

AUTOCOMMAND®

Remote Car Starter Installation Manual for Model 40027, 40027T

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PLEASE READ COMPLETELY BEFORE BEGINNING

Congratulations on your purchase of the AutoCommand® Remote Car Starter. AutoCommand® Remote Car Starter allows you to start the car by remote control from the comfort of your home or office in order to cool it down in the summer or heat it up in the winter.

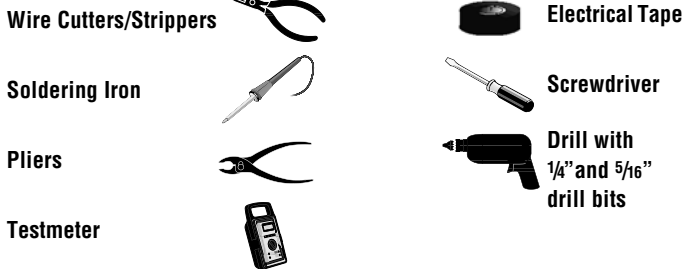
AutoCommand® is for automatic transmission, fuel injected gasoline vehicles only. Please see pages 6-7 for important information about vehicles with factory anti-theft systems. AutoCommand® is an extremely sophisticated system with multiple built-in safety and security features.

AutoCommand® Remote Car Starter:

- Will start your car by remote control, and run the heater, defroster, or air conditioner to warm up or cool down the car.
- Is designed to start the car if it is in park, and only if the hood is closed.
- Has Lock, Unlock and Trunk Pop keyless entry features.
- Will attempt to start the car for up to six seconds, but no longer (to avoid damage to the starter motor). Should the car not start, or if it stalls after starting, the remote starter will make two further attempts to start it.

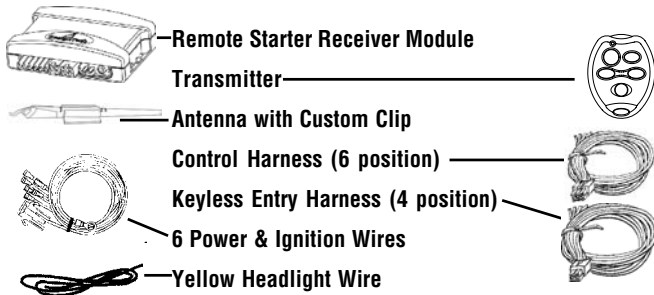
- Will not let the car be driven without the key in the ignition.
- Shuts itself off automatically after 10 or 15 minutes (programmable) if you forget to come out to your car.
- Will shut off if the brake pedal is pushed, the hood is opened, or the transmission is shifted out of park - unless the key is in the ignition and in the "run" position.
- Protects your vehicle with a basic alarm system.
- Is quality engineered and microprocessor controlled to provide many years of reliable use.
- Comes with a Limited Lifetime Warranty.

Tools required to install the AutoCommand® Unit:

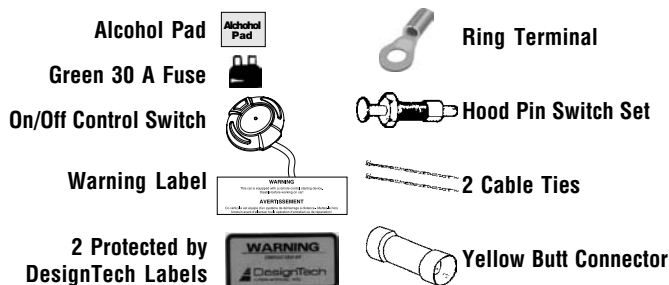


We highly recommend that all connections be soldered for reliability.

Parts List included with the AutoCommand® Unit:

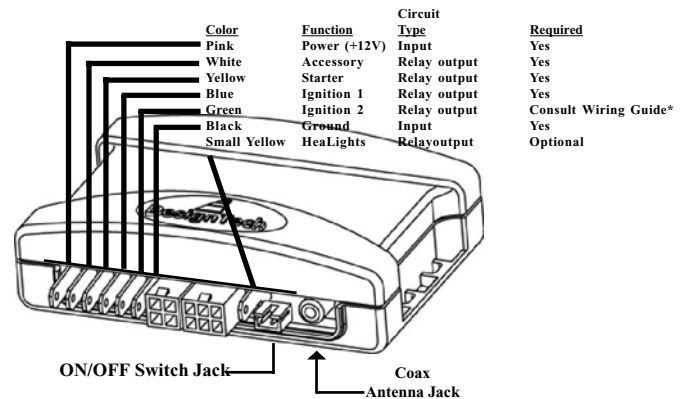


The following parts are included in the plastic bag:

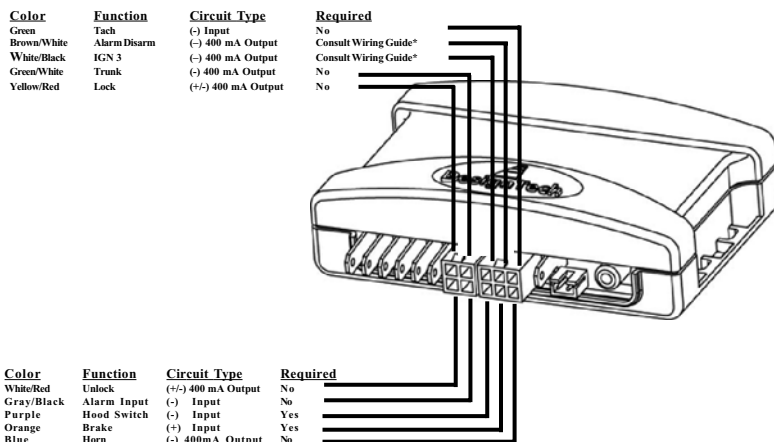


Wiring Diagram

Power Harness



Control Harness



* For free vehicle specific wire information, consult our website at www.designtech-intl.com



On cars with airbags, you may notice bright yellow tubes or harnesses marked SRS (Supplemental Restraint System) underneath the steering column area. DO NOT tamper with these wires in any way, to prevent personal injury and/or damage to the air bag system.



On GM rear-wheel drive vehicles built prior to 1995 and Dodge Dakota trucks built prior to 1996, see the last page of this instruction manual.

Battery gases are explosive.

Do not smoke while working near the car's battery.

Note: Some installers connect a battery charger to the vehicle's battery during installation. This is fine, but it must be removed before running the vehicle under remote starter control.



When running the wires through the car's firewall, be sure to protect them from sharp metal edges and from hot surfaces on and around the engine.

INSTALLATION INSTRUCTIONS

1. Before You Start

Please read through the entire installation manual before beginning.

Always leave a window open to avoid locking your keys in your car.

IMPORTANT: After having read the entire manual, start the installation by putting the yellow WARNING STICKER in the engine compartment. Choose a surface that is clean and readily visible when the hood is open.

WARNING

This car is equipped with a remote control starting device.
Disable before working on car!

AVERTISSEMENT

Ce véhicule est équipé d'un système de démarrage à distance. Mettez-le hors fonction avant d'effectuer toute opération d'entretien ou de réparation!

POWER & IGNITION HARNESS

The remote starter module will be installed under the dash once all wiring has been completed. **Do not mount the module at this time! You will need to check the red diagnostic LED light as the installation progresses.** Locate (or drill) a hole in the firewall to run the PURPLE and GREEN wires of the **Control Harness** and the PINK wire of the **Power Harness** into the engine compartment. The remaining short wires stay in the passenger area. Leave about a foot of the wire harness under the dash for ease of working and visual access to the diagnostic light.

The Installation Information section of our web site www.designtech-intl.com is available 24 hours/day to provide you with free, up-to-date vehicle wiring information for your particular vehicle.

Note: Always connect the Pink and Black wires before connecting any of the other wires. Do not insert the fuse until step 11.

2. Black Wire (16 AWG) - Ground

Connect the BLACK wire to a very good, clean chassis ground in the driver's kick panel area. Use the small ring terminal. (The thin metal bracing around or beneath the dash board is not always adequate.)

3. Pink Wire (12 AWG) - Power (+12 Volts)

Connect the ring terminal at the end of the short PINK wire to the +12 Volt terminal of the battery. Run the long pink wire through the firewall of your vehicle. Join the remaining ends of the power wire together by soldering them. Tape with electrical tape to leave no exposed wires. Alternatively, you may wish to use the yellow butt connector, but we recommend soldering. Wait to insert the 30 amp green fuse into the holder until step 11.

Note: Failure to properly install the fuse holder and 30 amp fuse to the pink wire to the battery voids all product warranties.

Ignition Key Diagram for Steps 4-7

The vehicle's wires are found coming off of the key switch. Remove the panel under the steering column to access these wires.



4. Blue Wire (14 AWG) - Ignition 1

Connect the BLUE wire to the ignition 1 wire of your vehicle. This wire will measure +12 Volts on the test meter in the "run" and "start" position, and is off in the "lock/off" and "accessory" positions.

5. Green (14 AWG) - Ignition 2

Connect the GREEN wire to the Ignition 2 wire in the vehicle. The Ignition 2 wire can function in several different ways in your vehicle. It is important to understand how it works. The Ignition 2 wire will usually measure +12 Volts in the "run" position and is off (ground) in the "lock/off" and "accessory" positions. In certain vehicles, it may also show +12 Volts in the "Start" position or Ignition 2 may turn OFF during "Crank" and turn back ON after the starter disengages. Carefully note the function of the Ignition 2 wire. If the Ignition 2 turns OFF during "Crank", see Changing Ignition 2 Function in section 24. If Ignition 2 stays ON during "Crank," no options need to be changed. Please refer to our wire color information available at www.designtech-intl.com

6. White Wire (14 AWG) - Accessory

Connect the WHITE wire to the accessory wire which is +12 Volts in the "run" and "accessory" position, but off in the "start" and "off" positions. In most GM vehicles, connect the white wire to the orange wire that is hot in "run" only.

7. Yellow (14 AWG) - Starter

Connect the YELLOW wire to the starter wire. This wire will measure +12 Volts on the test meter in the "start" position only.

Note: Most Nissan vehicles have two starter wires. Connect both starter wires of the vehicle to the YELLOW start wire of the remote starter.

8. Dash-mount LED-On/Off Control Switch

Connection of the LED-On/Off Control Switch is mandatory. Do not let the switch wires touch ground. Mount the control switch so that it is easily seen and accessible. If a hole is to be drilled to route the switch wire, make sure there is enough clearance behind and nothing can be damaged by the drill. Use a 1/4" drill-bit for the mounting hole. Plug the switch connector into the module just to the right of the control harness. The LED will turn Red when the switch is turned ON and the LED will turn Green when the switch is turned OFF.

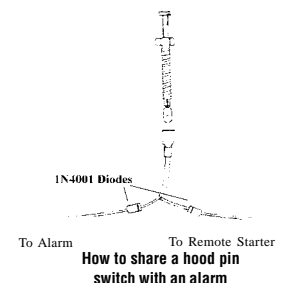
CONTROL HARNESS

(ALL WIRES ARE THE SMALLER 18 AWG SIZE)

9. Purple Wire - Hood Pin Switch - Control Harness

The hood pin switch **MUST** be installed with the remote starter. It prevents operation of the remote starter when the hood is open and is used to initialize and program the unit. Connect the PURPLE wire to the hood pin switch using the red connector.

Note: If you already have a hood pin switch which is being used by a car alarm system, you may share the wiring – but be sure to diode isolate each wire going to the hood pin switch with the bands of diodes pointing towards the pin switch as shown in the diagram.



10. Orange Wire - Brake Shut-off - Control Harness

Connect the ORANGE wire to the brake wire which receives +12 Volts when the brake pedal is depressed. **This wire must be connected.** It arms a critical safety feature which disables the remote starter when the brake pedal is depressed.

Note: In some cars, the ignition must be in the “on” position to test the power in the brake wire.

Note: If the Ignition 1 & Ignition 2 wires come on whenever the brake is depressed and the hood is open this just means you need to initialize the unit in step 11.

11. Initializing the Remote Starter

BEFORE THE UNIT WILL DO ANYTHING FOR THE FIRST TIME, YOU MUST INITIALIZE THE REMOTE STARTER

- Insert the fuse into the pink fuse holder on the pink power wire.
- The remote starter requires the installer to open the hood and then press and hold the brake pedal. Note: The ignition/dash lights will come on if the unit is not initialized.
- While depressing the brake (with the engine off and the hood open) turn the ignition key to the “RUN” (not “start”) position.
- Put the car in “DRIVE” from the “PARK” position.
- Put the car back in “PARK” and release the brake.
- Turn the key off and remove the key.

Note: Confirm initialization by looking at the control switch/LED. If the control switch/LED is Green, the unit is initialized. Push the control switch once, LED turn Red. Unit is ready to try to remotely start.

If the unit is not initialized, control switch/LED is Off. The dash lights will come on (the remote starter powers up the ignition wires) when the brake is depressed or the hood is open, and the control/valet switch is on. REPEAT STEPS A THROUGH G. See the colored Trouble Shooting Sheets if necessary.

12A. Green Wire - Tach Input - Control Harness

The Remote Starter has two ways of monitoring the car during the starting process. Both ways will ensure a clean, accurate start. Read about both methods before deciding which one to use. Normally you should try the “**No Tach™**” method first.

“No Tach™” Starting (recommended for most vehicles)

This starting method does not require the connection of the GREEN tach wire. This method will start the car by reading the car’s voltage before attempting to start, and then looking for a voltage increase when the alternator kicks in. This feature automatically takes into account voltage, temperature, and the time since the vehicle was last run. The “No-Tach™” starting is preset at the factory and you can skip step 12B if you would like to use it. Note that if the vehicle is hard to start, set option #3 [Setting Program Features section (step 23)] for “extended crank.”

Tachometer sensing

If the vehicle is generally hard to start (i.e. requiring a cranking time of more than 1 second) you will get more accurate starting with the tachometer sensing starting method. This method starts the car by reading the engine speed (tach) information from a wire under the hood. If you choose tachometer sensing, connect the GREEN (18 awg) wire to the car’s tach wire under the hood (normally the negative side of the coil or tach output of coil pack). After you have connected the GREEN wire, you need to teach the remote starter the vehicle’s tach rate at idle. Proceed to step 12B.

Note: You must have already initialized the remote starter in Step 11.

12B. Tach Rate Learning

Note: Only use if the tachometer sensing method is chosen. **The tach option must be selected first. See the Setting Program Features (section 23).**

- Set option #1 (Tach Mode) Section 23.
- Connect the GREEN tach wire to the vehicle’s tach wire under the hood.
- Open Hood.
- Start vehicle with key (engine running)
- Press and HOLD brake pedal.
- Press the Control Switch button 3 times.
- Release the brake pedal.
- The LED on the Control Switch will flash RED 3 times.

The tach rate is being recorded and averaged for the next 5 seconds.

The unit will flash the lights output 3 times to signal the unit has successfully learn the tach signal.

- Turn the key to Off, (engine Off).
- Close the hood.
- Push the Control Switch push button so the LED is showing RED.
- Push the start button on the transmitter, vehicle should cleanly start and remain running.

13. Gray/Black Wire - Alarm Input - Control Harness

This wire will accept any negative alarm input, including door inputs, shock sensors, radar sensors, etc..

Any sensor that supplies a negative or ground output when activated is acceptable. If multiple sensors are to be used, the inputs must be diode isolated.

If you are using a sensor or input that switches to (+) when triggered, you will need to reverse the polarity with a relay before connecting to this GRAY/BLACK input wire (Ford door switches for example).

If you have a POSITIVE DOOR TRIGGER (Most Fords) a relay will be needed to reverse the polarity. Connect the relay as follows:

- Pin 85 of the relay to DOOR PIN SWITCH (Positive Trigger)
- Pin 86 of the relay to GROUND
- Pin 87 of the relay to GROUND
- Pin 30 of the relay to Gray/Black on the AutoCommand

The alarm feature is “last door arming” and “Negative going trigger”.

If you choose not to use this alarm feature, set Option #4 "No Alarm" (section 23)

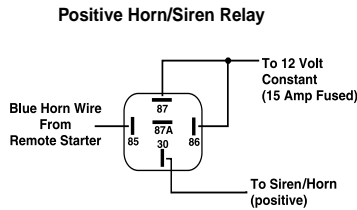
OPTIONAL STEPS

14. Yellow Wire - Headlights/Parking Lights - Separate Tab Connector

Connection of the YELLOW wire allows you to activate the low beam headlights or parking lights for remote start and lock status. After the remote starter has started the car, the lights will remain on until the remote starter shuts off after 10 minutes, or when the brake pedal is pushed, or when the car is put into gear. **This is a relay +12 Volts output.** Connect the YELLOW wire to the wire that has power when the lights are on.

15. Blue - Horn/Siren - Control Harness

The BLUE wire signals the horn to honk (or siren to chirp) once each time the remote starter starts the vehicle and each time the locks are locked or unlocked. Connect the blue wire to the factory horn wire which is often found running down the steering column. It will normally show +12 Volts at rest and the voltage will disappear when the horn is honked. **This is a 400 mA transistor ground output which MUST drive a relay if using a siren or positively triggered horn.**

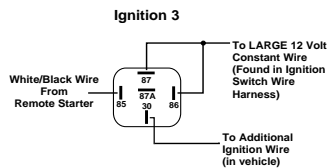


16. Brown/White - Alarm Disable - Control Harness

The BROWN/WHITE wire is **Alarm Disable**, which will give out a quick negative pulse just before unlocking the doors or starting the vehicle. This wire can be used to turn off the factory alarm system in vehicles which have them. In most vehicles, this wire is located in the driver's kick panel.

17. White/Black Wire - Ignition #3 - Control Harness

The WHITE/BLACK wire, is a ground output that acts just like the Ignition 1 or Ignition 2 relay outputs (active in the "run" and "crank" positions). **This wire is a 400 mA negative transistor output and MUST be set up to power a relay** (not included). It can be used to power the third ignition wire at the key (necessary for most Ford vehicles).



This is the wire that can also be used to bypass a passive anti-theft system by hooking it up to the Universal Alarm Bypass Module. See the Factory Anti-Theft System Section at the end of the instructions.

18. Keyless Entry Wires-White/Red-Yellow/Red-Control Harness

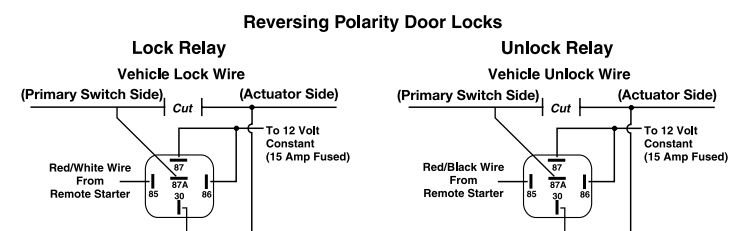
The wires function as follows:

White/Red	Negative Trigger – Unlock	Positive Trigger – Lock
Yellow/Red	Negative Trigger – Lock	Positive Trigger – Unlock

Determine the polarity of your door lock system by using a test meter. For NEGATIVE locks (the lock wire sees a ground signal briefly as the electric locks are locked) – connect the Red/Black wire to the Unlock wire and the Red/White wire to the Lock wire.

For POSITIVE locks (the lock wire sees a +12 volt signal briefly as the electric locks are locked but does not see ground when they are inactive) connect the White/Red wire to the Lock wire and the Yellow/Red wire to the Unlock wire.

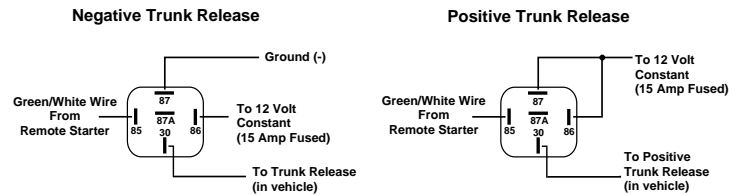
For REVERSING POLARITY (the lock wires sees a +12 volt signal briefly as the electric locks are locked and sees a ground signal when they are inactive) follow the diagram below:



The primary switch side will rest at ground with the lock and unlock wires cut in half and no switches pressed.

19. Green/White - Trunk Release - Control Harness

The GREEN/WHITE wire is the Trunk Release output which gives out a transistor ground output when the unlock button is held for 4 seconds. **Again, this is a 400 mA transistor ground output which MUST drive a relay** (not included).



REQUIRED FINAL STEPS

You must have hooked up all required wires and completed Initialization (Step 11) to proceed forward.

20. Trying the Unit Out

WARNING: Be prepared to apply the brake during this testing.

- Close the hood and fully apply the emergency brake
- Place the vehicle in Park.
- Push the On/Off switch once – the red LED will turn on solid Red.
- Once all the wiring is checked and is correct, press the Start button on the transmitter.
- The car should start and continue to run for ten minutes. Make sure that the engine shuts down if the car is shifted out of park, the hood is opened, the brake is pressed or the start button is pushed again. If the car does not start, see Special Cases or Code Learning section under Special Cases.

21. The Antenna

Feed the antenna around under the dash and up the inside of the right or left windshield post and over the top of the windshield. Clean the windshield with the rubbing alcohol pad, wait to dry. Slip the rubber antenna into the hard plastic antenna clip. Remove the backing from the double sided tape and mount the antenna behind the rear view mirror. The more exposed the antenna is, the better the range and performance. Now plug the end of the antenna into the remote starter module. **In some vehicles you will get better range performance if the antenna is pointing vertically downward from the top of the windshield.**

THE WIRING SECTION OF THE INSTALLATION IS NOW COMPLETE. Be sure to cap all unused wires so as to prevent short circuits, and mount the module securely under the dash. When tying up and mounting the unit, be sure to avoid any moving parts (steering column, pedals) and sharp edges.

22. Trouble Shooting with the Self Diagnostics

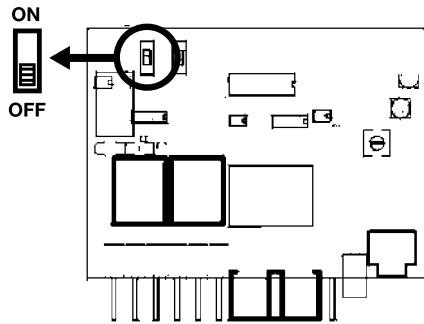
The remote starter contains a built in diagnostic routine that will indicate why the unit started or why the unit turned off the car the last time that the unit was used.

To activate the diagnostic mode for why it turned off, simply turn the On/Off control switch to the "OFF" position, the LED will turn Green. In a few seconds, the Green LED on the switch will flash 1 to 12 times to identify the problem. See the chart below for an explanation of the flashes:

- | | |
|------------------|---|
| 1 flash | 10/15 minute time out. Unit should be fine. Make sure the transmitter is working properly. |
| 2 flashes | Unit turned off because Brake or Hood was activated. Check to make sure the hood pin switch is depressed when the hood is closed and the correct brake wire is hooked up. |
| 3 flashes | No Tach or Stalled. Review Step 12 and make sure the no tach/tach wire option is programmed correctly. |

- 4 flashes Received another remote input from the transmitter (remote pressed before unit completed its cycle).
- 5 flashes Transmission was shifted into gear. Move the In-Gear switch inside the receiver module to the OFF position (see diagram below for location of In-Gear switch inside module case).

In-Gear Sensing Switch



- 6 flashes Low battery voltage, or may be missing an ignition wire which powers up the alternator
- 7 flashes Alarm was triggered while remotely running.
- 8 flashes Over current - One of the 400 mA (-) transistor outputs (Lock, unlock, horn, lights, trunk, or Ignition #3) of the control harness is driving too much current. Make sure to use a relay where necessary.
- 12 flashes The Control Switch was turned off while the starter was running.

23. Setting Program Features:

The remote starter unit has many special features available. You will not need to use these special features in most situations. The factory settings will operate most vehicles.

Feature #	Factory Setting (Green LED)	Option (Red LED)
1	"No-Tach"	Tach Mode
2	10 Min. Run Time	15 Min. Run Time
3	Normal Crank	Extended Crank
4	Alarm	No Alarm
5	Normal	Ignore Voltage Meter
6	Single Pulse Door Unlock	Double Pulse Door Unlock
7	"Enable" feature	No "Enable"
8	Normal	Daytime Running Lights

Option #1 No-Tach Tach Mode

This option sets the starting method. The factory setting uses "No-Tach" starting. If you wish to use the tach to start, follow the instructions in the Tach Rate Learning section (step 12B).

Option #2 10 Min. Run Time 15 Min. Run Time

This option gives you a choice of run times.

Option #3 Normal Crank Extended Crank

This option will add 50% more crank time to the NoTach™ starting feature.

Option #4 Alarm No Alarm

This option will disable the alarm features. Program is option if the alarm will not be used.

Option #5 Normal Ignore Voltage Meter

This option allows the minum battery voltage to drop to 11 for remote starting. This option is helpful when dealing with a vehicle with a poor charging system.

Option #6 Single Pulse Door Unlock Double Pulse Door Unlock

This option will unlock the door twice each time the unlock button on the

transmitter is pushed. This is used when the first unlock pulse disarm the factory alarm and the second pulse is used to unlock the doors.

Option #7 "Enable" Feature No "Enable"

This option cancels the "enable" mode safety feature. The "enable" mode requires that the driver push the control switch "OFF" and then "ON" again each time the driver removes the key from the ignition in order to "enable" the vehicle for remote starter control. The switch light will shine red when ready. This feature guards against undesired starting of the vehicle by remote control. *You must keep this option as "Enable" on all GM rear wheel drive and Dodge Dakota vehicles manufactured prior to 1996.*

Option #8 Normal Daytime Running Lights

This option will turn the headlights on about 10 seconds after it sees the ignition turn on and will turn the lights off when the ignition is turned off.

Programming An Option:

If you want the factory setting, DO NOTHING and skip this section. If you want to change one or more of the features, then continue with the following procedures:

1. Open the hood.
2. Turn the ignition ON (do not start the vehicle).
3. Press and HOLD the brake pedal.
4. Quickly press and release the programming button once.
5. Release the brake pedal.
6. The control LED will flash Red 1 time (signaling that you are now in the Option Programming mode).
7. The LED color reflects the first option (Green LED is for Factory setting, Red LED is for Optional setting). Pressing the brake pedal advances to the next option. By continuing to push the brake pedal, the user will advance through all of the options and then start back at Option #1 again.
8. After pushing the brake pedal, the LED flashes Red (the # of the option) before turning Red or Green, reflecting the state of the option (Green for factory setting, Red for Optional setting). Push the programming button to change from the factory setting to the option setting and vice versa.
9. If no options are selected or changed after 6 seconds the unit will automatically exit programming.
10. Push the control switch so the LED is Red, the unit is now ready.
11. Turn off the ignition.

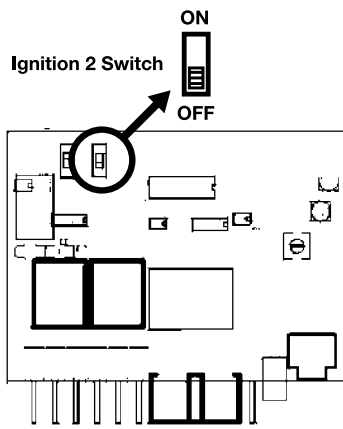
24. Changing Ignition 2 Function

Many newer vehicles turn off the Ignition 2 wire while the starter is cranking. In these vehicles it is very important to have the remote starter copy the starting sequence of the key exactly; otherwise the vehicle's computer may show a fault code or not allow the vehicle to start at all. For most GM vehicles, you do not need to change this option.

To turn the thick GREEN Ignition 2 (IGN 2) wire off during crank:

1. Unplug all wires and connections from the remote start module.
2. Open the case of the remote start receiver module.
3. Find the IGN 2 switch as shown in the diagram on the following page. Of the 2 switches shown, The IGN 2 switch is the switch closest to the center of the circuit board as shown in the diagram.
4. Move the IGN 2 switch to the OFF position.
5. Close the case and plug in all of the wire connectors.

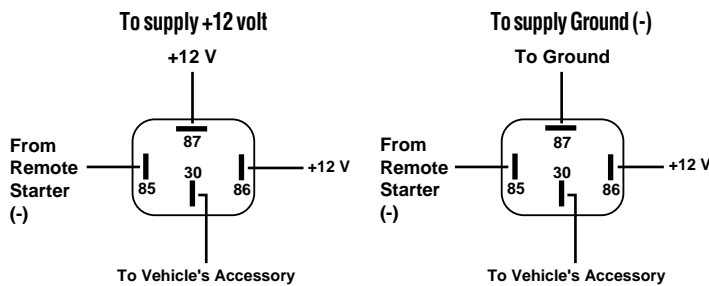
The remote start module will turn **OFF** Ignition 2 while the starter is cranking.



SPECIAL CASES

1) How to Use a Relay

Many of the optional steps require a relay to be hooked up. The most common relay used for this type application is the Bosch type relay (Radio Shack Cat.# 275-226). Use the following diagram for a typical hookup. If you have another relay then you need to know that pins 85 and 86 in this diagram relate to the coils of the relay. Pin 30 is the 'common', and pin 87 is the 'normally open' contact. If your relay has a pin 87A in the middle it is the normally closed contact and is only used for lock/unlock situations. (The diagram is typical for an Ignition 3 or trunk application).



2) Code Learning

Your transmitter is factory coded to the remote starter module with over 16,000,000 different codes. The remote starter module can learn the codes of up to 4 different transmitters. If you want to add additional transmitters to the receiver or if it does not respond to your transmitter - follow the steps below to teach the receiver the transmitter code(s):

- A.** Open Hood.
- B.** Turn the ignition ON (do not start the vehicle).
- C.** Press and HOLD brake pedal.
- D.** Quickly push and release Programming button twice.
- E.** Release the brake.
- F.** The LED will glow solid Orange.
- G.** Hold down the LIGHTS button on the transmitter for a second until you hear the horn honk (or just look for the orange LED to go out for half a second). The module has now learned the transmitter code. Release the transmitter button.
- H.** To learn additional transmitters (up to 3 more), within a few seconds, push the LIGHTS button on another transmitter for a second or more until you hear the horn honk (or see the orange LED go out for half a second). Repeat for the remaining transmitters.
- I.** 5 seconds after the last time the transmitter was learned the unit exits the code-learning stage. (The Red LED light will turn on solid when unit exits Code learning).
- J.** Turn the ignition ON (do not start the vehicle).

Note: Teaching the module a new transmitter code will erase all previous codes - so all transmitters must be taught. You have only 5 seconds between transmitters to begin teaching a new transmitter.

3) Factory Anti-Theft Systems

Many vehicles come with an anti-theft system that must be temporarily bypassed for the vehicle to be remotely started. Some systems use a resistor in the key. Others use a transponder - a small device in the key that communicates a high security code to the vehicle before the vehicle will successfully start.

Check the list of vehicles and the types of security systems on the right. If your vehicle is listed, your vehicle has an Anti-Theft System that the remote starter MUST temporarily bypass in order to start the vehicle.

The Universal Alarm Bypass Module, sold under part numbers #20402 or #29402 will temporarily bypass a factory anti-theft system when using the remote starter. Check with your local retailer/installer to purchase this Universal Alarm Bypass Module.

Vehicle-specific anti-theft bypass and door lock modules are also available for many vehicles. Many vehicle-specific bypass modules eliminate the need for a spare ignition key to bypass transponder anti-theft systems. Please see your local dealer.

List of vehicles and the types of factory anti-theft systems:

Vehicle:	System:	Vehicle:	System:
Acura 3.2TL 98+	Transponder	GMC Sierra	Passlock II
Audi A4,A6,A8 98+	Transponder	GMC Sonoma 98 +	Passlock II
Acura CL 97+	Transponder	GMC Suburban 98+	Passlock II
Acura Integra	Transponder	GMC Yukon 98+	Passlock II
Acura NSX	Transponder	Honda Accord 98+	Transponder
Acura RL 98+	Transponder	Honda Odyssey 98+	Transponder
BMW (all 97 +)	Transponder	Honda Prelude 98+	Transponder
Buick LeSabre 90 - 01	VATS	Honda S2000	Transponder
Buick Park Ave 91 - 96	VATS	Infiniti I30 98+	Transponder
Buick Park Ave 97+	Transponder	Infiniti Q45 98+	Transponder
Buick Regal 93 - 96	VATS	Infiniti QX4	Transponder
Buick Rendez Vous	Transponder	Jaguar (all 98+)	Transponder
Buick Riviera 93 - 96	VATS	Isuzu Hombre 98+	Passlock II
Buick Roadmaster 93 - 96	VATS	Jeep Grand Cherokee 99+	Transponder
Buick Skylark 96-98	Passlock	Jeep Liberty	Transponder
Cadillac Allante	VATS	Jeep TJ (Wrangler) 99+	Transponder
Cadillac Brougham	VATS	Lexus (all 97+)	Transponder
Cadillac Catera 97+	Transponder	Lincoln Blackwood	Transponder
Cadillac DeVille 92 - 98	VATS	Lincoln Continental 97+	Transponder
Cadillac DeVille 99+	Transponder	Lincoln LS 2000+	Transponder
Cadillac Eldorado 89 - 98	VATS	Lincoln Mark VIII 97+	Transponder
Cadillac Eldorado 99+	Transponder	Lincoln Navigator 97+	Transponder
Cadillac Escalade 00+	Passlock	Lincoln Town Car 97+	Transponder
Cadillac Fleetwood 90 - 96	VATS	Mazda Tribute	Transponder
Cadillac Seville 90 - 98	VATS	Mercedes (all 97+)	Transponder
Cadillac Seville 99+	Transponder	Mercury Cougar 99+	Transponder
Chevrolet Astro Van 98+	Passlock II	Mercury Grand Marquis	Transponder
Chevrolet Avalanche 01	Passlock	Mercury Mountaineer 98 +	Transponder
Chevrolet Blazer 98+	Passlock II	Mercury Mystique 97+	Transponder
Chevrolet Camaro 86 +	VATS	Mercury Sable 96+	Transponder
Chevrolet Cavalier 96-99	Passlock	Mini Cooper 02	Transponder
Chevrolet Cavalier 2000+	PasslockII	Mitsubishi Eclipse	Transponder
Chevrolet Corvette 88 +	VATS	Mitsubishi Galant	Transponder
Chevrolet Express 97+	Passlock	Nissan Frontier S/C	Transponder
Chevrolet Impala 2000+	Passlock II	Nissan Maxima 98+	Transponder
Chevrolet Lumina 96 - 99	VATS	Oldsmobile Achieva 95	Passlock I
Chevrolet Malibu 97 - 01	Passlock II	Oldsmobile Achieva 96+	Passlock II
Chevrolet Monte Carlo 96-99	VATS	Oldsmobile Alero 99+	Passlock II
Chevrolet Monte Carlo 00+	Passlock II	Oldsmobile Aurora	VATS
Chevrolet Pickup Full-size 98+	Passlock II	Oldsmobile Bravada 98	Passlock II
Chevrolet S-10 98+	Passlock II	Oldsmobile Cutlass 97+	Passlock II
Chevrolet Silverado HD 01	PasslockII	Oldsmobile Eighty-Eight	VATS
Chevrolet SSR 01	Passlock	Oldsmobile Intrique 98+	Passlock II
Chevrolet Suburban 98+	Passlock II	Oldsmobile Ninety-Eight	VATS
Chevrolet Tahoe 98+	Passlock II	Oldsmobile Silhouette 99	Transponder
Chevrolet Trailblazer 01+	PasslockII	Pontiac Aztek 01	Transponder
Chevrolet Van 98+	Passlock II	Pontiac Bonneville 89+	VATS Pontiac
Chevrolet Venture 99+	Transponder	Firebird 88+	VATS Pontiac
Chrysler Concorde 98+	Transponder	Grand Am 96 - 98	Passlock
Chrysler LHS 99+	Transponder	Pontiac Grand Am 99+	Passlock II
Chrysler PT Cruiser 00+	Transponder	Pontiac Grand Prix 92 - 96	VATS
Chrysler Sebring Conv. 98+	Transponder	Pontiac Grand Prix 97+	Transponder
Daewoo Leganza	Transponder	Pontiac Montana 99+	Transponder
Dodge 300 M 99+	Transponder	Pontiac Sunfire 96-99	Passlock I
Dodge Intrepid 98+	Transponder	Pontiac Sunfire 2000+	Passlock II
Dodge Neon 00+	Transponder	Porsche (all 97+)	Transponder
Ford Contour 97 +	Transponder	Saab (all 97+)	Transponder
Ford Crown Victoria 98+ (option)	Transponder	Saturn 97-99	Factory Alarm
Ford Excursion 01+	Transponder	Saturn 00+	Transponder
Ford Expedition 97+	Transponder	Subaru Legacy 00+	Transponder
Ford Explorer 98+	Transponder	Subaru Outback 00+	Transponder
Ford Focus 01+	Transponder	Toyota Avalon 98+	Transponder
Ford Mustang 98+	Transponder	Toyota Camry 98+	Transponder
Ford Pick Up (optional)	Transponder	Toyota Highlander 01+	Transponder
Ford Ranger 99+(optional)	Transponder	Toyota Land Cruiser 98+	Transponder
Ford Sport Trac 01	Transponder	Toyota Solara 99 +	Transponder
Ford Taurus 96 +	Transponder	Toyota Supra 98+	Transponder
Ford Windstar 2000 +	Transponder	Volkswagen Beetle 98+	Transponder
GMC Envoy 01+	Passlock II	Volkswagen Golf 98+	Transponder
GMC Jimmy 98+	Passlock II	Volkswagen Passat 98+	Transponder
GMC Safari 98+	Passlock II	Volvo (all 98+)	Transponder
GMC Denali 99+	Passlock II		

NOTICE to Installers of Remote Vehicle Starters



We **DO NOT** recommend installing ANY remote starter in the following vehicles:

Audi 1998+, BMW 1998+, Jaguar 1998+, Land Rover 1998+, Mercedes 1998+, Range Rover 1998+, Volvo 1999+

As with any aftermarket installation, please research and learn as much as you can about the vehicle before you start the install.



All General Motors (GM) rear wheel drive vehicles built prior to 1995 with automatic transmissions and all Dodge Dakota trucks with automatic transmissions built prior to 1996 have a MECHANICAL type of NEUTRAL SAFETY SWITCH. All vehicles built after 1996 use an electrical type of neutral safety switch.

Applying +12 volts to the starter wire on any vehicle using a mechanical neutral safety switch will engage the vehicle's starter, regardless of the shifter's position. When the shifter is in Park or Neutral, the vehicle will just start up normally. If the vehicle is accidentally left in gear and power is applied to the start wire, such as by a remote starter, **the vehicle will lurch forward or back as it attempts to start.**

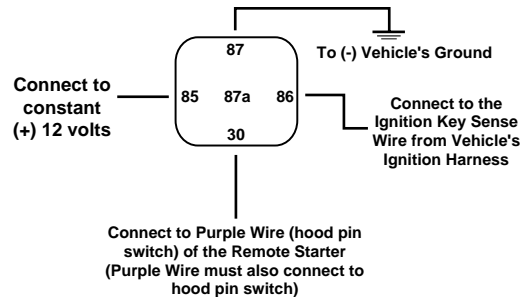
To test if your GM or Dodge vehicle is using a mechanical neutral safety switch system, you will only be able to remove the key from the ignition switch when the shifter is in the Park or Neutral position.

To prevent this problem from occurring when installing a DesignTech remote starter on a GM rear wheel drive vehicle or Dodge Dakota built prior to 1996:

1. You must leave the Enable Feature (option #7) in the factory setting. This is a safety feature that requires the user to push the control switch OFF (Green light) and then ON (Red light) again each time they exit the vehicle in order for the unit to be operational. This feature will ensure that the user of the vehicle with the remote starter installed has made a conscious decision to allow the remote starter to start the vehicle the next time the transmitter button is depressed.

2. You must use the relay drawing below to create a circuit that will prevent the remote starter on these GM and Dodge vehicles from starting the vehicle unless the key is completely removed from the ignition switch.

As with any aftermarket installation, please research and learn as much as you can about the vehicle before you start the install.



The company behind this system is Directed Electronics, Inc.

Since its inception, Directed Electronics has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, DIRECTED is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call **800-876-0800** for more information about our products and services.



Directed Electronics, Inc. is an ISO 9001 registered company

Directed Electronics is committed to delivering world class quality products and services that excite and delight our customers.

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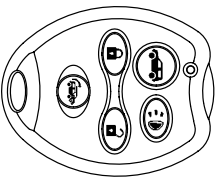
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06-05

The Remote Car Starter must be “enabled” each time the driver has finished driving and taken out the key in order for the unit to start the vehicle remotely. After the key has been removed, you must push the control switch OFF (LED turns Green) and then push it back ON (LED turns Red) again while no key is in the ignition. The LED will glow red signifying the system is ready to start. This “control switch” or “set switch” prevents unauthorized starting of the car by someone unfamiliar with the system who may be using the vehicle. If you forget to set the switch, it may also be activated by pushing the transmitter and holding the button down for seven seconds. To eliminate the need for this, see **Option #7 (Setting Program Features).**

The AutoCommand® Remote Car Starter will turn the car off if the driver does not insert and turn the key within 10 or 15 minutes. After the AutoCommand® Remote Car Starter has started your car, simply put in the key and turn it to the “run” or “on” ignition position (not the crank position), push the brake pedal and drive away.

The AutoCommand® Remote Car Starter has numerous safety and security features that make it difficult to steal your car without the key being in the ignition. Putting your car in gear, pushing the brake pedal or opening the hood will turn the unit off unless your key is in the ignition and turned to the “run” or “on” position.

If all features are installed, your transmitter will function as follows:



- Button:** Do not push for your first 'main' vehicle
Once: To operate vehicle #2 - then any of the 4 buttons (LED flashes red and green)
Again: For vehicle #3 - then any of the 4 buttons (LED flashes red)
Again: For vehicle #4 - then any of the 4 buttons (LED flashes green)
- Button:** Once: Start the car with all accessories left on
Again: Stop the car
- Button:** Once: Turn on headlights for 30 seconds
Again: Turn off headlights
Hold down for 4 seconds for PANIC mode (45 seconds long)
- Button** Once: Lock the door /arm the alarm
- Button** Once: Unlock the door /disarm the alarm
Hold down for 4 seconds to open the Trunk.
(If you get 4 chirps – that means the alarm was triggered while you were away)

The LED on the transmitter will display 3 different colors - Red for the start button, Yellow for the lights button, and Green for the lock and unlock buttons. The transmitter is powered by a long life lithium battery (CR 2032 style). The transmitter and receiver are FCC and DOC approved.

To Disarm the Alarm without the Transmitter:

If the doors are locked, the alarm is set, and you've lost your transmitter, you can still disable the alarm. Here is how: Enter the vehicle (alarm will sound) and insert the key and turn it to the 'run' position (the position where the instruments and gauges turn on). Push and release the On/Off switch Off and On 8 times in a row to disable the alarm.

Valet Mode:

Pushing the Control switch off (LED turns Green) puts you in Valet Mode. In Valet Mode, the Remote Car Starter and the alarm will not function. This lets you turn off the car starter when having the vehicle serviced. The only functions that work in Valet Mode are the keyless entry, lights and panic. Simply push the Control switch once again (LED turns Red) to exit Valet Mode.

limited lifetime consumer warranty

Directed Electronics, Inc. (hereinafter "Directed") promises to the original purchaser to repair or replace with a comparable reconditioned Directed DIY remote start keyless entry unit if this Directed DIY remote start keyless entry unit (hereinafter "Unit"), excluding without limitation, any remote transmitters or associated accessories, proves defective in materials or workmanship under normal use for the life of the vehicle which the Unit is originally installed. During this period, so long as the Unit remained installed in the original vehicle, Directed will at its option, repair or replace this Unit if it is proved defective in workmanship or material PROVIDED the Unit is returned to Directed's warranty department at One Viper Way, Vista, CA 92081, along with \$20 postage and handling fee, a bill of sale or other dated proof of purchase bearing the following information: Date of purchase, name and location of the merchant who sold the Unit, and product description. This warranty does not cover labor costs for the removal or reinstallation of the Unit. This warranty is non-transferable and does not apply to any Unit that has been modified or used in a manner contrary to its intended purpose, and this warranty does not cover damage to any Unit caused by installation or removal of the Unit. This warranty is void if the Unit has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or workmanship. Directed makes no warranty against theft of a vehicle or its contents.

THE FOREGOING WARRANTY IS THE EXCLUSIVE PRODUCT WARRANTY, OTHERWISE, ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED AND DISCLAIMED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. DIRECTED HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. SOME STATES DO NOT ALLOW THE LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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IMPORTANT NOTE:

This product warranty is automatically void if its date code or serial number is defaced, missing, or altered.

Make sure you have all of the following information from your dealer:

- ▶ A clear copy of the sales receipt, showing the following:
 - ▶ Date of purchase
 - ▶ Authorized dealer's company name and address
 - ▶ Item number

The Quick Stop Option™:

You can leave the car running and take the key with you for a quick visit to a store. With the car running, push the Start button on the keychain transmitter just before pulling out the key (make sure the brake pedal is not pushed). The car will run for 10 minutes or until you tap the brake or put the car in gear.

Safety Notices:

- 1. When taking your car in for any service or repairs, disable the remote starter by switching the Control switch to the OFF position. Inform the mechanic.**
- 2. Never leave your keys in the ignition when the vehicle is unattended.**
- 3. Do not use this product in a closed garage to avoid excessive carbon monoxide build-up.**

Available Accessories:

Universal Alarm Bypass Module allows remote car starter installation on newer vehicles with factory anti-theft systems such as VATS, P.A.T.S., Passlock I, Passlock II, Pass-Key III, Saturn, Securlock, and Transponder systems.

Extra transmitters can be used for more than one user in the family. Up to four transmitters can be used with each receiver in the vehicle.



Directed Electronics, Inc.
Vista, CA 92081
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www.directed.com

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Trouble-Shooting Guide

Unit won't respond	<p>Make sure unit has power and ground.</p> <p>Make sure unit is initialized (See 'Initializing the unit' in the manual)</p> <p>Re-program transmitter. (See 'Code Learning' under Special Cases in the manual).</p> <p>Check Diagnostic Code as described in Trouble Shooting with Self Diagnostics in the manual.</p>
What is the Diagnostic Code, and how do I get it?	<p>The Self-Diagnostics built into every DesignTech brand remote start will help identify problems in both the unit and your installation. To get an accurate diagnostic code, flip the toggle switch off and back on; the LED light (on module) should flash once if the unit is initialized. Press the start button on your transmitter for second. Now allow the unit to try and start your vehicle 1-3 times. (Note that the unit will attempt to start the vehicle up to 3 times unless codes 2,5,7 or 8 are being triggered, when it will try and start the vehicle once). Allow it up to a minute to try to start again on its own - Don't do ANYTHING to the unit during this time, unless something goes obviously wrong. At the end of the starting cycles, turn the toggle off and count the first series of flashes- this will be the diagnostic code.</p>
Diagnostic Code 1 flash	<p>The unit may not have attempted to start the vehicle yet or the unit may have started and timed out.</p> <p>Is the toggle switch upside down? When the switch is turned on the LED will flash once immediately.</p> <p>Something might be causing the unit to reset, such as a poor connection to ground or power, or you may have a relay wired improperly. Typically the wires in the control harness require a relay unless otherwise stated.</p> <p>The transmitter may need to be programmed.</p>
Diagnostic Code 2 flashes	<p>The unit thinks the hood is open. Make sure the hood pin-switch is properly adjusted and installed.</p> <p>The unit thinks the brake is being depressed. Make sure the brake wire has 12 volts on it only when the brake is depressed. There should be no voltage on the brake wire at any other time</p> <p>You might be experiencing feedback if you have connected the parking or head-lights. If disconnecting the lights wire allows the unit to start then you might power the headlights, or you can isolate the brake wire of the unit from the vehicle with a relay.</p>
Diagnostic Code 3 flashes	<p>If the unit is programmed for tach, the tach wire is not connected or the tach rate may not yet have been learned.</p> <p>If the unit is programmed for 'No-Tach' the vehicle may not have all the required ignition wires connected, or may be equipped with a factory security system – thus causing it to stall.</p> <p>Sometimes a unit may have an option programmed even though you did not specifically set that option. Try re-setting the unit. Unplug everything from the module except the black ground wire and LED (if you have a plug-in LED). While pressing the white button on the module, connect the power lead. The LED on the unit should turn on and stay on. Release the white push button and the LED should remain illuminated. (If not, repeat the process being sure to hold in the white button while connecting power.) Now remove power and wait 2 minutes. Then connect the power without pushing any buttons. <i>Re-Initialize</i> the unit and it should work for you.</p>
Diagnostic Code 4 flashes	<p>Make sure the remote input wire (usually red/white) is not touching anything. (This wire is not on all models). If you have a stick shift unit – this is not relevant to you.</p> <p>You might be pressing the remote control again before the unit has completed its cycle(s)---See 'Diagnostics: What is the Diagnostic code and how do I get it?' – at the top of this page.</p> <p>If installing a manual transmission unit, this code means the unit did not see the door pin-switch.</p>
Diagnostic Code 5 flashes	<p>This code means the unit thought the transmission was shifted into gear.</p> <p>If the transmission was not shifted: Switch the “in-gear” switch inside the module to the off position. This disables 'Transmission in Gear' sensing, and should solve the problem.</p>
Diagnostic Code 6 flashes	<p>Code 6 is caused by the unit not seeing the battery voltage increase enough when the vehicle starts. It can also be caused if you are not bypassing the factory theft system, such as PATS, VATS, or similar, if equipped.</p> <p>Double-check the ignition wiring against the vehicle-wiring guide. Your vehicle may require ignition 2, or in some cases ignition 3, in order to allow the alternator to function – thus bringing up the voltage.</p> <p>If the wiring is correct, and you are properly bypassing any security system the vehicle may be equipped with, then connecting the unit into tach mode should solve the problem. (Your alternator may not be functioning properly).</p>
Diagnostic Code 7 flashes	<p>An alarm sensor was triggered, causing the vehicle to shut down. (Only applies to units that have alarm features).</p>
Diagnostic Code 8 flashes	<p>Something in the control harness is not connected properly. One of the transistor outputs is driving too much current. There may be a wire connected without a required relay, or if you are using a relay, the relay may not be connected properly.</p>
Diagnostic Code 9 flashes	<p>Applicable only to manual transmission units. Indicates the unit did not see the emergency brake.</p>
Diagnostic Code 10/11 flashes	<p>These are not a valid codes.</p>
Diagnostic Code 12 flashes	<p>Make sure you have an accurate code. Please see 'What is the Diagnostic Code, and how do I get it?' at the top of this page. If you still get code 12, one of the toggle switch wires may have touched ground, possibly damaging the unit. Or maybe the switch was just turned off while it was running. Or maybe a defective switch?</p>

<p>Initialization - What is it?</p>	<p>Initialization is a process which proves to the unit that you have connected the required safety features and that the unit has been installed in an automatic vehicle. See “Initializing the Remote Starter” in the manual.</p>												
<p>Initialization - What if the unit will not initialize?</p>	<p>DO NOT ATTEMPT TO INITIALIZE or INSTALL ANY AUTOMATIC UNIT ON ANY MANUAL TRANSMISSION VEHICLE! Attempting to force an automatic unit to function on a manual stick-shift vehicle could result in serious property damage or personal injury!</p> <p>Is the unit already initialized? Make sure the switch is not upside down. Toggle the switch off and then back to on. As the switch is turned on, the LED light on the unit (or that plugs into the unit) will flash once if the unit is initialized.</p> <p>One of the ignition wires may have voltage on it. Make sure all ignition wires measure a “dead” 0 volts when the key is “off.” (It is normal to measure a small amount of voltage from the unit’s start wire.)</p> <p>Check that there is 12 volts on the orange wire in the control harness only when the brake is pressed.</p> <p>Check that there is continuity to ground on the purple wire in the control harness only when the hood is open. (A good way to test both the hood and brake at the same time is to connect a test light – the kind with a real light bulb – with one lead to the orange wire and the other lead from the test light connected to the purple wire. If you open the hood and press the brake, the light will illuminate if both connections are correct.)</p> <p>You may have the wrong start wire. Make sure the yellow start wire from the unit is connected to a wire in the vehicle which shows 12 volts only when the key is in the start (cranking) position. The wire should have power at no other time.</p> <p>Did you mistakenly switch the “in-gear” switch inside the module? If so, the unit will not initialize. This switch disables transmission in-gear sensing, and should only be switched if you have been instructed by a technician to do so or you are getting a diagnostic code of 5 flashes.</p> <p>Your vehicle may not have a neutral safety switch, such as pre 95 GM rear-wheel drive vehicles or Dodge Dakotas built prior to 1996. Try this: Open the hood and place your foot on the brake. Start the vehicle with the key. Turn the engine off and release the brake. If all of your connections are correct the unit should be initialized at this point.</p> <p>Try bypassing the toggle switch temporarily in case a wire or connection to it is broken. Just unplug the switch and jump across the two pins on the module that the switch plugs into with any metal object. As you jump (short) the two pins together the LED should flash if the unit is initialized. NOTE- DO NOT short any toggle switch wire to ground or probe the connector with a test light. Doing so may damage the unit.</p>												
<p>I have a GM Truck and the “Check Engine” light is on after remote starting. What should I do?</p>	<p>You most likely have one of the ignition wires connected wrong. Make sure you have connected:</p> <table border="0" data-bbox="440 1199 1162 1325"> <tr> <td style="text-align: right;"><u>From Unit</u></td> <td style="text-align: center;">to</td> <td style="text-align: left;"><u>Vehicle</u></td> </tr> <tr> <td>Ign1 (Blue)</td> <td></td> <td>PINK (hot in run and start)</td> </tr> <tr> <td>Ign2 (Green)</td> <td></td> <td>WHITE or PINK/WHITE (hot in run and start)</td> </tr> <tr> <td>ACC(White)</td> <td></td> <td>ORANGE (hot in run only)</td> </tr> </table> <p>If you have the ignition wires connected as above and still have a check engine light it is possible the unit has been programmed to have ignition 2 “off during crank.” Please review the programming options within the installation manual.</p>	<u>From Unit</u>	to	<u>Vehicle</u>	Ign1 (Blue)		PINK (hot in run and start)	Ign2 (Green)		WHITE or PINK/WHITE (hot in run and start)	ACC(White)		ORANGE (hot in run only)
<u>From Unit</u>	to	<u>Vehicle</u>											
Ign1 (Blue)		PINK (hot in run and start)											
Ign2 (Green)		WHITE or PINK/WHITE (hot in run and start)											
ACC(White)		ORANGE (hot in run only)											
<p>The vehicle cranks but fails to actually start</p>	<p>Please see “What is the diagnostic code and how do I get it?” Follow the steps for the diagnostic code you receive. You are probably missing one of your second or third ignition wires. Or if it is a Nissan – you probably have 2 starter wires which need to be shorted together.</p>												
<p>My 3 button remote control will lock the doors but will not unlock them.</p> <p>My 5 button remote will not control lock/unlock individually.</p>	<p>Re-program the transmitter. Use the left button when teaching 3 button remote controls. When programming the 5 button remote, use the start button. (Refer to the installation manual for the complete steps on how to make the unit enter the code learning process.)</p>												

The vehicle runs – but without the heater or air-conditioner.	You are missing the 2 nd (or 3 rd) ignition wire or the accessory wire is not hooked up. Make sure the heater or air-conditioner is left on when you leave the vehicle. On diesel vehicles – they may not come on for a few minutes until after the vehicle is up and running.
I have poor range.	The antenna coax wire may be crimped, cut or otherwise damaged. Try the antenna both vertically and horizontally to determine the best performance. Make sure the receiver unit has a good chassis ground. Note that the higher you hold the transmitter off the ground when pushing the button – the further distance you will get from the system.
My vehicle has Passlock I or II and I cannot get a resistance reading.	<p>Many meters have a known issue with measuring passlock. This is not a fault of the meter, the installer, or the manufacturer. These issues can cause problems such as getting a consistent reading of the resistance, or the reading may be artificially inflated. It is our belief that the mid-to-high-end meters seem to experience more problems measuring passlock than less expensive digital meters.</p> <p>One wire will have 0 volts - This is the wire you "tap" into-- we'll call this WIRE #1 USUALLY BLACK OR ORANGE/BLACK. One wire will have 5 volts or less- This is the wire you cut in half-- we'll call this WIRE #2 USUALLY YELLOW. One wire will have approximately 12 volts - This is the wire you leave alone USUALLY WHITE OR BLACK/WHITE. With all PASSLOCK wires intact, turn the vehicle on and bump the starter. Measure the voltage between the wire #1 and wire#2. Your meter should be set on the 12 volt DC scale. RECORD THIS VOLTAGE. Without turning the key off - go ahead and separate WIRE #2. Reconnect the Universal Alarm Bypass Module (Part #20402 or 29402) as described in the installation manual with one exception - GROUND the wire that goes to the ignition 3 wire; you should hear the bypass module click. Now measure the voltage between the ENGINE side of WIRE #2 and wire #1. Your meter should be set on the 12 volt DC scale. Adjust the dip-switches and trim-pot on the bypass module until the voltage being measured EXACTLY matches the recorded voltage obtained without the module. Remove ground from the ignition 3 wire of the bypass module, turn the vehicle off and then restart it. Look at the voltage again - and while monitoring it ground the ignition 3 wire of the bypass again. If the module is set correctly the voltage should NOT change. Repeat again to verify - if you get the same voltage every time then the module is set up perfectly. There is no chart to help you with this, it is just trial and error -- but it will work regardless of the meter you are using.</p>
Can I use the DesignTech Transmitter with other brands of products?	NO. Due to proprietary technology DesignTech brand products will operate only with DesignTech brand Transmitters. Likewise, a DesignTech transmitter will not operate another brand's products.
The LED on the unit flashes constantly	<p>The alarm within the unit, if equipped (as are most units with 3 or 5 button remotes) may be armed, or the unit may be in valet mode.</p> <p>Make sure the wires going to the toggle switch are not broken, and that the toggle switch is on.</p> <p>Reset the unit - See "Resetting all options to the factory setting" in the instructions</p>
The LED remains illuminated at all times	<p>It is normal for the LED to glow dimly. This indicates the unit is receiving power.</p> <p>If the LED is at full brightness then one of the push-buttons may have been depressed when you applied power, the LED may be plugged into the wrong jack, or something may be wrong within the unit.</p>
The starter stays engaged for 6 seconds.	<p>If the unit is in tach mode – make sure the tach wire is properly connected and receiving the correct tach rate.</p> <p>If using the "No-Tach" method, make sure the unit is not programmed for tach mode, extended crank, or super crank.</p> <p>Make sure you have the correct start wire connected - the start wire in the vehicle should have 12 volts only when the key is in the start position.</p> <p>Some vehicles such as Toyotas and Nissans, experience a starter feedback problem. Try temporarily isolating the start wire from the key switch to identify this problem - simply cut the start wire in half between the connecting point of the units start wire and the key switch. Get Installation Note #133 from off our web-site or Fax On Demand.</p>
How will I know if I need a relay?	<p>If the output is labeled as a "+12 relay output" the unit contains a relay on that output - and you will only need to use a relay if the vehicle requires a negative output.</p> <p>If the output is labeled a "400ma Transistor Ground Output", this means the unit supplies a ground up to a maximum of 400ma. If more than 400ma is drawn through the output, the unit may shut down or it may be damaged. Generally speaking, if the vehicle requires a ground and the unit supplies a ground you will not need a relay. If the vehicle requires a positive and the unit supplies a ground, you will need to use a relay. Likewise, if the vehicle requires a ground capable of more than 400ma you would need to use a relay. See Installation Note 111, Basic Uses of the Relay from our web site or our Fax On Demand.</p>

Vehicle only remote starts if I flip the toggle switch off and back on	This condition is perfectly normal. This is a safety feature designed to prevent unauthorized starting. If you have forgotten to flip the switch off and back on, you can still remote start the vehicle. Just hold the start button down for 6 to 10 seconds instead of the usual 1 second. If you do not like this safety feature, it can be permanently bypassed by programming option 7, explained under "Setting Programming Features" or a similar section within the installation instructions.
The car turns off when the brake is pressed- but as soon as I release the brake the vehicle starts again	The remote input wire available on some units (usually a red/white) may be connected to ground. The remote input wire should be taped up if not being used so that it does not touch ground.
The lights flash (and maybe even the horn) when I step on the brake.	The alarm has been armed and triggered – even if you did not hook it up. If the alarm features are not being used, you must ground the ‘alarm trigger’ wire permanently, or set option 24 if available.
The unit tries 2 or 3 times before getting the vehicle up and running	Program extended crank, or use tach mode.

Some General Comments:

- **For Your Safety, never install an automatic unit into a manual transmission (stick-shift) vehicle! Serious property damage or personal injury including death may occur! Instead, use one of our special manual transmission units, which will operate safely in a manual transmission vehicle.**
- **When testing wires use only a digital multimeter, unless otherwise instructed. A test light (especially the kind with a real light bulb) can severely damage electrical components in modern vehicles if used improperly. Also, “computer safe” LED type test lights - with a red and/or green LED- are NOT airbag safe! NEVER test ANY wire within an airbag system harness.**
- Always roll down at least one window in the vehicle before beginning work. This will prevent you from being accidentally locked out of the vehicle.
- It’s okay to have a battery charger on the battery while you are working on the vehicle, but the car starter will not function correctly with the charger attached.
- Specific vehicle information is available directly from www.designtech-intl.com. If you have trouble with the colors in the wiring guide "matching up" then you may be in the wrong harness. You can make sure you are in the correct harness by unplugging the wires. For example: With the ignition switch, if you unplug it and then the vehicle no longer cranks, the blower and radio do not work, and the vehicle is for all purposes "dead" with the key- then you have found the “ignition switch harness.” (Otherwise, you will need to continue searching...) The same technique can be used for the brake, lights, horn, etc. Once you are sure you are in the correct harness, if the wire colors still fail to match up then you will have to test the wires using a digital multimeter. It is always best to verify any wire before connecting to it.
- Most of the common questions that people ask are actually answered within the installation manual. Make sure you have thoroughly reviewed it before calling for technical support. We recommend going through the installation manual with two different colored markers. Read through each step and check it off after you have read it. Use the second marker to make a check when you have completed the step in the vehicle. This will help to make sure you have completed all steps, and that you have not missed any features the unit offers.

Make/model	Year	START	IGN 1	IGN 2	IGN 3/THIEF	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
RangeR	1995-02	RED/BLUE	IGN/PURP	GRAY/YEL	2ND GRAY/YEL	BLK/GRN(+)	L GREEN (+)	TAN/YELLOW	D GREEN/PURPLE (-)	BROWN (+)	YEL/L GREEN (-)	Equipped with Transponder
Taurus	1996-02	RED/BLUE	GRAY/YEL	RED/L GREEN	RED/GRAY/YEL	BLK/GRN	RED/LT-GREEN	TAN/YELLOW	PIPK/WHITE	BROWN (+)	YEL/LT-GRN	96 & UP MAY be equipped WITH TRANSPONDER KEY.
Thunderbird	1992-95	WH/PINK	RED/GREEN	GRAY/YEL	GRAY/YEL	BLK/GRN	LT-GREEN	WH/GRN OR GRN/WH	DK-GREEN/PPL	BROWN (+)	DK-BLUE	Equipped with 2 or 3 GRAY/YEL external relay. Is required 2SERVIE EXT RELAY REC. TACH ALSO TAN/YEL.
Windstar	1994-97	RED/BLUE	WHTE/YEL	GRAY/YEL	VIO/ORNG	BLK/GRN	RED/GREEN (+)	WH/GRN OR GRN/WH	BLU/BLACK (-)	BROWN (+)	GRN/ORNG (-)	Require 50 Ohms resistor with parking light
Windstar GEO	1996-98	RED/BLUE	RED/LT GRN	BLK/GRN	2ND GRAY/YEL	BLACK/PINK	RED/GREEN (+)	WHTE/PINK	D GREEN/PURPLE (-)	WHTE/BLACK (+)	YEL/LT BLUE (-)	
Metro	1995-99	RED/YEL	BLUE /BLK	RED/GRN	N/A	BLK/GRD OR ALL/RED	GREEN /WHT	BROWN	N/A	GREEN (+)	BLUE /BLK (-)	
Pizza	1994-99	BLK /WHT	BLACK	BLK/YEL	N/A	BLUE /RED	GREEN /WHT	WHITE	N/A	GREEN (+)	BLU / RED (-)	
Prizm	1999-01	BLK /WHT	BLACK OR BLK	BLK/YEL	N/A	BLUE /RED	GREEN /WHT	BLACK (-)	N/A	RED/YELLOW (+)	GRN / RED (-)	
Tracker	1999-98	BLK/YEL	BLACK/YEL	YELLOW	N/A	BLUE	GREEN/WHITE (+)	BROWN	N/A	GREEN (+)	BLACK (-)	
Trailblazer	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE/VIOLET	WHITE	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Envoy Series	1999-02	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
G Series Van	1995-95	YELLOW	PINK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Jimmy S-15	1995-97	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Safari	1998-01	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Savana	1996-02	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Sierra	1996-02	YELLOW	PINK	WHITE 95+	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Sonoma	1987-95	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Sonoma	1996-02	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Sonoma	1991-95	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Suburban	2000-02	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Suburban	1996-98	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Suburban	1992-95	YELLOW	PINK	ORANGE	N/A	BROWN	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Yukon /Tahoe	1992-99	YELLOW	PINK	ORANGE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BROWN (+)	BLACK (-)	1999 + Equipped with PASSLOCK II
Honda												
Accord	1994-02	BLK/WHT	BLK/YEL	YELLOW	See Note	WHTRBK	GREEN/WHITE	BLUE	Red/Yel/98+ Blue dr door	RED/BLACK (+)	BLUE	Many 98+ are equipped with transponder key
Civic	1994-02	BLK/WHT	BLK/YEL	YELLOW	See Note	WHTRBK	GREEN/WHITE	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	Many 98+ are equipped with transponder key
CRV	1997-01	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	GRN	
Desol	1995-98	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	GREEN/WHITE	BLUE	N/A	RED/BLACK (+)	GRN	
Odysey	1999-02	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	1999 + Equipped with Transponder
Odysey	1996-98	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	2000 + Equipped with Transponder
Odysey	1999	BLK/WHT	BLK/YEL	WHITE	N/A	WHTRBK	GREEN/WHITE (+)	BLUE	WHTE/RED (-)	RED/BLACK (+)	L GRN/BLUE (-)	1999 + Equipped with Transponder
Passport	1998-02	WHT/BLUE	BLK/YEL	YELLOW	N/A	WHTRBK	RED (+)	BLUE	WHTE/RED (-)	RED/BLACK (+)	L GRN/BLUE (-)	1999 + Equipped with Transponder
Passport	1995	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	RED (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	96-97 Horn wire is ORG/BLK (-)
Passport	1997-02	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	RED (+)	BLUE	N/A	RED/BLACK (+)	L GRN/BLUE (-)	*3.2 wire is BLK/RED
Prelude	1987-96	BLK/WHT	BLK/YEL	YELLOW	N/A	WHTRBK	GREEN (+)	BLUE	N/A	RED/BLACK (+)	BLK/ORANGE (-)	98+ are equipped with transponder key
Hummer												
General Hummer	1992-98	Dk Green	LT-Green	Gray	N/A	Orange	Red	White (+)	White (+)	White (+)	BLUE/BLACK (-)	
Hyundai												
Accent	2000-02	WHITE	GREEN	YELLOW	N/A	YELLOW	PINK/BLACK	BLUE OR BROWN	N/A	GREEN (-)	BLUE/ORANGE	Tach at PCM pin 47 left side of dash.
Accent	1999-00	BLK/YEL	BLK/WHT	YELLOW	N/A	YELLOW	GREEN (+)	BLUE/RED	N/A	RED/BLACK (+)	BLK/WHT (-)	
Accent	1995-98	YELLOW	WHITE/BLUE	BLK/WHITE	N/A	RED	RED/WHITE	WHITE	N/A	N/A	BLK/WHT (-)	Equipped with Transponder
Elantra	2001-02	WHITE	RED	YELLOW	N/A	RED	WHITE	WHITE	N/A	BLUE (-)	RED	
Elantra	1991-00	BLK/YEL	BLK/WHT	BLU/RED	N/A	BLU/RED	GREEN/BLACK (+)	WHITE	N/A	GREEN/WHITE (+)	BLK/WHT (-)	
Scoupe	1991-95	BLK/YEL	BLK/WHT	BLUE	N/A	BLUE	GREEN (+)	WHITE	N/A	GREEN/WHITE (+)	BLK/WHT (-)	
Sonata	1999-02	YELLOW	PINK	ORANGE	N/A	BROWN	LT BLUE (+)	WHITE	N/A	GREEN/WHITE (+)	YELLOW (-)	
Sonata	1999-98	YELLOW	RED/BLACK	ORANGE	N/A	BLU/WH	GREEN (+)	WHITE	N/A	LT BLUE	YELLOW (-)	
Sonata	1997-02	YELLOW	RED/BLACK	ORANGE	N/A	BLU/WH	GREEN (+)	WHITE	N/A	LT BLUE	YELLOW (-)	
Sonata	1997-96	YELLOW	RED/BLACK	ORANGE	N/A	BLU/WH	GREEN (+)	WHITE	N/A	LT BLUE	YELLOW (-)	
Infiniti												
Infiniti	2002	BLK/WHT	BLACK/RED	RED/YEL	See Note	WHTE/BLUE	RED/GREEN (+)	WHTE/GREEN	ORANGE/BLUE	RED/BLUE (+)	GREEN/WHITE	May have Transponder
Q20	1999-02	BLK/WHT	BLACK/RED	BLUE	See Note	WHTE/BLUE	RED/GREEN (+)	WHTE/BLUE	N/A	RED/BLUE (+)	GREEN/WHITE	May have Transponder
Q20	1991-97	BLK/WHT	BLACK/RED	BLUE	See Note	WHTE/BLUE	RED/GREEN (+)	WHTE/BLUE	N/A	RED/BLUE (+)	GREEN/WHITE	May have Transponder
Q30	2000-01	BLK/BLUE	BLACK/RED	RED	N/A	WHTE/BLUE	RED/GREEN (+)	WHTE/BLUE	N/A	RED/BLUE (+)	GREEN/WHITE	
Q30	1998-00	BLK/BLUE	BLACK/RED	RED	N/A	WHTE/BLUE	RED/GREEN (+)	WHTE/BLUE	N/A	RED/BLUE (+)	GREEN/WHITE	ZTH start wire black/red, transponder equipped
Q30	1996-98	BLK/GRN	BLACK/RED	RED/YEL	N/A	WHTE/BLUE	RED/GREEN (+)	WHTE/BLUE	N/A	RED/BLUE (+)	GREEN/WHITE	
Q30	1993-97	BLACK/YEL	WHTE/BLK	N/A	See Note	BLACK/RED	PURPLE (+)	WHTE/BLUE	N/A	WHTE/RED (+)	GREEN/RED (-)	May have Transponder
Q45	1999-02	BLK/WHITE	BLK/RED	N/A	See Note	WHTE/RED	RED/GREEN (+)	BLACK/GREEN	N/A	RED/YELLOW (+)	WHTE/GRN (-)	
Q45	1997-98	BLK/RED	BLK/WHT	N/A	See Note	WHTE/RED	RED/GREEN (+)	BLACK/GREEN	N/A	RED/YELLOW (+)	WHTE/GRN (-)	
Q45	1990-96	BLK/RED	BLK/WHT	N/A	See Note	WHTE/RED	RED/GREEN (+)	BLACK/GREEN	N/A	RED/YELLOW (+)	WHTE/GRN (-)	
Q45	2001-02	BLK/YEL	BLK/WHT	WHTE/BLUE	N/A	WHTE/BLUE	RED/GREEN (+)	BLACK/GREEN	N/A	RED/YELLOW (+)	WHTE/GRN (-)	
QX4	1996-00	BLK/WHT	BLK/YEL	RED/YEL	N/A	WHTE/BLUE	GREEN/YELLOW	WHTE/BLUE	LT GREEN (-)	PNK/BLUE (+)	LT GRN/BLACK	2000 + Equipped with Transponder
Isuzu												
Amigo	1998-00	BLK/WHT	BLACK/YEL	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	Alarm disarm wire in driver door
Isuzu Trooper	1999-02	BLK/WHT	BLACK/YEL	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Isuzu Trooper	1996-98	BLK/WHT	BLACK/YEL	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	1990-94	BLK/WHT	BLACK/YEL	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	2001-02	BLK/WHT	BLACK/RED	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	1999-02	YELLOW	PNK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BRN (+)	BLACK (-)	1998 + Equipped with Passlock II
Amigo	1999-97	YELLOW	PNK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BRN (+)	BLACK (-)	
Amigo	1999-02	YELLOW	PNK	WHITE	N/A	ORANGE	WHITE (+)	WHITE	N/A	BRN (+)	BLACK (-)	
Amigo	1999-02	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHTE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Amigo	1996-00	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHTE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Amigo	1996	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHTE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Amigo	1998-02	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHTE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Amigo	1999-02	BLACK/WHT	BLACK/YEL	YELLOW	N/A	WHTE/BLK	GREEN/WHITE (+)	BLUE	N/A	RED/BLACK (+)	BLUE/RED (-)	
Amigo	1996-98	BLK/WHT	BLK/YEL	BLK/RED	N/A	BLK/RED	RED	BLK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	1994-95	WHT/GRN	BLK/GRN	BLK/RED	N/A	BLK/RED	RED	BLK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	1992-93	BLK/WHT	BLK/RED	BLK/RED	N/A	BLK/RED	RED	BLK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	
Amigo	1999-02	BLACK/WHT	BLACK/YEL	BLACK/RED	N/A	BLACK/RED	RED	BLACK/RED	YELLOW/BLUE	GREEN/RED (+)	DK-GREEN (-)	

Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Jeep												
Cherokee	1997-01	YELLOW	D BLUE	BLKORANGE	N/A	BLK/WHT	WHITE/GREEN	GRAY	VIOLET/YELLOW (-)	BLACK/YEL	BLK/RED	
Cherokee	1993-95	YELLOW	D BLUE	ORANGE	N/A	VIOLET	WHITE/TAN (+)	GRAY	PURP/YELLOW	D BLUE/RED (+)	BLK/RED (-)	
Cherokee	1991-92	YELLOW	D BLUE	ORANGE	N/A	VIOLET	WHITE/TAN (+)	GRAY	BLACK/YELLOW	D BLUE/RED (+)	BLK/RED (-)	
Grand Cherokee	1999-02	YELLOW	D BLUE	ORANGE	N/A	BLK/WHT	WHITE/TAN (+)	n/a	BLACK (-) in driver door	BLACK/YELLOW (+)	BLK/RED (-)	SEE SPECIAL NOTE FOR PARKING LIGHT
Grand Cherokee	1996-98	YELLOW	BLU/GRAY	ORIG/BLK	N/A	RED/BLACK	WHITE/TAN (+)	GRAY/WHITE	D BLUE/RED (-)	DARK BLUE/RED (+)	GRAY/ORG	
Grand Cherokee	1993-95	YELLOW	BLU/GRAY	ORIG/BLK	N/A	BLK/WHT	WHITE/TAN (+)	GRAY/WHITE	VIOLET/YELLOW (-)	DARK BLUE/RED (+)	GRAY/ORG	
Liberty	2002	YELLOW	D BLUE	BLK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	GRAY	N/A	BLACK/YELLOW	RED/YELLOW	
Wrangler	1997-02	YELLOW	D BLUE	BLK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	GRAY	N/A	BLACK/YELLOW	BLACK/RED (-)	
Wrangler	1993-96	YELLOW	D BLUE	BLK/ORG	N/A	BLK/WHT	WHITE/TAN (+)	GRAY	N/A	BLACK/YELLOW	BLK OR ORG/WHT	
Wrangler	1991-92	GREEN	YELLOW	VIOLET	N/A	ORANGE	L BLUE	GRAY	N/A	BLU/RED (+)	N/A	
Kia												
Sephia	1994-98	BLACK/YEL	BLACK/WHT	BLU/RED	N/A	N/A	GRN/YELLOW (+)	YELLOW/GRN	BLU/YELLOW (+)	RED/GREEN (+)	N/A	
Sportage	1995-98	BLK/WHT	BLK/WHT	BLU/RED	N/A	BLK/RED	GRN/YELLOW	YELLOW/GRN	RED/GREEN (-)	RED/GREEN (+)	GREEN/ORG (-)	
Sephia	1999-00	RED	YELLOW	BLU/RED	N/A	GREEN	RED/BLACK	YELLOW/GRN	N/A	RED/GREEN (+)	BLU/RED (-)	
Sephia	1999-02	BLACK/RED	BLACK/YEL	BLU/RED	N/A	ORIG/BLK	ORIG/BLK	YELLOW/WHT	RED/GREEN (-)	BLACK/RED (-)	GREEN/ORG	
Sephia	2000-02	BLACK/YEL	WHITE/BLU	WHITE	N/A	GREEN	RED/BLACK	YELLOW/WHT	RED/GREEN (-)	PINK/BLACK	GREEN/ORANGE	
Lexus												
ES 300	1999-01	RED	BLACK/RED	BLACK/YEL	Transponder	BLU/RED	GREEN/WHITE	BLACK	RED/GREEN (-)	GREEN/BLACK (+)	GREEN/BLACK	Equipped with Transponder
ES 300	1997-98	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK/BLU	GREEN/WHITE (+)	BLACK	RED/BLU (-)	GREEN (+)	GRN/BLK (-)	Equipped with Transponder
ES 300	1992-96	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK/BLU	GREEN/WHITE (+)	BLACK	RED/BLU (-)	GREEN (+)	GRN/BLK (-)	Equipped with Transponder
GS300	1998-02	BLACK	BLACK/ORG	BLACK/YEL	See Note	BLU/YELLOW	GREEN/WHITE	BLACK	YELLOW/BLU	GREEN	GRN/BLK (-)	May have Transponder
GS300	1993-97	BLK/BLU	BLACK/ORG	BLACK/YEL	See Note	YELLOW	GREEN/RED (+)	BLACK	RED/BLACK (-)	GREEN (+)	GRN/WHITE (-)	1998 + Equipped with Transponder
GS400	1998-02	BLACK/RED	BLACK/ORG	BLACK	N/A	WHITE/GRN	GREEN	YELLOW/WHITE	GREEN (-)	GREEN (+)	GREEN (-)	1998 + May have Transponder
LS 400	1996-00	BLACK/RED	BLACK/ORG	BLACK	See Note	WHITE/GRN	GREEN	YELLOW/WHITE	GREEN (-)	GREEN (+)	GREEN (-)	1998 + May have Transponder
LS 400	1990-95	RED	BLACK/ORG	BLACK	N/A	PINK/BLU	GREEN/WHITE (+)	BLACK	RED/YELLOW	GREEN/ORG (+)	GREEN (-)	Equipped with Transponder
LS 430	2001-02	BLK/WHT	BLACK/RED	BLACK/YEL	N/A	WHITE/GRN	GREEN/WHITE (+)	BLACK	RED/YELLOW	GREEN (+)	GREEN (-)	Equipped with Transponder
LX460	1998-97	BLACK/WHT	BLACK/RED	BLACK/YEL	N/A	WHITE/GRN	GREEN/WHITE (+)	BLACK	RED/YELLOW	GREEN (+)	GREEN (-)	Equipped with Transponder
LX470	1998-00	BLACK/WHT	BLACK/RED	BLACK/YEL	N/A	WHITE/GRN	GREEN/WHITE (+)	BLACK	RED/YELLOW	GREEN (+)	GREEN (-)	Equipped with Transponder
RX 300	1999-02	BLACK/WHT	BLACK/RED	BLACK/YEL	N/A	WHITE/GRN	GREEN/WHITE (+)	BLACK	RED/YELLOW	GREEN (+)	GREEN (-)	Equipped with Transponder
SC300	1995-01	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK	GREEN/WHITE (+)	ORANGE	DISARM WHEN START	GREEN (+)	GREEN (+)	Equipped with Transponder
SC300	1995-01	BLACK/WHT	BLACK/ORG	BLACK/YEL	N/A	PINK	GREEN/WHITE (+)	BLACK	RED/BLACK (-)	GREEN (+)	GREEN (+)	Equipped with Transponder
SC300	1992-97	BLK/BLU	BLACK/ORG	BLACK/YEL	N/A	YELLOW	GREEN/WHITE (+)	BLACK	RED/BLACK (-)	GREEN (+)	GREEN (-)	1998 + May have Transponder
SC400	1992-01	BLACK/WHT	BLACK/ORG	BLACK/YEL	See Note	RED	GREEN/WHITE (+)	BLACK	RED/BLACK (-)	GREEN (+)	GREEN (-)	1998 + May have Transponder
Lincoln												
Continental	1998-02	RED/LT BLU	BROWN/PINK	GRAY/YEL	GRAY/YEL	BLK/LT GRN	LT GREEN	LT GRN/WHITE	DK GREEN/PURPLE (-)	ORANGE/BLACK (+)	DK BLUE (-)	Some are equipped with Transponder
Continental	1997-95	RED/LT BLU	RED/LT GRN	GRAY/YEL	GRAY/YEL	BLK/LT GRN	LT GREEN	DK GRN/VL	DK GREEN/PURPLE (-)	BROWN	YELT GREEN	Equipped with Transponder
LS	2000-02	GRAY/BLK	GREEN/BLK	YELLOW	PINK/YEL	PINK/GRN	ORANGE/YEL (+)	GRAY/VL	GRAY/ORG (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
Mark VIII	1997-99	RED/BLK	WHT/YEL	GRAY/YEL	DK GRN/VL	BROWN/GRN	LT GREEN (+)	DK GRN/VL	DK GREEN/PURPLE (-)	WHT/BLACK (+)	D BLUE (-)	Late model equipped with Transponder
Navigator	1997-02	RED/BLU	D BLU/GRN	GRAY/YEL	RED/BLACK	BLK/LT GRN	LT GREEN (+)	WHT/RED	BROWN (+)	BROWN (+)	DK BLUE (-)	Equipped with Transponder
Navigator	1998-02	RED/LT BLU	WHT/YEL	GRAY/YEL	PINK/BLK	BLK/LT GRN	LT GREEN	WHT/RED	LT GREEN	BROWN	DK BLUE (-)	Has a second acc wire Black/Lt-Green
Navigator	1998-02	RED/LT BLU	WHT/YEL	GRAY/YEL	PINK/BLK	BLK/LT GRN	LT GREEN	TAN/YELLOW	DK GREEN/PURPLE (-)	BROWN	DK BLUE (-)	Has a second acc wire Black/Lt-Green
Mazda												
626	2000-02	GREEN	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	RED	RED/WHITE	RED/WHITE	GREEN/RED	Equipped with Transponder
626	1998-99	GREEN	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	YELLOW	N/A	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
626	1993-96	BLACK/YEL	BLACK/RED	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
929	1998-96	WHT/RED	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
B-Series	1994-00	WHT/RED	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
Millenia	2001-02	RED/BLU	BLACK/YEL	BLACK/RED	N/A	BLACK/CLGRN	LT GREEN (+)	TAN/YELLOW	DK GREEN/PURPLE (-)	BROWN (+)	DK BLUE (-)	Equipped with Transponder
Millenia	1998-00	BLACK/YEL	BLACK/RED	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
Millenia	1995-96	BLACK/YEL	BLACK/RED	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MPV	2000-02	BLU/YEL	BLACK/YEL	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	GREEN	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MPV	1998-99	BLACK/YEL	BLACK/RED	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MPV	1996-97	BLACK/YEL	BLACK/RED	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MPV	1991-95	BLK/YEL	BLACK/WHT	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MPV	1994-95	BLK/YEL	BLACK/WHT	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MX3	1994-95	BLK/BLU	BLU	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MX3 / Malata	1999-02	WHT/BLK	RED/BLACK	N/A	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MX5 / Malata	1990-98	BLK/BLU	BLU	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
MX6	1998-97	BLK/BLU	BLU	BLACK/RED	N/A	BLACK/RED	WHITE/GREEN	RED/YEL	ORANGE (+)	ORANGE (+)	GREEN/ORG (-)	Equipped with Transponder
Navajo	1991-94	RED/BLU	RED/GRN	GRAY/YEL	GRAY/YEL	BLACK/CLGRN	GREEN	TAN/YELLOW	N/A	RED/BLACK (+)	YELT GRN	Equipped with Transponder
Protege	1990-02	BLK/BLU	BLU	BLACK/RED	N/A	BLACK/CLGRN	GREEN	TAN/YELLOW	N/A	RED/BLACK (+)	GREEN/ORG (-)	Equipped with Transponder
RXT	1993-95	BLK/BLU	BLACK/WHT	BLACK/RED	N/A	BLACK/CLGRN	GREEN	YELLOW/BLU	N/A	RED/BLACK (+)	GREEN/ORG (-)	Equipped with Transponder
Mercedes Benz												
ML 320	1998-00	WHITE	TAN	ORANGE	N/A	GRAY	TAN	BLUE	WHITE (-)	LT GREEN	N/A	
Mercury												
Capri	1991-94	BLACK/YEL	BLACK/WHT	BLACK/RED	N/A	BLUE	WHITE/GREEN (+)	YELLOW/BLU	N/A	WHT/GRN	GREEN/RED (-)	Equipped with Transponder
Capri	1990-02	GRAY/WHT	GREEN	N/A	N/A	YELT/GRN	ORANGE/BLU	BROWN/BLU	WHT/GRN	RED/BLU (+)	BLACK/BLU (-)	Equipped with Transponder
Cougar	1989-97	RED/BLU	RED/GRN	GRAY/YEL	N/A	BLK/LT GRN	LT GREEN (+)	WHT/GRN	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Grand Marquis	1989-02	WHT/PNK	BROWN/PNK	PINK/BLACK	GRAY/YEL	BLK/LT GRN	LT GREEN (+)	TAN/YELLOW	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Grand Marquis	1987-91	RED/BLU	RED/GRN	GRAY/YEL	GRAY/YEL	BLK/LT GRN	LT GREEN (+)	TAN/YELLOW	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Montclair	2002	RED	RED/GRN	GRAY/YEL	GRAY/YEL	BLK/LT GRN	LT GREEN (+)	TAN/YELLOW	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Montclair	1997-01	RED	RED/GRN	GRAY/YEL	GRAY/YEL	BLK/LT GRN	LT GREEN (+)	TAN/YELLOW	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Mystique	1995-00	GRAY/WHT	GREEN	N/A	N/A	YELLOW	ORANGE/YEL (+)	WHT/BLU	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Sable	1989-02	RED/BLU	RED/GRN	GRAY/YEL	GRAY/YEL	RED/BLACK	ORANGE/YEL (+)	WHT/BLU	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Sable	1986-94	WHT/PNK	RED/GRN	GRAY/YEL	GRAY/YEL	BLK/LT GRN	ORANGE/YEL (+)	TAN/YELLOW	DK GRN/PURPLE (-)	BROWN (+)	YELT GREEN	Late model equipped with Transponder
Topaz	1989-98	BLK/BLU	DARK GRN	BLACK/RED	GRAY/YEL	BLK/WHT	DARK GREEN (+)	YELD BLU	DK GRN/ORG	DK GRN/ORG	YELLOW (-)	Equipped with Transponder
Tracer	1993-95	BLK/BLU	DARK GRN	BLACK/RED	GRAY/YEL	BLK/WHT	DARK GREEN (+)	YELD BLU	DK GRN/ORG	DK GRN/ORG	YELLOW (-)	Equipped with Transponder
Tracer	1993-02	RED	BROWN	RED/GRN	BROWN	WHITE/GRN	YEL/BLACK (+)	BLUE	RED/BLACK (-)	PINK	BLK OR YEL	Equipped with Transponder
Villager	1993-94	RED	WHT/RED	BROWN	N/A	WHITE/GRN	YEL/BLACK (+)	BLUE	RED/BLACK (-)	PINK	BLK OR YEL	Equipped with Transponder
Mitsubishi												
3000GT	1991-99	BLACK/YEL	BLK/WHT	BLU/BLK	N/A	BLUE	GREEN (+)	WHT/BLACK	LIGHT GREEN	ORANGE/SILVER	GREEN/BLACK	Equipped with Transponder
Diamante	1998-02	BLACK/RED	BLK/WHT	BLU/BLK	N/A	BLUE/WHITE	GREEN/WHITE	WHT/BLACK	LIGHT GREEN	ORANGE/SILVER	GREEN/SILVER	Equipped with Transponder
Diamante	1992-97	BLACK/YEL	BLK/WHT	BLU/BLK	N/A	BLUE/WHITE	GREEN (+)	WHT/BLACK	LIGHT GREEN	ORANGE/SILVER	GREEN/SILVER	Equipped with Transponder

Make/model	Year	START	IGN 1	IGN 2	IGN 3/THEFT	ACC	BRAKE LIGHTS	TACH	ALARM DISARM	PARKING LIGHTS	HORN	NOTE
Elipse	2000-02	BLACK/RED	GREEN	BLU/RED	NA	BLU/BLACK	GREEN/ORG	WHITE	ORANGE (-)	PINK/BLACK (+)	VOLET (-)	Equipped with Transponder
Elipse Spider	1991-99	BLACK/RED	BLK/WHTE	BLU/BLK	NA	BLU	GREEN/WHTE	WHITE	GREEN/YELLOW (+)	GREEN/WHTE (+)	GREEN/RED (-)	
Expo	1992-96	BLACK/RED	BLK/WHTE	BLU/BLK	NA	BLU	GREEN/WHTE	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	GREEN/BLACK	Equipped with Transponder
Galett	1999-02	BLACK/YEL	WHTE/BLK	BLU/BLK	NA	BLU/BLACK	GREEN/STYLER	WHITE	BROWN/WHTE	GREEN/WHTE (+)	GREEN/WHTE	
Galant	1987-98	BLACK/RED	BLK/WHTE	BLU/BLK	NA	BLU/WHTE	GREEN (+)	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	LIGHT GREEN (-)	
Marque	1995-01	BLACK/YEL	BLK/WHTE	BLU/BLK	NA	BLU/WHTE	GREEN (+)	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	WHTE/BLU	
Montero	2001-02	BLACK/YEL	BLK/WHTE	BLU/BLK	NA	BLU/WHTE	BLU/ORGANGE	WHITE	BROWN	GREEN/WHTE (+)	LT GREEN/BLK	
Montero	1989-00	BLACK/YEL	BLK/WHTE	BLU/RED	NA	BLU/RED	GREEN	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	GREEN/BLK (+)	
Montero	1995-96	BLU/BLK	BLK/WHTE	BLU/RED	NA	BLU/RED	GREEN	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	GREEN/BLK (+)	
Montero	1990-94	BLU/BLK	BLK/WHTE	BLU/RED	NA	BLU/RED	GREEN	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	GREEN/BLK (+)	
Montero	1989	BLK/YEL	BLK/WHTE	BLU/RED	NA	BLU/RED	GREEN	WHITE	GREEN/WHTE (+)	GREEN/WHTE (+)	GREEN/BLK (+)	
Montero Sport	1997-02	BLK/YEL/BLK/GRN	BLK/WHTE	BLU/RED	NA	BLU	GREEN	WHITE	NA	GREEN/WHTE (+)	GREEN/BLK (+)	
Nissan												
200 SX	1995-98	BLACK/WHTE	BLACK/RED	BLK/PNK	NA	WHITE/BLU	RED/GREEN (+)	BLUE/ORGANGE	GREEN/YELLOW (+)	RED/BLU (+)	GRAY/YEL (-)	
200SX	1989-90	BLACK/YEL	BLK/WHTE	NA	NA	WHITE/BLU	RED/GRN/RED (+)	RED/WHTE	GREEN/YELLOW (+)	RED/BLU (+)	NA	
340 ZX	1989-98	BLACK/YEL	BLACK/RED	NA	NA	WHITE/BLU	RED/GRN/RED (+)	YELLOW/RED	GREEN/YELLOW (+)	RED/BLU (+)	GREEN/WHTE (+)	
Alina	1987-86	BLACK/WHTE	BLACK/RED	NA	NA	BLU	RED/BLACK	YELLOW/RED	GRAY/YEL (-)	GREEN/RED (+)	GRN/WHTE (+)	
Alina	1993-97	BLK/YEL	BLACK/RED	BLK/PNK	NA	BLK/PNK	RED/BLACK	LT GRN/ORG	GREEN/YELLOW (+)	RED/BLU (+)	NA	
Alina	2002	BLACK/WHTE	BLACK/RED	BLK/PNK	1999 have Transponder	WHITE/BLU	RED/GRN/RED (+)	BLU/BLACK	GREEN/YELLOW (+)	RED/BLU (+)	GRN/WHTE (+)	1999 have Transponder
Alina	1998-02	BLACK/YEL	BLACK/RED	RED	2001 have Transponder	WHITE/BLU	RED/GRN/RED (+)	BLU/BLACK	GREEN/YELLOW (+)	RED/BLU (+)	PINK/BLU	2001 have Transponder
Frontier	1998-02	BLACK/YEL	BLK/WHTE	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (-)	BLU/RED (+)	GREEN/WHTE (+)	
Frontier/Pickup	1998-00	BLACK/YEL	BLK/WHTE	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Maxima	1999-01	BLK/BLU	BLK/RED	RED	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Maxima	1997-98	BLACK/RED	BLACK/RED	RED	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Maxima	1995-96	BLK/WHTE	BLACK/RED	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Maxima	1987-94	BLACK/WHTE	BLACK/RED	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Maxima	2002	BLACK/WHTE	BLACK/RED	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Pathfinder	1996-02	BLACK/YEL	BLK/WHTE	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Pathfinder	1990-95	BLACK/YEL	BLK/WHTE	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	PINK/BLU	GREEN (+)	BLU/RED (+)	GREEN/WHTE (+)	
Pathfinder	1987-97	BLACK/YEL	BLK/WHTE	NA	NA	WHITE/BLU	GREEN/YEL (+)	WHITE	NA	PINK/BLU (+)	GRN/BLK (+)	
Pickup	1993-95	BLACK/GRN	BROWN	RED/GRN	NA	BROWN	WHITE/GRN	WHITE or BLU	NA	PINK/BLU (+)	GRN/BLK (+)	
Quest	1986-02	BLACK/GRN	BROWN	RED/GRN	NA	BROWN	WHITE/GRN	WHITE or BLU	NA	PINK/BLU (+)	GRN/BLK (+)	
Quest	1993-95	RED/GRN	WHTE/RED	BROWN	NA	WHITE/GRN	WHITE/GRN	WHITE or BLU	NA	PINK/BLU (+)	GRN/BLK (+)	
Quest	2000-02	BLACK/YEL	BLACK/RED	WHITE	NA	WHITE/BLU	RED/GRN/RED (+)	BLU	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	2 Start wires - 2nd wire is red
Sentra	2000-02	BLACK/WHTE	BLACK/RED	WHITE	NA	WHITE/BLU	RED/GRN/RED (+)	BLU	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	2 Start wires - 2nd wire is red
Sentra	2000-03	BLACK/WHTE	BLACK/RED	WHITE	NA	WHITE/BLU	RED/GRN/RED (+)	BLU	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	2 Start wires - 2nd wire is red
Sentra	2000-03	BLACK/WHTE	BLACK/RED	WHITE	NA	WHITE/BLU	RED/GRN/RED (+)	BLU	RED/BLACK (-)	ORANGE/BLACK (-)	YELLOW (-)	2 Start wires - 2nd wire is red
Xterra	2000-04	BLACK/YEL	BLACK/WHTE	RED/YEL	NA	WHITE/BLU	GREEN/YEL (+)	BLU/BLACK	GREEN (-)	BLU/RED (+)	GRN/WHTE (+)	2002 Equipped with Transponder
OLDSMOBILE												
Achtiva	1993-98	YELLOW	PNK	WHITE	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Alero	1999-01	YELLOW	PNK	DK-GREEN	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Alero	2001-02	PURPLE	PNK	WHITE	NA	ORANGE	WHITE (+)	PURPLE/WHTE	L GREEN	BROWN/WHTE	BLACK (-)	Equipped with passlock II
Alero	1995-99	YELLOW	PNK	PURP/WHTE	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with VATS System.
Arona	1995-02	YELLOW	PNK	WHITE	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Bravada	1991-94	YELLOW	PNK	ORANGE	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Bravada	1987-96	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Ciera	1990-95	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Cruiser	1997-99	YELLOW	PNK	PURP E	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Cultus	1992-98	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with Passlock II
Eighty-Eight	1988-02	YELLOW	PNK	D GREEN	NA	ORANGE	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	1992-1998 has no ignition 3
Inspire	1996-98	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with Passlock II
LSS	1994-96	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Ninety Eight	1997-98	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Regency	1990-91	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Regency	1990-91	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Silhouette	1990-02	YELLOW	PNK	WHT or ORNG	NA	ORNG or BRWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	1999+ Equipped with Passkey III
PLYMOUTH												
Acclaim	1989-95	YELLOW	DARK BLUE	BLACK/ORG	NA	BLACK/WHTE	WHITE/TAN (+)	BLACK/GRAY	NA	BLACK/YELLOW (+)	BLACK/RED (-)	
Breeze	1996-02	YELLOW	BLACK/WHTE	BLACK/ORG	NA	BLACK/WHTE	WHITE/TAN (+)	BLACK/GRAY	NA	BLACK/YELLOW (+)	BLACK/RED (-)	
Voyager	2001-02	YELLOW	PNK/WHTE	NA	NA - Transponder	BLACK/WHTE	WHITE/TAN (+)	BLACK/GRAY	NA	BLACK/YELLOW (+)	BLACK/RED (-)	(note: this vehicle needs 180 ohm resistor
Voyager	1996-00	YELLOW	BLU	GRN/RED	NA	BLK/ORG	WHITE/TAN (+)	BLU/TAN	VIOL/TLT BLU	RED/BLACK (+)	GREEN/BLK (-)	
Voyager	1991-95	YELLOW	BLU	BLK/ORG	NA	BLK/WHTE	WHITE/TAN (+)	BLU/TAN	WHITE/RED (-)	BLACK/YELLOW (+)	BLACK (-)	
Voyager	1987-94	BLACK/YEL	BLACK/WHTE	BLU/BLK	NA	BLU	GREEN	WHITE	NA	GREEN/WHTE (+)	GREEN/BLK (-)	
Coil	1993-94	BLACK/YEL	BLACK/WHTE	BLU/BLK	NA	BLU	GREEN	WHITE	NA	GREEN/WHTE (+)	GREEN/BLK (-)	
Coil	1991-94	BLACK/YEL	BLACK/WHTE	BLU/BLK	NA	BLU	GREEN	WHITE	NA	GREEN/WHTE (+)	GREEN/BLK (-)	
Laser	1995-02	YELLOW	DARK BLUE	BLACK/ORG	NA	BLACK/WHTE	WHITE/TAN (+)	GRAY/YL BLU	BLACK/YELLOW (+)	BLACK/YELLOW (+)	BLACK/RED (-)	Late model equipped with Transponder
Neon	1997-00	YELLOW	DARK BLUE	RED/WHTE	NA	BLACK/ORG	WHITE/TAN (+)	GRAY/YL BLU	LT GREEN/BLK (-)	BLACK/YELLOW (+)	BLACK/RED (-)	
Prancer	1997-00	YELLOW	DARK BLUE	BLACK/ORG	NA	BLACK/WHTE	WHITE/TAN (+)	GRAY/YL BLU	LT GREEN/BLK (-)	BLACK/YELLOW (+)	BLACK/RED (-)	
Prancer	1993-94	YELLOW	DARK BLUE	BLACK/ORG	NA	BLACK/WHTE	WHITE/TAN (+)	GRAY/YL BLU	LT GREEN/BLK (-)	BLACK/YELLOW (+)	BLACK/RED (-)	
PONTIAC												
Bonneville	2000-02	YELLOW	PNK	WHITE	NA	PK3	ORANGE	WHITE	L-Green	BROWN/WHTE	BLACK (-)	
Bonneville	1992-98	YELLOW	PNK	ORANGE	NA	BROWN	L BLU (+)	WHITE	L-Green	BROWN (+)	BLACK (-)	Equipped w/ VATS. *In 1992-95 Brake wire is White
Bonneville	1998-02	YELLOW	PNK	ORANGE	NA	BROWN	L BLU (+)	WHITE	L-Green	BROWN (+)	BLACK (-)	Equipped w/ VATS
Firebird	1987-97	YELLOW	PNK	ORANGE	NA	BROWN	L BLU (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Firebird	1987-97	YELLOW	PNK	DK-GREEN	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Grand Am	1989-02	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Grand Prix	1997-02	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with Passkey II
Grand Prix	1988-96	YELLOW	PNK	PURPLE	NA	BROWN	WHITE (+)	WHITE	ORANGE/BLACK (-)	BROWN (+)	BLACK (-)	Equipped with Passkey III
Montana	1998-02	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Montana	1993-94	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with Transponder
Sunbird	1997-89	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Sunbird	2000-02	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	DISARM WHEN START	BROWN (+)	BLACK (-)	Equipped with passlock II
Sunfire	1995-99	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	Equipped with Passlock
Sunfire	1997-98	YELLOW	PNK	ORANGE	NA	BROWN	WHITE (+)	WHITE	NA	BROWN (+)	BLACK (-)	
Transport	1990-96	YELLOW	PNK	WHT or ORNG	NA	BROWN or Orange	WHITE (+)	WHT OR PPL	NA	GREEN/BLACK (-)	BLACK (-)	
SATURN												

