

INSTALLATION GUIDE

•

OWNER'S GUIDE

REMOTE STARTER

MODELS DELUXE 12 and DELUXE 22

CONTENTS

System Features.....	1
System Components.....	1
Tools Required.....	1
Technical Assistance.....	1
Before You Begin.....	2
Precautions.....	2
Making Connections.....	2-4
Locating & Making Connections.....	4-6
Neutral Safety Switch.....	6
Antenna Placement.....	7
Connecting The 18-Pin Harness and 4-Relay Harness.....	7
Factory Anti-Theft System.....	7
Testing Door Locks.....	8
Connecting Door Locks.....	8
Installation Programming Instructions.....	9
Operator Programming Instructions.....	10
How to Use Your Remote Transmitter.....	10-11



Technical Assistance

All tech personnel are expertly qualified to answer any technical questions.
Technicians are available Monday through Friday from 9:00 a.m. until 8:00 p.m. and Saturday 10:00 a.m. until 4:00 p.m.

Address

288 Canton Avenue • Wintersville, Ohio 43953

Telephone

Phone: 740-264-4710 • 800-878-8007 • Fax: 740-264-7306

SYSTEM FEATURES

2 Four-Button Extended Range Remote Control	Remotely start your car to run the heater or air conditioning from an extended distance. (1 transmitter only with Model Deluxe 12)
Keyless Entry	Remotely locks and unlocks your power door locks with built-in relays onboard.
Ignition Controlled Door Locks	A programmable feature that locks and unlocks the doors when the brake is depressed or the ignition is cycled.
Trunk Release	Remotely opens your trunk with a push of a button.
Extended Range Antenna	Allows you to operate your system from up to a quarter mile away.
Diesel Start Application	Remote starter section works on all diesel engines.
Double Crank Time	Provides longer engine cranking for hard starting vehicles.
Low Voltage Start	Automatically starts your vehicle when battery voltage drops below 11 volts.
Automatic Cold Start	Remotely program your car to start at a preset temperature. Automatically starts your car in extreme temperatures.
Automatic Start	Remotely program your car to start every 3 hours regardless of temperature. (Deluxe 22 only)
Dome Light Supervision	Never walk up to a dark vehicle again. When unlocking the vehicle by remote control the dome light will come on and stay on for 1 minute, or until you activates the ignition switch.
Remote Programmable Run Time	Remotely program your vehicle to run 5 to 25 minutes (5-15 with Model Deluxe 12).
Parking Light Confirmation	Confirms that your vehicle has received a remote signal and will remain on if the engine is remotely started.
Tach/Tachless Option	A programmable feature that lets you choose from the easy to install tachless operation or the standard wire-in, tach operation.
Pit Stop Mode	Allows you to exit the vehicle while the engine remains running.
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	1-5 Pin Harness (door locks)
1-Main Control Module	1-Hood Pin Switch
2-Four Button Remote Transmitter with Slide Protectors (1 Transmitter with Model Deluxe 12)	1-Extended Range Antenna with L. E. D.
1-(4) Relay Harness with Relays	1-Warranty
1-18-Pin Wire Harness	1-Warning Sticker for Under the Hood
	2-Bulldog Window Decals

REQUIRED TOOLS

A 5/16 inch drill bit is needed when mounting the hood pin switch. You will also need a sharp knife, electrical tape and a computer-friendly test light. If the bottom of your dash on the driver's side will come off, you must remove it. If this is the case a screwdriver or a 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 system 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 system for years to come!

This 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 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 where the vehicle will be garaged.**

Since there are many different makes and models of vehicles, look at the wiring chart on 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. **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 or a diesel then you must use tach mode.

Please do not skip any steps.

PRECAUTIONS

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

This system is designed to be used with fuel-injected, automatic transmission vehicles only.

SAFETY FIRST!

Never start your vehicle if it is indoors, if the keys are in the ignition and you're sure the car is in park. A periodic safety check is recommended to ensure that your system is in proper working order.

DO NOT use mechanical wiring connections, such as **crimp or snap together taps**. Follow instructions on page 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. Remove the dome light fuse from the vehicle's fuse box. **NOTE:** Starter systems do not work well with a partially discharged battery.

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 DRIVER'S DASH**. Place the warning sticker under the hood.

WARNING! – GENERAL MOTORS REAR WHEEL DRIVE VEHICLES AND DODGE DAKOTAS

All General Motors rear wheel drive vehicles and Dodge Dakotas built prior to 1996 do not have an electrical Neutral Safety switch. They have a mechanical neutral safety switch. The mechanical neutral safety switch operates as follows.

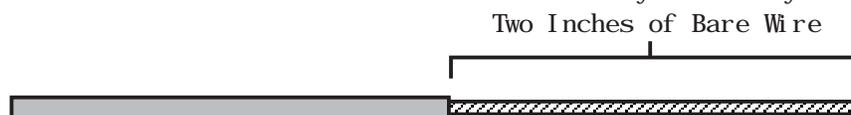
a) The key will only turn to start position when the gear selector is in park or neutral.

b) The key can only be removed from the ignition switch when the gear selector is in the park position.

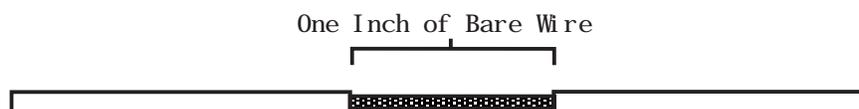
You must use special precautions with this system. For more information see page 6.

MAKING WIRING CONNECTIONS

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



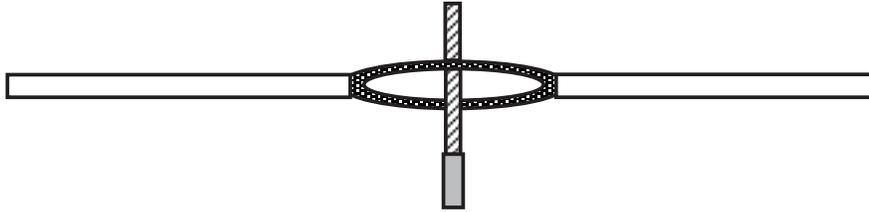
2. Strip back one inch of insulation on the wire you need to connect to.



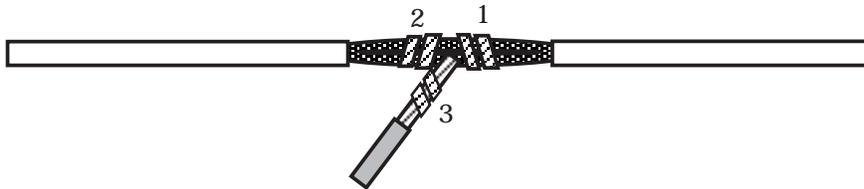
- Separate the vehicle wire as shown. Make the separation large enough to fit the other wire through.



- Insert the wire from the unit through the hole as shown.



- Wrap the wire around one side then the other and finally around itself as shown.



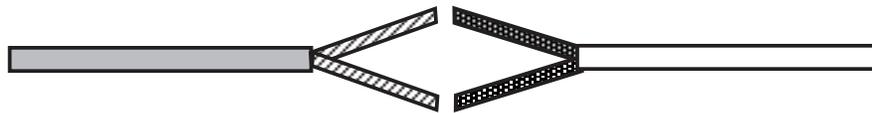
- Use electrical tape to wrap. Be sure to cover the wire about two inches on either side of the connection. First pull the wire that you have just connected along side the wire you connected to, tape and wire tie them together. Use this method for all connections.



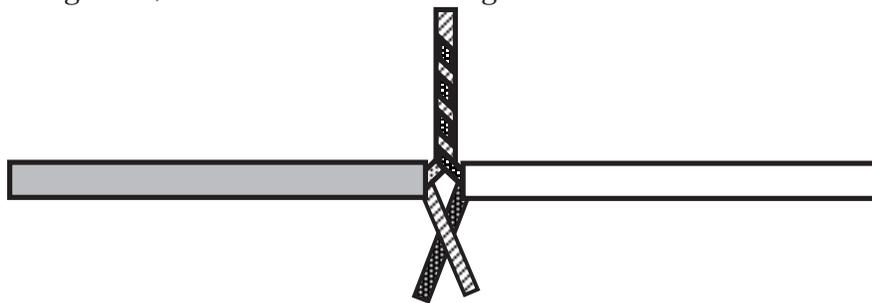
CAUTION: All wires must be wrapped and taped.

MAKING END TO END CONNECTIONS FOLLOW THESE INSTRUCTIONS

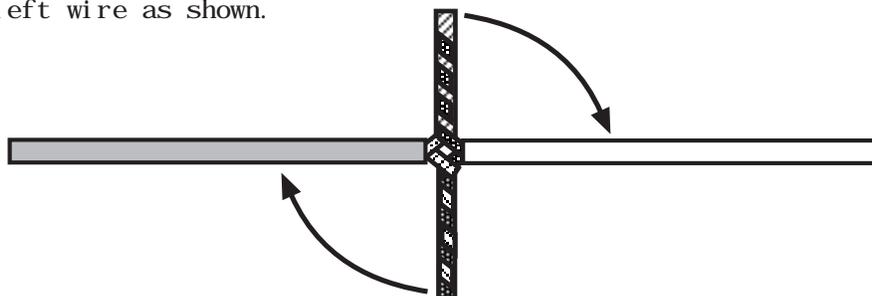
- When tying two separate wires together at their ends, strip back 1" of insulation on both wires and separate the strands of wire as shown below.



- Twist upper wires together, twist lower wires together as shown.

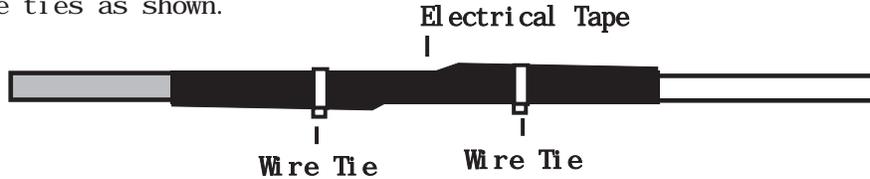


- Lay upper twisted pair of wires over right wire as shown. Bring lower twisted pair of wires up to meet the left wire as shown.





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



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

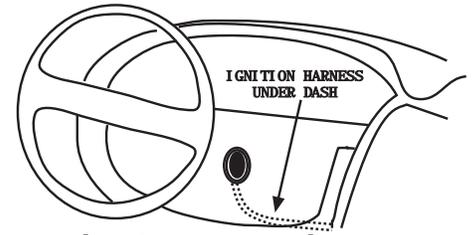
LOCATING & MAKING CONNECTIONS

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)**.

- 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.
- 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.



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).

- 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.
- 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.
- If your vehicle has (2) ignition wires, connect the second **WHITE** wire from the 4-relay harness to it.
- 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.

ACCESSORY WIRE(S) THAT POWER THE HEATER/BLOWER MOTOR

(+12V in run or on positions) This wire is also in the main ignition switch harness usually located in the steering column. **Make all connections as close to the ignition switch harness as possible.**

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

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

DIESEL INSTALLATION ONLY

Connecting the Glow Plug or Wait to Start Wire

When installing on a diesel engine, a wire that energizes the Glow Plug (also known as the Wait to Start Wire), must be located and identified. This wire is usually located at the instrument cluster or at the ECM (electronic control module). This wire will, depending on the year, make and model of the vehicle, test as a (+) positive or a (-) negative.

TO TEST FOR NEGATIVE: Clip the test light to ground, then probe the wire and turn the ignition key on. The "Wait to Start Light" on the dash should be illuminated, the test light should also be illuminated. When the "Wait to Start Light" on the dash goes out and the test light also goes out this is a (-) **negative wire**. Connect the **GREEN WITH THE BLACK STRIPE** wire from the 18-pin harness to this wire.

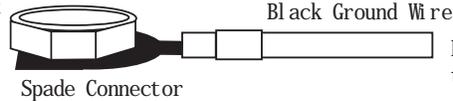
TO TEST FOR POSITIVE: Clip the test light to ground, then probe the wire and turn the ignition key on. The "Wait to Start Light" on the dash should be illuminated, the test light should not be illuminated. When the "Wait to Start Light" on the dash goes out but the test light is illuminated this is a (+) **positive wire**. Connect the **BROWN WITH THE BLACK STRIPE** wire from the 18-pin harness to this wire.

NOTE: You will need to program your unit for Diesel Start Mode. See programming on page 9.

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

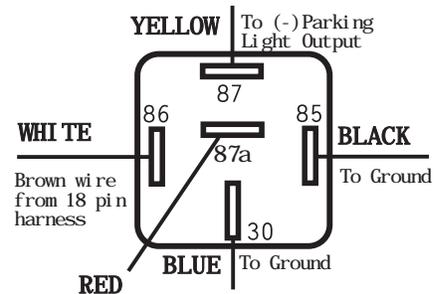


Note: Remove any paint below the spade connector.

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.



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). You should usually try TACHLESS first. **NOTE: If your vehicle does not start in TACHLESS mode, and you feel that it is not getting enough crank time see programming "Double Crank Time", page 20 before deciding to connect the Tach wire.** If you have chosen the TACHLESS start option, simply proceed to the next step and skip the following instructions. Make sure the tach wire is taped when 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 9.

DOMELIGHT SUPERVISION (Optional Part #775 required)

Before connecting the DOMELIGHT SUPERVISION, you must determine if your dome light is a (+) POSITIVE or a (-) NEGATIVE. **TO TEST for a (+) POSITIVE dome light wire**, clip your test light to a good solid ground, probe the dome light wire with the door closed and the dome light out, the test light should not be illuminated. Open the door and the dome light turns on. If the test light is now illuminated this is a (+) POSITIVE dome light wire. **TEST for a (-) NEGATIVE dome light wire**, clip your test light to a good solid ground, probe the dome light wire with the door closed and the dome light out. If the test light is illuminated, and when you open the door and the dome light turns on, but the test light turns out, this is a (-) NEGATIVE dome light wire.

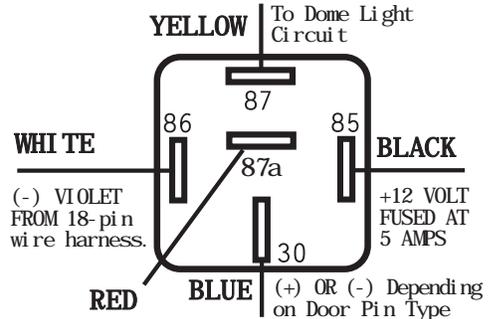
(+) Positive Dome Light Type (Most Fords)

Connect the VIOLET wire from the 18-pin harness to the WHITE wire on the optional #775 relay harness. Connect the BLACK and the Blue wire on the optional relay to +12V constant fused at 20 amps. Connect the YELLOW wire to the dome light circuit. See diagram.

(-) Negative Dome Light Type (All other vehicles)

Connect the VIOLET wire from the 18-pin harness to the WHITE wire on the optional #775 relay harness. Connect the BLACK wire on the optional relay to +12V constant fused at 5 amps. Connect the BLUE wire to ground. Connect the YELLOW wire to the dome light circuit.

**DOMELIGHT SUPERVISION
Optional part #775 required.**

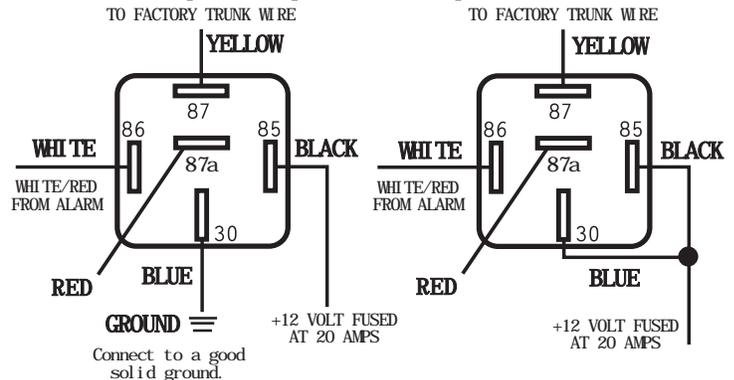


DO NOT USE THE RED WIRE, TAPE OFF.

TRUNK RELEASE OUTPUT (Optional Part #775 required)

Locate the trunk release wire coming from the back of the trunk release switch. You must determine if your trunk release is a (+) POSITIVE or a (-) NEGATIVE. (most trunk releases are (+) positive). **TEST for a (+) POSITIVE trunk release wire**, clip your test light to a good solid ground, probe the trunk release wire with your test light, press and hold the trunk release button, if the test light illuminates, and then goes out when you release the button, this is a (+) POSITIVE trunk release wire, see POSITIVE TRUNK RELEASE diagram below for connections. **TEST for a (-) NEGATIVE trunk release wire** with your test light. Clip your test light to a good solid ground, probe the trunk release wire with your test light, if the test light is illuminated, and you press and hold the trunk release button, and the test light goes out, now release the trunk button, if the test light is illuminated once again, this is a (-) NEGATIVE trunk release wire, see NEGATIVE TRUNK RELEASE diagram below for connections.

**NEGATIVE TRUNK RELEASE POSITIVE TRUNK RELEASE
Optional part #775 required.**



THE RED WIRE IS NOT USED, TAPE OFF.

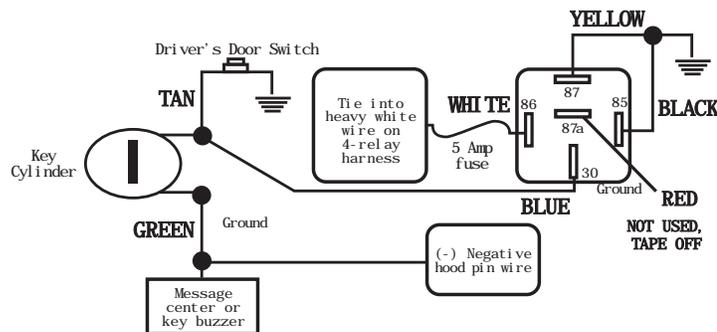
Connect the WHITE WITH RED STRIPE wire from the 18-pin harness to the WHITE wire of the optional relay. Please see diagrams for correct connections.

NEUTRAL SAFETY SWITCH

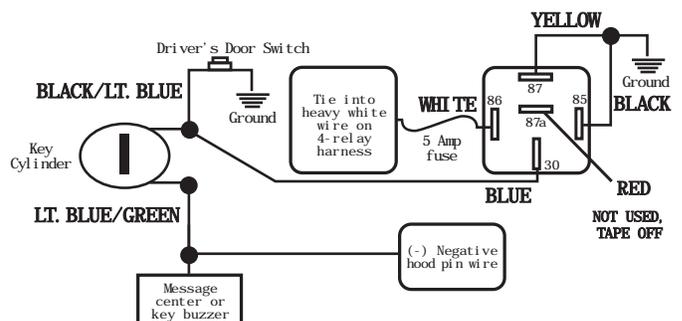
PRE-1996 GM REAR WHEEL DRIVES WITH PURPLE CRANK WIRE - Optional part #775 required.

MECHANICAL NEUTRAL SAFETY SWITCH (Rear Wheel Drive Only)

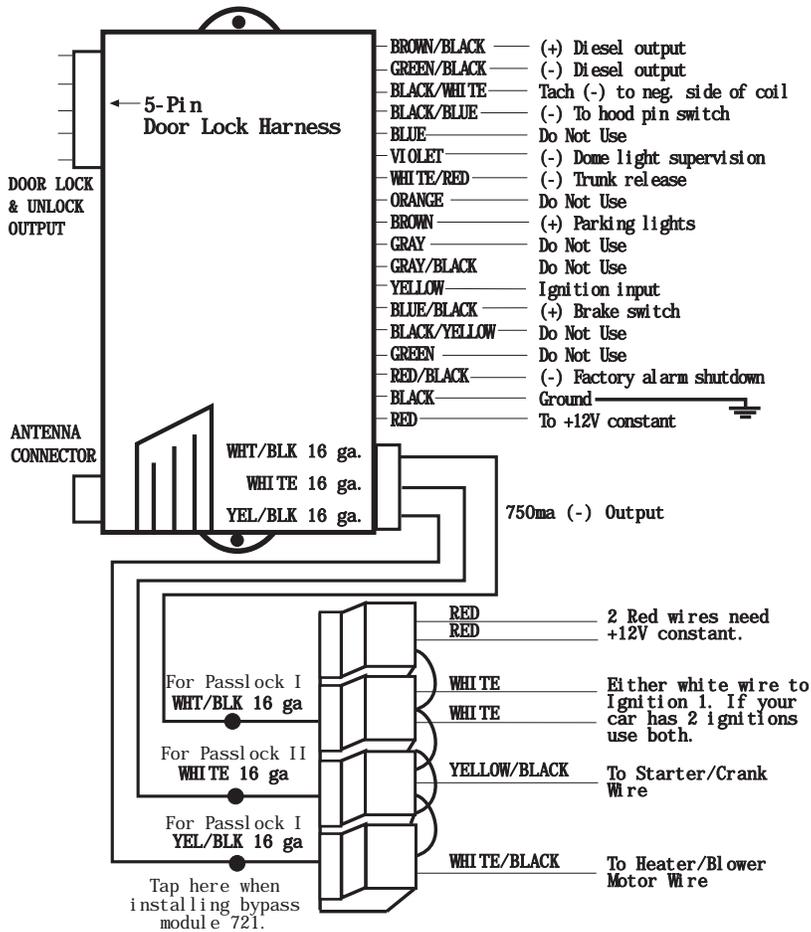
When installing a Bulldog remote starter on GM vehicles or Dodge Dakotas built prior to 1996, you must: Use the diagram below to create a circuit that will prevent the remote starter from starting the vehicle unless the key is removed from the ignition switch.



**PRE-1996 DODGE DAKOTAS
Optional part #775 required.**



CONNECTING THE 18-PIN HARNESS & 4-RELAY HARNESS



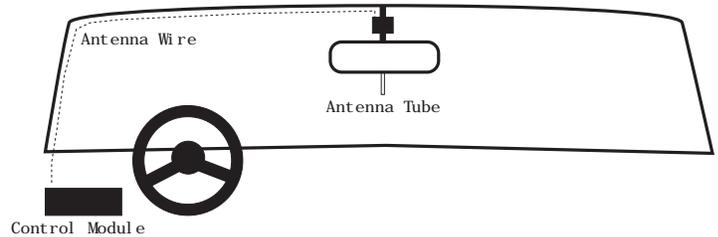
CAUTION: Before connecting the 18-pin harness to the module, double check all connections to be sure they are secure and properly wrapped with electrical tape. Make sure you mount the unit under the driver's side dash and secure the unit in place with 2 wire ties. Make sure to properly place the antenna, see antenna placement below. Next, plug the RED antenna connector into the main control module. Make sure you plug the 18-pin harness and the 3-pin from the 4-relay harness into the main module.

NOTE: Make sure you have plugged in the 4-pin connector from the antenna into the main unit before using the remote or the unit will not receive the signal from the transmitter.

Press the Button #4 (stop), the parking lights will flash three (3) times. Your unit is now programmed to the remote control. Next press the Button #1 (start) and the vehicle should start and run. If your vehicle does not start and run you may have a factory anti-theft system. Refer to pages 7 to see if this applies to your vehicle. If the vehicle does start and run and you wish at this time to install your door locks, proceed to page 8.

ANTENNA PLACEMENT

Run the antenna wire up the windshield pillar on the driver's side and across the top of the windshield tucking the antenna wire inside the headliner, behind the rearview mirror. Plug the RED 4-pin harness from the antenna into the RED connector on the back of the unit. It will perform best if mounted below the dark windshield tint. See diagram below. Each receiver is tested to more than 1/4 mile of clear air reception. While many times you will see 1/2 mile or more. Many factors will affect the range, including the amount of radio signals in the area, battery strength, window tint, etc.



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 ANTI-THEFT OR SECURITY system. A bypass module is available, part #GMBP-721 module.

System 3: PASSKEY III system (GM 1998 and up). Passkey III is GM's 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.

TESTING DOOR LOCKS

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 usually 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 usually 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)

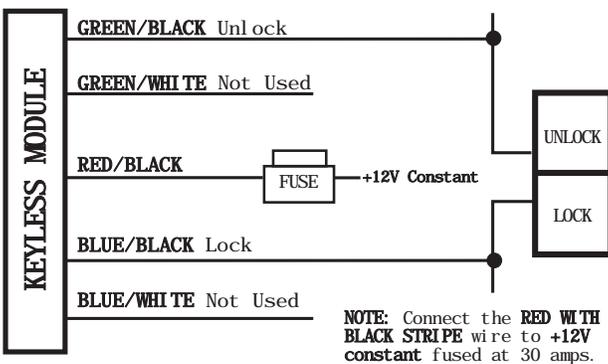
Using your test light probe both the lock and the unlock wires usually located in the driver’s kick panel. Attach the clip end of your test light to ground probing both wires one at a time while locking and unlocking the doors with the driver’s side switch (usually the master switch). The test light 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.

Testing Switch Wire and Motor Wires

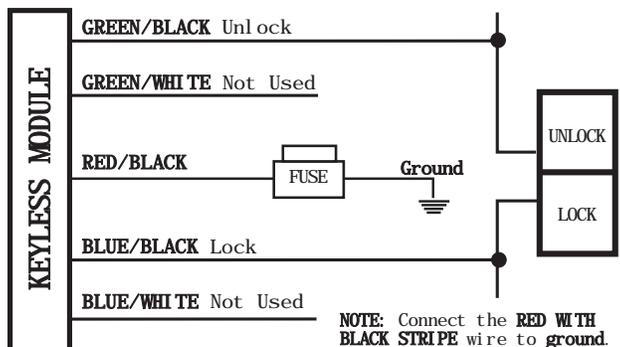
Before connecting, you must now determine which wire is the switch wire and which is the motor wire. Cut both the lock and unlock wires in half. Start with both of the lock wires by placing the clip end of your test light to ground, hold the door lock switch in the lock position, make sure you are using the master switch (usually on the driver’s door) and probe both lock wires looking for voltage. The wire that illuminates the test light, mark as the switch wire, the wire that shows no voltage, mark as the motor wire. Repeat the procedure for the unlock wire. When connecting the lock and unlock wires to the #778 relay harness, make sure you connect the switch wire to the **RED** wire or pin #87A and the motor wire to the **BLUE** wire or pin #30. Be sure to connect the lock wires to the lock relay, and the unlock wires to the unlock relay, you may need to mark these relays before you start.

CONNECTING DOOR LOCKS

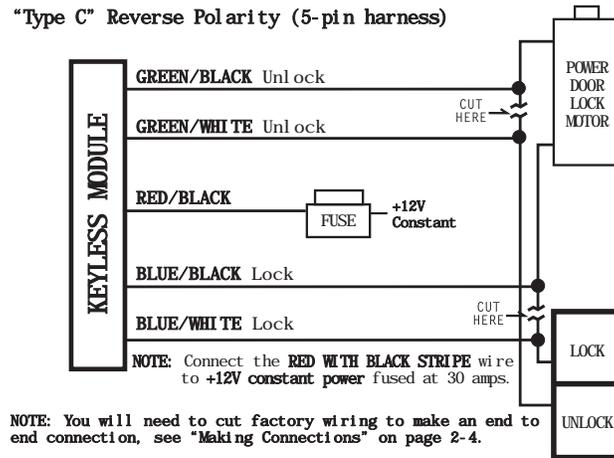
“Type A” (+) Positive (5-pin harness)



“Type B” (-) Negative (5-pin harness)



"Type C" Reverse Polarity (5-pin harness)



INSTALLATION PROGRAMMING INSTRUCTIONS

(WE RECOMMEND THAT YOU TRY FACTORY SETTINGS FIRST)

PROCEDURE FOR 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 unit will exit the programming mode simply by releasing the brake. The parking lights will flash three (3) times confirming that you are out of programming mode.

Programming Tach Start (Gasoline engines only)

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Release Button #3 (trunk). Press and release Button #4 (stop), the parking lights will flash twice. The unit is now programmed for **Tach Start**. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Tachless Start. **Now proceed to page 20 for Tach Learning instructions.**

Programming Tachless Start (Gasoline engines only)

Press and hold the brake, press and release Button #3 (trunk), the parking lights will flash three times. Press and release Button #4 (stop), the parking lights will flash once. The unit is now programmed for **Tachless Start**. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Tachless Start.

Programming Diesel Start "On" (Automatically programs Tach "On")

Press and hold the brake, then press and hold Button #4 (stop) until the parking lights flash four (4) times. Release Button #4 (stop). Press and release Button #1 (start), the parking lights will flash once. The unit is now programmed for Diesel Start. This automatically sets the unit to Tach mode and turns on the "glow plug input functions". Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Diesel Start off.

NOTE: When setting to Diesel Start, you must allow the unit to learn your vehicle's Tach signal. Proceed to Tach Learning instructions below.

Programming Diesel Start "Off"

Press and hold the brake, then press and hold Button #4 (stop) until the parking lights flash four (4) times. Release Button #4 (stop). Press and release Button #1 (start), the parking lights will flash twice, Diesel Start Mode is now off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Diesel Start off.

Programming Tach Learning

If your vehicle does not start properly with the preset Tach setting, press and hold the brake, then press and hold Button #2 (lock/unlock) until the parking lights flash twice. Release Button #2 (lock/unlock). Insert ignition key and turn key to "Run" position. (If the engine is a diesel, wait for "glow plug" light to go out.) Next, press and hold Button #4 (stop) until the vehicle starts and runs. Release Button #4 (stop). Turn ignition key off and remove foot from brake. The parking lights will flash three (3) times. The unit has learned your vehicle's Tach signal. **NOTE: Be sure to have programmed the unit for Tach Start before attempting to program Tach Learning.**

Programming Double Crank Time "On"

(Increase crank time in tachless mode)

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Release Button #3 (trunk). Again, press and release Button #3 (trunk), the parking lights will flash once. The Double Crank Time is now on. **NOTE:** Factory setting is Double Crank Time off.

Programming Double Crank Time "Off"

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Release Button #3 (trunk). Again, press and release Button #3 (trunk), the parking lights will flash twice, Double Crank Time is now off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Double Crank Time off.

Programming Door Lock Pulse Length 3.5 (from .7 to 3.5 seconds)

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Release Button #3 (trunk). Press and release Button #1 (start), the parking lights will flash once, the door lock pulse length is now 3.5 seconds. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory Door Lock Pulse Setting is .7 seconds.

Programming Double Pulse Unlock "On" (Factory Security Shutdown)

(Some imports will require this setting)

Press and hold the brake, then press and hold Button #4 (stop) until the parking lights flash four (4) times. Release Button #4 (stop). Press and release Button #3 (trunk), the parking lights will flash once. Double Pulse Unlock is on. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory Setting is Double Pulse off.

Programming Double Pulse Unlock "Off"

Press and hold the brake, then press and hold Button #4 (stop) until the parking lights flash four (4) times. Release Button #4 (stop). Press and release Button #3 (trunk), the parking lights will flash twice. Double Pulse Unlock is now off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory Setting is Double Pulse off.

OPERATOR PROGRAMMING INSTRUCTIONS

TO ENTER PROGRAMMING

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 unit will exit the programming mode simply by releasing the brake. The parking lights will flash three (3) times confirming that you are out of programming mode.

Adding New Transmitters

Press and hold the brake, then press and hold Button #1 (start) until the parking lights flash once. Release Button #1. Press any button on the new remote, the parking lights will flash three (3) times, the new remote is now programmed.

Programming Lock with Brake "On"

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Release Button #3 (trunk). Press and release Button #2 (lock/unlock), the parking lights will flash once. The unit will now lock with the brake and unlock when the ignition is turned off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Lock with Brake off.

Programming Lock with Brake "Off"

Press and hold the brake, then press and hold Button #3 (trunk) until the parking lights flash three (3) times. Press and release Button #2 (lock/unlock), the parking lights will flash twice. The Lock with Brake feature is now turned off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is Lock with Brake off.

Programming Three Hour Start (Deluxe 22 only)

Press and hold the brake, then press and hold Button #2 (lock/unlock) until the parking lights flash twice. Release Button #2 (lock/unlock). Press and release Button #1 (start), the parking lights will flash once. You are now in **3 Hour Start**. (Not available on Model Deluxe 12) Release the brake, the parking lights will flash three (3) times. Your vehicle will start every three (3) hours. **NOTE:** The factory setting is Three Hour Startoff.

Programming Low Voltage Start

Press and hold the brake, then press and hold Button #2 (lock/unlock) until the parking lights flash twice. Release Button #2 (lock/unlock). Press and release Button #1 (start). The parking lights will flash twice. Low Voltage Start is now on. Release the brake, the parking lights will flash three (3) times. **NOTE:** The factory setting is Low Voltage Start off.

Programming Three Hour Start or Low Voltage Start "Off"

Press and hold the brake, then press and hold Button #2 (lock/unlock) until the parking lights flash twice. Release Button #2 (lock/unlock). Press and release Button #1 (start). The parking lights will flash three (3) times. Release the brake, the parking lights will flash three (3) times. Low Voltage Start and Three Hour Start are now programmed off. **NOTE:** The factory setting is Three Hour Start or Low Voltage Start off.

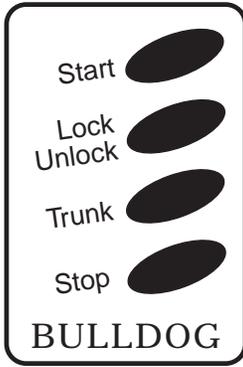
Programming Cold Start

Press and hold the brake, then press and hold Button #2 (lock/unlock) until the parking lights flash twice. Release Button #2 (lock/unlock). Press and hold Button #2 (lock/unlock), the parking lights will flash once. Each continuous flash represents a progression in degrees: one (1) flash= -40°F, two (2) flashes=-30°F, three (3) flashes=-20°F, four (4) flashes=-10°F, five (5) flashes=0°F, six (6) flashes=10°F, seven (7) flashes=20°F. To disable Cold Start, press and hold Button #2 until the parking lights flash seven (7) times, then two (2) quick flashes 8 and 9. The Cold Start is now disabled. Release the brake, the parking lights will flash three (3) times, the programming is now entered. **NOTE:** The factory setting is Cold Start off.

Runtime Programming (Engine Off)

Press and hold Button #4 (stop) for approximately 10 seconds. The parking lights will begin to flash, each flash represents 5 minutes of engine run time with the maximum being 15 minutes, 3 flashes (Deluxe 12) and 25 minutes, 5 flashes (Deluxe 22). Simply release button at whatever runtime you desire.

HOW TO USE YOUR REMOTE TRANSMITTER



- BUTTON #1**
Remote starts your vehicle.
- BUTTON #2**
Locks and unlocks your power door locks.
- BUTTON #3**
Pops your trunk.
- BUTTON #4**
Turns off your remote starter.

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, opening the hood will also shut off the engine. **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 after the engine is running before turning on.

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.)

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.

Trunk Release Output

The remote car starter includes an optional output that can be used to open the trunk (optional relay part #775 required).

This output will pulse .75 seconds when pressed and released or in instances where a continuous signal is needed such as sun roof and power windows, simply 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.

Runtime Confirmation (Disarmed Only)

With the engine off, press and release Button #4 (stop). The parking lights will begin to flash, each flash represents the programmed runtime. Example: 3 flashes = 15 minutes.