INSTALLATION GUIDE
•
OWNER'S GUIDE

REMOTE STARTER
MODELS RS102/RS102E,   RS112/RS112E,   RS122/RS122E

CONTENTS

BULLDOG SECURITY

SYSTEM FEATURES

Four-Button Extended Range Remote Control	Remotely start your car to run the heater or air conditioning from an extended distance.
Keyless Entry	Remotely locks and unlocks your power door locks.
Trunk Release	Remotely opens your trunk with a push of a button. (Optional part #775 required)
Remote Programmable Run Time	Remotely program your vehicle to run 5 to 15 minutes.
Run Time Confirmation	Lets you check the run time that the unit is programmed for.
Tach/Tachless Option	A programmable feature that lets you choose from the easy to install tachless operation or the standard wire-in, tach operation.
Parking Light Confirmation	Confirms that your vehicle has received a remote signal and will remain on if the engine is remotely started.
Dome Light Supervision	Never walk up to a dark vehicle again. When unlocking the vehicles doors by remote control the dome light will come on and stay on for 1 minute, or until you activates the ignition switch. (Optional part #775 required)
Cold Start	Remotely program your car to start at a preset temperature. Automatically starts your car in freezing temperature so you never have a dead battery.
Pit Stop Mode	Allows you to exit the vehicle while the engine remains running.
Extended Range Antenna	Allows you to operate your system from up to 400 feet away. (800 feet for E Models)
Code Learning	Allows your remote starter to learn new remotes, should you want to add remotes, or if remotes are lost.
Limited Lifetime Warranty	Guarantees life-long protection.

SYSTEM COMPONENTS

Your system includes:
1-Installation & Operation Guide
1-Main Control Module
1-Four Button Remote Transmitter with Slide Protector
1-(4) Relay Harness with Relays
1-18-Pin Wire Harness
1-Hood Pin Switch
1-Extended Range Antenna (E Models Only)

2-Window Clips
  (E Models Only)
1-Warranty
1-Warning Sticker
  for Under the Hood
2-Bulldog Window Decals

REQUIRED TOOLS

You will need a computer-friendly test light and a 5/16 drill bit when mounting the hood pin switch. In most cases no additional tools are required, however if the bottom of your dash on the driver's side will come off you must remove it. In this case a screwdriver or socket set may be needed.

TECHNICAL ASSISTANCE

Should you need help. First check our website at www.bulldogsecurity.com/wires.htm or call our toll-free Tech Support Hotline Monday through Friday 9AM-8PM and Saturday 10AM-4PM EST at 800-878-8007.

You must give the following information:
•Name
•Telephone Number with Area Code (Fax number if applicable)
•Year, Make, and Model of the vehicle
•The model number of the system you are installing
•The type of assistance you are requesting
If you give the above information you will be called back as soon as possible, usually within 10 minutes.

BEFORE YOU BEGIN

Congratulations, you have purchased one of the most advanced remote starter systems ever made. Your new remote starter is a technological breakthrough utilizing the most advanced, state of the art technology and components. It is computer controlled and manufactured in the U.S.A. The dependability and variety of features make Bulldog Security the leader in the industry. Enjoy your new remote starter for years to come!

This remote system is designed to start your vehicle by sending a command signal from the remote transmitter or by programming automatic temperature or timed start. It is required that your installation is done in a well-ventilated area. **It is the responsibility of the owner to ensure that the remote system is not used to start the vehicle in an undesired location.**

It is recommended that a carbon monoxide detector be installed in the living area near a location where the vehicle may be garaged.

Since there are many different makes and models of vehicles, look at the wiring chart on or our website, www.bulldogsecurity.com/wires.htm.

Read this manual thoroughly before starting the installation. You must also decide if any options are desired such as trunk release and dome light supervision. An optional relay will be needed for these options. **Please do not skip any steps**.

TACH/TACHLESS OPERATION
In most cases the decision to go with tachless mode will save time during the installation. If your vehicle is hard-starting then you should use tach mode.

MAKE SURE YOU PLACE THE WARNING STICKER UNDER THE HOOD.

PRECAUTIONS

This system is designed for vehicles with power door locks only.

This system will add remote keyless entry features to any vehicle with power door locks. This will also work as a replacement system for the factory installed keyless entry system.

DO NOT use mechanical wiring connections, such as **crimp or snap together taps**. Follow instructions on pages 2-3.

DO NOT disconnect the battery if the vehicle has an anti-theft-coded radio or is equipped with an airbag. Doing so may cause a warning light to be displayed and may require a trip to the dealer to be corrected.

DO NOT leave the interior or exterior lights on for an extended period of time as it may cause battery drain.

DO NOT mount the control module until all connections have been made and tested. Using wire ties or double sided tape, **MOUNT THE MODULE UNDER THE DASH**.

TESTING YOUR WIRES

When testing for a positive or negative voltage, you must use a computer friendly test light (logic probe) or a volt/ohm meter. Make sure to probe and test each wire before making your connections.

MAKING WIRING CONNECTIONS

1. Strip back two inches of insulation on the wire from the keyless entry.

Two Inches of Bare Wire

2. Strip back one inch of insulation on the wire you need to connect to.

One Inch of Bare Wire
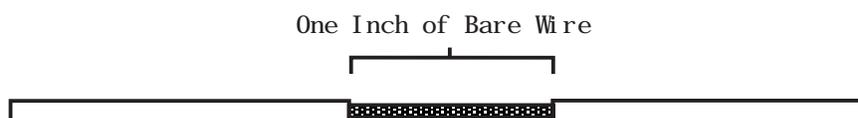
3. Separate the vehicle wire as shown. Make the separation large enough to fit the other wire through.

4. Insert the wire from the unit through the hole as shown.
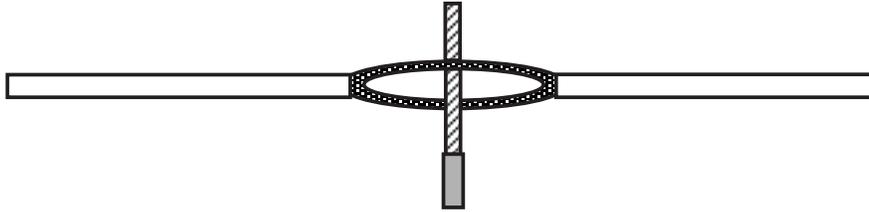
5. Wrap the wire around one side then the other and finally around itself as shown.
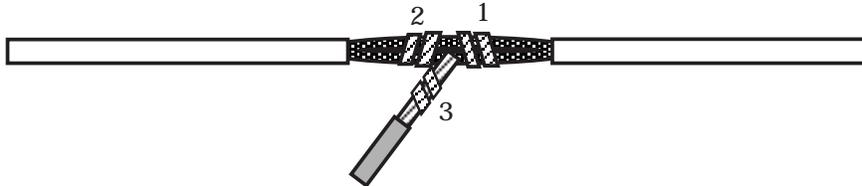
6. Use electrical tape to wrap. Be sure to cover the wire about two inches on either side of the connection. First pull the wire that you have just connected along side the wire you connected to, tape and wire tie them together. Use this method for all connections.

Wire Tie

Electrical Tape

CAUTION: All wires must be wrapped and taped.

MAKING END TO END CONNECTIONS
FOLLOW THESE INSTRUCTIONS

1. When tying two separate wires together at their ends, strip back 1" of insulation on both wires and separate the strands of wire as shown below.
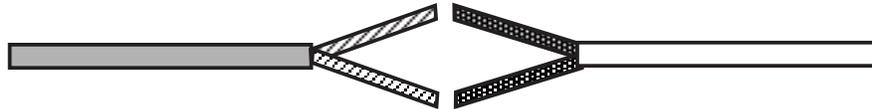
2. Twist upper wires together, twist lower wires together as shown.
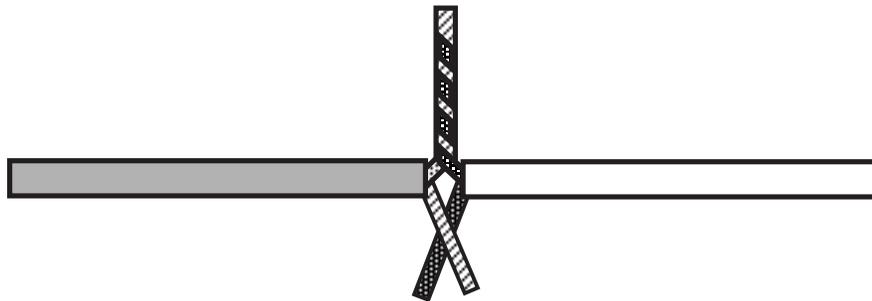
3. Lay upper twisted pair of wires over right wire as shown. Bring lower twisted pair of wires up to meet the left wire as shown.

3
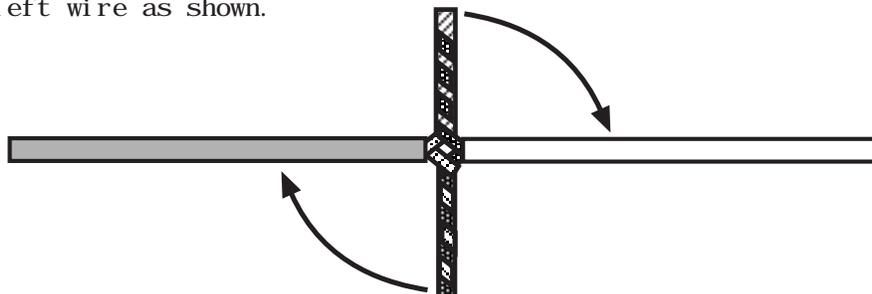
4. Use electrical tape to wrap, be sure to cover about 2 inches on either side of connection. Secure with wire ties as shown.

Electrical Tape

Wire Tie   **Wire Tie**
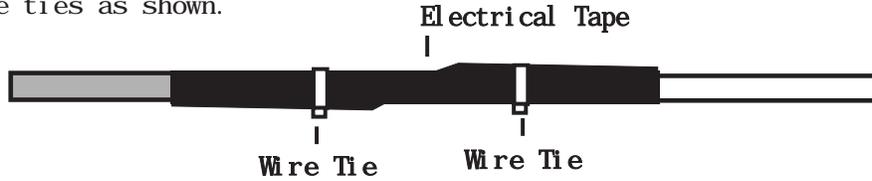
Use this method ONLY when connecting two separate wires end to end.

LOCATING & MAKING CONNECTIONS

Please see the wiring chart on our website, www.bulldogsecurity.com.

CONSTANT POWER (+12V, key in any position including off)
These wire(s) are in your vehicle's main ignition harness, usually located on the steering column coming from the ignition switch. Probe each wire with your test light. The correct wire(s) will show +12V when the ignition switch is in these **5 positions (ACC-LOCK-OFF-RUN-CRANK)**.

1. If your vehicle has only (1) constant power wire, attach the **RED** wire from the 18-pin harness and both large **RED** wires from the 4-relay harness to the constant power wire in the vehicle.
2. If your vehicle has (2) constant power wires, attach the **RED** wire from the 18-pin harness and (1) large **RED** wire from the 4-relay harness to one of these constant power wires. Then connect the other large **RED** wire from the 4-relay harness to the second constant power wire in the vehicle.

IGNITION HARNESS UNDER DASH
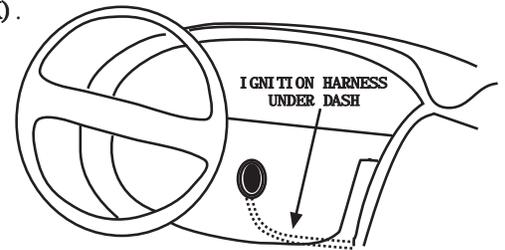
Make sure to wrap electrical tape around all (3) fuse holders to prevent shorting to ground.

IGNITION WIRE(S) (+12V in run and crank position only)
The ignition wire(s) are also located in the main harness coming from the ignition switch. Probe each wire with your test light, the correct wire(s) will show +12V **only** when the ignition switch is in the **RUN AND CRANK** positions only. The correct wires will not show +12V when in the OFF or ACCESSORY position. Most Ford, GM, and Chrysler vehicles have at least (2) ignition wires. Most foreign vehicles have only (1).
1. Strip back the **YELLOW** wire from the 18-pin harness and then strip back (1) of the (2) **WHITE** wires from the 4-relay harness and twist both of these wires together.
2. Connect the **YELLOW** wire and the **WHITE** wire from step (1) to the ignition wire in the main harness. If your vehicle has only (1) ignition wire, tape off the end of the second **WHITE** wire from the 4-relay harness and do not use.
3. If your vehicle has (2) ignition wires, connect the second **WHITE** wire from the 4-relay harness to it.
4. If your vehicle has (3) ignition wires (some GMs) connect the second **WHITE** wire from the 4-relay harness to both the second and third ignition wires in the vehicle.

HEATER/BLOWER MOTOR WIRE(S) (+12V in run position only)
Most vehicles will have (1) blower wire; however **some** Fords, newer GM vehicles and Chrysler 94 and up will have (2) or more blower wires. To locate these wire(s) probe for wire(s) that only show +12V when the ignition switch is in the **RUN** position only. This wire(s) will not show +12V when the ignition switch is in any other position.

1. If your vehicle has only (1) blower wire connect the **WHITE WITH BLACK STRIPE** wire from the 4-relay harness to this wire.
2. If your vehicle has (2) blower wires, connect the **WHITE WITH BLACK STRIPE** wire to both.
3. If your vehicle has (3) blower wires connect the unused **WHITE** wire from the 4-relay harness to the third blower wire.

STARTER/CRANK WIRE (+12V only in the start position only)
The starter/crank wire is also in the main harness. Locate the wire that shows +12V **only** in the **crank** position. This wire will not show +12V in any other position. Attach the **YELLOW WITH BLACK STRIPE** wire from the 4-relay harness to this wire.

CHASSIS GROUND
Locate an easy to get to bolt or screw located under the driver's side of the dash and attach the **BLACK** ground wire from the 18-pin harness securely as pictured.

Factory Bolt   **Black Ground Wire**
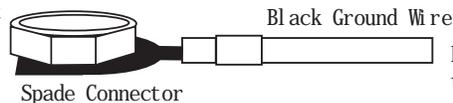
Note: Remove any paint below the spade connector.

Spade Connector

4

PARKING LIGHTS (+12V only with parking lights on)

Turn the parking lights to the ON position. (NOT YOUR HEADLAMPS). Probe the wire(s) coming from your headlamp control switch. Find a wire that will show +12V only when the parking lights are ON. Connect the **BROWN** wire from the 18-pin harness to this wire. If this wire tests as a (-) negative, see diagram.
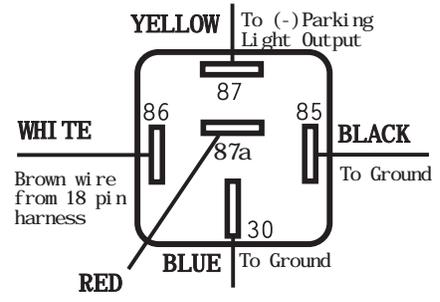
NEGATIVE PARKING LIGHT OUTPUT
Optional part #775 required.

YELLOW — To (-) Parking Light Output
WHITE — 86
87
85 — BLACK
87a
Brown wire from 18 pin harness — To Ground
30
RED — BLUE — To Ground

DO NOT USE THE RED WIRE, TAPE OFF.

BRAKE INPUT

The brake wire is located on the switch near and above the brake pedal. The correct wire will show +12V only when the brake is pressed. Connect the **BLUE WITH BLACK STRIPE** from the 18-pin harness to this wire.

FACTORY ALARM SHUT DOWN WIRE (FASD) (-)

If your vehicle is equipped with a factory alarm system (as most vehicles with a factory keyless entry are) probe for a small gauge wire (usually found in the driver's side kick panel) that shows (-) ground when the door lock cylinder is turned to the unlock position using the key. This wire will usually show a (+) positive voltage before turning the key. **NOTE:** Some factory disarm wires remain neutral before you turn the key to unlock instead of +12v positive. Connect the **RED WITH BLACK STRIPE** wire from the 18-pin harness to this wire.

HOOD PIN SWITCH

This feature will keep the engine from starting or shut off the engine when the hood is opened. Locate a good chassis ground, if at all possible do not install the pin switch in the rain gutter. Drill a 5/16 hole, insert the pin switch into the hole and tighten. Check for the hood adjustment, there is approximately 1/4" adjustment in the pin switch. Close the hood easy, making sure that the pin switch is not keeping the hood from closing all the way, if it does, cut off approximately 1/8" of the black plastic off of the top of the hoodpin switch and try closing the hood again. Check to make sure that the hoodpin switch remains neutral when the hood is closed and shows ground when the hood is open. Plug the **BLACK WITH BLUE STRIPE** wire from the 18-pin harness into the bottom of the hood pin switch.

TACH INPUT (Optional)

By this time, you should have determined the way you want your vehicle to start (tach or tachless). If you have chosen the TACHLESS start option, simply proceed to the next step and skip the following connection instructions. Make sure to tape the **BLACK WITH WHITE STRIPE** wire up if not used. For TACH mode connect the **BLACK WITH WHITE STRIPE** wire from the 18-pin harness to the negative side of the coil or the tach wire at the coil pack under the hood. To find the coil pack follow the spark plug wires back to the termination point. To operate in tach mode, make sure to program tach option, see programming tach option page 10.

NEUTRAL SAFETY SWITCH

PRE-1996 GM REAR WHEEL DRIVES WITH PURPLE CRANK WIRE
Optional part #775 required.

MECHANICAL NEUTRAL SAFETY SWITCH (Rear Wheel Drive Only)

When installing a Bulldog remote starter on GM vehicles or Dodge Dakotas built prior to 1996, you must:

Use the diagram below to create a circuit that will prevent the remote starter from starting the vehicle unless the key is removed from the ignition switch.

Driver's Door Switch
Ground
TAN
Key Cylinder
GREEN
Tie into heavy white wire on 4-relay harness
WHITE — 86
YELLOW
Ground
87
87a
5 Amp fuse
30
85 — BLACK
BLUE
RED
NOT USED, TAPE OFF
Message center or key buzzer
(-) Negative hood pin wire

PRE-1996 DODGE DAKOTAS
Optional part #775 required.

Driver's Door Switch
BLACK/LT. BLUE
Ground
Key Cylinder
LT. BLUE/GREEN
Tie into heavy white wire on 4-relay harness
WHITE — 86
YELLOW
Ground
87
87a
5 Amp fuse
30
85 — BLACK
BLUE
RED
NOT USED, TAPE OFF
Message center or key buzzer
(-) Negative hood pin wire

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CONNECTING THE 18-PIN HARNESS & 4-RELAY HARNESS

BROWN/BLACK	(+) or (-) Door Lock pulse
GREEN/BLACK	(-) or (+) Door Unlock pulse
BLACK/WHITE	Tach (-) to neg. side of coil
BLACK/BLUE	(-) To hood pin switch
BLUE	(-) Aux. alarm channel input
VIOLET	(-) Dome light supervision
WHITE/RED	(-) Trunk release
ORANGE	(not used)
BROWN	(+) Parking lights
GRAY	(not used)
GRAY/BLACK	(not used)
YELLOW	Ignition input
BLUE/BLACK	(+) Brake switch
BLACK/YELLOW	(not used)
GREEN	(not used)
RED/BLACK	(-) Factory alarm shutdown
BLACK	Ground
RED	To +12V constant

WHT/BLK 16 ga.
WHITE 16 ga.
YEL/BLK 16 ga.

750ma (-)
Outputs

RED
RED — 2 Red wires need +12V constant.

For Passlock I
WHT/BLK 16 ga

WHITE — Either white wire to Ignition 1. If your car has 2 ignitions use both.
WHITE

For Passlock II
WHITE 16 ga

YELLOW/BLACK — To Starter/Crank Wire

For Passlock I
YEL/BLK 16 ga

WHITE/BLACK — To Heater/Blower Motor Wire

Tap here when installing bypass module 721.

YELLOW ANTENNA
Keep as straight as possible, tape end to hold straight.

CAUTION: Before connecting the 18-pin harness to the module, double check all connections to be sure they are secure and properly wrapped with electrical tape. Mount the unit under the driver's side dash. Make sure to properly place antenna. (See antenna placement page 15.) Plug the 18-pin harness into the main control module. Once it is plugged in, press and release transmitter button #4, the parking lights flash 3 times. The flash confirms that the transmitter code has been programmed to the unit. Once the module is programmed, connect the 3-pin harness from the 4-relay harness to the module. **NOTE**: There are several wires in the 18-pin harness that will not be used. All unused wires must be taped.

Press the start button, the parking lights will flash once and the vehicle will start and run. If your vehicle starts and remains running and you wish to connect your door locks, proceed to page 16, "Testing Door Locks", and follow the provided instructions. **NOTE**: If your vehicle does not start and run you may have a factory anti-theft system. Refer to pages 15 and 21 to see if this applies to your vehicle.

ANTENNA PLACEMENT

ANTENNA
For best results, run the antenna (**YELLOW WIRE WITH BLACK TIP** from the back of the unit) as straight as possible. **Do not place the antenna next to any metal parts or the vehicle's main computer control module.** Range is up to 400 feet.

E MODEL REMOTE STARTERS
Run the antenna up the windshield pillar on the driver's side and across the top of the windshield to the center, behind the rearview mirror. Use the antenna clips provided to hold it in place. Be sure to expose the full length of the clear antenna. It will perform best if mounted vertically, below the dark windshield tint. **Never leave antenna in headliner.** Range is up to 800 feet. Each receiver is tested to more than 400 feet (800 feet, E models) of clear air reception. While many times you will see a higher range. Many factors will affect the range, including the amount of radio signals in the area, battery strength, window tint, etc.

Antenna Wire
Antenna Tube
Control Module
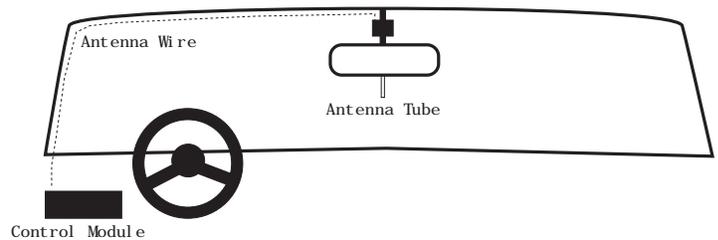
FACTORY ANTI-THEFT SYSTEMS

FOR GENERAL MOTORS CARS ONLY
    System 1: **PASSKEY I and II** system (1985 and up). This system has a resistor pill in the key. Measure resistance of the pill using a test meter. A bypass module is available, part #VATS-WR module.
    System 2: **PASSLOCK I and II** system (1995 and up). Passlock does not have a pill in the key. It has a light on the dash that states **ANTITHEFT OR SECURITY** system. A bypass module is available, part #GMBP-721 module.
    System 3: **PASSKEY III** system (GM 1998 and up). Passkey III is GMs version of a transponder system. This key will have the letters PK3 on it. A bypass module is available. (Part #781)
FORD ANTI-THEFT SYSTEM: PATS
    Ford uses a bypass part #FBP-718 module, 1995-1998. (1999 and up will use part #781.)
CHRYSLER AND MOST IMPORTS ANTI-THEFT SYSTEM: TRANSPONDER
    1998 and up will use part #781.
    To order these bypass modules call 1-800-878-8007.

OPTIONAL CONNECTIONS

TESTING: Door Locks
    There are three basic types:

"Type A" Door Lock Test (Most GMs and some Chryslers)
    Probe both of your door lock wires going to the door lock switch usally located in the driver's kick panel. Attach the clip end of your test light to a good chassis ground. Using the vehicle's door lock controls, activate the lock then the unlock, testing both wires one at a time. If one of these wires tests (+) positive when lock is pressed and the other tests (+) positive when they are unlocked, your vehicle has a "**Type A**" door locking system. Make sure to mark which wire is lock and unlock. Proceed to Connecting Door Locks, Connecting Door Locks. **NOTE**: "Type A" and "Type C" locks will test the same, until you test for ground. Make sure you run both tests before making your connections.

"Type B" Door Lock Test (Most Imports, some newer Fords)
    Probe both of your door lock wires going to the door lock switch usally located in the driver's kick panel. Attach the clip end of your test light to +12V. Using the vehicle's door lock controls, activate the lock then the unlock testing both wires one at a time. If the test light illuminates when you probe the lock and the unlock wires your vehicle has a "**Type B**" door locking system. Make sure to mark which wire is lock and unlock. Proceed to Connecting Door Locks.

"Type C" Door Lock Test (Most Fords, some Chryslers, GM Trucks)
   (Optional part #778 required)
    Using your test light probe both the lock and the unlock wires usually located in the driver's kick panel. Attach the clip end of your test light to ground probing both wires one at a time while locking and unlocking the doors with the driver's side switch (usually the master switch). The test light should illuminate in both switch positions. Now attach the clip end of your test light to +12V constant, probe both wires one at a time again. The light should then illuminate again only in reverse order. This tells you that you have a "**Type C**" reversing polarity system. Make sure to mark which wire is lock and unlock. Proceed to Connecting Door Locks.

CONNECTING DOOR LOCKS (Optional)

CONNECTING "TYPE A LOCKS"

•If your vehicle has a "**Type A**" door locking system, connect the **BROWN WITH BLACK STRIPE** wire from the 18-pin harness to the door lock wire. Connect the **GREEN WITH BLACK STRIPE** wire to the unlock wire. See diagram below.

"**Type A**" - Positive type door locks used on most GM, some Chrysler vehicles.

BROWN/BLACK   LOCK

GREEN/BLACK   UNLOCK
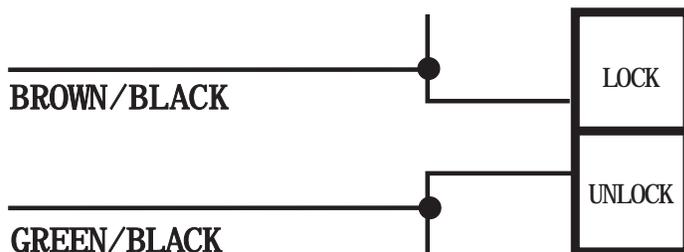
CONNECTING "TYPE B LOCKS"

• If your vehicle has a "**Type B**" door locking system, connect the **GREEN WITH BLACK STRIPE** wire from the 18-pin harness to the door lock wire. Connect the **BROWN WITH BLACK STRIPE** wire to the unlock wire. See diagram below.

"**Type B**" - Negative type door locks used on most imported vehicles and some newer Fords.

GREEN/BLACK

BROWN/BLACK

LOCK

UNLOCK
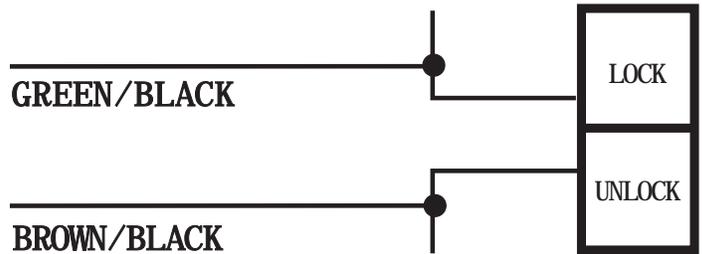
CONNECTING "TYPE C LOCKS"

•If your vehicle has a "**Type C**" door locking system, you will need to purchase optional part #778. Once you have purchased the relays, follow the diagram on page 18 for "**Type C**" door locks.

TYPE C - (**Optional Part #778 required**)
Reverse polarity door locks. Used on most GM trucks, Ford and Chrysler vehicles.

YELLOW   30 AMP FUSE
(+)12V
LOCK   UNLOCK
87   87
BLACK   86   85   86   85   WHITE
87a   87a
30   30
BLUE   RED   FACTORY DOOR SWITCH
1.GREEN/BLACK LOCK
2.BROWN/BLACK UNLOCK
BLACK
BLUE   RED
LOCK
UNLOCK
POWER DOOR LOCK
CUT HERE
LOCK
UNLOCK   1 CUT HERE
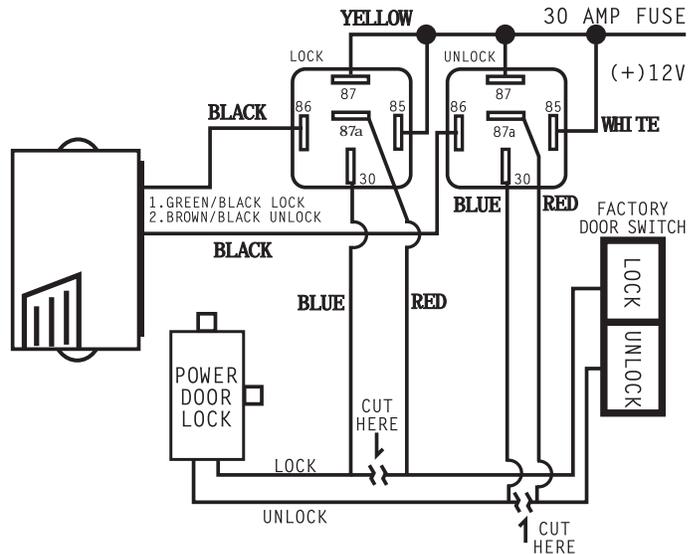
## DOME LIGHT (Optional Part #775 required)

To determine if your dome light is turned on with (+) positive or (-) negative trigger, probe for a wire in the driver's side kick panel that switches polarity when the door is closed then opened. You can also find this wire going to the under dash courtesy lights.
•If this wire reads +12V when the door is open and (-) ground when the door is closed, it is (+) positive. (most Fords)
•If this wire reads (-) ground when the door is open and +12V when the door is closed, it is (-) negative.

NOTE: When testing the door pin wire, make sure the dome light is on. Some vehicles, if the door is left open for a period of time, the dome light will go out, resulting in a false reading.

NEGATIVE DOME LIGHT SUPERVISION
Optional part #775 required.

YELLOW   To Dome Light Circuit
87
WHITE   86   85   BLACK
87a
(-) VIOLET FROM 18-pin wire harness.   +12 VOLT FUSED AT 5 AMPS
30
RED   BLUE
DO NOT USE, TAPE OFF.   Ground

POSITIVE DOME LIGHT SUPERVISION
Optional part #775 required.

YELLOW   To Dome Light Circuit
87
WHITE   86   85   BLACK
87a
(-) VIOLET FROM 18-pin wire harness.
30
RED   BLUE
DO NOT USE, TAPE OFF.   +12 VOLT FUSED AT 20 AMPS
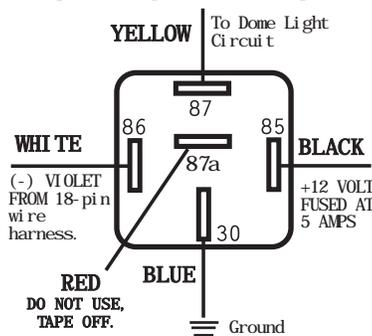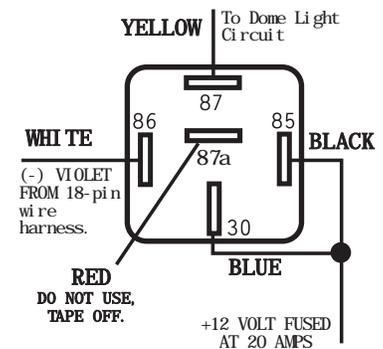
TRUNK RELEASE OUTPUT (Optional Part #775 required)

Locate the trunk release wire coming from the back of the trunk release switch. To determine if your trunk release is tripped by a (+) positive or a (-) negative (most trunk release switches are (+) positive). Place one end of your test light to ground, probe the wire. Press the "Trunk" button, if the test light illuminates, you have a (+) positive trunk release. If it does not, connect the test light to +12V constant and probe the wire. If the test light illuminates when the button is pressed, then you have a (-) negative trunk release.

Connect the **WHITE WITH RED STRIPE** wire to the **WHITE** wire of the optional relay. Please use figures below for correct connections.

NEGATIVE TRUNK RELEASE
Optional part #775 required.

TO FACTORY TRUNK WIRE
YELLOW
87
WHITE   86   85   BLACK
87a
WHITE/RED FROM ALARM
30
RED   BLUE
+12 VOLT FUSED AT 10 AMPS

POSITIVE TRUNK RELEASE

TO FACTORY TRUNK WIRE
YELLOW
87
WHITE   86   85   BLACK
87a
WHITE/RED FROM ALARM
30
RED   BLUE
+12 VOLT FUSED AT 20 AMPS
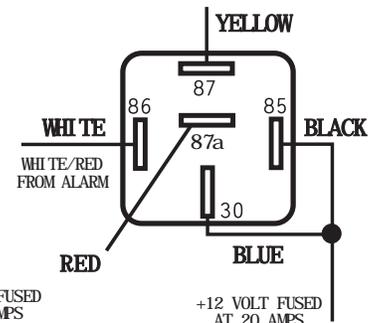
THE RED WIRE IS NOT USED, TAPE OFF.

8

AUXILIARY INPUT

If you wish to use this starter with an aftermarket alarm, connect the **BLUE** wire from the 18-pin harness to the second or third channel (-) output of your existing alarm. When the output is activated, a (-) signal will be supplied to the remote starter.

OPERATING INSTRUCTIONS
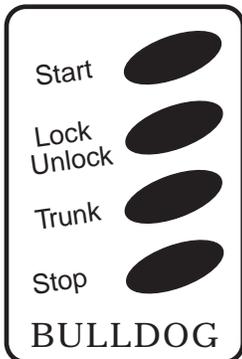
Start	BUTTON #1 Starts your vehicle from 400 feet away. (E-Model, up to 800 feet)
Lock Unlock	BUTTON #2 Locks and unlocks your power door locks.
Trunk	BUTTON #3 Pops your trunk
Stop **BULLDOG**	BUTTON #4 Shuts engine off and programs runtime.

1. Starting the Vehicle with the Remote Transmitter
Press and release button #1 (start). The parking lights will flash once, confirming the car starter received the signal. The car will then start and the parking lights will turn on and remain on while the vehicle is running. To shut off the engine before the preset time, press button #4 (stop) or press the brake pedal. **NOTE**: If your car does not start on the first crank it will automatically attempt to start up to 2 more times. (only in tachless mode) In tachless mode, parking lights will wait approximately 10 seconds before turning on.

2. Pit Stop: Exiting the Car with the Engine Running
Make sure the transmission is in park and press button #1 (start) before turning the ignition switch off. (The engine will remain running for the preset time.)

3. Keyless Entry Operation
Press button #2 (lock/unlock), the parking lights will flash once and the doors will lock. Press button #2 again, the parking lights will flash twice, the doors will unlock, and the parking lights will remain on for one minute or until you turn the ignition on or press the brake.

4. Dome Light Option
The remote starter includes an optional output that can be used to illuminate the dome light when pressing button #2 and unlocking your power door locks. The dome light will remain on for one minute or until you turn the ignition on or press the brake.

5. Trunk Release Output
The remote car starter includes an optional output that can be used to do one of the following: open the trunk (optional part #775 required), roll up the windows (optional module part #WRU-B), close the sun roof (optional part #775 required) etc. This output will pulse .75 seconds when pressed and released. In instances where a continuous signal is needed such as sun roof and power windows, hold down button #3 (trunk) as long as the signal is needed to complete the task. The parking lights will remain on as long as this button is being pressed.

6. Runtime Confirmation (Engine Not Running)
To check programmed runtime, press and release button #4 (stop), the parking lights will flash for the programmed length of time. Each flash will equal 5 minutes of runtime.

PROGRAMMING INSTRUCTIONS

ENTERING PROGRAMMING MODE
Make sure your vehicle is not running and the brake is pressed. The brake is to remain pressed as long as you want to remain in programming mode. The only exception is when a different remote has been learned. The unit will exit the programming mode simply by releasing the brake and the parking lights will flash three (3) times.

Adding Additional Remotes
Press and hold brake. Next, press and hold Button #1 on the working remote until the parking lights flash once. Release. Press and release Button #4 on the new remote. The parking lights will flash three (3) times confirming that the new remote was learned.

Cold Start On and Off (Degree Select)
Press and hold brake. Press and hold Button #2 until the parking lights flash twice. Release. Press and hold Button #2. Each parking light flash is a progression in degrees. Flash #1 is -40ºF, flash #2 is -30ºF, flash #3 is -20ºF, flash #4 is -10ºF, flash #5 is 0ºF, flash #6 is +10ºF, flash #7 is +20ºF. Two quick flash parking light flashes is Cold Start Off. Release the brake, the parking lights will flash three (3) times. **NOTE**: Factory setting is OFF.

Door Lock Pulse Length (Long)
Press and hold brake. Next, press and hold Button #3, the parking lights will flash three (3) times. Release. Press and release Button #1. The parking lights will flash once, the door lock pulse length will be 3.5 seconds of output. Release the brake, the parking lights will flash three (3) times. (For European type door locks)

Door Lock Pulse Length (Short)
Press and hold brake. Next, press and hold Button #3, the parking lights will flash three (3) times. Release. Press and release Button #1. The parking lights will flash twice, the door lock pulse length will be 0.7 seconds of output. Release the brake, the parking lights will flash three (3) times. NOTE: Factory setting is SHORT pulse length.

Tach Mode - ON
Press and hold brake. Press and hold Button #3, the parking lights will flash three (3) times. Release. Press and release Button #4, the parking lights will flash twice. The Tach Start is programmed ON. Release the brake, the parking lights will flash three (3) times.

Tachless Mode - ON
Press and hold brake. Press and hold Button #3, the parking lights will flash three (3) times. Release. Press and release Button #4, the parking lights will flash once. The Tachless Start is programmed ON. NOTE: Factory setting is Tachless Start ON. Release the brake, the parking lights will flash three (3) times.

Programming Runtime with Brake not Pressed
Press and hold Button #4. The parking lights will flash once for every five (5) minutes you want to program. Release button at desired runtime. Maximum length, 15 minutes.