer Rack
FR1507-3	41.69" OAL Manual Rear Steer Rack
FR1507-4	45" OAL Standard Pinion, Wide Pivot (27")



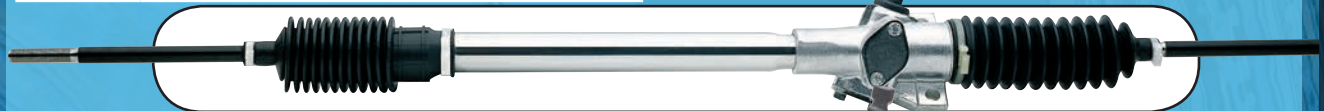
**Front Steer Manual Rack & Pinion**

Part No.	Description
FR1502	74-78 Mustang II 16" Mounts
FR1503	79-93 Mustang 15 1/2" Mounts - 20:1 Ratio
FR1520	79-93 Mustang 15 1/2" Mounts - 15:1 Ratio
FR1508	94-04 Mustang 15 1/2" Mounts - 20:1 Ratio
FR1508Q	94-04 Mustang 15 1/2" Mounts - 16:1 Ratio



**Pinto Front Steer Manual Rack & Pinion**

Part No.	Description
FR1501	Pinto Manual Front Steer Rack
FR1501-2	5" Shortened Pinto Manual Front Steer Rack



**Cobra/MGB Manual Rack & Pinion**

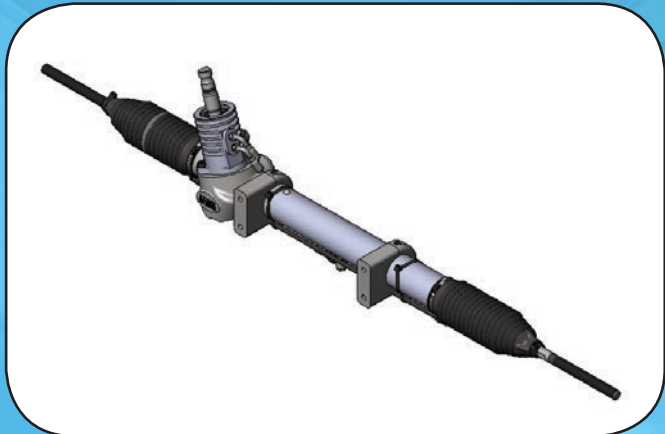
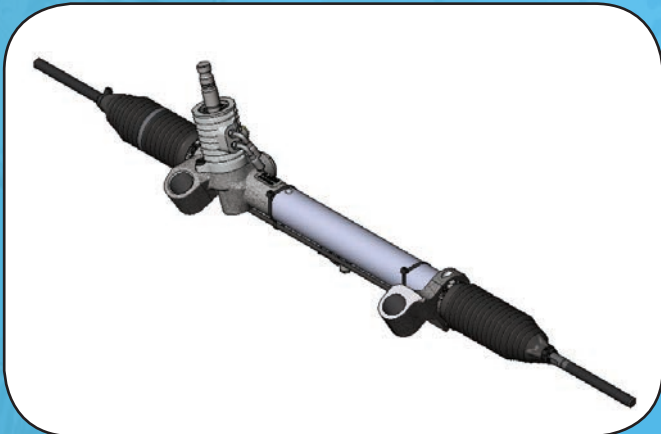
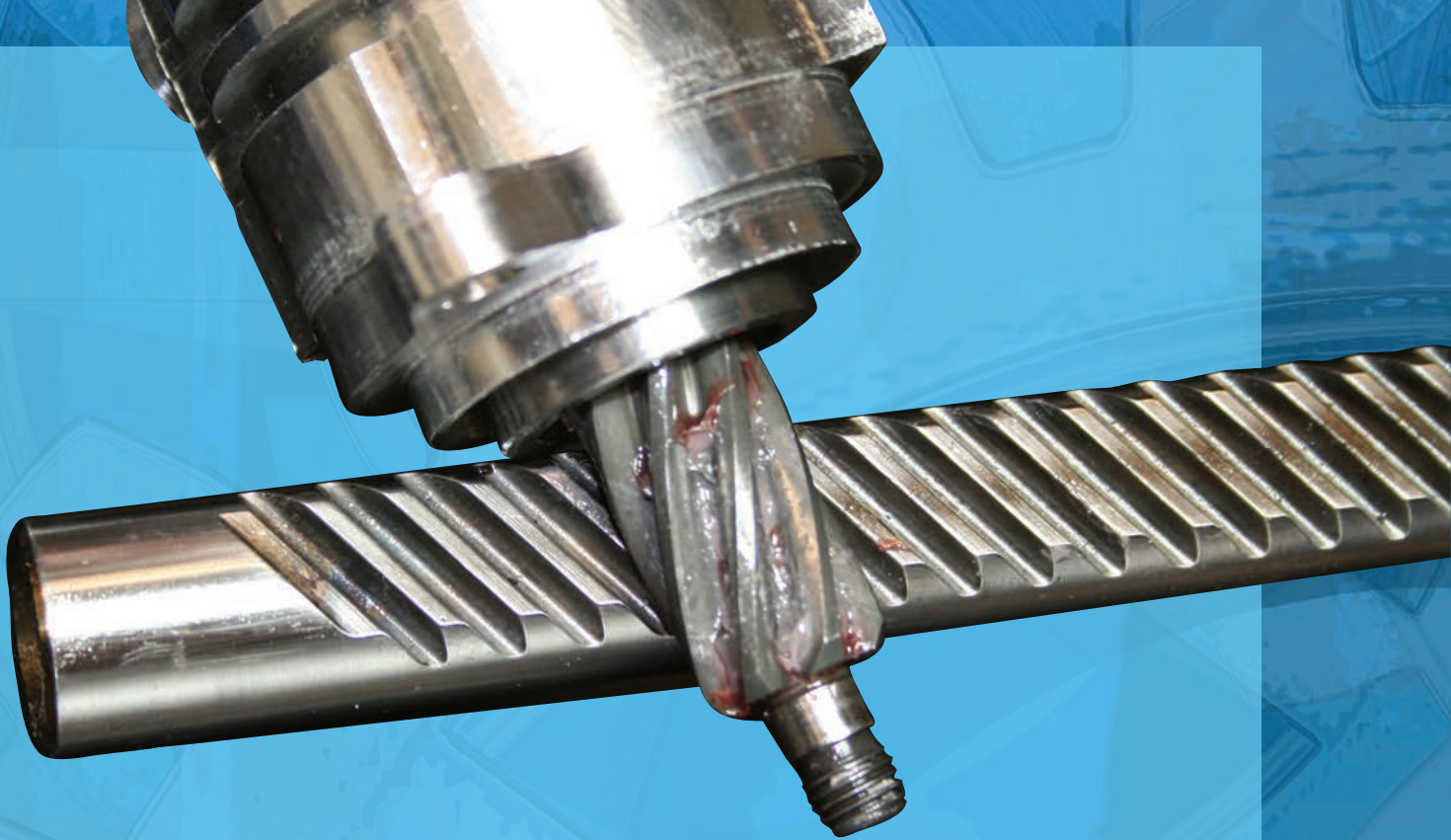
Part No.	Description
FR1512	Manual Rack & Pinion with 3 turns lock to lock



**Custom Front Steer Manual Rack & Pinion**

Part No.	Description
FR1502-2x2	2" Shorter 74-78 Mustang II 14" Mounts
FR1502-3x3	3" Shorter 74-78 Mustang II 13" Mounts
FR1502-4x4	4" Shorter 74-78 Mustang II 12" Mounts
FR1503-3x3	3" Shorter 79-93 Mustang 12 1/2" Mounts





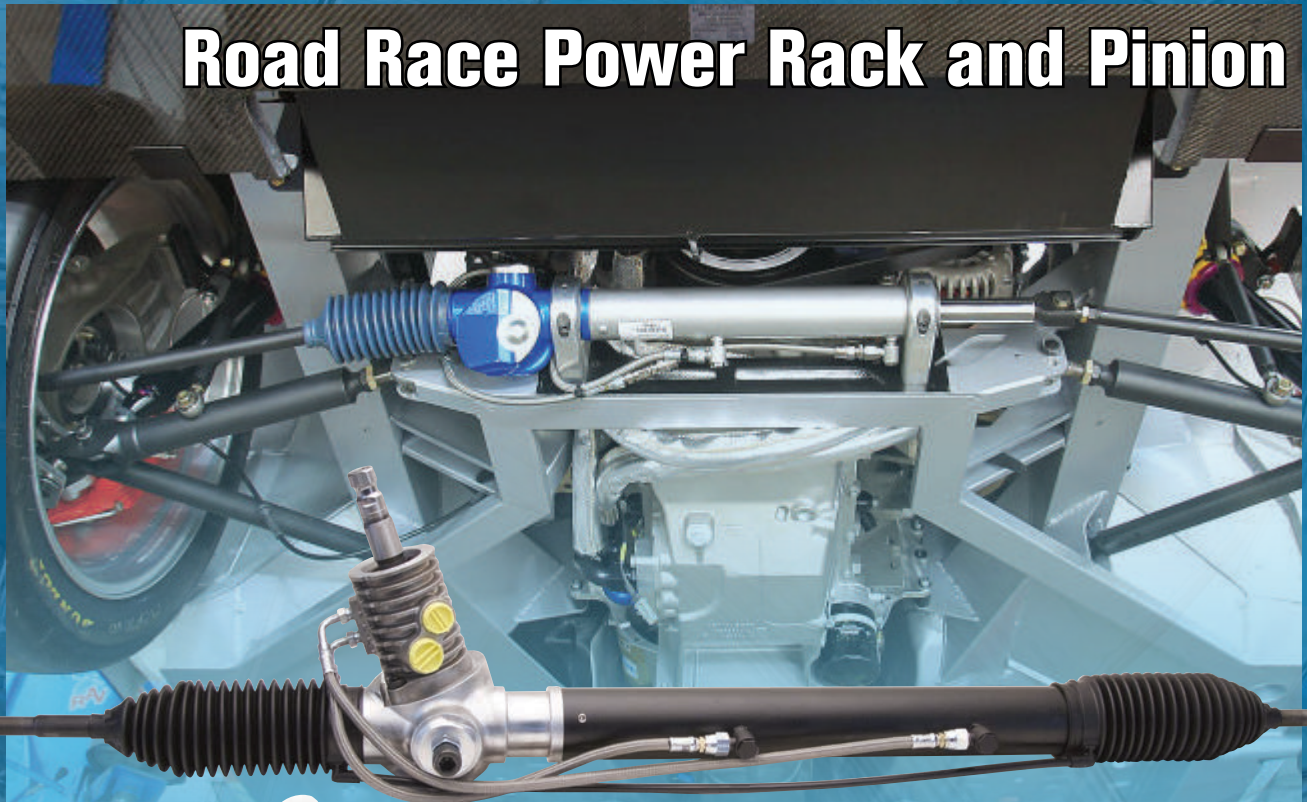
**From Engineering Concept to Final Design, Flaming River manufactures all new power rack and pinions.**

The Faro Arm, a state-of-the-art digital measuring device, is used to precisely measure precision tolerances.



**FR41001** Power Steering Fluid

# Road Race Power Rack and Pinion



Custom-designed Power Rack and Pinion designed for Road Racing.  
**FR40040 - Custom**

#### Features:

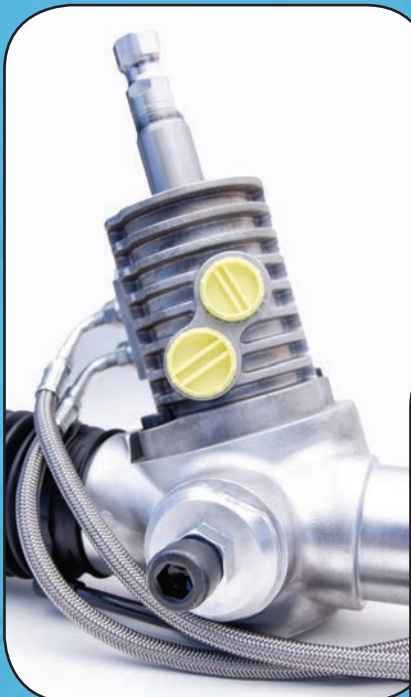
- Quick Ratio Design – Rack gain of 2.27” per one revolution of the pinion
- Adjustable positive-lock rack gear will not back away from pinion
- Travel can be customized at the factory for specific applications
- Fluid and pressure tested and certified
- Braided stainless pressure lines for low-profile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



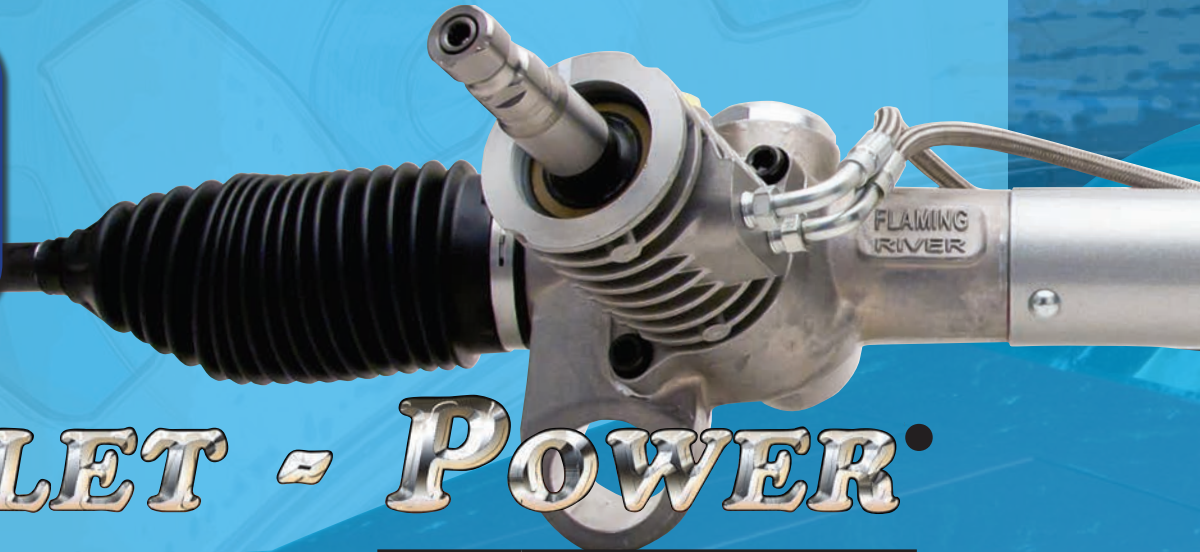
Variable Pressure Low-Flow Pump  
**FR1570** See pg 134



Positive Torque Adjustment



# Mustang Power Rack and Pinions



## BILLET - POWER

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



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



Power Steering Pump Bracket

Part No.	Description
FR1612	Small Block Chevy
FR1613	Big Block Chevy
FR1630	2.5" Belt Tensioner Only
FR1631	3.5" Belt Tensioner Only



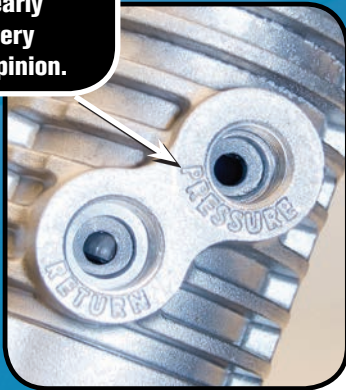
# VARIABLE PRESSURE

## Power Rack & Pinion Pump System

### All New...All The Time!



Pressure and Return Valve Ports clearly marked on every power rack and pinion.



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.



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. See pg 134

Part No.	Description
FR1614	Power Steering Machine Finish
FR1614BK	Power Steering Black Powder coat
FR1614PL	Power Steering Polished
FR1615	Coolant Overflow
FR1616	Brake Fluid



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

**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



Part No.	Description
FR1632	AN Fitting Kit



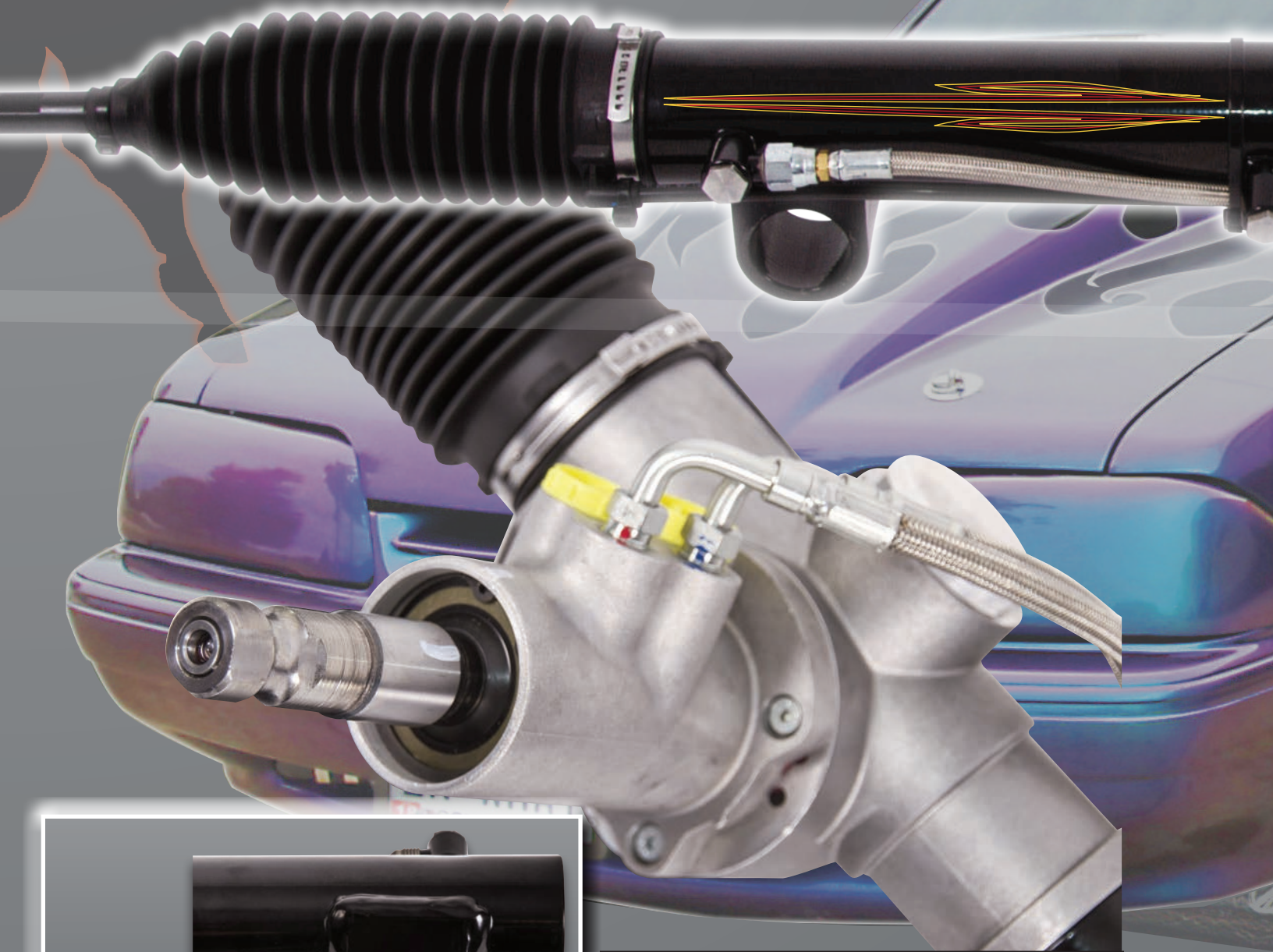
**Stainless Braided Hose Kits - FR1610**  
This remote reservoir style hose kit includes stainless braided lines with fittings for installing Flaming River Power Rack and Pinion with a remote reservoir. Simplifies installation with a clean, polished appearance.

Hose Kit Sold Separately

**CHASSIS  
BUILDERS'**

**CHOICE**

# 79-93 Mustang Power Rack and Pinion



**NEW**  
**ROBOTIC  
WELD**



Part No.	Description
FR40037	1979-93 Mustang Power Rack and Pinion
FR40037-V	1979-93 Mustang Power Rack and Pinion w/ Power Steering Pump w/V-Belt
FR40037-S	1979-93 Mustang Power Rack and Pinion w/ Power Steering Pump w/Serpentine Belt
FR40037SC	1979-93 Mustang Power Rack and Pinion Spray Chrome Finish



OEM LINE POSITION

PRESSURE PORT

RETURN PORT

**FLAMING RIVER**

**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**



*Lifetime Serviceability*  
**FLAMING RIVER  
CERTIFIED**

**Chassis Builders' Choice Power Rack and Pinion  
installed in 1993 Cobra Mustang**

# 79-04 Mustang Power Rack and Pinion



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 Power Rack and Pinion
FR40039	1994-04 Power Rack and Pinion



**FR1635**  
Fitting Adapter Kit to attach to your original pump. Includes return fitting and hose and pressure line adapter.



**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**



**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.



**Variable Pressure**  
**Low-Flow Pump**  
**FR1570**  
See pg 134

# 79-04 Mustang Manual Rack and Pinions



## 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.

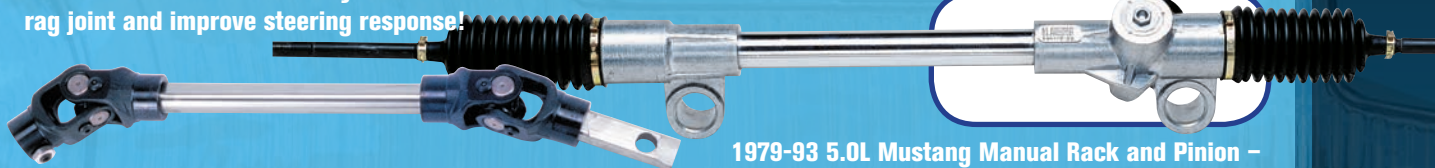
**FR1509P** - Power Shaft Kit

**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

Chrome Moly

**FR1504MLP** - Low-Profile Manual Shaft Kit

**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

# Rear Steer Power Rack and Pinions

## BILLET - POWER



**Full Turning Radius**  
**More Than 6" of Travel**  
**Lifetime Serviceability**

- 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

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.

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
FR1614	Power Steering Machine Finish
FR1614BK	Power Steering Black Powder coat
FR1614PL	Power Steering Polished
FR1615	Coolant Overflow
FR1616	Brake 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. Machine finish shown

# Front Steer Power Rack and Pinions

Unlike OEM Rack and Pinions, where hard lines are set and often cause interference, our Custom Manufacturing allows you to determine where the pressure ports should be located.

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

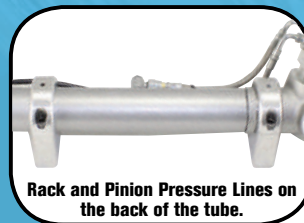
- All New Components – Including valve, piston, seals, bearings and bushings, and pinion and rack gears
- No Core Charge
- Stronger Rack Shaft – Almost 1 inch diameter
- More than 6" of travel for improved turning radius
- Braided stainless pressure lines for low profile design and added clearance
- 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
- Made in the USA
- Lifetime Serviceability

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



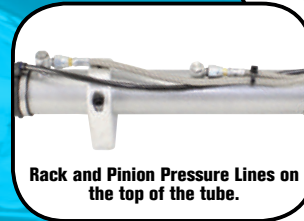
Part No.	Description
FR40022	Front Steer Universal Power Rack - Blue Rack Housing
FR40022PLN	Front Steer Universal Power Rack - Standard Cast Rack Housing
FR40022XX	Custom Steer Universal Power Rack - Standard Cast Rack Housing
FR40022-V	Front Steer Universal Power Rack - with P/S Pump and V-Belt Pulley
FR40022-S	Front Steer Universal Power Rack - with P/S Pump and Serpentine Belt Pulley

Shown with the Rack and Pinion Valve in the standard position with the pressure and return ports facing forward and the pressure lines in the standard position on the front of the tube.



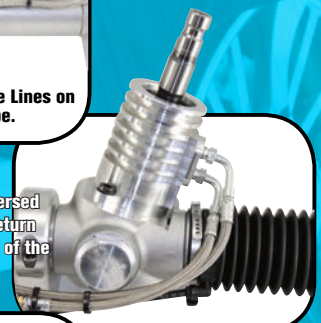
Rack and Pinion Pressure Lines on the back of the tube.

Rack and Pinion Valve in the standard position with the pressure and return ports facing forward.



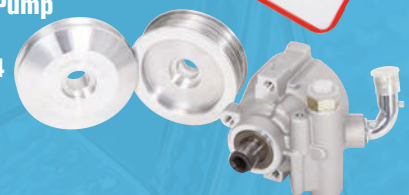
Rack and Pinion Pressure Lines on the top of the tube.

Rack and Pinion Valve reversed allows the pressure and return ports to face the backside of the rack.



OEM Style Mounts

Variable Pressure Low-Flow Pump  
**FR1570**  
See pg 134



Lifetime Serviceability  
**FLAMING RIVER CERTIFIED**

# Xtra Long Power Rack and Pinions

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

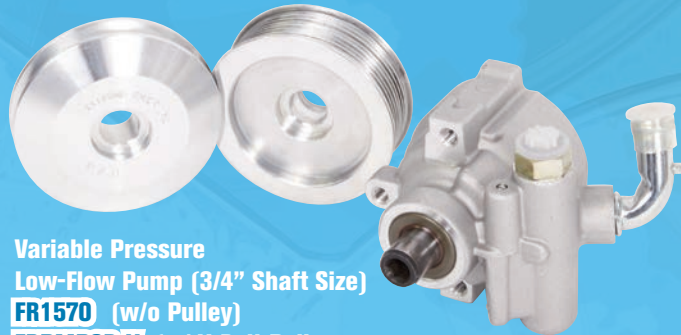
The all new XL Front Steer Power Rack and Pinion—designed for wide framed cars and trucks—eliminates the need for an extender and ensures that the bellow is never overextended. The new rack is based upon the popular front steer 1974-78 Mustang II platform, but is now offered in a design that is 4" longer, 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.



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



Variable Pressure  
Low-Flow Pump (3/4" Shaft Size)  
**FR1570** (w/o Pulley)  
**FRMP5B-V** (w/ V-Belt Pulley  
pre-assembled for easy installation)  
**FRMP5B-S** (w/ 7 groove S-Belt Pulley  
pre-assembled for easy installation)  
See pg 134



**FR1614**  
P/S Reservoir  
Machine Finish



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. Polished finish shown



Cane-style baffle design in Reservoir prevents foaming in fluid

Part No.	Description
FR1614	Power Steering Machine Finish
FR1614BK	Power Steering Black Powder coat
FR1614PL	Power Steering Polished
FR1615	Coolant Overflow
FR1616	Brake Fluid

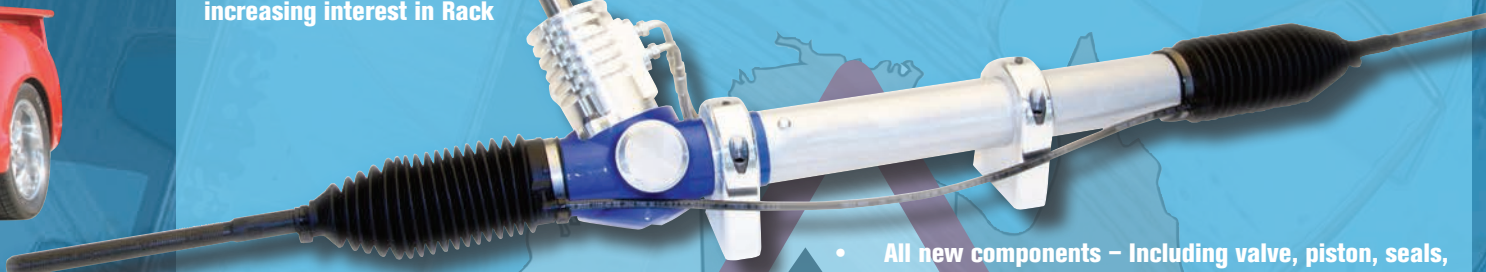


# Right Hand Drive Power & Manual Rack and Pinions

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.

Part No.	Description
FR40023	Power RHD Front Steer Rack & Pinion
FR40024	Power RHD Rear Steer Rack & Pinion



**New Design**

- 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

## Right Hand Drive



Billet Pillow Block  
**FR1617P**



	1974-78 Mustang II Manual Rack	45" Omni Manual Rack	Cobra / MGB Manual Rack
<b>Part No.</b>	<b>FR1502RH</b>	<b>FR1507RH</b>	<b>FR1512RH</b>
<b>OEM Design Style</b>	74-78 Ford Mustang	78-83 Dodge Omni	Cobra / MGB
<b>Steering Design</b>	Front Steer	Rear Steer	Front Steer
<b>Total Weight</b>	14 lbs.	14 lbs	14 lbs
<b>Rack Gain</b>	1.36" per turn	1.125"	
<b>No. Turns Lock-to-Lock</b>	3.92	4	3.00
<b>Total Rack Travel</b>	5.34"	5.00"	6.25"
<b>Overall Length (end to end)</b>	45"	45"	41.00"
<b>Input Shaft Angle</b>	18°	18°	
<b>Input Shaft Spline Size</b>	9/16"-26	9/16"-26	3/4"-48
<b>Input Shaft Length</b>	6.44"	3.5" from cap	7.5"
<b>Pivot Points</b>	24.5"	23.77"	
<b>Inner End Diameter</b>	14mm (.551")	14mm (.551")	
<b>Inner End Thread Size</b>	9/16"-18	9/16"-18	
<b>Bellows Material</b>	Nitrile Rubber	Nitrile Rubber	
<b>Bellows Part No.</b>	FR1502B (pair)	FR1502B (pair)	
<b>Outer End Part No.</b>	FR1601 (2 req'd)	FR1601 (2 req'd)	

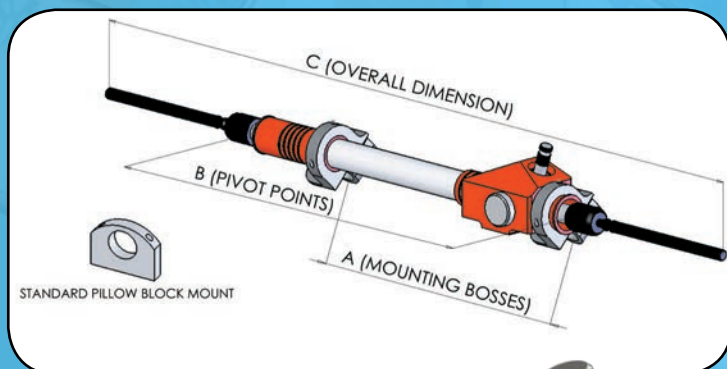
Rack & Pinions • Xtra Long/Right Hand Drive

# Straight Arrow Modular Rack and Pinions

## CUSTOM BILLET ALUMINUM MANUAL RACK AND PINION

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.

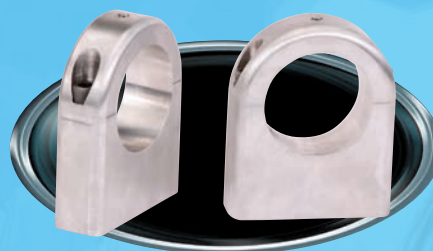


### Standard Modular Rack & Pinion Reference Sheet

	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

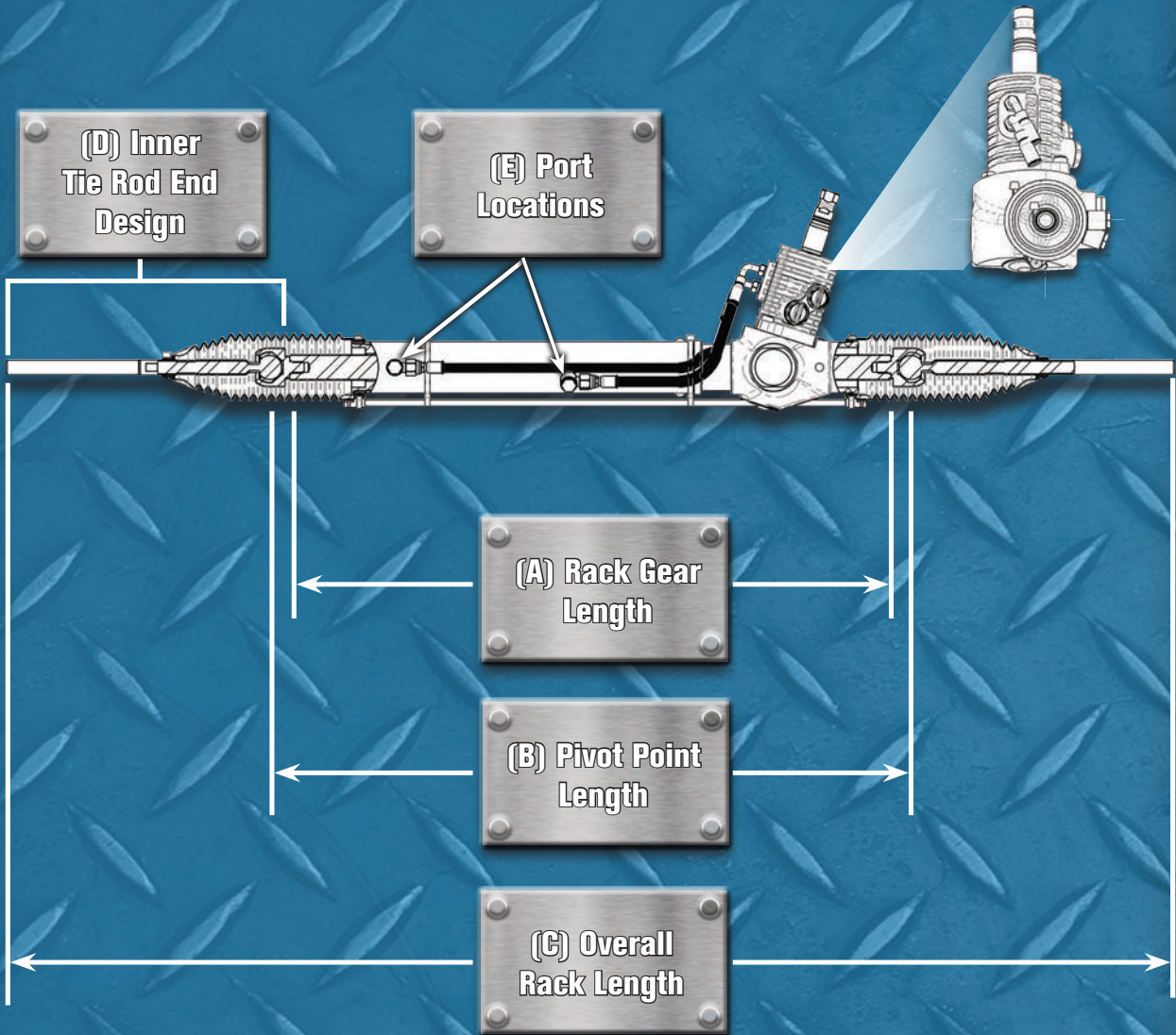
**New Design**



Billet Pillow Block  
FR1617P

# Custom Rack and Pinions

Rack & Pinions • Straight Arrow/Custom



Universal Pillow Block Mounts clamp to rack tube and allow you to rotate rack for best pinion angle to connect steering linkage



For custom rack assistance, please contact our Tech Support reps at 1-800-648-8022 or by email at [tech-support@flamingriver.com](mailto:tech-support@flamingriver.com)

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.

# Street Rod Manual Rack and Pinions



## 1974-78 Mustang II Manual Rack and Pinion -

**FR1502**

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

- 4 turns lock-to-lock
- 5.25" 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.

**FR1502-2X2**

**FR1502-4X4**

## Omni Manual Rack and Pinion (Rear Steer)

**FR1507-2**

45" OAL

**FR1507-3**

41.69" OAL

**FR1507-4**

45" OAL, Standard Pinion, Wide Pivot (27")

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

Also available: Omni Rack with Short Pinion -

**FR1507-5**

## Mustang II Rack with Short Pinion -

**FR1502-5**

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.



**FR1501**

## 1971-72 Pinto Manual Rack and Pinion -

**FR1501**

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.

Weights only 12 Lbs.

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

## Cobra/MGB Manual Rack and Pinion -

**FR1512**

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.

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



**FR1512**

## 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**



# 05-14 Mustang Manual Rack and Pinions



## FR1515

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.

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

### Product Specs:

- Bolts up to 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

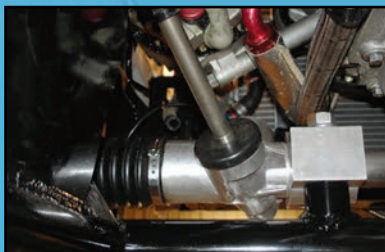
- Bolts up to OEM Mount
- Uses stock outer tie rod ends
- Weighs only 14 Lbs.
- Billet Mounts included
- Adjustable pinion angle
- Made in the USA with Lifetime Serviceability



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!



05-14 Mustang Shaft  
**FR1515P-SHFT**  
Provides Additional Header Clearance



Quality Steering Systems

Rack & Pinions • Street Rod/05-14 Mustang

# Late-Model Racing Manual Rack and Pinions

## FR1515CAM

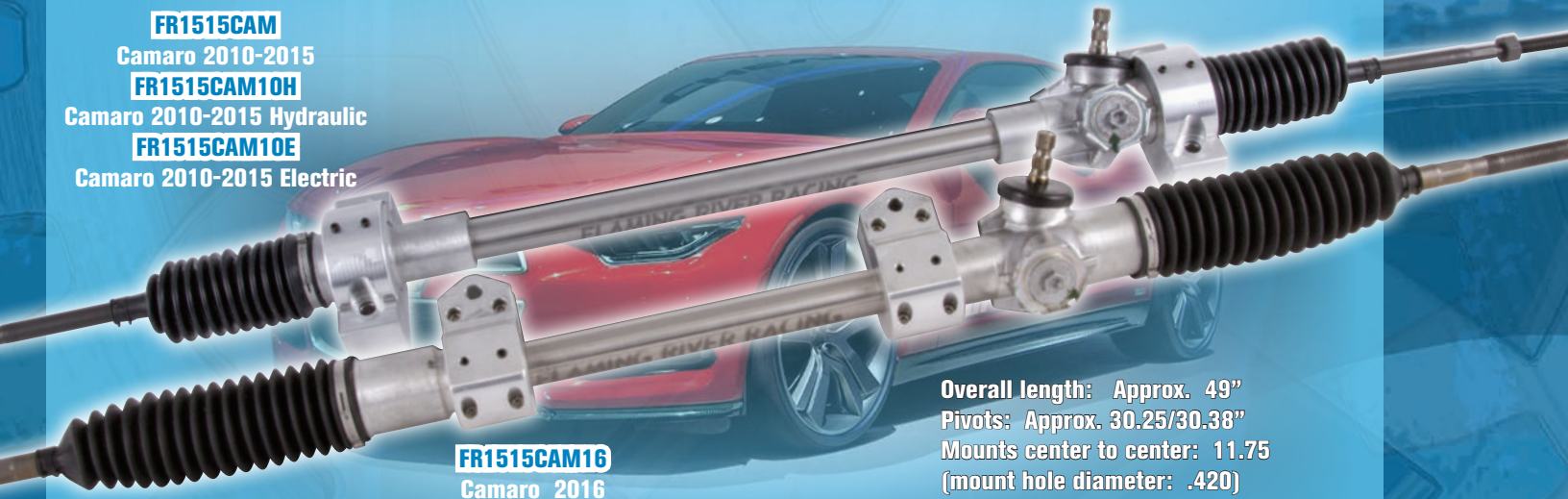
Camaro 2010-2015

## FR1515CAM10H

Camaro 2010-2015 Hydraulic

## FR1515CAM10E

Camaro 2010-2015 Electric



## FR1515CAM16

Camaro 2016

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"



## FR1515MPR

Mopar 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"



2010-2016 Camaro and Challenger Racing Manual Rack and Pinions

**FR1515CAM** Camaro 2010-2015 **FR1515CAM16** Camaro 2016 **FR1515MPR** Mopar Challenger

This new Manual Rack and Pinion design replaces the power rack in the Late-Model Camaro and Challenger—resulting in significant weight savings and improved handling characteristics.

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

## 2005-2014 Mustang Manual Rack and Pinion

### FR1515

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

Please Note: This specific Rack requires a FR1709DD - 9/16"-26 U-Joint for installation.



Danny Thompson and the Hajek Motorsports Team used this Manual Rack and Pinion in their 2010 E-85 Mustang—clocking in at 258.4 MPH and making it the fastest production-based Mustang in the world!



## Timing Light

Single Wire Timing Light - **FR1001**

Timing Light with 20FT Lead - **FR1020**

This self-powered timing light is designed to work without an auxiliary power source, which makes it ideal for use with magnetos, rear battery mount race cars, motorcycles, marine, go-karts, and all spark ignition systems for hassle-free timing. "The Light" is equipped with a xenon bulb which generates a bright strobe as well as a convenient work-light. Durable construction includes a rubber encased lens and 48" pickup lead. Longer leads are available for industrial applications.

- 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



Electronic Components are Non-Returnable

# Racing



# Self-Powered Timing Light

- 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



# Switches



## 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**





# Motorsports Column

Racing/Motorsports Column



## Stainless Steel Nostalgia Column

**FR3308**

This lightweight, non-tilt column is made of paintable 304 Grade Stainless Steel. It features a compact shroud and no internal wiring and is designed for classes requiring OEM-style steering columns.

## Straight Motorsports 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.

Part No.	Description
<b>Motorsports Straight Column - Without Laser Cut</b>	
FR3306	Motorsports Straight Column
FR3306KT	Motorsports Straight Column Kit - Includes FR20142 Quick Release Hub
<b>Motorsports Straight Column - With Laser Cut</b>	
FR3307	Laser Cut Collapsible Motorsports Straight Column
FR3307KT	Laser Cut Collapsible Motorsports Straight Column Kit - Includes FR20142 Quick Release Hub



## Quick Release Steering Wheel Hub Disconnect

**FR20142**

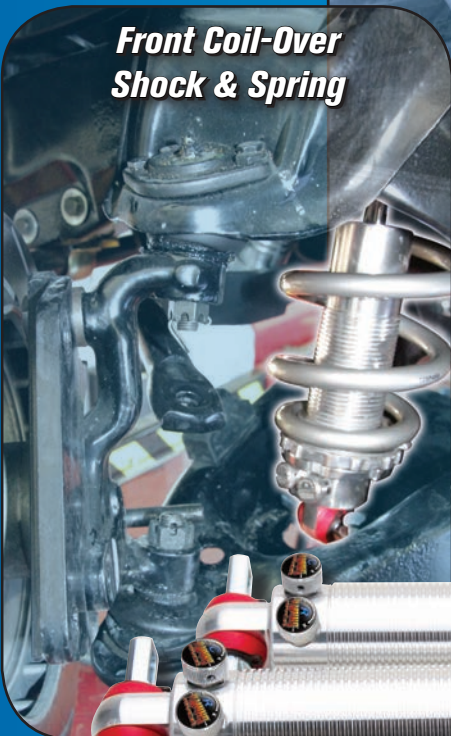
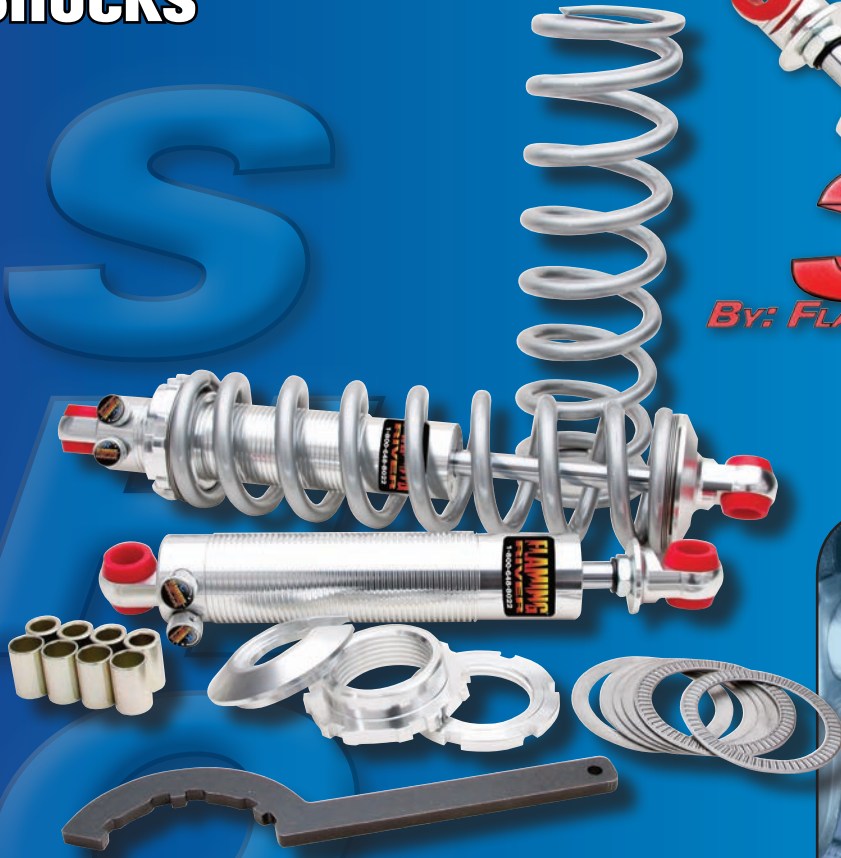
This Quick Release Disconnect is the new standard in quick release hubs! Designed for motorsports applications, this quick release hub is lightweight, black anodized and CNC-machined from premium 6061-T6 billet aluminum.

Features a precision-tolerance design for positive steering input.

Uses a standard 3-bolt mounting pattern and can be used with Flaming River FR20119 Billet Aluminum Wheel Adapter to fit 5 and 6-bolt steering wheels. 20-spline design fits 3/4" smooth shaft and utilizes deep beveled splines for a greater engaged surface area.

Meets SFI-Spec 42.1 requirements with a NASCAR-required steel pull disconnect ring.

# Shocks



*Front Coil-Over Shock & Spring*

*Rear Coil-Over Shock & Spring*

## **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.



# Coil Over Shocks

Model	Year	Smooth Body Front	Smooth Body Rear	Coil Over - Small Block Drag	Coil Over - SB Street - BB Drag	Coil Over - SB Road Race - BB Street
<b>Buick</b>						
Century	78-81	FR70040	FR70049	FR70016	FR70018	FR70019
Regal	73-87	FR70040	FR70049	FR70016	FR70018	FR70019
Riviera	63-65	FR70041	FR70048	FR70030	FR70032	
Riviera	71-78	FR70041	FR70049	FR70030	FR70032	
Skylark	64-67	FR70041	FR70049	FR70033	FR70035	FR70036
Skylark	68-72	FR70040	FR70049	FR70020	FR70022	FR70023
Skylark	75-79	FR70040	FR70049	FR70016	FR70018	FR70019
<b>Chevrolet</b>						
Camaro (Single-Leaf)	67-69	FR70040	FR70051	FR70024	FR70026	FR70027
Camaro (Multi-Leaf)	67-69	FR70040	FR70056	FR70024	FR70026	FR70027
Camaro	70-81	FR70041		FR70029	FR70031	FR70032
Camaro	82-92		FR70052			
Camaro	93-02		FR70052			
Chevelle/Malibu	64-67	FR70041	FR70049	FR70033	FR70035	FR70036
Chevelle/Malibu	68-72	FR70040	FR70049	FR70020	FR70022	FR70023
Chevelle/Malibu	73-83	FR70040	FR70049	FR70016	FR70018	FR70019
Chevy II / Nova	62-67		FR70051			
Chevy II / Nova	68-74	FR70040	FR70049	FR70024	FR70026	FR70027
Chevy II / Nova	75-79	FR70040	FR70049	FR70016	FR70018	FR70019
Corvette	63-82	FR70045	FR70046			
Corvette	84-87	FR70043	FR70047			
Corvette	88-96	FR70043	FR70050			
Corvette	97-12	FR70044				
El Camino	64-67	FR70041	FR70049	FR70033	FR70035	FR70036
El Camino	68-72	FR70040	FR70049	FR70020	FR70022	FR70023
El Camino	73-87	FR70040	FR70049	FR70016	FR70018	FR70019
Tri-Five / GM Full Size	55-57	FR70041	FR70056	FR70033	FR70035	FR70036
GM Full Size / Impala	58-85	FR70041	FR70049	FR70033	FR70035	FR70036
GM Full Size / Impala	94-96	FR70041	FR70049	FR70029	FR70031	FR70032
Monte Carlo	70-72	FR70040	FR70049	FR70020	FR70022	FR70023
Monte Carlo	73-88	FR70040	FR70049	FR70016	FR70018	FR70019
C1500 2WD / C-10 (Leaf)	63-72	FR70046				
C1500 2WD / C-10	73-87	FR70046	FR70048			
C1500 2WD / C-10	88-99	FR70041				
C1500 2WD	00-06	FR70041	FR70048			
S10 2WD (EXCL ZQ8/ZR2)	82-04	FR70040		FR70016	FR70018	FR70019
Vega	72-77		FR70049			

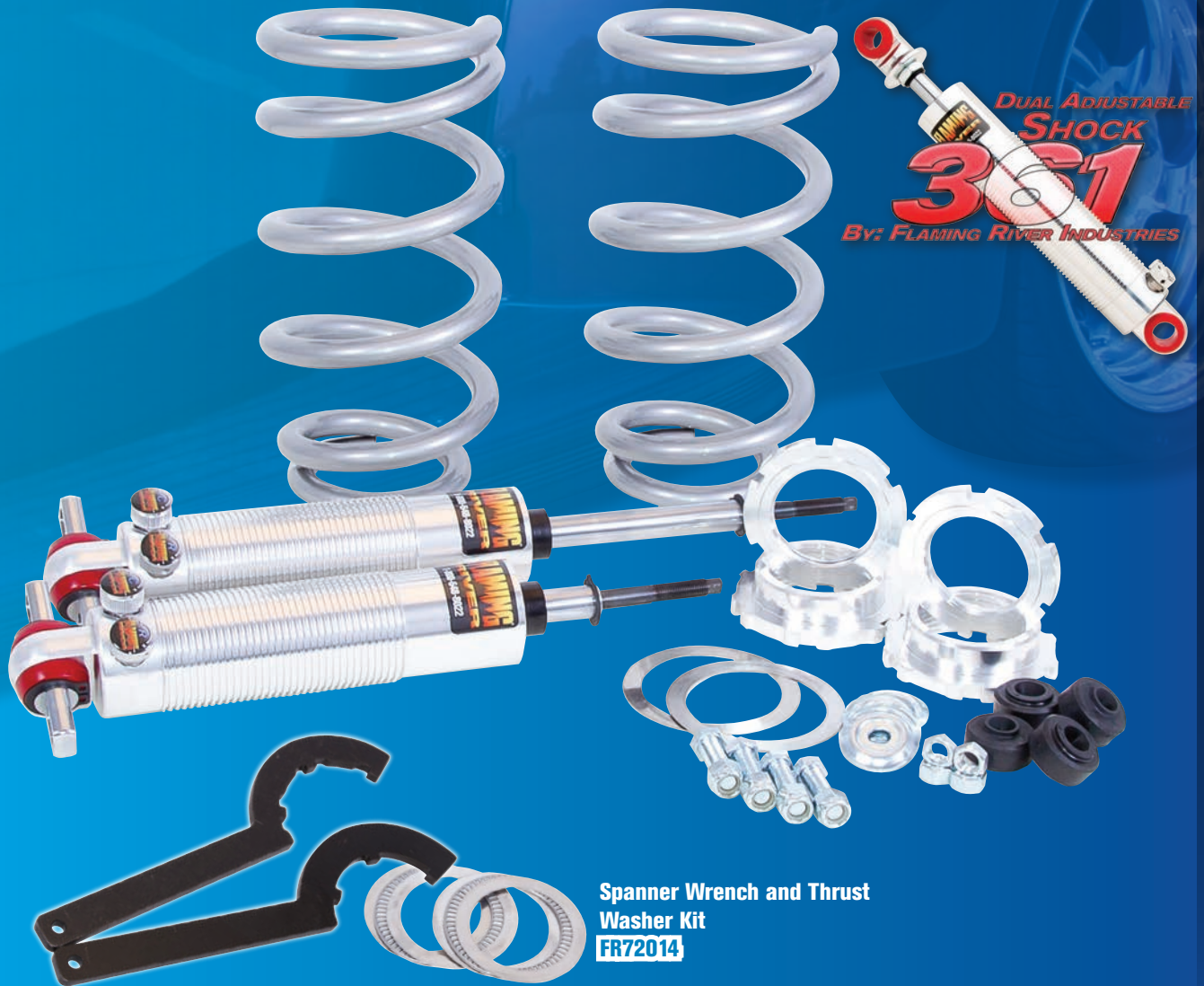
Model	Year	Smooth Body Front	Smooth Body Rear	Coil Over - Small Block Drag	Coil Over - SB Street - BB Drag	Coil Over - SB Road Race - BB Street
<b>Dodge</b>						
330/440	63-64	FR70038	FR70048			
Challenger	70-74	FR70038	FR70048			
Charger / Coronet	65-72	FR70038	FR70048			
Dakota P/U 2WD	87-96	FR70040				
Dakota P/U 2WD	97-99	FR70040	FR70048			
Dart / Demon / Swinger	62-76	FR70038	FR70048			
<b>Ford</b>						
Galaxie / LTD / Crown Vic.	65-02	FR70041	FR70053	FR70031	FR70032	
Galaxie / LTD / Crown Vic.	03-12		FR70055			
Maverick	69-77	FR70094 (Kit)				
Mustang	64-70	FR70094 (Kit)	FR70095 (Kit)			
Mustang	71-73		FR70095 (Kit)			
Mustang II	74-78	FR70039	FR70095 (Kit)			
Mustang	79-93		FR70053			
Mustang	94-04		FR70053			
Mustang (Cobra IRS)	99-04		FR70054			
Mustang	05-Present		FR70055			
Ranchero	57-59	FR70040				
Ranchero	60-65		FR70095 (Kit)			
Ranchero	66-71					
Ranchero	72-79	FR70041		FR70029	FR70031	FR70032
Thunderbird	63-66	FR70037				
Thunderbird	67-71	FR70041	FR70053	FR70031	FR70032	
Thunderbird	72-79	FR70041		FR70031	FR70032	
Torino	68-71					
Torino	72-76	FR70041	FR70051	FR70029	FR70031	FR70032
F-150 2WD (Incl Lightning)	80-84	FR70038				
F-150 2WD (Incl Lightning)	85-96	FR70038	FR70048			
F-150 2WD (Incl Lightning)	97-03	FR70042	FR70057			
<b>Oldsmobile</b>						
Cutlass / 442 / F85	64-67	FR70041	FR70049	FR70033	FR70035	FR70036
Cutlass / 442 / F85	68-72	FR70040	FR70049	FR70020	FR70022	FR70023
Cutlass / 442	73-87	FR70040	FR70049	FR70016	FR70018	FR70019
Omega	73-74	FR70040	FR70049	FR70024	FR70026	FR70027
Omega	75-79	FR70040	FR70049	FR70016	FR70018	FR70019



# Coil Over Shocks

Coil Over Shocks

Model	Year	Smooth Body Front	Smooth Body Rear	Coil Over - Small Block Drag	Coil Over - SB Street - BB Drag	Coil Over - SB Road Race - BB Street
<b>Pontiac</b>						
Firebird (Single Leaf)	67-69	FR70040	FR70051	FR70024	FR70026	FR70027
Firebird (Multi-Leaf)	67-69	FR70040	FR70056	FR70024	FR70026	FR70027
Firebird	70-81	FR70041		FR70029	FR70031	FR70032
Firebird	82--92		FR70052			
Firebird	93-02		FR70052			
Grand Am	78-80	FR70040	FR70049	FR70016	FR70018	FR70019
Grand Prix	69-72	FR70040	FR70049	FR70020	FR70022	FR70023
Grand Prix	73-87	FR70040	FR70049	FR70016	FR70018	FR70019
GTO / Tempest / LeMans	64-67	FR70041	FR70049	FR70033	FR70035	FR70036
GTO / Tempest / LeMans	68-72	FR70040	FR70049	FR70020	FR70022	FR70023
GTO	73-74	FR70040	FR70049	FR70016	FR70018	FR70019
GTO	04-06		FR70058			
LeMans	73-81	FR70040	FR70049	FR70016	FR70018	FR70019
Ventura	74-77	FR70040	FR70049	FR70016	FR70018	FR70019



# Inner Tie Rod Ends, Bellows and Rack Accessories



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
FRIE1003FM	Female	M16x1.5	Female	5/8"-18	10"
FRIE1004FM	Female	M16x1.5	Female	11/16"-18	7.75"



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

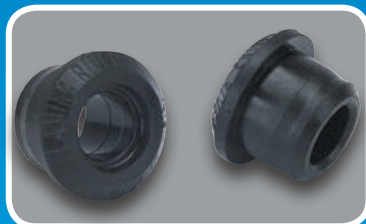


**Mounting Bushings - FR1600**

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**



**2-Piece Mounting Bushings**

**FR2001**

Custom designed thermoplastic rubber for firm vibration absorption. Two sets are required for installation.



**Ford Explorer Mounting Bushing Kit Fits 1995-2002 FR2002KIT**



**Outer Tie Rod Ends**

Designed to be the perfect complement to our Manual Rack and Pinions

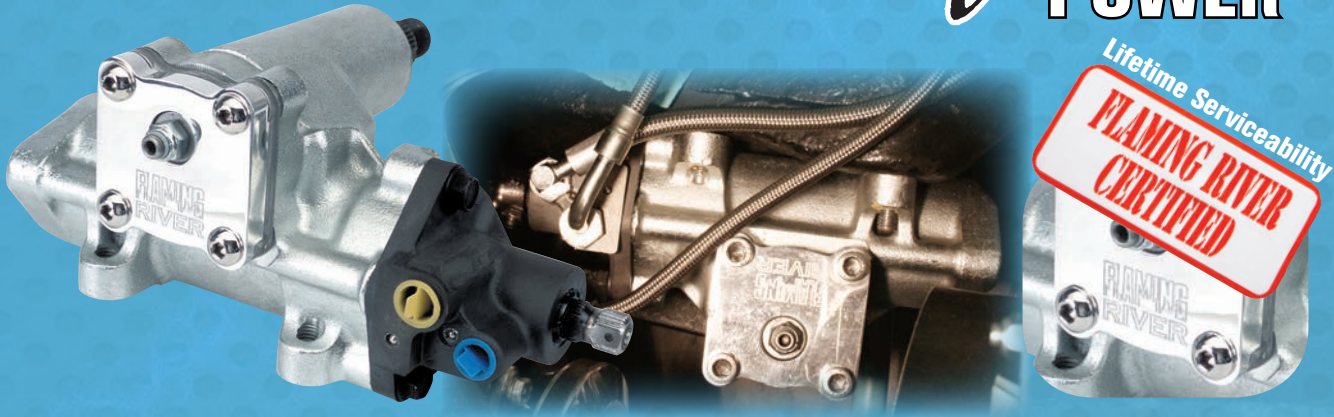
**FR1601** 1974-78 Mustang - 3.5" OAL

**FR1603** 1979-93 Mustang - 5" OAL

**FR1603-L** 1994-03 Mustang - 6" OAL

# Steering Boxes

**TRY V 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.

Price	
Part No.	Description
FR1560	12:1 Ratio

- Try V Power **166**
- Power Steering Pumps, **167-169**
- Hoses & Pulleys **170**
- Manufacturing **170-171**
- Vega **173**
- T-Bucket **174**
- 63-82 Corvette **175**
- Mopar **176**
- 65-70 Mustang **177**
- 62-67 Nova & **177**
- 525 Manual



Quality Steering Systems



# 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.  
Contamination will kill your steering and cost you \$\$\$.
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

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

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.



Photo 1



Photo 2

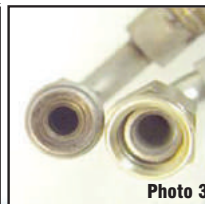


Photo 3

# Power Steering Pumps & Accessories

## Power Steering Made Easy

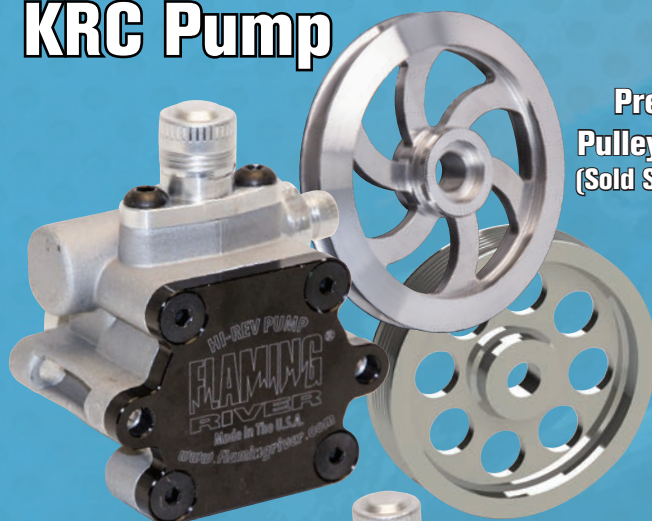
In most instances, the pumps provided with the rack and pinion are well matched and provide normal assist and driving stability. The Flaming River pump, which is 9.6 cc, will provide about 2.0 gpm at 1,500 rpm. The max. efficiency is reached at or about 1,350 rpm with an operating temp of 180°.

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.

## KRC Pump



**Press-On  
Pulley Options  
(Sold Separately)**

Part No.	Description
FR1574	6" Pulley V-Belt w/Rotary for GM/KRC Pumps - 5/8" Shaft
FR1578	6" Pulley V-Belt w/Holes for GM/KRC Pumps - 5/8" Shaft

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 item was designed with the same standards as KRC's racing pumps. The Flaming River High Rev pump allows for adjustable flow control fitting technology.

### Hi-Rev Pump

**FR1590 Satin Finish**

**FR1590PL Polished  
Finish**



**FR1590** 5/8" Shaft

- 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)
- 1600 Psi 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

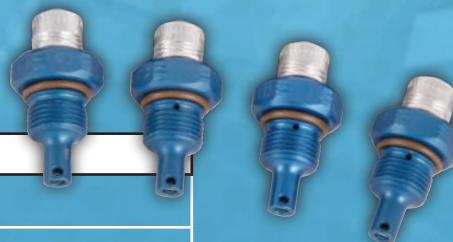
**FR1639**

90° Fitting Only

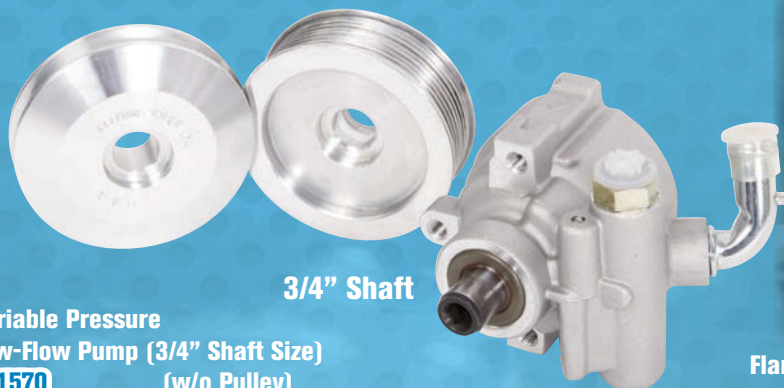
## Flow Control Fittings

Available in Standard and High Performance Flow Rates

Part No.	Description
FR1637KT	More Assist: B-C-D-E
FR1638KT	Less Assist: 4-5-6-7



# Flaming River Pumps



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)



Flaming River Pump Shown with 4" Pulley.

4" Pulley is included with FR Pump.

6" Pulleys are Optional

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.



6" Pulleys

4"/5" Pulleys

Part No.	Description
FR1573	5" Pulley - GM P/S Pump - 5/8" Shaft
A01G5001	4" Pulley V-Belt FR Pump - 3/4" Shaft
100385	4" Pulley V-Belt GM Pump - 5/8" Shaft
FR1574	6" Pulley V-Belt w/Rotary for GM/KRC Pumps - 5/8" Shaft
FR1575	6" Pulley Serp. Belt w/Rotary for GM/KRC Pumps - 5/8" Shaft
FR1576	6" Pulley V-Belt w/Rotary for FR Pumps - 3/4" Shaft
FR1577	6" Pulley Serp. Belt w/Rotary for FR Pumps - 3/4" Shaft
FR1578	6" Pulley V-Belt w/Holes for GM/KRC Pumps - 5/8" Shaft
FR1579	6" Pulley Serp. Belt w/Holes for GM/KRC Pumps - 5/8" Shaft
FR1588	6" Pulley V-Belt w/Holes for FR Pumps - 3/4" Shaft
FR1589	6" Pulley Serp. Belt w/Holes for FR Pumps - 3/4" Shaft

**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



**Corvette-Style "Transverse Compact" Low-Flow Pump (5/8" Shaft Size **FR1574**)**

This Transverse Compact Pump is ideal for street rods and features a bearing design and a flow of 2.4 to 2.8 gallons per minute. Polished version also available. Remote Reservoir **FR1614** required.

# Steering Box Manufacturing

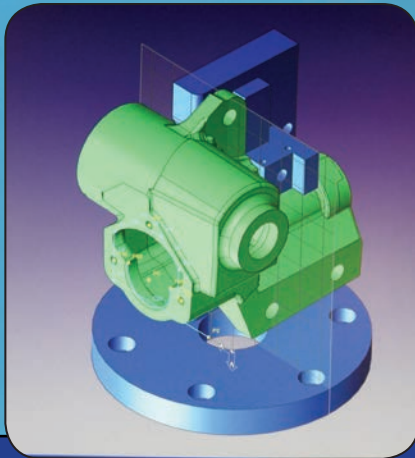
Each steering box begins with a U.S.A. made casting which we precisely machine and assemble with new components and then cycle test for quality assurance.

Each  
Steering Box  
Is Made with All  
New Internals!



Lifetime Serviceability

**FLAMING RIVER  
CERTIFIED**



Each Flaming River manual steering box is tested for proper steering torque and bearing adjustment...  
Flaming River Certified!

# Street Rod - Vega 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!

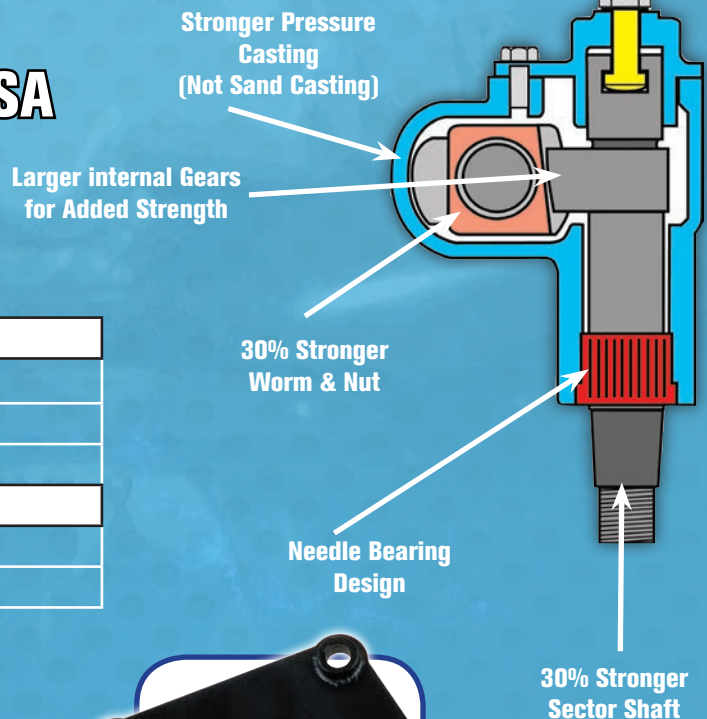
### Smooth Precise Steering:

- 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.



## Engineered and Assembled in the USA



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 Boxes



## High-Performance Manual Steering Box Kits

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 Increase Horsepower, Reduce ET!

- 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:

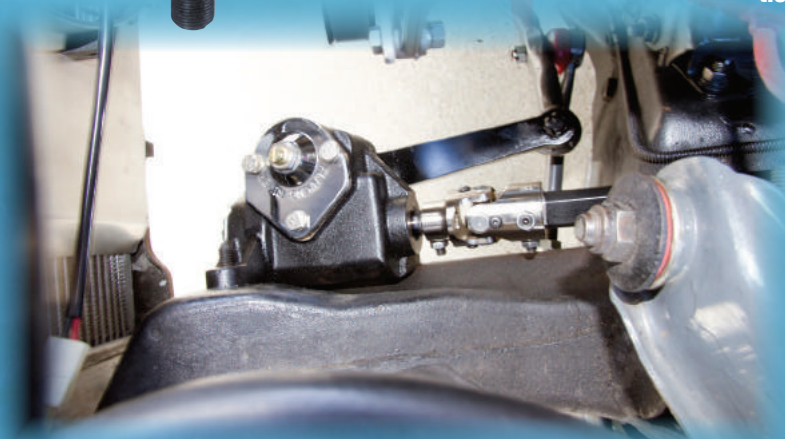
1967-69 Camaro

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.

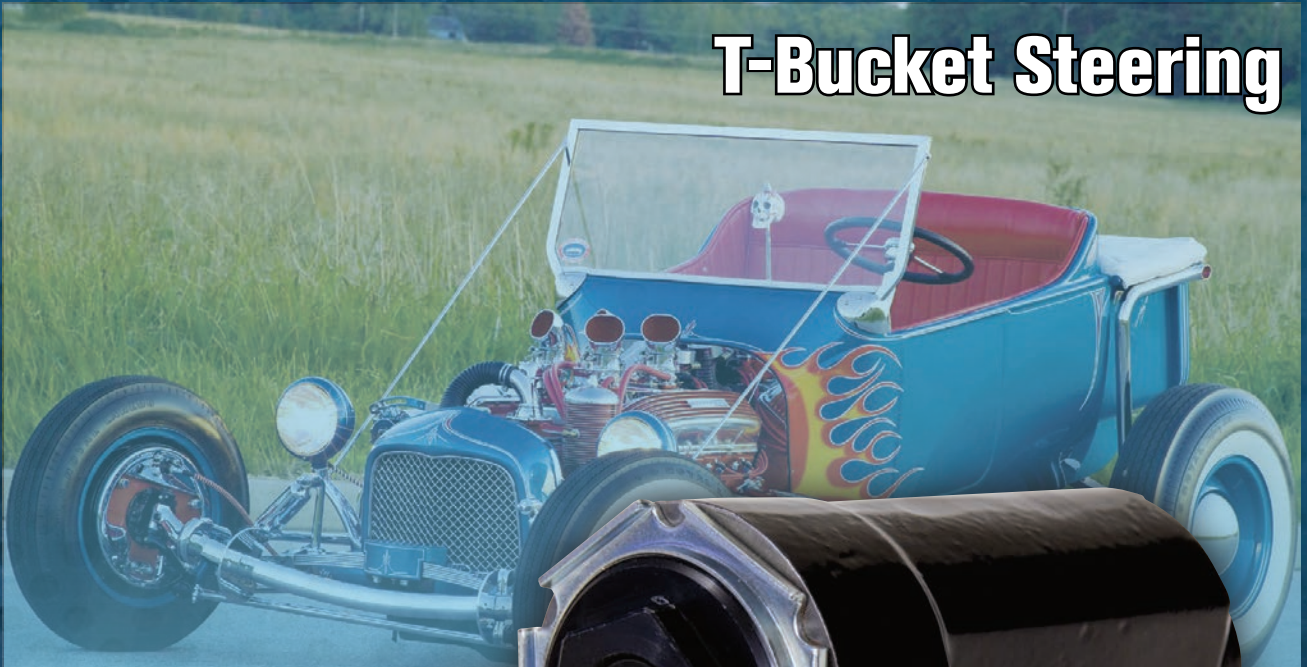


Vega Steering Box installed in a 1976 Nova



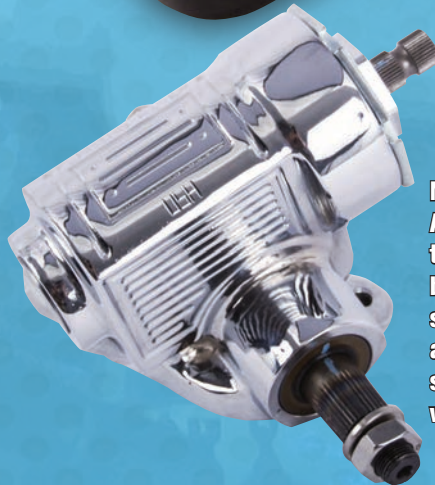
# T-Bucket Steering

Steering Boxes • Vega/T-Bucket



## 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.



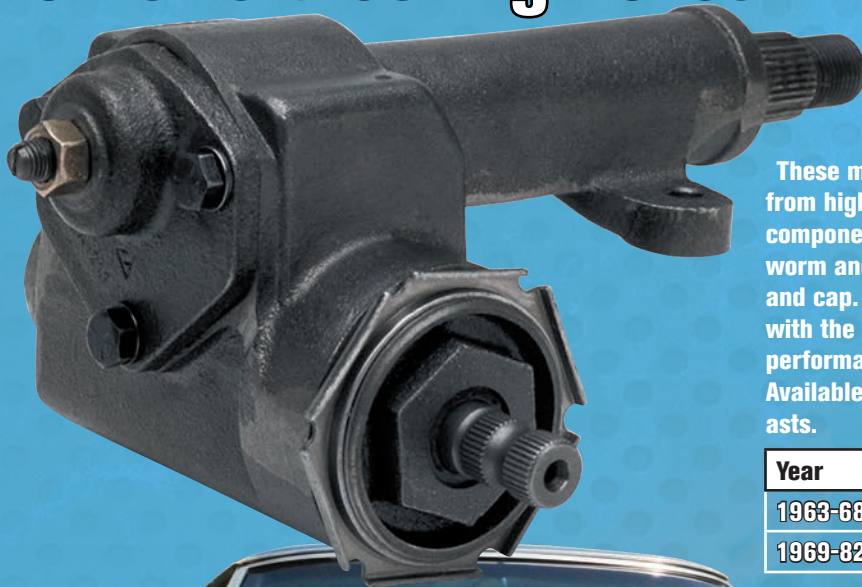
**New "Tech" Series Steering Boxes**  
A new fluted styling is machined into this new chrome series of steering boxes. With detailing normally only seen by top builders, you can now add a striking and unique look to your street rod—each one is virtually a work of art.

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

Lifetime Serviceability

**FLAMING RIVER  
CERTIFIED**

# Corvette Steering Boxes



## 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.

Year	Part No.	Pinion Shaft Size
1963-68	FR1513-36	3/4"-36
1969-82	FR1513-30	3/4"-30



### 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** 20:1 Ratio





# Mopar Steering



Lifetime Serviceability



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.

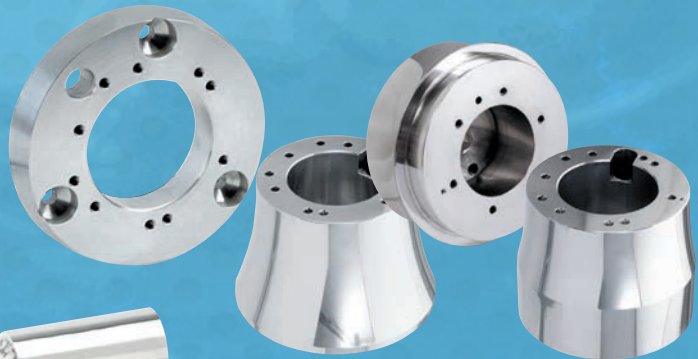


Mopar Steering Wheel Adapters

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.

**FR20119D0** - 5/6 Bolt Patterns

**FR20119D02** - WaterFall Wheel



Mopar Coupler Shaft Kit - Power to Manual Conversion - **FR1505M**

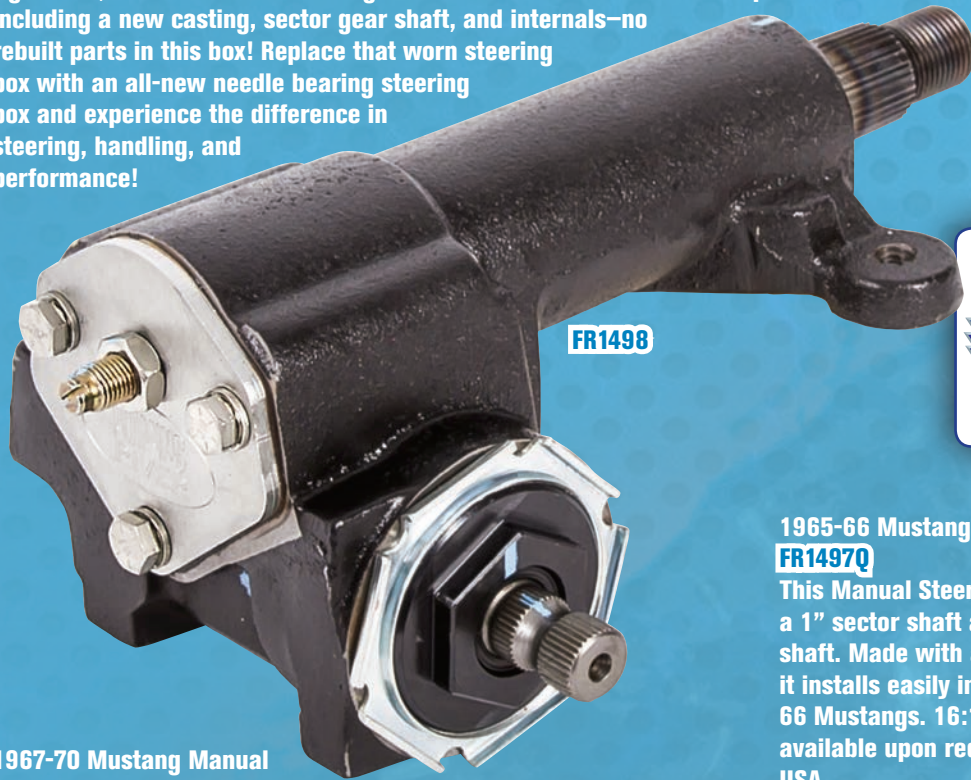
This kit simplifies installation by eliminating the factory coupler and is a must-have when converting from Power to Manual steering. Kit includes a coupler to fit the manual steering box, a connecting shaft, and a universal joint for the steering column.

Part No.	Description
FR20150HGAD	FR Tilt Column
FR201500E	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

# 1965-70 Classic Mustang Steering

## 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!



FR1498



## 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

FR1497Q

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.

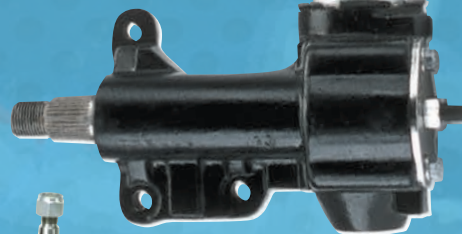


## 1965-70 Mustang Power Steering Replacement

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.

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



FR1497Q



FR1498VLV



FR1498PWR



FR1497VLV

# 1962-67 Nova Steering Box



## 1962-67 Nova Manual Quick Ratio Steering Box Kit

**FR302KT**

Flaming River makes a new direct bolt-in steering system for your early Nova. This kit eliminates the long shaft steering column and sloppy, worn-out steering box. This new box design mounts with a convenient chassis bracket and features a quick steering ratio with only 3-1/2 turns lock-to-lock for an improved steering response.

Because the Nova used a Slave Cylinder, this Manual Box can be used with either a power or manual system. We've included virtually everything you need for a clean, simple installation—including the Mounting Bracket, Universal Joints, and an all-new Tilt Steering Column.



Steering Boxes • 65-70 Mustang/62-67 Nova

# Alternators, Battery Disconnect Switches, Electrical Accessories

<b>Billet HD Amp - Alternators</b>	<b>179-182</b>
<b>Battery Relocation Kit</b>	<b>183</b>
<b>Big Switch 500</b>	<b>184-185</b>
<b>250 Amp XL Big Switch</b>	<b>186</b>
<b>350 Amp Switch</b>	<b>187</b>
<b>Big Switch with Lock-Out &amp; Big Switch with Removable Key</b>	<b>188</b>
<b>Big Switch w/LED, Big Switch w/Extension, Lever Kit &amp; Battery/ Magneto Switch</b>	<b>189</b>
<b>Watch Dog<sup>®</sup></b>	<b>190-191</b>
<b>Electro Wizard<sup>®</sup>/LV Switches</b>	<b>192</b>
<b>Batt.,Alt. Kill Switch/Little Switch/ Dual Switch/Jumper Cables</b>	<b>193</b>
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# High Output Alternators

140+ Amps at Idle!  
No More Low Voltage at Idle!



FR1111C

## 6-Phase Technology

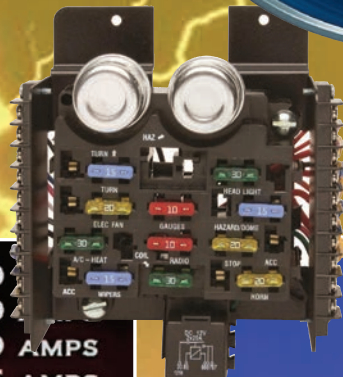
It's common to underestimate the power you really use. The Flaming River High Output alternators are available in 170 amp and 240 amp to give you the **POWER YOU NEED!**

Pulley included - Serpentine and V-belt on single wire applications  
Premium charge cable included

**Did You Know?**  
Many vehicles overheat at idle during cruises because their fans aren't getting the proper voltage at low RPM to move enough air. The new Flaming River Alternators will solve this problem!



A/C	20
FANS	30
AUDIO/AMP	30 AMPS
EFI & PUMP	15 AMPS
LIGHTS	10 AMPS
AIR RIDE	40 AMPS
POWER ACC.	15 AMPS
ELEC. WATER PUMP	15 AMPS



Our Alternators have Twin Rectifiers with 12 press-fit diodes while other alternators have only one rectifier with 6 diodes

175 AMPS

# HEAVY DUTY ALTERNATORS

Presented by:

**MOST POPULAR  
APPLICATIONS**

# FLAMING RIVER

**NEW**

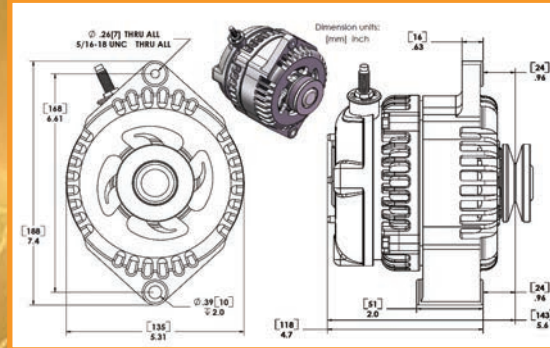


## 63-85 GM

**FR1108C** 170 Amp

**FR1109C** 240 Amp

Die Cast w/Chrome Housing  
6 Phase 170 or 240 Amp  
High Output Alternator with  
1 wire regulator and internal  
cooling fans.



## 88-95 C/K Truck 4.3 - 5.0 - 5.7

**FR1114** 170 Amp

**FR1117** 240 Amp

170 or 240 Amp  
Chrome Finish

This unit fits popular aftermarket accessory systems for small block Chevy, and has proven to be a very good seller to street rod customers with those kits. Equipped with side output stud to fit many popular aftermarket bracket kits.



## 63-85 GM

**FR1111** 170 Amp - Polished

**FR1111C** 170 Amp - Chrome

This unit has a self exciting internal voltage regulator that does not require anything to be plugged into the alternator. Available in Polished or Chrome.



## 63-85 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
- Three styles available: 150 amp single groove v-belt pulley - 150 amp double groove v-belt pulley - 240 amp double groove v-belt pulley

- Built in the USA

# HEAVY DUTY ALTERNATORS

High Output Alternators • Applications

Part No.	Amps	Finish
<b>63-85 GM Die Cast Housing Includes V-Belt and Serpentine Belt Pulley</b>		
FR1108C	170	Chrome
FR1108B	170	Black Anodized
FR1109C	240	Chrome
FR1109B	240	Black Anodized
<b>63-85 GM Billet Housing Includes V-Belt and Serpentine Belt Pulley</b>		
FR1111	170	Polished
FR1112	170	Black
<b>88-95 C/K Truck 4.3 - 5.0 - 5.7 Includes V-Belt and Serpentine Belt Pulley/ 82-92 Camaro 5.0L - 5.7L Direct Fit</b>		
FR1113	170	Machined
FR1114	170	Polished
FR1116	240	Machined
FR1117	240	Polished
FR1118	240	Black
<b>96-04 Silverado All Motors Direct Fit/ 9-04 Escalade 5.7L - 6.0L - 6.2L Direct Fit/ 03-09 Hummer 6.0L - 5.3L Direct Fit/ 98-02 Camaro 5.7L Direct Fit</b>		
FR1119	170	Machined
FR1120	170	Polished
FR1121	170	Black
FR1122	240	Machined
FR1123	240	Polished
FR1124	240	Black
<b>05-13 Silverado 4.8L - 5.3L - 6.0L - 6.2L - 6.6L - 8.1L Direct Fit</b>		
FR1128P	240	Polished
FR1129	240	Black

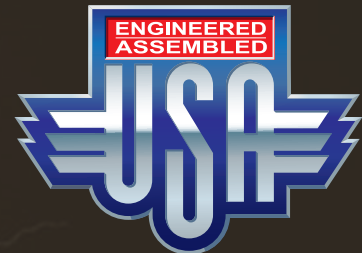
Part No.	Amps	Finish
<b>92-96 Corvette All - Except ZR1 Direct Fit/ Turbo Charged Buick Grand National Direct Fit</b>		
FR1143	240	Machined
FR1144	240	Polished
FR1145	240	Black
<b>05-13 Corvette - Except ZR1 Direct Fit</b>		
FR1152	170	Machined
FR1153	170	Polished
FR1154	170	Black
FR1155	240	Machined
FR1156	240	Polished
FR1157	240	Black
<b>65-85 Ford 6 &amp; 12 O'Clock Bolt Pattern V-Belt Direct Fit</b>		
FR1164	170	Machined
FR1165	170	Polished
FR1166	170	Black Anodized
<b>85-95 Ford 6 &amp; 12 O'Clock Bolt Pattern with 6 Groove Serpentine Pulley Direct Fit</b>		
FR1167	170	Machined
FR1168	170	Polished
FR1169	170	Black Anodized
FR1170	240	Machined
FR1171	240	Polished
FR1172	240	Black
<b>11-14 Ford Coyote 5.0L</b>		
FR1176	240	Machined



FR1165



FR1120



## SPECIAL ORDER ALTERNATORS

Note any alternator can be ordered with the following information through our custom program. See our website for complete details.

Year \_\_\_\_\_

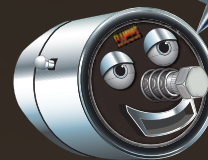
Make \_\_\_\_\_

Model \_\_\_\_\_

Engine \_\_\_\_\_

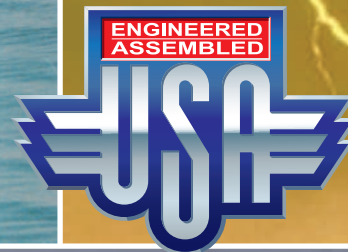
Bolt Pattern \_\_\_\_\_

Payment required with order (nonreturnable)



To determine your vehicle's pulley ratio, divide the diameter of your crankshaft pulley by the diameter of your alternator pulley

# High Output Alternators



## Marine Approved High Output Alternators - Hairpin Style



**FR1190MA** - 170 Amp High Output Alternator  
**FR1191MA** - 240 Amp High Output Alternator

- 140+ Amps at engine idle RPM
- Hairpin Stator and twin rectifiers for durability
- SAE J1171 Marine Compliant
- ISO 8846 Marine Safety Certified
- Meets USCG Title 33 standards for ignition
- 3 different bolt patterns to choose from
- Includes V-belt and 6 Rib pulley

These units have become quite popular in the marine industry, even being used by several OE Manufacturers as enthusiasts are realizing the Hairpin style alternator is a virtual necessity due to the demands of the modern Ski and Wakeboard boats.

We offer two stock styles and can also quote to your application with several basic specifications including year and application and bolt pattern. (Custom, Non-Returnable)

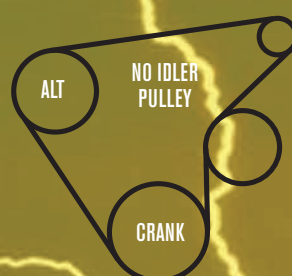
**FR1190MA 170 Amp Hairpin style Alternator (High output)**  
 Ideal for Modern Water Ski and Wakeboard boats

**FR1191MA 240 Amp Hairpin style Alternator (High output)**  
 Ideal for Modern Water Ski and Wakeboard boats

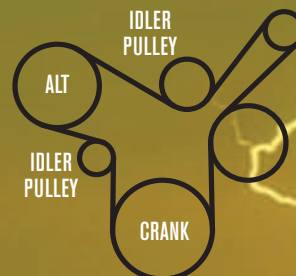
### ALTERNATOR TIP

#### Eliminating Belt Slip

If belt slip becomes an issue, a free spinning backside idler pulley may be mounted next to the alternator pulley, increasing contact surface area and belt drive tension at the same time. Eliminating belt slip is absolutely critical to proper charging system performance.



WITHOUT IDLER PULLEY



WITH IDLER PULLEY



# Battery Relocation, Alt Cable Install Kit & Marine Alternator

## FR1060 Battery Relocation Kit

Flaming River has introduced a new battery relocation kit. The 20 foot 1/0 gauge positive cable and 8 foot 1/0 gauge ground cable are flexible, soft and easy to work with. The cables are rated for 250 amps and have more than 4,700 ultra-fine strands for low resistance and flexibility. "No crimp" ends simplify the installation process and all hardware is included for an easy install.

Kit Contains:

- 20 feet of red 1/0 gauge ultra-flexible positive cable
- 8 feet of black 1/0 gauge ultra-flexible ground cable
- (12) cable clamps and (12) self-tapping hex drive sheet metal screws to mount the cable to the vehicle
- (12) plastic cable ties to secure the installation
- (6) heavy duty "no crimp" cable ends
- (1) positive battery clamp terminal
- (1) negative battery clamp terminal
- (6) waterproof heat shrink sleeves to seal the cable ends
- WEIGHT SAVINGS - 1/0 gauge cable in this kit is 50% lighter than standard 1/0 gauge cable
- IMPROVED FLEXIBILITY "Ultra-flexible" - each cable is flexible, soft, and easy to work with.
- Cables are rated for 250 amps and have 4700 ultra-fine strands for low resistance and flexibility.
- All hardware is included for installation
- No crimp ends and battery terminals are also sold separately.

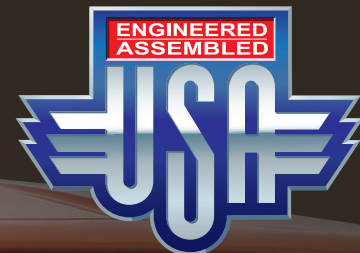
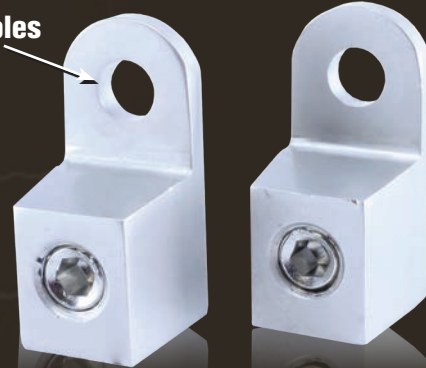


Battery Relocation Wire Ends

FR1061TM

No Crimp Battery Cable Ends (Pair)  
Heavy-duty set-screw style "no crimp" cable ends for installing or relocating a vehicle battery or alternator. Two (2) ends included in this kit. FR1061CE

.32" Eyelet Holes



FR1061 Alternator Cable Installation Kit with 250 Amp Fuse

FR1062FS 250 Amp Fuse for 0 to 4 gauge cable

Kits Includes:

- 250 Amp fuse and fuse holder
- zero gauge positive and ground cables
- no crimp cable ends



High Output Alternators • Mopar/Racing/Batt. Relocation Kit

# Battery Disconnect Switches



**NEW!**



# BIG SWITCH

## The 5000

500 AMP KILL SWITCH

Part No.	Description
FR1046	The Big Switch 500 with Lock-Out Bracket
FR1046LED	The Big Switch 500 with Lock-Out Bracket & LED Indicator
FR1047	The Big Switch 500 Lock Out Hole with Lever Handle and Diamond Bracket

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: AgSnO2 (Silver Tin Oxide) Plated Copper  
 Contact Terminals: AgSnO2 (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

Black Lever Handle  
 Also Available  
 102842

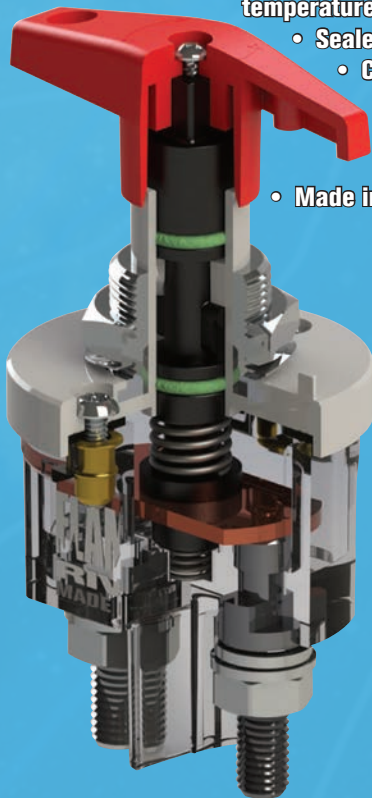


Heavy-duty battery disconnect switch with 500 amp rating. Silver pads and terminals and glass nylon material provide impact and temperature resistance.

Waterproof/corrosion-resistant. Made in USA.

Features and Benefits:

- Heavy-duty battery disconnect switch that boasts a 500 amp continuous rating
- Silver pads and terminals and innovative glass-filled nylon material are 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

Battery Disconnect Switches • Big Switch 500

# FR1044 - The Big Switch with Lock-Out

## 250 AMP Battery Disconnect Safety Switch

The Big Switch with Lock-Out - FR1044 (Replaces Part # FR1005)

The Big Switch is a heavy-duty Battery Disconnect Switch rated at 250 Amps continuous service and 2500 Amps for 5 second intervals (12V/24V). The Big Switch is manufactured with silver plated electrical contacts and with a completely sealed, waterproof design, and is able to withstand severe operating conditions.

We back the quality of this switch with a three (3) year warranty. This Big Switch comes with a lock-out bracket which enables a padlock to be inserted in the "OFF" position to comply with OSHA lock-out/tag-out regulation 1910.147. This prevents theft and accidental activation during equipment maintenance.

**Protect Your Fleet: 8 out of 10 Fires Are Caused by Faulty Electrical Systems!**

**Specifications of the Flaming River Big Switch:**

- Increased Terminal Space
- Waterproof and Corrosion Resistant Design
- Rated Capacity of 250 Amps Continuous 12V/24V
- Nickel Plated Brass Terminal and Hardware
- Silver Plated Contacts
- Mounting Bracket and Hardware Included
- Fleet Discounts Available



Marine coated Aluminum

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

Gasket and O-Ring provide a waterproof seal to prevent contamination

Terminal Isolator between the terminals prevents accidental arcing

Nickel Plated Brass Terminals and Hardware



.95"

**FR1044**



### 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.

# FR1043 - 350 AMP Battery Disconnect Safety Switch

## FR1043 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



### Please keep in mind for all switches

**WARNING:** Flaming River Industries, Inc. makes no recommendation as to mounting location or product suitability to your application. For each kit, contact your vehicle manufacturer to determine proper placement and suitability. Follow all installation instructions. Improper installation of the product may void warranty. Flaming River Industries, Inc. is not responsible for unsuitable use of the product. Once installed, a battery disconnect switch is a functioning, live part of the electrical system and all battery safety precautions should be used while interacting with the battery disconnect switch.

Increased insulation bushings to H class rating

Proprietary brass nut allows for 180 degree rotation

Clip on terminal covers are designed to protect against arcing and short circuit. Terminal Covers are splash and dust proof



Thicker silver plated copper internal contact plates

Larger diameter studs - .4725 (M12)  
Longer Studs - 1.25" to allow easier double cable connection



Nickel-Plated Brass fasteners for corrosion resistance

# 250 AMP Battery Disconnect Safety Switch

## 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



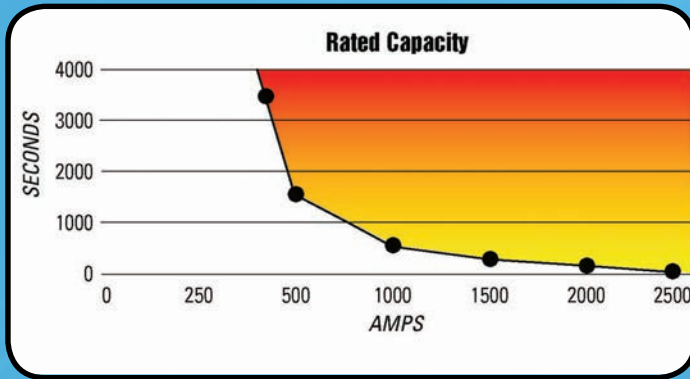
## FR1009 The Big Switch with Removable Key

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.



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

# 250 AMP Battery Disconnect Safety 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.



## 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



## 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.



## Big Switch Battery Disconnect with LED Indicator

The Big Switch is now available with an illuminated LED that indicates when the system is on. The visual cue 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



Part No.	Description
FR1044LED	Big Switch Battery Disconnect with LED Indicator

Compare The Difference		
Feature	Flaming River Heavy Duty Switch	Brand X
Rating (12V/16V/24V)	250 Amps Continuous	20 Amps
Rating Surge (12V/16V/24V)	2500 Amps	125 Amps
Waterproof	Yes	No
Silver Plated Terminal	Yes	No
Design	Spring Loaded	Rotary
Weight	17 oz.	14 oz.
Warranty	3 Years	None

# 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.

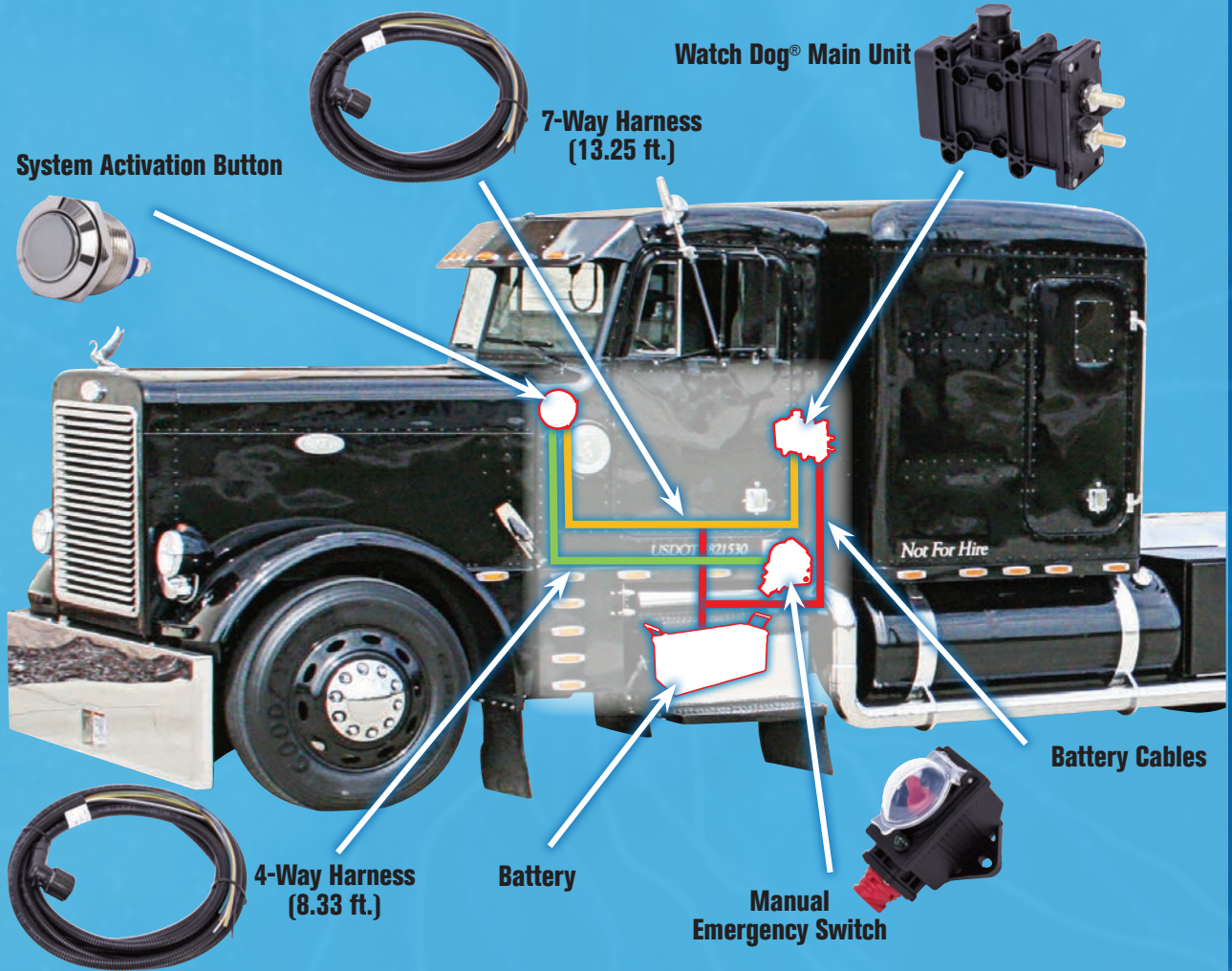
**\*NOTE:** The Watch Dog® system is an electromechanical battery disconnect switch. The emergency external switch will only disconnect the battery from the electrical system. This product is NOT designed to deactivate the alternator or shut down the vehicle completely.\*

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

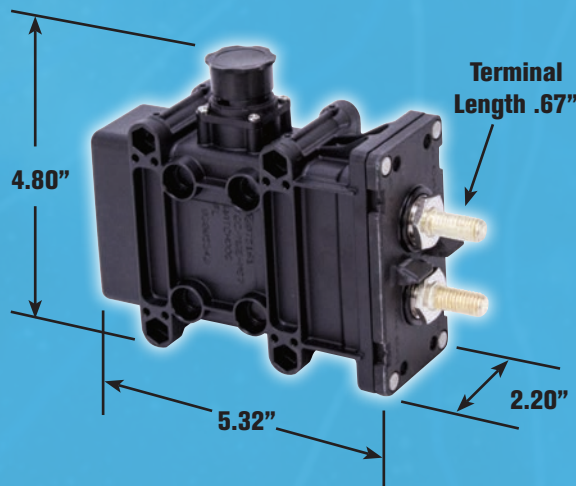


### Bistable Magnetic Latch

- 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 Switches



## "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)

# Combination Battery, Alternator Kill Switch/ The Little Switch/Dual Switch Battery Disconnect Safety Switches/Jumper Cables



## 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



## 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



## FR1002 The Little Switch

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



### FR1002BT Cap for The Little Switch

### FR1004 Mounting Bracket for The Little Switch

Strong Brass  
Jaw Clamps with  
Copper Connection  
for Maximum  
Continuous Current



## 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.

- 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 30 s
- Short-term Current Capacity: 2000 A for 5 s



**ATO® Fuses****ATO® Inline Fuse Hoder****OEM Emergency Fuses****Fuse Puller****Plug-In Relays**

## **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.

**Electronic Components are Non-Returnable**

	<b>FR80000</b>	<b>ATO® Emergency Fuse Kit</b> 1 each: ATO® fuses 5A, 10A, 15A, 20A, 25A, 30A 1, ATO® Fuse Puller	
	<b>FR80001</b>	<b>ATO® Emergency Diagnostic Kit</b> 1 each: ATO® fuses 5A, 10A, 15A, 20A, 25A, 30A 1, ATO® Fuse Tester/Puller	
	<b>FR80002</b>	<b>MINI® Emergency Fuse Kit</b> 1 each: MINI® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 1, MINI® Fuse Puller	
	<b>FR80003</b>	<b>MINI® Emergency Diagnostic Kit</b> 1 each: MINI® fuses 3A, 4A, 7.5A, 10A, 15A, 20A, 25A, 30A 1, ATO®/MINI® Fuse Tester/Puller	
	<b>FR80004</b>	<b>ATO®/Mini Emergency Diagnostic Kit</b> 1 each: ATO® fuses 5A, 10A, 15A, 20A, 25A, 30A 1 each: MINI® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 1, Fuse Puller	
	<b>FR80005</b>	<b>GM OEM Emergency Fuse Kit</b> 1 each: MINI® fuses 7.5A, 25A, 30A 2 each: MINI® fuses 20A 3 each: MINI® fuses 10A, 15A 1 each: Low Profile MINI® fuses 10A, 15A 1 each: JCASE® fuses 20A, 30A, 40A, 50A 1 each: Low Profile JCASE® fuses 30A, 40A	
	<b>FR80006</b>	<b>FORD OEM Emergency Fuse Kit</b> 1 each: MINI® fuses 7.5A, 25A, 30A 2 each: MINI® fuses 20A 3 each: MINI® fuses 10A, 15A 1 each: Low Profile MINI® fuses 10A, 15A 1 each: JCASE® fuses 20A, 30A, 40A, 50A 1 each: Low Profile JCASE® fuses 30A, 40A	
	<b>FR80007</b>	<b>Chrysler/Dodge/Jeep Emergency Fuse Kit</b> 1 each: MINI® fuses 7.5A, 25A, 30A 2 each: MINI® fuses 20A 3 each: MINI® fuses 10A, 15A 1 each: JCASE® fuses 20A, 30A, 40A, 50A	
	<b>FR80008</b>	<b>ATO® In-line Fuse Holder, 16AWG Wire, 20A Max</b> ATO® in-line fuse holder, Includes 12AWG wire and supports a max amperage of 20A	
	<b>FR80009</b>	<b>ATO® In-line Fuse Holder, 12AWG Wire, 30A Max</b> ATO® in-line fuse holder. Includes 12AWG wire, and supports a max amperage of 30A	
	<b>FR80010</b>	<b>ATO® In-line Fuse Holder, 12AWG Wire, with 30A Fuse</b> ATO® in-line fuse holder. Includes one 30A fuse, 12AWG wire, and supports a max amperage of 30A	
	<b>FR80011</b>	<b>Sealed ATO® In-line Fuse Holder, 12AWG Wire, 30A Max</b> ATO® in-line fuse holder with a sealed cap that protects the fuse connection. Includes 12AWG wire and supports a max amperage of 30A	
	<b>FR80012</b>	<b>12V/40A Plug-in Relay with Mounting Bracket</b> 40A relay for use in 12V systems. Comes with snap-in mounting bracket.	
	<b>FR80013</b>	<b>ATO®/MINI® Fuse Puller with Tester</b> For ATO® and MINI® fuses with a 1.5V fuse tester	
	<b>FR80015</b>	<b>MICRO2™, MICRO3™ Fuse Puller</b> For MICRO2™ and MICRO3™ fuses	
	<b>FR80016</b>	<b>MAXI Fuse Puller</b> For MAXI blade fuses	

	<b>FR80017</b>	<b>ATO®/MINI® Fuse Puller (White)</b> For ATO® and MINI® fuses	
	<b>FR80018</b>	<b>RedBox™ Low Profile Mini Fuses</b> 5 each: Low Profile MINI® fuses 5A, 20A, 25A 10 each: Low Profile MINI® fuses 7.5A, 10A, 15A, 30A 1, ATO®/MINI® Fuse Puller (White)	
	<b>FR80019</b>	<b>RedBox™ JCASE® Fuses</b> 2 each: JCASE® 32V fuses 20A, 30A, 40A, 50A, 60A 1, JCASE® Fuse Puller	
	<b>FR80020</b>	<b>RedBox™ MINI®/ATO®/MAXI Fuses</b> 10 each: ATO® fuses 5A, 7.5A, 40A 25 each: ATO® fuses 10A, 15A, 20A, 25A, 30A 10 each: MINI® fuses 5A, 7.5A, 25A, 30A 20 each: MINI® fuses 10A, 15A, 20A	
	<b>FR80021</b>	<b>RedBox™ MICRO2™, MICRO3™, Low Profile JCASE®, MCase® Fuses</b> 10 each: MICRO2™ fuses 5A, 7.5A, 10A, 15A, 20A, 25A 10 each: MICRO3™ fuses 5A, 7.5A, 10A 10 each: MCase® fuses 20A, 25A, 30A, 40A 10 each: Low Profile JCASE® 20A, 25A, 30A, 40A, 50A, 60A	
	<b>FR80022</b>	<b>Anti-theft Battery Master Switch, Detachable</b> Detachable version features a special disconnect that allows the battery to be easily isolated. Perfect for seasonal vehicle storage and anti-theft protection. One of the lowest cost anti-theft devices on the market. Simple turn of the knob disconnects the battery. Fits all standard top mount post batteries. Works on 12V-24V systems up to 135A	
	<b>FR80023</b>	<b>Anti-theft Battery Master Switch, Fused</b> Fused version maintains current to all electrical circuits such as the alarm, on-board computer, central locking system, and radio memory presets. One of the lowest cost anti-theft devices on the market. Simple turn of the knob disconnects the battery. Fits all standard top mount post batteries. Works on 12V-24V systems up to 135A	
	<b>FR80024</b>	<b>ATO® Fuse Super Value Pack, 40 pcs</b> 5 each: ATO® 32V fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 1, Fuse Tester/Puller	
	<b>FR80025</b>	<b>ATO® Smart Glow Fuse Super Value Pack, 42 pcs</b> 7 each: ATO® Smart Glow 32V fuses 5A, 10A, 15A, 20A, 25A, 30A	
	<b>FR80026</b>	<b>MINI® Fuse Super Value Pack, 40pcs</b> 7 each: ATO® Smart Glow 32V fuses 5A, 10A, 15A, 20A, 25A, 30A 1 Fuse Tester/Puller	
	<b>FR80027</b>	<b>MINI® Smart Glow Fuse Super Value Pack, 36 pcs</b> 6 each: MINI® Smart Glow 32V fuses 10A, 15A, 20A, 25A, 30A	
	<b>FR80028</b>	<b>MINI®/ATO®/MAXI Fuse Super Value Pack, 21 pcs</b> 1 each: ATO® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 1 each: MINI® fuses 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 1 each: MAXI fuses 20A, 30A, 40A, 50A, 60A	
	<b>FR80029</b>	<b>MINI®/JCASE® Fuse Super Value Pack, 29 pcs</b> 5 each: MINI® fuses 10A, 15A, 20A, 25A, 30A 1 each: JCASE® fuses 20A, 30A, 40A, 50A	
	<b>FR80030</b>	<b>MICRO2™, MICRO3™ &amp; MCase® Fuse Super Value Pack, 60 pcs</b> 5 each: MICRO2™ fuses 5A, 7.5A, 10A, 15A, 20A, 25A, 30A 5 each: MICRO3™ fuses 5A, 7.5A, 10A, 15A 1 each: MCase® fuses 15A, 20A, 25A, 30A, 40A 1, MICRO2™/MICRO3™ Fuse Puller 1, MCase® Fuse Puller	

# New Push-Button Options

## Illuminated Rocker Switches



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



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. Diameter w/ 0.508 in. to Flat
Switch Type	Momentary On, SPST
Contact Plating	Gold

## Stainless Steel Push-Button Switches



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