

# INSTALLATION GUIDE

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## OWNER'S GUIDE

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VEHICLE STARTER • MODEL RS302

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### CONTENTS

System Features .....	1
System Components .....	1
Required Tools .....	1
Technical Assistance .....	1
Before You Begin .....	1
Precautions .....	2
Testing Your Wires .....	2
Making Connections .....	2-3
Locating & Making Connections .....	4-6
Connecting 12-Pin Harness .....	7
Connecting 3-relay Harness .....	7
Anti-Theft System .....	7
Neutral Safety Switch .....	7
Operating Instructions .....	8



#### 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

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<b>Microprocessor Controlled</b>	Allows the use of fewer parts for less trouble and longer life; and monitors entire electrical system.
<b>Tach or Tachless Installation</b>	Gives customer preference for either tach or tachless sensing mode. Allows installer a quicker installation.
<b>Parking Light Supervision</b>	The parking lights will stay on when the engine is running. Never walk up to a dark car again.
<b>Engine Monitor</b>	Should your engine not start the first time, the computer will cause the starter to try again up to three times.
<b>Limited Lifetime Warranty</b>	Guarantees life-long protection.

# SYSTEM COMPONENTS

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Your system includes:

1-Installation & Operation Guide  
1-Main Control Module  
1-(3) Relay Harness with Relays  
1-12-pin Wire Harness

1-Hood Pin Switch  
1-Warranty  
1-Warning Sticker for Under the Hood  
2-Bulldog Window Decals

# REQUIRED TOOLS

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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

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Should you need help. First check our website at [www.bulldogsecurity.com/wires.htm](http://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

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Congratulations, you have purchased one of the most advanced starter systems ever made. Your new 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](http://www.bulldogsecurity.com/wires.htm).

**MAKE SURE YOU PLACE THE WARNING STICKER UNDER THE HOOD.**

# PRECAUTIONS

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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 below.

**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 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 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.

# TESTING YOUR WIRES

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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.

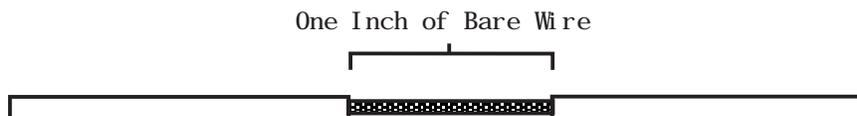
# MAKING WIRING CONNECTIONS

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



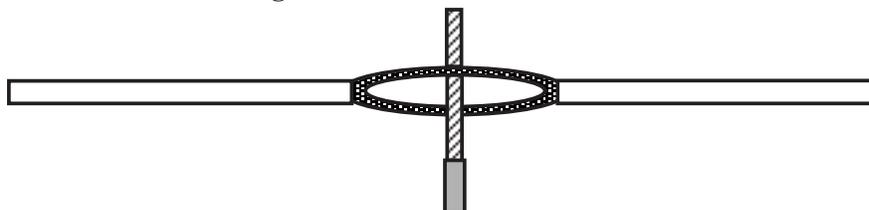
2. Strip back one inch of insulation on the wire you need to connect to.



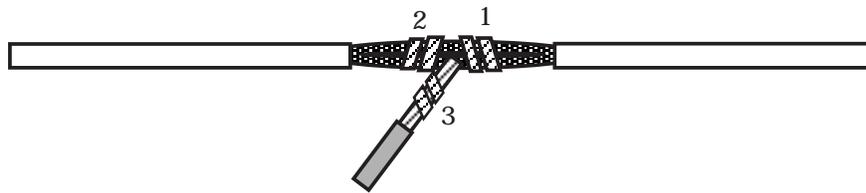
3. Separate the vehicle wire as shown. Make the separation large enough to fit the other wire through.



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.



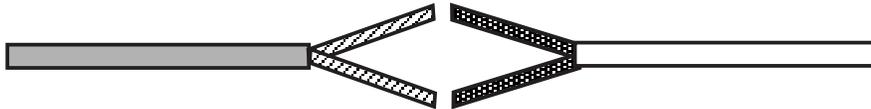
6. Use electrical tape to wrap. Be sure to cover the wire about two inches on either side of the connection. First pull the wire that you have just connected along side the wire you connected to, tape and wire tie them together. Use this method for all connections.



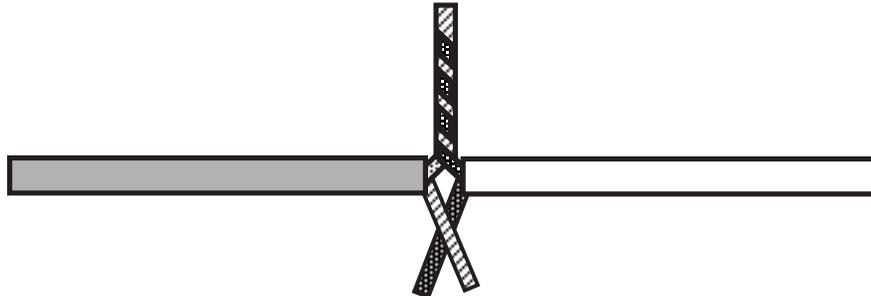
**CAUTION: All wires must be wrapped and taped.**

### MAKING END TO END CONNECTIONS FOLLOW THESE INSTRUCTIONS

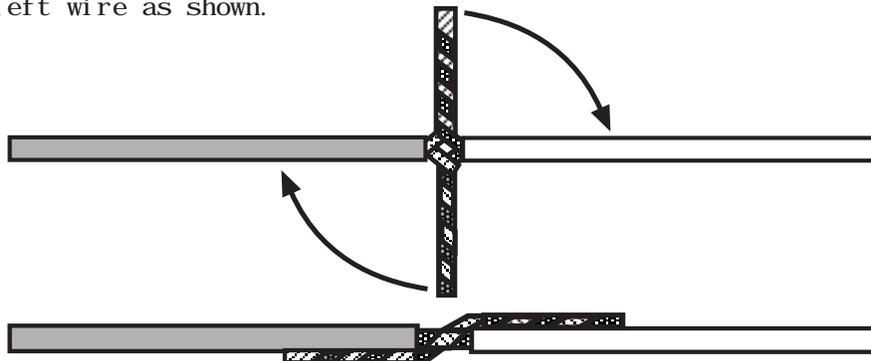
1. When tying two separate wires together at their ends, strip back 1" of insulation on both wires and separate the strands of wire as shown below.



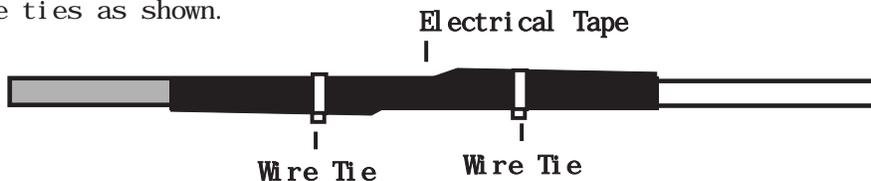
2. Twist upper wires together, twist lower wires together as shown.



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.



4. 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.

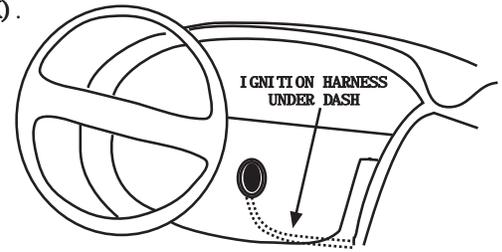
# LOCATING & MAKING CONNECTIONS

Please see the wiring chart on our website, [www.bulldogsecurity.com](http://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 12-pin harness and both large **RED** wires from the 3-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 12-pin harness and (1) large **RED** wire from the 3-relay harness to one of these constant power wires. Then connect the other large **RED** wire from the 3-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).

1. Strip back the **YELLOW** wire from the 12-pin harness and then strip back (1) of the (2) **WHITE** wires from the 3-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 3-relay harness and do not use.
3. If your vehicle has (2) ignition wires, connect the second **WHITE** wire from the 3-relay harness to it.
4. If your vehicle has (3) ignition wires (some GMs) connect the second **WHITE** wire from the 3-relay 12-pin 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.

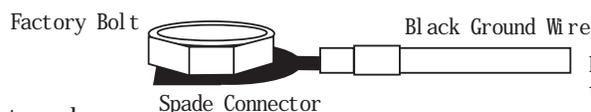
1. If your vehicle has only (1) accessory wire connect the **WHITE WITH BLACK STRIPE** wire from the 3-relay harness to this wire.
2. If your vehicle has (2) accessory wires, connect the **WHITE WITH BLACK STRIPE** wire to both.
3. If your vehicle has (3) accessory wires connect the unused **WHITE**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

## CHASSIS GROUND

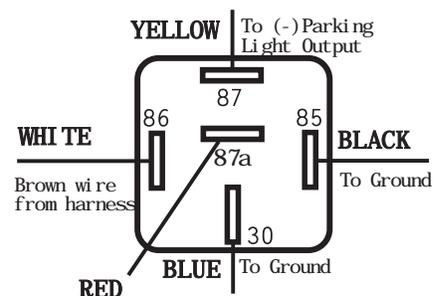
Locate an easy to get to bolt or screw located under the driver's side of the dash and attach the **BLACK** ground wire from the 12-pin harness securely as pictured.



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 12-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** wire from the 12-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 **BLUE WITH WHITE STRIPE** wire from the 12-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 **ORANGE** wire from the 12-pin harness into the bottom of the hood pin switch.

# **OPTIONAL CONNECTIONS**

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## **TACH INPUT**

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 **WHITE WITH ORANGE STRIPE** wire up if not used. For TACH mode connect the **WHITE WITH ORANGE STRIPE** wire from the 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.

## **AFTER MARKET ALARM INPUT Switch Position 1**

This negative input allows you to operate your car starter with an existing second channel output from an after market alarm. Connect the second channel output to the **GREY** wire on the remote starter. **NOTE: If connecting to the alarm's second channel output, make sure the switch is in POSITION 1. The switch must be flipped towards the harness header. If connecting to factory keyless entry, make sure the switch is in POSITION 2. The switch must be flipped away from the harness header.**

## **CONNECTING TO FACTORY KEYLESS ENTRY Switch Position 2**

This positive input needs three consecutive pulses within three seconds. To find the input wire, probe the driver's side kick panel for a heavy gauge wire coming from the door (on most vehicles). This wire reads negative until the lock button is pressed, then it will read positive. Test this by pressing both the door switch and the transmitter to the factory keyless entry separately. Diode isolate the **GREY** wire from the RS302 module to the lock actuator wire.

## **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**

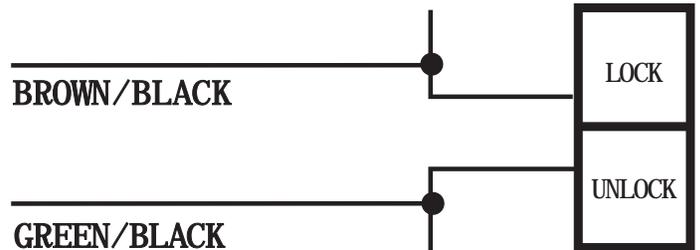
Before connecting, you must now determine which wire is the switch wire and which is the motor wire. Cut both the lock and unlock wires in half. Start with both of the lock wires by placing the clip end of your test light to ground, hold the door lock switch in the lock position, make sure you are using 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 (Optional)**

**CONNECTING "TYPE A LOCKS"**

•If your vehicle has a "Type A" door locking system, connect the **BROWN WITH BLACK STRIPE** wire from the 12-pin harness to the door lock wire. Connect the **GREEN WITH BLACK STRIPE** wire to the unlock wire. See diagram below.

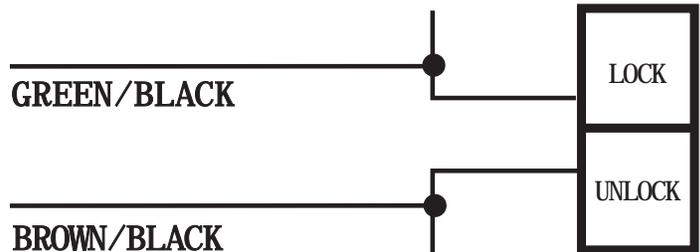
"Type A" - Positive type door locks used on most GM, some Chrysler vehicles.



**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.

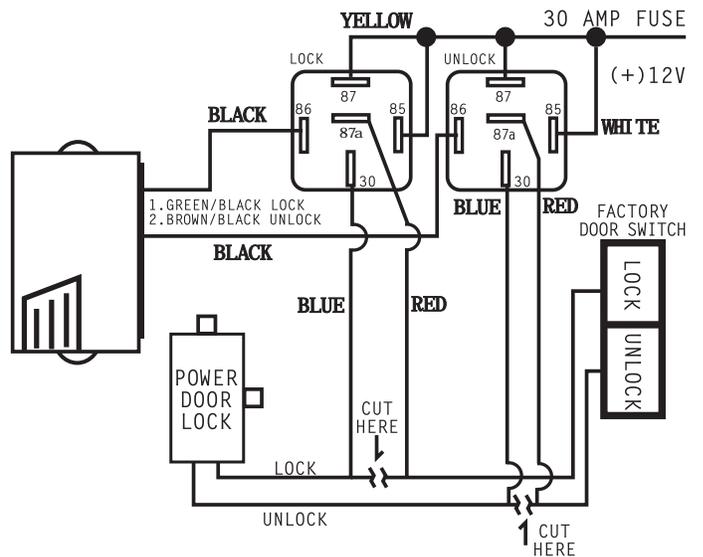


**CONNECTING "TYPE C LOCKS"**

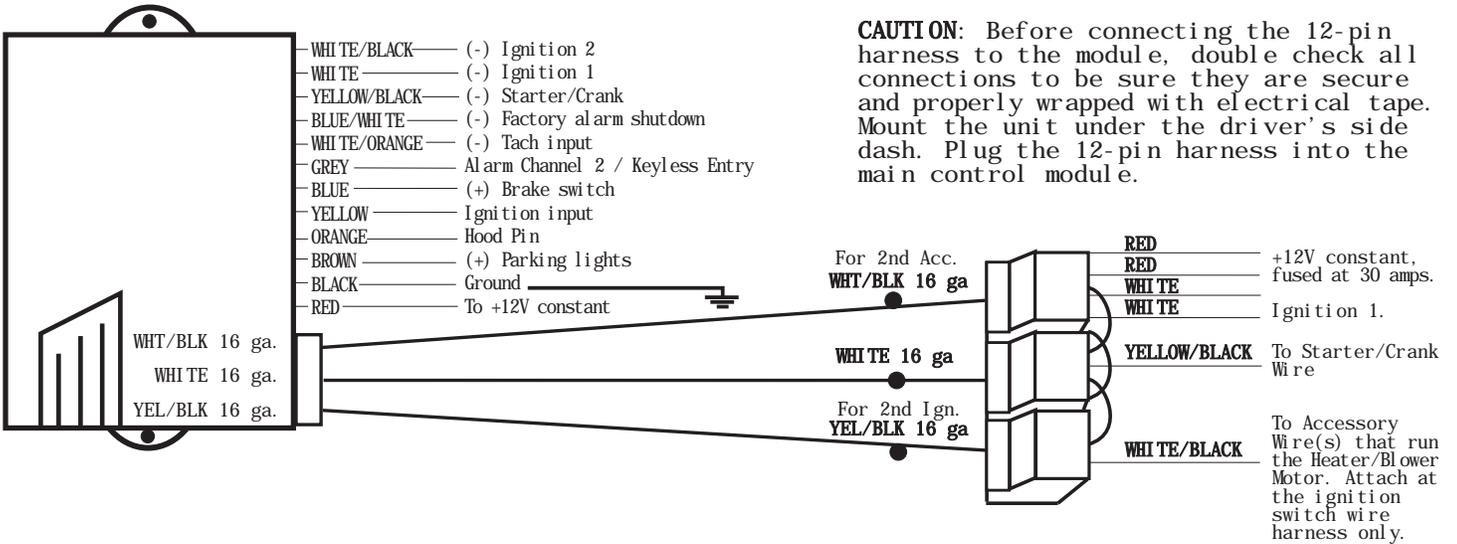
•If your vehicle has a "Type C" door locking system, you will need to purchase optional part #778. Once you have purchased the relays, follow the diagram on page 18 for "Type C" door locks.

**TYPE C - (Optional Part #778 required)**

Reverse polarity door locks. Used on most GM trucks, Ford and Chrysler vehicles.



# CONNECTING THE 12-PIN HARNESS & 3-relay HARNESS



## 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.

## NEUTRAL SAFETY SWITCH

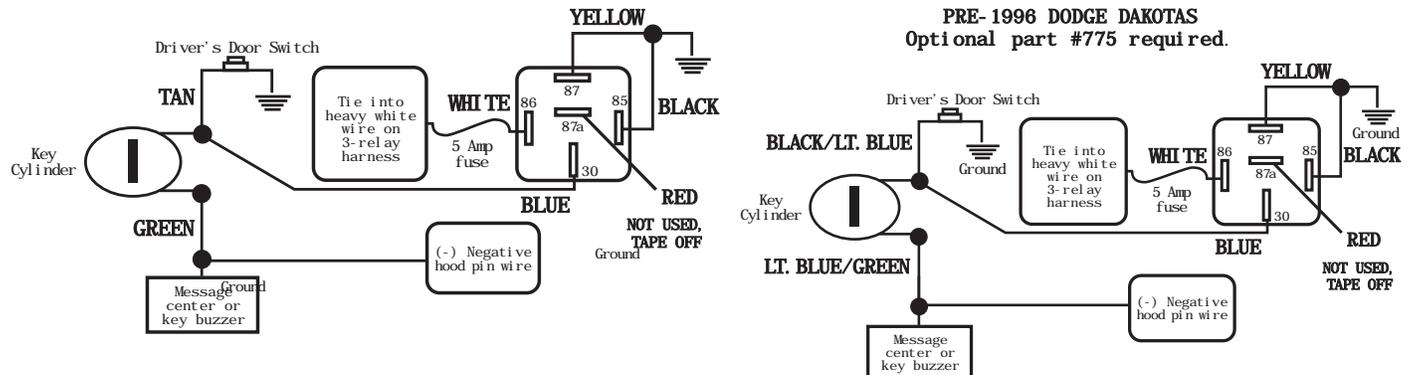
### PRE-1996 GM REAR WHEEL DRIVES WITH PURPLE CRANK WIRE

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.



# OPERATING INSTRUCTIONS

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## If you are operating your RS302 from an existing alarm's second channel output

**NOTE:** You may have to disarm your alarm before starting the car.

1. Before turning off the vehicle, always remember to set the heater or air conditioning for proper temperature desired.
2. To start your vehicle, activate the second channel output from your vehicle's alarm transmitter. The parking lights should flash once confirming that the starter received the signal.
3. In approximately two seconds the starter should attempt to start the vehicle. When the vehicle starts, the computer will check the entire electrical system and then turn on the parking lights. The parking lights will remain on until the engine shuts off. If the vehicle fails to start on the first try, the starter will automatically attempt to start the vehicle three more times.
4. To shut off the remote starter, activate the output one more time or step on the brake pedal.

## If you are operating your RS302 from a factory keyless entry system:

1. Before turning off the vehicle, always remember to set the heater or air conditioning for proper temperature desired.
2. To start your vehicle, press the LOCK button three consecutive times within three seconds. The parking lights will flash each time you press the LOCK button confirming that the car starter received the signal.
3. In approximately two seconds the starter should attempt to start the vehicle. When the vehicle starts, the computer will check the entire electrical system and then turn on the parking lights. The parking lights will remain on until the engine shuts off. If the vehicle fails to start on the first try, the starter will automatically attempt to start the vehicle three more times.
4. To shut off the remote starter, activate the output one more time or step on the brake pedal.

**IMPORTANT:** Before pressing the brake pedal and attempting to drive the vehicle, turn the ignition key switch to the ON position.

**NOTE:** Some vehicles with automatic transmissions will start while in drive. Test each vehicle by putting the transmission in drive, stay in the vehicle and make sure you do not press the brake pedal. Now try to remotely activate the car starter. If the car starts, refer to the Neutral Safety Instructions.