

## BATTERY CONTROL SAFETY SYSTEMS


www.flamingriver.com

Flaming River Industries, Inc. ${ }^{\text {® }}$ 800 Poertner Dr. Berea,0hio 44017

## About flamin! hiver Industries, Inc. ${ }^{\text {a }}$

Flaming River Industries, Inc. ${ }^{\bullet}$ is an Ohio corporation and woman-owned business, located in Berea, Ohio. As we celebrate our 30th year in business, we are proud of the battery disconnect switches and accessories that we provide to the heavy-duty and commercial trucking industries.

Flaming River Industries is well-known for our battery disconnect switches, and over the course of many years of service, The Big Switch has become an industry standard as it relates to safety and OSHA Regulation 1910.147 for lock-out/tag-out in heavy-duty and commercial vehicle applications.

We are continuing our pledge to provide our customers with the highest quality battery disconnect switches, with the introduction of The Big Switch 500. The Big Switch 500 is Flaming River Industries' response to the increasing demands for higher continuous current requirements within the commercial vehicle industry. The Big Switch 500 was designed from the ground up as a more rugged and powerful product capable of handling 500 Amps continuously. The Big Switch 500 was designed right here in Northeast Ohio, and is built and assembled in the USA.

We also proudly distribute and carry a series of automatic battery disconnect switches that focus on convenience, battery preservation, and fleet safety. The Electro Wizard ${ }^{\circledR}$ has proven to be a dependable and irreplaceable component for large vehicles and heavy-duty equipment. Our newest products-the Low-Voltage Disconnect Switch and Watch Dog ${ }^{\circledR}$, join the ranks of our expanding list of automatic battery disconnect switches. The Watch Dog ${ }^{\circledR}$ can run continuously at 300 Amps and includes features like bi-stable "magnetic latch" technology, a built-in programmable time delay, and an external emergency shut-off switch making battery disconnection simpler and safer than ever. The technologies of the automatic battery disconnect switches and original Big Switch is supplied by a well-known Italian manufacturer.

Flaming River Industries is certified in ISO 9001:2008 Quality Management Systems standards. By adhering to ISO's 9001 quality standards, Flaming River Industries' manufacturing processes and products are certified to world-class specifications for quality, safety and efficiency. We are also certified in ISO 14001:2004 Environmental Management Systems. This certification ensures that Flaming River Industries minimizes its impact on the environment and complies with all applicable and statutory regulatory requirements.

For 30 years, we have designed many award-winning products using state-of-the-art engineering, technology, and quality control in our manufacturing processes. We continue to expand in the heavy-duty market with advanced electrical and safety devices designed to meet and exceed our customers' needs. Although this process is exciting, we know that the best reward is a satisfied customer.

## Flaming River ${ }^{\circledR}$ Heavy Duty

## Battery Disconnect Switches 500 Amp

Big Switch 500 ..... 4-5
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## 500 Amp Battery Disconnect Switch

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Heavy-duty battery disconnect switch with 500 amp rating. Silver pads and terminals and glass nylon material provide impact and temperature resistance. New waterproof/corrosion-resistant design. Made in USA.
Features and Benefits:
FR1047

- Heavy-duty battery disconnect switch that boasts a 500 amp continuous rating
- Silver pads and terminals provide higher rating.
- Innovative glass-filled nylon material is impact and extreme temperature resistant
- Sealed waterproof and corrosion-resistant design
- Can withstand extreme vibration-making it ideal for racing and heavy-duty truck applications
- Optional lock-out feature allows switch to be locked in the OFF




## 250 Amp Battery Disconnect Safety Switches



- INCREASED TERMINAL SPACE
- 250 Amps continuous service
- 2500 Amps for 5 second intervals ( $12 \mathrm{~V} / 24 \mathrm{~V}$ )
- silver-plated copper electrical contacts
- nickel-plated brass hardware
- completely sealed, waterproof design
- three (3) year warranty
- Complies with OSHA lock-out/tag-out regulation 1910.147


| Warranty | 3 Years |
| :---: | :---: |
| Voltage | 12V/24V |
| Max Continuous Current | 250 Amps |
| Max Surge Current | 2500 Amps |
| Environmental Protection Rating | IP65 |
| Waterproof | Yes |
| Operating Temperature | $-40^{\circ} \mathrm{F} \mathrm{to} \mathrm{+} 176^{\circ} \mathrm{F}$ ( $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ ) |
| Contact Terminals | Silver-Plated Copper |
| Contact Hardware | Nickel-Plated Brass |
| Stud Diameter | M10 |
| Available Stud Length | . 95 in (approx. 61/64 in) |
| Max Tightening Torque | 11-13 ft-lbs |



## FR1044LED Big Switch Battery Disconnect with LED Indicator

The Big Switch is now available with an illuminated LED that provides a visual cue that easily identifies whether the switch and electrical system are ON or OFF for proper shut down procedure.

- LED Indicator Light - Clear indicator that system is ON or OFF
- Rated Capacity 2500 Amps / 250 continuous
- Stainless Steel Fasteners for corrosion resistance
- Waterproof
- Silver-plated copper internal contact plates
- M10 studs
- Lock-out feature enables use of padlock for OSHA Lock-out/Tag-Out compliance regulation 1910.147

| Part No. | Description |
| :--- | :--- |
| FR1044LED | Big Switch Battery Disconnect <br> with LED Indicator |
| FR1008LED | Lock-Out Bracket and LED <br> Indicator only (for retrofit to <br> existing "Big Switch") |



Note: Terminals on battery alisconnect switches are live parts of the electrical system and should be treated just like battery terminals. Govers are recommended, but not included, for each kit.
Contact your vehicle's
manufacturer to
determine proper
placement and suitability.


## 250 Amp Battery Disconnect Safety Switches

FR1003 The Big Switch Battery Disconnect Switch

Top racers realize that using a low amp switch creates resistance and actually reduces power. Flaming River's ${ }^{\circledR}$ 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 ( $12 \mathrm{~V} / 16 \mathrm{~V} / 24 \mathrm{~V}$ ) 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.


| Description | The Big Switch |
| :---: | :---: |
| Part No. | FR1003 |
| Warranty | 3 Years |
| Voltage | 12V/24V Max |
| Continuous Current | 250 Amps |
| Max Surge Current | 2500 Amps [5 seconds) |
| Environmental Protection Rating | IP65 |
| Waterproof | Yes |
| Operating Temperature Range | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}-40^{\circ} \mathrm{F}$ to $+176{ }^{\circ} \mathrm{F}$ |
| Contact Terminals | Silver Plated Copper |


| Contact Hardware | Nickel Plated Brass |
| :--- | :--- |
| Stud Diameter | M10 Available |
| Stud Length | $\mathbf{0 . 7 7 5 "}$ (approx. 25/32 in) |
| Max Tightening Torque | $\mathbf{1 1 - 1 3 ~ f t - l b s ~}$ |
| Mounting Bracket Included | Yes |
| Mounting Bracket Part No. | FR1007 |
| Terminal Covers Included | No |
| Terminal Covers Part No. | FR1003TM (pair) |
| Additional Notes | Approved for NHRA/IHRA <br> competition use |

## FR1003-4 The Big Switch with Extension Kit FR1003-EXT Extension Only



This industrial lever kit allows for remote mounting of the Big Switch. Kit includes a custom 15" aluminum rod, handle, and the FR1003 Big Switch.

- Rated at 250 amps continuous service $(12 \mathrm{~V} / 16 \mathrm{~V} / 24 \mathrm{~V})$ 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.

Note: Terminals on battery alisconnect switches are live parts of the electrical system and should be treated just Ifke battery terminals. Govers are recommended, but not included, for each kit.
Gontact your vehicle's manufacturer to determine proper placement and sultability.


FR1003TM Terminal Covers
Sold in sets of two. Can be used to cover cables on all Battery Disconnect Switches. Sold separately from switch.


| Compare The Difference |  |  |
| :---: | :---: | :---: |
| Feature | Flaming River ${ }^{\text {Heavy Duty Switch }}$ | Brand X |
| Rating (12V/16V/24V) | $\mathbf{2 5 0}$ Amps Continuous | $\mathbf{2 0}$ Amps |
| Rating Surge (12V/16V/24V) | $\mathbf{2 5 0 0}$ Amps | $\mathbf{1 2 5} \mathbf{A m p s}$ |
| Waterproof | Yes | No |
| Silver Plated Terminal | Yes | No |
| Design | Spring Loaded | Rotary |
| Weight | $\mathbf{1 7} \mathbf{0 z}$. | $\mathbf{1 4} \mathbf{~ o z .}$ |
| Warranty | $\mathbf{3}$ Years | None |

## 250 Amp Battery Disconnect Safety Switches

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 ( $12 \mathrm{~V} / 24 \mathrm{~V}$ ) 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.


| Description | The Big Switch with Removable Key |
| :---: | :---: |
| Part No. | FR1009 |
| Warranty | 3 Years |
| Voltage | 12V/24V |
| Max Continuous Current | 250 Amps |
| Max Surge Current | 2500 Amps (5 seconds) |
| Environmental Protection Rating | IP65 |
| Waterproof | Yes |
| Operating Temperature Range | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}-40^{\circ} \mathrm{F}$ to $+176{ }^{\circ} \mathrm{F}$ |
| Contact Terminals | Silver Plated Copper |
| Contact Hardware | Nickel Plated Brass |
| Stud Diameter | M10 Available |
| Stud Length | 0.775" (approx. 25/32 in) |
| Max Tightening Torque | 11-13 ft-lbs |
| LED ON/OFF Indicator | No |
| Lock-Out Capability | Yes - Removable Key |
| Replacement Key Part No. | FR1009K |
| Mounting Bracket Included | Yes |
| Mounting Bracket Part No. | FR1007 |
| Terminal Covers Included | No |
| Terminal Covers Part No. | FR1003TM (pair) |



## 350 Amp Battery Disconnect Safety Switches

## 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 $-2500 \mathrm{amps} / 350$ 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

Also available with LED Indicator FR1043LED

| Warranty | 3 Years |
| :--- | :--- |
| Voltage | $12 \mathrm{~V} / 24 \mathrm{~V}$ |
| Max Continuous Current | 350 Amps |
| Max Surge Current | 2500 Amps |
| Environmental Protection Rating | IP65 |
| Waterproof | Yes |
| Operating Temperature | $-40^{\circ} \mathrm{F}$ to + 176 ${ }^{\circ} \mathrm{F}\left[-40^{\circ} \mathrm{C}\right.$ to $\left.+80^{\circ} \mathrm{C}\right)$ |
| Contact Terminals | Silver-Plated Copper |
| Contact Hardware | Stainless Steel |
| Stud Diameter | M12 |
| Available Stud Length | $1.50^{\prime \prime}$ |
| Max Tightening Torque | $11-13 \mathrm{ft} \cdot \mathrm{lbs}$ |
|  |  |



Sold in sets of two. Can be used to cover cables on all Battery Disconnect Switches. Sold separately from switch.

Increased insulation


Thicker silver-plated copper internal contact plates

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


Stainless Steel fasteners for corrosion-resistance

## Automatic Battery Disconnect Safety Switches

## FR1057 Watch Dog ${ }^{\circledR}$ - The Next Level Automatic Battery Disconnect Switch



The Watch Dog ${ }^{\circledR}$ is capable of handling 300 Amps of current continuously and designed with versatility in mind to function on both 12 V and 24 V systems. Utilizing bistable "magnetic latch" technology, the Watch Dog ${ }^{\circledR}$ secures its ON/OFF positions without current draw and requires over 80G of force to mechanically separate the contacts. The Watch Dog ${ }^{\circledR}$ has some of the highest International Protection ratings of IP76 and IP69K, ensuring that water and dust stay out. The Watch Dog ${ }^{\circledR}$ 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 ${ }^{\circledR}$ 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 ${ }^{\circledR}$ :

- 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 12 V and 24 V 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 ${ }^{\circledR}$ control.
*NOTE: The Watch Dog ${ }^{\circledR}$ 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 ${ }^{\oplus}$ Battery Disconnect |
| :--- | :--- |
| Part No. | FR1057 |
| Voltage | $12 \mathrm{~V} / 24 \mathrm{~V}$ |
| 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: 300 h |
| Terminal Length | $0.670^{\prime \prime}$ (approx. $43 / 64$ in) |
| Terminal Diameter | M10 |
| Operating Temperature Range | $-40^{\circ} \mathrm{C}$ to +85 ${ }^{\circ} \mathrm{C}-40^{\circ} \mathrm{F}$ to +185 ${ }^{\circ} \mathrm{F}$ |
| 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 12 V and 24 V systems out of the box.

- Incredibly durable. Dust and water tight, even against high pressure water jets.




## Automatic Battery Disconnect Safety Switches

## FR1051/FR1052 Electro-Wizard ${ }^{\circledR 1}$

- 12 Volt Electronic Battery Disconnect Switch. 24V system available upon request.
- Passive Magnetic Solenoid Operation - No mechanical switch to forget to operate
- 250 Amps Continuous / 2500 Amp Surge
- IP 65 Rating
- Sealed Waterproof Design

Can withstand severe operating condition


Ideal Protection For:

- Construction \& Farm Equipment / Mining \& Off-Highway Vehicles
- Heavy-Duty Trucks
- Automotive / Racing
- Marine
- DEF System Compatible

| Part No. | Description |
| :---: | :---: |
| FR1051 | 12V Electro Wizard ${ }^{\text {® }}$ - Grounded Solenoid Uses a 12V Pos input to engage. |
| FR1052 | 12V Electro Wizard ${ }^{\circledR}$ - Insulated Solenoid with switch cover - Engagement with Pos or Neg input |
| FR1053 | 3 Minute Delay off timer relay 12V |
| FR1055 | 6 Minute Delay off timer relay 12V |
| FR1054 | 24V Electro Wizard ${ }^{\text {® }}$ - Insulated Solenoid with switch cover. Engagement with Pos or Neg input |


| CHARAGTERISTIOS | Ratings |
| :---: | :---: |
| Voltage | 12V |
| Max. Continuous current on main contacts | 250 A @ $\mathbf{7 4}^{\circ} \mathrm{F} / \mathbf{2 3}^{\circ} \mathrm{C}$ ] |
| Max. Surge current on main contacts | 2500 A for 3 sec. |
| Environmental Protection Rating | IP 65 |
| Tightening torque M 10 nuts | 14.75ft lb. / 20 NM |
| Tightening torque M 5 nuts | 1.18ft lb. / 1.6 NM |
| Operating temperature range | -40 ${ }^{\circ} \mathrm{F}-185^{\circ} \mathrm{F} /-40^{\circ} \mathrm{C}-40^{\circ} \mathrm{C}$ |
| Contacts | Silver plated copper |
| Contact Terminals | M10 tin-plated brass |
| Contact Hardware | Brass |
| Peak current coil rated input | 4.4 A |
| Max. Retaining coil | 3.2A |
| Holding coil rated input | 0.4 A |

Note: Terminals on battery disconnect switches are live parts of the electrical system and should be treated just like battery terminals. Covers are recommended, but not included, for each kit. Gontact your vehicle's manufacturer to determine proper placement and suitability.


## Low Voltage Switch

## FR1058 Low-Voltage Battery Disconnect Safety Switch

Stop battery drain with the Flaming River ${ }^{\circledR}$ Low Voltage Disconnect!

- Automatic disconnect 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 disconnect while the vehicle is operating
- Manual disconnect 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/IP69K ratings).
- Includes 4-way wire harness (13 feet long) with connections to Vehicle Ignition, Ground, Command Button, and Indicator Light

| Gharacteristics | Ratings |
| :--- | :--- |
| Operating Voltage (Fully Charged Battery) | 13.5V [12V System) <br> 28V [24V System) |
| Preset Threshold Voltage | 12.1V |
| Max Continuous Current | $\mathbf{2 5 0}$ Amps |
| Max Surge Current | $\mathbf{8 0 0}$ Amps [30 seconds] <br> 2000 Amps [5 seconds] |
| Environmental Protection Rating | IP6K7/IPX9K |
| Corrosion Resistance | Salt Spray Test: 300 hrs |
| Operational Temperature | -40F to +185F |
| Time Delay | $\mathbf{6 0}$ seconds |
| Contacts/Terminals | Silver Plated Copper |
| Terminal Dimensions | M10 (Diameter) <br> $\mathbf{0 . 9 4}$ in. (Length] |



Note: Terminals on battery olisconnect switches are live parts of the electrical system and should be treated just Ike battery terminals. Govers are recommended, but not included, for each kit.
Gontact your vehicle's manufacturer to determine proper placement and suitability.

## Battery and Alternator Disconnect Switch

## FR1013 Combination Battery and Alternator Kill Switch

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

- Push Off for emergency shut-down and color-coded to indicate operating position - ON or OFF, with a durable spring-loaded design
- Meets IHRA, NHRA and SCCA sanctioning body requirements

Rated Capacity:

- Battery - 2000 Amp Surge
- 150 Amp Continuous
- Alternator - 120 Amp


| Description | Combination Battery and Alternator Kill Switch |
| :--- | :--- |
| Part No. | FR1013 |
| Warranty | 1 Year |
| Voltage | 12 V/24V |
| Max Continuous Current | 150 Amps (battery) |
| Max Surge Current | 1,200 Amps (5 seconds) |
| Max Current for Auxiliary Terminals | 5 Amps |
| Environmental Protection Rating | IP65 |
| Alternator | 120 Amps |
| Waterproof | Yes |
| Operating Temperature Range | $-30^{\circ} \mathrm{C}$ to +60C $-22^{\circ} \mathrm{F}$ to $+140^{\circ} \mathrm{F}$ |
| Contact Terminals | Silver Plated Copper |
| Contact Hardware | Brass |
| Stud Diameter | M10 |
| Available Stud Length | 0.813 " (approx. $13 / 16$ in) |
| Max Tightening Torque | $11-13$ ft•lbs |
| LED ON/OFF Indicator | No |
| Lock-Out Capability | No |
| Mounting Bracket Included | No |
| Protective Cover Included | No |
| Extension Handle/Lever | No |
| Additional Notes | Approved for IHRA, NHRA, and SCCA competition use |
|  |  |



Note: Terminals on battery
disconnect
switches are live parts of the electrical system and should be treated just like battery terminals. Govers are recommended, but not included, for each kit.
Gontact your vehicle's manufacturer to determine proper placement and sultability.

## Little Switch

## FR1002 The Little Switch <br> FR1002-1 The Little Switch (No Mounting Bracket)

The Little Switch is rated at 100 amps continuous service and 500 amps for 10 second surges making it ideal for street rods, classics and passenger cars. In addition to preventing battery drain, this unique switch is also a cost effective anti-theft device. A rubber boot seals the neck from moisture and dirt.

- Competition approved by IMSA, ARCA, and SCCA.
- Inexpensive Anti-theft Device • Prevents Battery Drain
- Water Resistant • Removable Key

| Part No. | FR1002 |
| :---: | :---: |
| Warranty | 1 Year |
| Voltage | 6V/12V/24V |
| Max Continuous Current | 100 Amps |
| Max Surge Current | 500 Amps (10 seconds) |
| Environmental Protection Rating | IP4X |
| Operating Temperature Range | $-40^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C},-40^{\circ} \mathrm{F}$ to $+122^{\circ} \mathrm{F}$ |
| Contact Terminals | Copper |
| Contact Hardware | Zinc Plated Steel |
| Stud Diameter | M8 |
| Available Stud Length | 0.50" |
| Max Tightening Torque | $4.43 \mathrm{ft} \cdot \mathrm{lbs} / 6 \mathrm{~N} \cdot \mathrm{~m}$ |
| LED ON/OFF Indicator | No |
| Lock-Out Capability | Yes - Removable Key |
| Replacement Key Part No. | FR1002K |


| Mounting Bracket Included | Yes |
| :--- | :--- |
| Mounting Bracket Part No. | FR1004 |
| Protective Cover Included | Yes - Protective Rubber Boot |
| Protective Cover Part No. | FR1002BT |
| Approved for IMSA, ARCA and SCCA Competition Use |  |

## FR1050 Dual Battery Disconnect Switch

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

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


| Description | Dual Battery Disconnect Switch |
| :---: | :---: |
| Part No. | FR1050 |
| Warranty | 1 Year |
| Voltage | 12V and 24V |
| Max Continuous Current | 300 Amps |
| Max Surge Current | 1,000 Amps (5 seconds) |
| Environmental Protection Rating | IP54 |
| Operating Temperature Range | $-40^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}-40^{\circ} \mathrm{Fto}+122^{\circ} \mathrm{F}$ |
| Internal Contacts: | Silver Plated Copper |
| Contact Terminals | Copper |
| Contact Hardware | Brass |
| Stud Diameter | M10 Available |
| Stud Length | 0.5 ( $1 / 2 \mathrm{in}$ ) |
| Tightening Torque | 11-13 ft-lbs |
| Switch Modes | 4 Modes: \#1 On, \#2 On, Both On, Both Off |

FR1070 BA Professional Jumper Cable


- Nominal Voltage $12 \mathrm{~V} / 24 \mathrm{~V}$
- Clamps Material: casting brass
- Cable Material: copper (cross section 50 mm 2 )
- Cable Insulation: highly flexible PVC
- Max Current Carrying Capacity: 1000 A for 30 s
- Short-term Current Capacity: 2000 A for 5 s
- Ideal for Extreme Cold Temperatures

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 truck. The set comes with one black to hold firm and thick, yet flexible cables safely allow you
to jumpstart your truck. The set comes with one black and one red cable with clamps. Conveniently stores in a rugged carrying case.


## FR1060 Battery Relocation Kit

Flaming River ${ }^{\circledR}$ 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 (positive), 8 feet of black (ground) $1 / 0$ gauge ultra-flexible cable

- (12) cable clamps and (12) self-tapping hex drive sheet metal screws to mount the cable to the vehicle
- (6) heavy duty "no crimp" cable ends - (1) negative battery clamp terminal • (1) positive 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 - Each cable is "Ultra-flexible".
- Cables are rated for 250 amps and have 4700 ultra-fine strands for low resistance and flexibility.
- All hardware is included for installation


## 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


## Battery Terminal 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.


## REQUEST FOR QUOTATION

Please let us know your required part number, amp rating and quantity.
We will prepare a quotation specific to your needs:

## PAYMENT:

We accept Visa, Mastercard and Discover. C.O.D. (US Funds).
Certified check or money order is also available at an additional cost.

## DELIVERY:

Orders ship within 3 to 5 business days using UPS ground freight or other comparable service.

## AIR SHIPMENT:

Next Day Air, Second Day Air and Three Day Select services are available upon request. These will ship the next business day and are subject to special handling charges. Credit card only for air shipments. Bill to and shipping address must match for address verification.

## RETURNS:

Product returns and exchanges must be called in for authorization prior to return and shipped freight prepaid with a copy of the invoice. (Any shipment received without paperwork will be refused.) Returns are subject to a $15 \%$ handling fee (minimum \$15.00). Freight and polishing charges are non-refundable. Returns/Exchanges must be made within 30 days of purchase date from Flaming River ${ }^{\circledR}$. Product that has been cut, scratched, painted or installed cannot be returned. Returns must be made to the distributor where purchased.

## ORDERING

Phone:
Orders can be placed by calling our toll-free number:
1-800-648-8022
Hours: 8:30am - 5:00pm EST
Fax:
Orders can be placed using our toll-free,
24-hour fax order line: 1-800-243-5263
(1-800-24-FLAME)
Web: www.flamingriver.com


## WARRANTY DISCLAIMER:

Flaming River's ${ }^{\circledR}$ Limited Warranty
Flaming River ${ }^{8}$ warrants its products to be free from defects in material and workmanship for a period of one (1) year after the date of purchase, except that: All steering columns are warranted for a period of three (3) years from the date of purchase. The Big Switch (part number FR1044) is warranted for a period of three (3) years from the date of purchase, provided that it is not mounted with a steel bracket and provided further that it is adequately protected from environmental conditions. All electrical products other than the Big Switch are warranted for a period of ninety (90) days from the date of purchase. Flaming River's ${ }^{\mathbb{R}}$ warranty liability is limited to the replacement of defective products. Flaming River ${ }^{\mathbb{B}}$ is not liable for any labor costs associated with any warranty claim, or for any incidental or consequential damages. Improper installation, abuse, racing, and/or modification of the products voids this warranty. No warranty of merchantability or fitness for a particular purpose is made by Flaming River ${ }^{8}$ with respect to any of its products.

## Warnings and Recommendations

It is the customer's responsibility to determine the suitability of a given Flaming River ${ }^{\circledR}$ product for the customer's uses. Likewise, it is the customer's responsibility to install a Flaming River ${ }^{\circledR}$ product. Contact the vehicle manufacturer whenever installing a switch to confirm the appropriateness of using such a switch and the recommended placement of the switch on the vehicle. Use qualified chassis specialists for the installation of all steering related components. Be aware that the installation of certain Flaming River ${ }^{\circledR}$ products may adversely impact a manufacturer's warranty with respect to certain vehicles and other manufactured goods. Flaming River ${ }^{\mathbb{B}}$ will repair or replace any product found to be defective in material or workmanship. Improper installation, abuse, racing and/or modification VOID WARRANTY. Flaming River ${ }^{\circledR}$ is not responsible for any labor costs associated with any warranty.
Note: The information contained in this catalog is correct to the best of our knowledge and belief, having been compiled from reliable and official sources of information. However, Flaming River Industries, Inc. ${ }^{\circledR}$ cannot assume responsibility for possible error.


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