

# **UNI-335**

LCD Display 2-Way Alarm & Starter

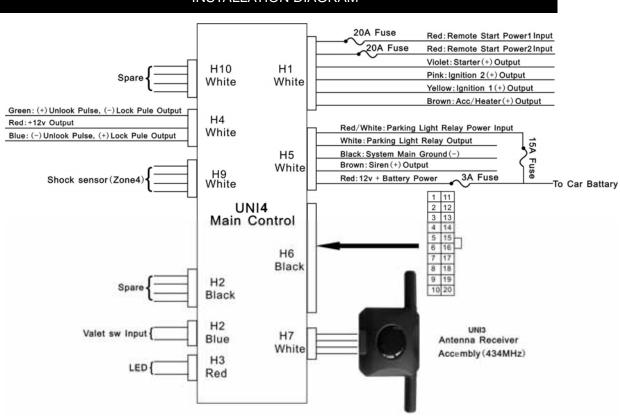
# INSTALLATION MANUAL

**UNI 4: Main Control** 

**UNI3:Antenna Receiver** 

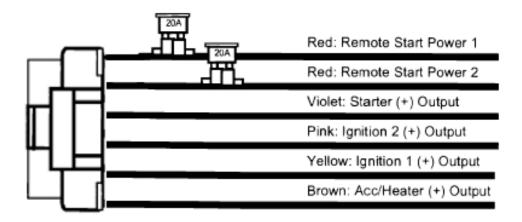
# UNI-335 manual

# **INSTALLATION DIAGRAM**

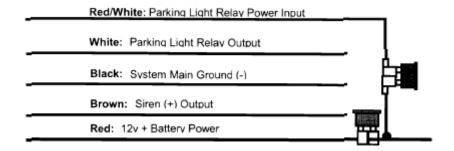


Pin	Color	Function	
1	Brown/Black	Ground Output While Running(Engine Run output)	
2	Gray/Black	Second Starter Output	
3	Pink	2-Step Unlock/Factory Disarm/Sensor	
		By-pass	
4	White/Blue	Instant Start And Turn Off /Input	
5	White	Dome Light Control Output	
6	Brown/White	Horn Output (Programmable)	
7	Black/Green	Channel 4 Programmable Output	
8	Black/White	Neutral Safety Switch Input	
9	Orange/White	Ground Output When Disarmed	
10	White/Red	Tachometer Signal Input(RPM input)	
Pin	Color	Function	
11	Blue/Black	Accessory 2 Control Output	
12	White/Green	Diesel Wait To Start Input	
13	Yellow	Ignition 3 Control Output	
14	Green	Zone 3(-)Negative Door Pin Trigger	
15	Gray	Channel 3(Trunk) Output	
16	Blue	Zone 2 Negative Hood/Trunk Trigger	
17	White/Violet	(+) Brake Switch Shutdown Input	
18	Violet	Zone 3 (+) Positive Door Pin Trigger	
19	White/Black	(-)Negative Hood Pin Safely Shutdown	
20	Orange	Ground Output When Armed	

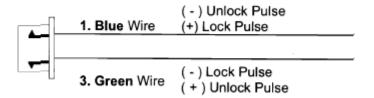
# H1 6PIN HEAVY GAUGE WIRE HARNESS



## H1 5 PIN WIRE HARNESS



# H1 3 PIN, DOOR LOCK CONNECTOR



#### **WIRING**

Keep wiring away from moving engine parts, exhaust pipes and high-tension cable. Be sure to tape wires that pass through holes on the firewall to prevent fraying.

**CAUTION:** Do not connect the wire harness to the control module until all wiring to vehicle is complete

#### **H1:6 PIN HEAVY GAUGE WIRING CONNECTIONS:**

Remember that what the system does to start a vehicle is to duplicate the functions we will explain the three basic functions of the ignition switch. Since this installation switch functions, we recommend making the three connections below at the ignition of the ignition key switch! Below, will require analysis of the ignition switch harness directly

#### **Violet Wire-Starter Output**

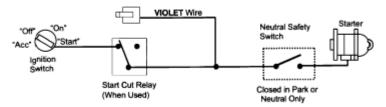
Careful consideration for the connection of this wire must be made to prevent the vehicle from Understanding the difference between a mechanical and an electrical Neutral Start Switch will identify the circuit and select the correct installation method. In addition you will realize why safety wire is required for all mechanical switch configurations.

Failure to make this connection properly can result in personal injury and property damage.

In all installations it is the responsibility of the installing technician to test the remote start unit and assure that the vehicle can not start via RF control in any gear selection other than park or neutral.

In both mechanical and electrical neutral start switch configurations, the connection of the VIOLET wire will be made to the low current start solenoid wire of the ignition switch harness. This wire has +12 volts when the ignition switch is turned to the "START" (CRANK) position only. This wire has 0 volts in all other ignition switch positions.

NOTE: This wire must be switch configuration, this safety switch as shown in safety switch can result in connected to the vehicle side of the starter cut relay (when used). For the electrical neutral connection must be made between the starter inhibit relay (when used) and the neutral the following diagram. Failure to connect this wire to the ignition switch side of the neutral personal injury and property damage. SEE NEUTRAL START SAFETY TEST FOR FURTHER DETAILS.



### Red Wire (2)—+12V Power Input

Remove the two 20A fuses prior to connecting these wires and do not replace them until the remote has been plugged into the control module. These wires are the source of current for all the circuits the relay will energize. They must be connected to a high current source. Since the factory supplies (+)12V to the key switch that is used to operate the motor, it is recommended that these wires be connected there.

#### Yellow Wire — Ignition 1 Output

Connect the YELLOW wire to the ignition 1 wire from the ignition switch. The ignition wire should receive "12 volts" when the ignition key is in the "ON" or "RUN" and "START" or "CRANK" position. When the ignition is turned "OFF", the ignition wire should receive "0" voltage. **The YELLOW wire must be connected**.

## PINK Wire—Ignition 2 Output

Some vehicles have [2] ignition wires that must be power. Connect the PINK wire to the ignition 2 wire from the ignition switch. The ignition wire should receive "12 volts" when the ignition key is in the "ON" or "RUN" and "START" or "CRANK" position. When the ignition is turned "OFF", the ignition wire should receive "0" voltage. If the PINK wire is not used, cap the end of the wire.

## **Brown Wire -Accessory Output (Heater /AC Output)**

Connect the BROWN wire to the accessory wire in the vehicle that powers the climate control system.

An accessory wire will show+12 volts when the ignition switch is turned to the "ACCESSORY" or "ON" and "RUN" positions, and will show 0 Volts when the key is turned to the "OFF" and "START" or "CRANK" position. There will often be more than one accessory wire in the ignition harness. The correct accessory wire will provide power to the vehicle's climate control system. Some vehicles may have separate wires for the blower motor and the air conditioning compressor. In such cases, it will be necessary to add a relay to power the second accessory wire.

#### H5: 5 PIN WIRE HARNESS:

#### **RED / WHITE WIRE -PARKING LIGHT RELAY INPUT**

The RED/WHITE wire is the input to the flashing parking light relay. The connection of the RED/WHITE wire will determine the output polarity of the flashing parking light relay. If the vehicle you are working on has +12volt switched parking lights, you don't need connect this wire. This wire is already connected to +12volt.

If the vehicle's parking lights are ground switched, cut the RED/WHITE wire, connect the RED/WHITE wire to chassis ground.

# WHITE WIRE—PARKING LIGHT RELAY OUTPUT (+12 V 10A OUTPUT)

Connect the WHITE wire to the parking light wire coming from the headlight switch. Do not connect the WHITE wire to the dashboard lighting dimmer switch. (Damage to the dimmer will result). The limitation of the WHITE wire is 10 AMP max. Do not exceed this limit or damage to the alarm and parking relay will result.

#### **BLACK WIRE—SYSTEM GROUND—**

This is the main ground connection of the alarm module. Make this connection to a solid section of the vehicle frame.

Do not connect this wire to any existing ground wires supplied by the factory wire loom, make the connection to the vehicle's frame directly.

#### BROWN WIRE—(+)2A SIREN OUTPUT

This wire is provides power to the supplied siren. Connect the Brown wire to the Red wire of the siren. Connect the Black wire of the siren to a stable chassis ground.

## **RED WIRE—SYSTEM POWER (+12V) CONSTANT**

The RED wire supplies power to the system. Connect this wire to a stable constant +12 volt source.

#### H7. 4-PIN BLACK CONNECTOR TWO-WAY TRANSCEIVER/ANTENNA MODULE

The Two-way transceiver/antenna mounting location should be the upper left or lower left corner of driver's windshield. For optimum range we suggest that the antenna be mounted as shown in picture to the right. (Antenna tip facing up)

## Warning!

Do not mount in such a manner that it obstructs
The drivels view.



- -Remove the protective tape backing.
- -Carefully align the two-way transceiver/antenna and apply to windshield.
- -Route the white connector wire behind the trim and connect to the two-way transceiver/antenna.
- -Connect the other end to the control module.
- -Special considerations must be made for windshield glass as some newer vehicles utilize a metal-shielded window glass that will inhibit or restrict RF reception. In these vehicles, route the two ways transceiver/antenna module away from metallic shielded window glass as far as possible.

#### H8. 2 PIN BLUE CONNECTOR FOR THE VALET SWITCH: (Under door on main unit)

Select a mounting location for the switch that is easily accessible to the driver of the vehicle. The switch does not have to be concealed, however, concealing the switch is always recommended, as this provides an even higher level of security to the vehicle. Mount the valet switch in a hidden but accessible location. Route the valet switch wires to the control module.

## H3. 2 PIN WHITE CONNECTOR (THE LED STATUS INDICATOR):

The led indicator status should be mounted in a highly visible area such as top of the dashboard, on top of the shifter console or on the dashboard face. Leave at least 6mm space behind the mounting location for LED housing. Once a suitable location is chosen, drill a 6mm hole. Run the LEO wires through the hole then press the 2 pin LED housing

# H9. 4 PIN ORANGE CONNECTOR 2 STAGE SHOCK SENSOR, ZONE-4, (Under door on main unit)

## H-6: 20 PIN WIRE CONNECTORS:

1	11	
2	12	Ш
3	13	
4	14	
5	15	
6	16	
7	17	
8	18	
9	19	
10	20	

Pin	Color	Function
1	Brown/Black	Ground Output While Running
2	Gray/Black	Second Starter Output
3	Pink	2-Step Unlock/Factory Disarm/Sensor By-pass
4	White/Blue	Instant Start And Turn Off Input
5	White	Dome Light Control Output
6	Brown/White	Horn Output (Programmable)
7	Black/Green	Channel 4 Programmable Output
8	Black/White	Neutral Safety Switch Input
9	Orange/White	Ground Output When Disarmed
10	White/Red	Tachometer Signal Input
Pin	Color	Function
11	Blue/Black	Accessory 2 Control Output
12	White/Green	Diesel Wait To Start Input
13	Yellow	Ignition 3 Control Output
14	Green	Zone 3(-)Negative Door Pin Trigger
15	Gray	Channel 3(Trunk) Output
16	Blue	Zone 2 Negative Hood/Trunk Trigger
17	White/Violet	(+) Brake Switch Shutdown Input
18	Violet	Zone 3 (+) Positive Door Pin Trigger
19	White/Black	(-)Negative Hood Pin Safely Shutdown
20	Orange	Ground Output When Armed

## H6/1 BROWN/BLACK WIRE: 200 mA(-)Ground Output When Running.

This wire provides a negative output during the remote start process. It can be used to operate by-pass modules that may be required in your installation. This wire will provide ground once the remote start process has been initiated and will remain grounded while the engine is running.

# H6/2 GRAY/BLACK WIRE: 200 mA(-)Second Starter Output.

This line can be used if a second starter line is needed. Some vehicles require a two-starter line to remote start. This wire provides a negative output that will work the same way as the Violet starter line in connector H1.

#### H6/3 PINK WIRE—(-)200mA Programmable Output

#### 2 Steps Unlock Output (Factory default setting)

(See Alarm Feature **C—1** Programming)

The 2 steps unlock feature will work for the most fully electronic door lock circuit. The vehicle must have an electronic door lock switch (not the lock knob or key switch), which locks and unlocks all of vehicle's doors. When wired for this feature, press the disarm (or unlock) button one time will disarm the alarm and unlock the driver's door only. If, press disarm (or unlock) button two times within 3 seconds, the alarm will disarm and all doors will unlock.

# Factory Security Disarm Signal Output—

This wire is designed to disarm a factory installed security system. This wire sends a negative (-)1 seconds pulse upon a remote stag and remote door unlocking. Some factory systems must be disarmed to allow remote starting. In most cases, this wire may be connected directly to the factory alarm disarm wire. The correct wire will show negative ground when the key is used to unlock the doors or trunk. This wire is usually found in the kick panel area in the wiring harness coming into the car body from the door.

## Start Status (Shock Sensor By-Pass Control) Output-

This wire is designed to by-pass shock sensor module. This wire will supply an output at all times the remote start is operating plus an additional 3 seconds after the remote start unit turn off.

### Key Sensor By-Pass Output-

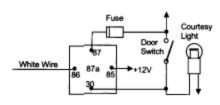
This output is for a Key Sense wire by-pass that some Chrysler and Toyota vehicles need to activate remote start. *This wire comes on when remote start is activated and stays on for 20 seconds.* 

#### H6/4 WHI7E / BLUE WIRE—(-)Instant Start 8 Turn Off Input—

This wire activates and turns off the remote starter each time it sees a momentary ground signal. Normally used far testing during installation or when activating the module from an after-market system.

#### H6/5 WHITE WIRE—(-)200mA Dome Light Control Output—

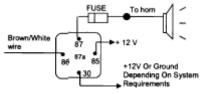
This wire becomes grounded when the dome light controls circuit active. The current capacity of this wire is 200mA This wire can control the operation of the interior lights. An optional 10 Amps relay can be used this system for interior lights operation



- a). Upon disarming, the interior lights will remain on for 30 seconds.
- b). If the alarm is triggered, the interior light will flash for the same duration as the siren.

# **H6/6 BROWN / WHI7E WIRE**—(-)200mA Programmable Output Horn Output—(Factory default setting)

This wire is provided to use the existing vehicle's horn as the alarm system's optional's warning audible device It's a transistorized low current output, and should only be connected to the low current ground output from the vehicle's horn switch. When the system is triggered, the horn will sound.



## Factory Security Rearm Signal Output—(See Alarm Feature C—2 Programming)—

This output is programmable. If programmed rearm a factory installed security system. This wire will supply a pulse whenever the remote start times out or is shut down using the transmitter and remote door locking.

#### H6/7 BLACK/GREEN WIRE—(-)200mA Channel 4

See Alarm Feature C—6 Programming)

Channel 4 Output (Factory default setting,

Momentary grounded)

This wire is built-in user-programmable timer output provides a ground through this wire. Press the transmitter and buttons at the same time. You may program the built-in timer to send a ground signal for any time interval between 1 second and 2 minutes.

For instance, this timer output may be used to turn on the headlight with the remote control. Also on certain BMW, Mercedes Benz, Jaguar and Volkswagen cars, you can use this unique timed output to allow remote closure of all power window and sunroof without the need for an external module!

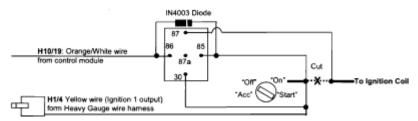
**H6/8 BLACK/WHITE WIRE**—(-)Neutral Safety Switch Input or(-)Enable Switch Input-When the BLACK/WHITE wire is grounded, the remote start unit is operable. When this wire is open from ground, the remote start is disabled.

- 1. The optional "remote start toggle switch" can be added on to temporarily disable the Remote Start Device, it can prevent the vehicle from being remote started accidentally. This feature is useful if the vehicle is being serviced or stored in an enclosed area. To disable the remote start, move the optional remote start enable toggle switch to the OFF position. To enable the remote start, move the optional remote start enable toggle switch to the ON position
- 2. If needed, this wire can connect to the PARK/NEUTRAL switch in the vehicle. (See the TESTING YOUR INSTALLATIIN GUIDE)

IMPORTANT NOTE: This wire must have a "GROUND" to operate remote start

# **H6/9 ORANGENVHITE WIRE**—200mA Grounded Output when Disarmed—N.O. Disable

This wire will become grounded when the alarm is disarmed. The current capacity of this wire is 200mA. It can be connected to optional Ignition disable relay / ECU disable relay / Fuel Pump disable relay.



### H6/10 WHITE/RED WIRE—Tachometer Signal Connection—

Note: You should connect this wire if you program the Start Feature E—2 to "Tachometer checking type", otherwise do not connect this wire and tap the end. Note: No connection of this wire is required, if you use the voltage or timer checking type mode.

This input provides the remote start system with information about the engine's revolutions per minute (RPM). It can be connected to the negative side of the coil in vehicle with conventional coils. In multi-coil and high energy ignition system locating a proper signal may be more difficult. Once connected.

To test for a tachometer wire, a multi-meter capable of testing AC voltage must be used. The tachometer wire will show between 1V and 6V AC at idle, and will increase as engine RPM increases. In multi-coil ignition system, the system can learn individual coil wire. Individual coil wires in a multi-coil ignition system will register lower amounts of AC voltage. Also, if necessary, the system can use a fuel injector control wire for engine speed sensing. Common locations for a tachometer wire are the ignition coil itself, the back of the gauges, engine computers, and automatic transmission computers. IMPORTANT! Do not test tachometer wires with a test light or logic probe. The vehicle will be damaged.

How to find a tachometer wire with your multi-meter.

- 1. Set the ACV or AC voltage (12V or 20V is fine).
- 2. Attach the(-)probe of the meter to chassis ground.
- 3. Start and run the vehicle.
- 4. Probe the wire you suspect of being the tachometer wire with the red probe of the meter.
- 5. If this is the correct wire the meter will read between 1 V and 6V.

# IMPORTANT NOTE: Must program the "Tach Signal" before trying to remote start.

#### H6/11 BLUE/BLACK WIRE—(-)200mA Accessory 2 Output—

This wire provides a 200mA (-) ground output. This output will energize when the remote start is activated, go away while the starter is cranking, and then come back on when the vehicle has started successfully.

#### **H6/12 WHITE/GREEN WIRE**—(-)Diesel Wait To Start Input

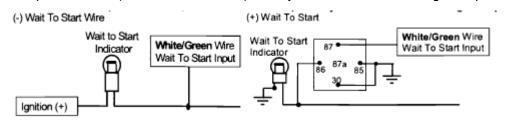
(See Start Feature **D-1** Programming)

In diesel vehicles it is necessary to interface with the wire that on the WAIT-TO-START light in the dashboard. This wire illuminates the bulb until the vehicle's glow plugs are properly heated. When the light goes out the vehicle can be started. This wire is always at the connector leading to the bulb in the dashboard. It can also be found at the Engine Control Module (ECM) in many vehicles.

To test and determine the polarity of this wire:

- 1. Set your multi-meter to DCV or DC voltage (12V or 20V is fine).
- 2. Attach the (+)probe of the meter to(+)12V.
- 3. Probe the wire that you suspect leads to the bulb with the(-)probe of the meter.
- 4. Turn the ignition switch to the ON position.
- 5. If the meter indicates 12 volts until the light goes out you have isolated the connect wire and the wire's polarity is negative (ground while the bulb is on).
- 6. If the meter reads zero volts until the light goes out and then reads 12 volts, you have isolated the connect wire and the wire's polarity is positive.

Connect this wire to the wire in the vehicle that sends the signal to turn on the WAIT TO-START bulb in the dashboard. In most diesels the wire is negative (ground turns on the bulb) and this wire can be directly connected to the wire in the vehicle If the vehicles use a positive wire (12V to turn the bulb) a relay must be used to change the polarity.

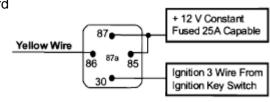


## **H6/13** YELLOW WIRE—(-)200mA Ignition 3 Output

This wire provides a 200mA (-) ground output that becomes active after the remote start sucess, and remains grounded while running.

## **Ignition 3 output**

Some newer vehicles use a third ignition wire which is required to start and keep the vehicle's engine running. If this is the case, wire an IGN 3 relay (not supplied) as shown below: Do not connect any vehicle circuits together, they are isolated for a reason.

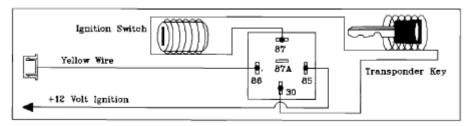


### Transponder interfacing using relay:

If the vehicle has a transponder system installed, you will need to by-pass the system while the vehicle is operating under the control of the Remote Start Unit.

To do this:

- 1. You will need a transponder key that's already programmed to the vehicle.
- 2. Remove the trim around the ignition switch.
- 3. Wrap a thin (28 30awg) wire tightly around ignition switch 6 to 8 times and secure it.
- 4. About 6"down line make another loop of approximately 2"diameter.
- 5. Place the key inside this loop and secure it to the loop.
- 6. Connect on end of the (28 30awg) wire to pin (87) of the relay module.
- 7. Connect the other end of the loop wire to Pin (30) of relay module.
- 8. Connect the pin (86) of the relay module to the ignition wire from the ignition switch.
- 9. Connect the pin (85) of the relay module to the **H6/13** yellow wire of 20-pin connector.



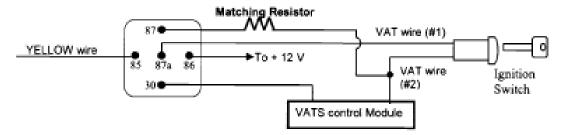
#### **GM VATS KEY OVERRIDE:**

If the vehicle has the General Motor VATS system installed, you will need to by-pass the system while the vehicle is operating under the control of the Remote Start Unit. To do this:

- 1. Measure the resistance of the resistor pellet on the ignition key then select a resistor within 5% of the key's value.
- 2. Locate the pair of VATS wires in the vehicle, usually a pair of thin gauge wires running from the ignition switch to the VATS control module
- 3. Connect the YELLOW wire from Remote Start Unit to TERMINAL #86 of an external relay. Connect terminal #86 of the relay to a fused +} 2 volt
- 4. Cut (#1) wire (as shown), and connect the ignition switch side of the cut wire to terminal #87a of the relay. Connect the other

side of the (#1) wire to terminal #30

5. Connect the previously seleted resistor from terminal #87 to the second(#2) wire (as shown)



H6/14 GREEN WIRE—Negative Door Switch Sensing Input (Zone 3)—

This wire is the ground trigger input wire for negative door pin switch. This wire is

connection for "grounding" type factory door pins locate the "common wire' that connects the door pin switches. Make the connection of the GREEN Wire here.

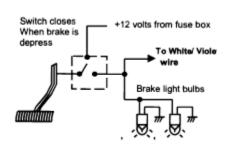
## H6/15 GRAY WIRE—(-)200mA Channel 3 Output—

This will become a 1 second pulse ground by activate (button 3) on transmitter for two seconds, the current capacity of this wire is 200 mA. This feature allows you to remote control trunk release or other electric device. (Realay may be required).

# **H6/16 BLUE WIRE**—Ground Instant Trigger Input **(Zone 2)**— This wire is the ground trigger input wire for hood and or trunk pin switches

#### H6/17 WHITE/VIOLET WIRE—Positive Safety Shut Down Input—

This wire provides an instant shutdown for the remote start, whenever it gets +12volts. If the brake lights switch in the vehicle switches +12 volts to the brake light circuit, connect this wire to the output side of the brake switch. This will allow the remote start to shut down if an attempt is made to operate the vehicle without the key while running under the control of the remote start. In most vehicles, in order to gear, the brake pedal must be depressed. The brake input will in turn cause the remote start unit to shut off. See diagram.



#### H6/18 VIOLET WIRE—Positive Door Switch Sensing Input (Zone 3)—

This wire is the positive trigger input wire for positive door pin switch. This wire is connection for "positive" type factory door pins(typical FORD MOTOR). Locate the "common wire" for all door pins and make the connection of the VIOLET Wire here.

#### H6/19 WHITE/BLACK WIRE—Negative Safety Shut Down Input—Hood trigger Input

The WHITE/BLACK wire provides an instant shutdown for the remote start, whenever it is grounded. Connect the wire to the hood pin switch previously installed. This wire must be routed though a grommet in the firewall and connected to the hood pin switch. This will also act as a hood trigger for the alarm system

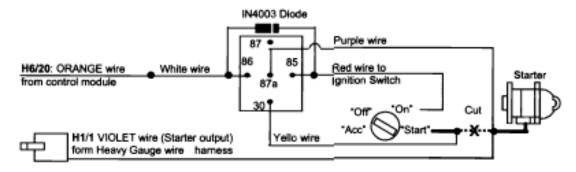


**Important!** This connection is a safety wire and must be connected as shown and tested as specified. Failure to do so may result in personal injury or property damage. See detail of wiring in the following diagram. This wire may also be used if the vehicle brake

light circuit switches ground to the brake lights. An isolation diode must be used for ground switched brake light circuits and must be connected to the output of the brake switch.

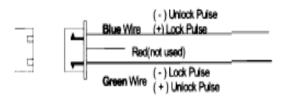
## H6/20 ORANGE WIRE—(-)200mA Grounded Output When Armed-

This wire will become grounded when the alarm is armed. The current capacity of this wire is 200mA. This output can control starter disable, when an intrusion is detected and the system is triggered. The vehicles prevent from any unauthorized starting.

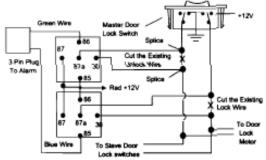


### H4. 3 PIN DOOR LOCK CONNECTOR: (Maximum 500mA Output)

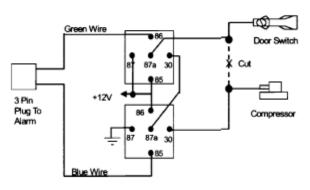
#### NEGATIVE TRIGGER DOOR LOCK SYSTEM

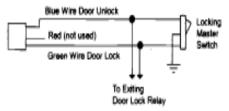


# 5-WIRE ALTERNATING DOOR LOCK

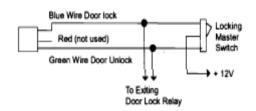


#### VACUUM OPERATED CENTRAL LOCKING





#### POSITIVE TRIGGER DOOR LOCK SYSTEM



# VACUUM OPERATED DOOR LOCKING SYSTEM:

TYPICAL OF MERCEDES BENZ AND AUDI.

Locate the wire under the drivers kick panel
Use the voltmeter connecting to ground, verify
that you have the correct wire with the doors
unlocked, the voltmeter will receive "12 volts'
Lock the doors and the voltmeter will read
"0 volt". Move the alligator clip to +12V and
the voltmeter will receive "12 volts'. Cut this
wire and make connections. Be sure to program
door lock timer to 3.5 seconds.

(See Alarm Feature B-3 Programming)

## **PROGRANMMING**

## **Code learning:**

**Note:** This mode will only retain the 4 remote transmitters programmed. If the transmitter memory is exceeded, the security system will start deleting transmitters from memory in chronological order.

- 1. Turn the Ignition 'switch 'OFF/ON' 3 TIMES and stay in ON position "Within 15 seconds".
- 2. Push the Valet switch **2 times** and hold it on the **2<sup>nd</sup>** push until a long chirp is heard then release the valet switch. You are now in the Transmitter programming mode.
- 3. Press and hold button1 + button3 of the transmitter until the siren responds with a confirming chirp, indicating the signal has been stored into memory.
- 4. If you have additional transmitters (up to 4) that need to be programmed, repeat step 3 for each transmitter

**Exit:**Turn Ignition to 'OFF' position, or leave it for 15 seconds. 3 parking light flashes will confirm exit.

### **Featurs Programming:**

#### **ALARM FEATURE "A" PROGRAMMING:**

- 1. Turn the Ignition 'switch 'ON/OFF' 3 TIMES and stay in OFF position
- 2. Push the Valet switch 3 times (holding in on the **3<sup>rd</sup> push**) until one chirp & one parking flash, and then release the valet switch. You are now in the Alarm feature **"A"** programming mode.
- 3. Press and release the transmitter button corresponding to the feature you want to program.
  - a. The siren chirps and LED pause will indicate previously setting.
  - b. The factory default settings is always [1] LED flash, [1] chirp.
- 4 Depress the transmitter button to change the feature. Simple keep re-depressing the transmitter button until the system advances to your desired setting.
- 5. Press the transmitter button corresponding to the feature you want to program.

Press	One Chirp/LED one pulse	Two Chirps/	Three Chirps/	Four Chirps/
Transmitter	Factory Default Setting	LED two pulses	LED three pulses	LED four
Button				pulses
Д	Active arming	Passive arming without	Passive arming	
1、 -	Passive arming	passive door locking	with passive door	
			locking	
2	Automatic Rearm off	Automatic		
2、		Rearm on		
24	Instant Door Ajar error	45 seconds delay Door		
3,	chirp	Ajarerror chirp.		
	All Confirmation	Siren Confirmation	Horn Confirmation	All
4、 🏲	chirps on	chirp on only	chirp on only	Confirmation
				chirps off

Δ.	Panic with	Panic with	Panic with Ignition	Without Panic
5、 🖴 + 🗱	Ignition off	Ignition on & off	on & off Panic	function.
			with No time limit.	
6. ┛₊*	Without Car—jack made	Active Car-jack mode	Passive Car-jack	
6、 <b>-</b> + <b>-</b>			mode	
<b>2</b> €€ -4.	With Dome light turns on	With Dome light turns on	Without this	
7、**** + 🛧	& off after ignition off (45	after ignition off (45	feature	
	second door by-pass)	second poor by-pass)		
8, <b>a</b> + <b>a</b>	Lock/Arm	Lock/Arm Confirmation		
8, 🗖 + 🗖	&Unlock/Disarm	Only		
	Confirmation Chirp			

**Exit:** Turn Ignition to 'ON' position, or leave it for 15 seconds. parking light flashes five times will confirm exit.

## 45 seconds Delay Door Ajar Error Chirp:

This feature controls the error chirp that is generated if the system is armed with the door trigger active. This is useful in a vehicle that has along dome light delay after the door has been closed. If the system is armed before the dome light has turned off, the security system will generate the door trigger error chirp. Use this feature to disable the door open error chirp.

# With Dome light turns on after ignition off:

Some vehicles turn on the dome light when ignition key is turned off. After remote start, with alarm on, a false alarm may occur when the run time elapses and the dome light comes on. To prevent this from happing, program Alarm Feature **A-7** to "With Dome light turns on after ignition off (45 second door by-pass)".

"A"-7-1: System at Arm mode ,as Ignition on /Off, will be delay 45secs to detect the doors

#### **ALARM FEATURE "B" PROGRAMMING:**

- 1. Turn the Ignition switch 'ON/OFF' 3 TIMES and stay in the OFF Position.
- 2. Push the Valet switch **5 times** (holding in on the 5<sup>th</sup> push) until two chirps & two parking flashes and then release the valet switch. You are now in the Alarm feature **"B"** programming mode.
- 3. Press and release the transmitter button corresponding to the feature you want to program.

Press	One Chirp / LED	Two Chirps / LED	Three Chirps / LED three	Four Chirps /
Transmitter	one pulse	two pulses	pulses	LED four
Button	Factory Setting			pulses
	Default			
Δ	Pathway	Parking light turns	Parking light turns "on" for 30	
1 -	illumination feature	"on" for 30-second	second upon an unlock	

<sup>&</sup>quot;A"-7-2: System at Arm mode, as Ignition off will delay 45secs to detect the doors.

<sup>&</sup>quot;A"-7-3: As Ignition on/off, will not delay to detect the doors.

	T	T				
	"off"	-	sigr	nal& 10-second upon	a lock	
		signal		signal.		
<sub>2</sub> <b>2</b>	Ignition controlled	Ignition controlled		Ignition controlled do	or	Without ignition
2 -	door lock & unlock	door locks only		unlocks only		controlled door
						locks & unlocks
3	0.8 second door	3.5 second door	0.8	second Lock 0.35 se	cond	0.8 second
3 •	lock & unlock	lock & Unlock		Unlock		Lock, double
						0.8 second.
						Unlock
	Five Chirps=Double 0.8	second Lock, 0.8 sec	cond	d Unlock		
	Six Chirps=Door lock w	ith "Comfort Feature"				
4	H5/4 Brown Wire=(+)	H5/4 Brown		H5/4 Brown		
4 🗱	Constant Siren output	Wire=5-second(+	⊦)	Wire=(+)Pulsing		
		pulse Siren outpu	ut	Output (Relay		
				required for [-]		
				Horn)		
	3 Hours Timer Start	2 Hours Timer St	art			
5 ♣ + ★						
7 ±		The Vehicle with T	urbo	(The system Can be	Arm w	vith the engine
6 <b>■</b> + <b>↑</b>		running)				
		The shock sensor	-	The shock sensor		•
		will be by-passed		by-pass three	Pı	ress 🗖 and
		upon engine		minutes after		
		running (The		armed (The engine	*	buttons at the
		engine will run by		will run by itself	same	e time to control
		itself after the		after the ignition is	Engine	e run time for one
		ignition is turned		turned off)	3	minute
	The Vehicle without	off)		,	and t	he shock sensor
	Turbo	,				by-passed upon
						ngine running
			2	•		
		Five chirps=Press	s <b>=</b>	and buttons at	the san	ne time to control
		Engine run time for three minutes and the shock sensor w				ensor will be pass
		upon engine runnii	ng.			
		Six chirps=Press	2	and * buttons at the	e same	time to control
	Engine run time for five minutes and the shock sensor wi			nsor will he		
		by-passed upon er				
Dec	Disable the out	Enable the out o		-		
7 💝 + 🛪	of range check	range check				
<u> </u>	J	3		I.	1	

**Exit:** Turn Ignition to 'ON' position, or leave it for 15 seconds. parking light flashes 5 times will confirm exit

#### **Comfort Feature:**

Some Vehicles have a special "COMFORT feature". When you lock the door with the key, you can keep turning the key in the door for about 5 to 7 seconds and the window will close directly. If your vehicle has the "COMFORT feature' and you wish for the door to be locked and the window to be closed automatically at the same time by remote control, you can set the alarm feature "B-3" "with comfort feature".

## **ALARM FEATURE: "C" PRORAMMING:**

- 1 ,Turn the Ignition 'switch 'ON/OFF' 3 TIMES and stay in OFF position
- 2 ,Push the Valet switch **7 times** (holding in on the **7th push**) until three chirps three parking flashes and then release the valet switch. You are now in the Alarm feature **"C"** programming mode.
- 3 ,Press and release the transmitter button corresponding to the feature you want to program.

program.				
Press Transmitter Button	One Chirp / LED one pulse Factory Default Setting	Two Chirps / LED two pulses	Three Chirps / LED three pulses	Four Chirps / LED four pulses
1 🖴	H6/3 Pink Wire = Two step door unlock output	H6/3 Pink Wire = Factory Security Disarm Signal Output	H6/3 Pink Wire = Start Status Output (Shock Sensor Bypass)	H6/3 Pink Wire = Start Status Output (Shock Sensor Bypass 20s)
2 2	H6/6 Brown / White Wire = (-) 200mA Horn Output	H6/6 Brown / While Wire = Factory Security Rearm Signal Output		
3 🏍	Fahrenheit display for Temperature	Celsius display For temperature		
4 <b>*</b>	Override Without Password Pin Code	Override With Password Pin Code		
<b>a + *</b>	H6/15 Gray Wire Channel 3 Output = Pulsed output	H6/15 Gray Wire Channel 3 Output = Latched output	H6/15 Gray Wire Channel 3 Output = Latched output and reset with ignition "on"	H6/15 Gray Wire Channel 3 Output = Timer programming (set to any interval between 1 second and 2 minutes)

				H6/7 Black /
			H6/7 Black /	Green Wire
	H6/7 Black /Green	H6/7 Black /	Green Wire	Channel 4
6 <b>3</b> + <b>*</b>	Wire Channel 4	Green Wire	Channel 4 Output	Output = Timer
6 <b>m</b> + <b>T</b>	Output =	Channel 4 Output	= Latched output	programming (set
	Momentary output	= Latched output	and reset with	to any interval
			ignition "on"	between 1 second
				and 2 minutes.)

**Exit:** Turn Ignition to 'ON' position, or leave it for 15 seconds. parking light flashes 5 times will confirm exit.

## **Channel 4 Timer Control Output Programming.**

#### **Enter:**

- 1. Turn the Ignition 'switch 'ON/OFF' 3 TIMES and stay in OFF position.
- 2. Push the Valet switch **7 times (holding in on the 7th push)** until three chirps three parking flashes then release the valet switch. You are now in the Alarm feature **'C'** programming mode.

#### **Timer Program:**

- 1. Press and release and buttons together 4 times, [4] LED flash, [4] siren/horn chirps to indicate that you are in features "Channel 4 Timer Programming mode".
- 2. Press and hold the valet switch, the timer will immediately start. Every 1second ,siren chirp one.
- 3. When the desired interval has passed, release the valet switch. 1 long chirp for confirmation. (Set to any interval between 1 second and 2 minutes)

#### Note 1:

If your built-in timer controls window/sunroof closure in your car DO NOT change the timer setting! This requires installer-only programming. Changing the value will adversely effect operation and may cause damage.

#### Note 2:

**Momentary output**=The momentary output selection will send a negative signal from the Channel 4 output immediately when the channel 4 button is pressed and will continue until the button is released.

Latched output=The latched output selection will send a negative signal as soon as the Channel 4 button is pressed and will continue until the button is pressed again
 Latched output/reset with ignition=The latched/reset with ignition output selection operates just like the latched output but will reset or stop when the ignition is turned on.

## Password Pin Code Setup:

#### Enter:

- 1. Turn the Ignition 'switch 'ON/OFF' 3 times and stay in OFF position.
- 2. Push the Valet switch 7 times (holding in on 7th push) until three chirps three parking flashes then release the valet switch. You are now in the Alarm feature "C" the

programming mode. You can program or delete the password pin code as below:

## Program:

- 1. Press and release the transmitter button twice, [2] LED flash, [2] siren/horn chirp to indicate that you are in features "Password Pin Code Programming mode".
- 2. Turn on the ignition, within 5 seconds, begin to enter your chosen first 9ths digit by pressing and releasing the valet Switch from 1—9 times.
- 3. Within 15 seconds, turn the Ignition switch to "OFF" position.
- 4. Then, Turn on the ignition, Within 15 seconds, enter your chosen second 9ths digit by pressing and releasing the valet Switch from 1—9 times
- 5. Finish by turning the ignition switch to "OFF" position.

If the new password code was accepted,

**Note:** If 15 seconds of inactivity expire, or if the ignition switch is turned "ON" for more then 5 seconds during of above steps, the unit will revert back to the last successfully stored code. 15 seconds later. parking light flashes 5 times will confirm exit. The unit will revert back to the last successfully stored code.

# Example: To program the Password Code 12, you would(factory default PIN CODE==11);

#### Enter:

- 1. Turn the Ignition 'switch 'ON/OFF' 3 times and stay in OFF position.
- 2. Push the Valet switch **7 times (holding in on the 7th push)** it until three chirps& three parking flashes, and then release the valet switch. You are now in the Alarm feature "C" programming mode.

## Program:

- 1. Press and release the transmitter \*button twice, [2] LED flash, [2] siren/horn chirp to indicate your are in features "Password pin code programming mode".
- 2. turn on ignition, Within 5 seconds, press and release the valet Switch 1 times.
- 3. Within 15 seconds, turn the Ignition Switch to "Off" position
- 4. Then turn Ignition Switch to "On", Within 15 seconds press the valet Switch 2 times.
- 5. Turn the Ignition Switch to "OFF' position.

You will note PIN CODE 12 on FF282 flash, and stored in memory.

**Exit:** wait it for 15 seconds. parking light flashes 5 times will confirm exit.

# REMOTE START FEATURE PROGRAM MODE.

#### START FEATURE "D" PROGRAMMING:

- 1. Turn the Ignition 'switch 'ONIOFF' 3 TIMES and stay in OFF position.
- 2. Push the Valet switch **9 times** (holding in on the **9<sup>th</sup> push**) until four chirps &three parking flashes then release the valet switch. You are now in the Start feature "**D**"

programming mode.

3. Press and release the transmitter button corresponding to the feature you want to program.

Press Transmitter	One Chirp / LED	Two Chirps / LED	Three Chirps /	Four Chirps / LED
Button	one pulse Factory	two pulse	LED three pulse	four pulse
	Default Setting	'	'	•
	Gasoline Engine			
	Diesel Engine	Diesel Engine	Diesel Engine	Diesel Engine
	with Wait-TO-Start	without	without	without
. 🖴 + 🖴	Light (H6/12	Wait-To-Start	Wait-TO-Start	Wait-To-Start
ľ	White/Green wire	Light 10	Light 15 seconds	Light 20
	must be	seconds warm-up	warm-up timer	seconds warm-up
	connected)	timer	waim-up timei	timer
	Constant	Floobing parking		
2 🚡	parking light	Flashing parking		
	output upon	light output upon		
	Remote Start	Remote Start		
26	20 minutes run	30 minutes run	10 minutes run	5 minutes run
3 <b>%</b>	time	time	time	time
			Door lock before	
4 <b>*</b>	Door lock before	Door lock after	start and Door	Without this
4 <b>T</b>	start	shut-down	lock after	feature
			shut-down	
	Press * button	Press 🗱 - 🗱	Press 🔒+ 🗱	
<sub>5</sub>	= Activate Remote	button Activate	button = Activate	
	Start.	Remote Start.	Remote Start.	
	H6/4 White/Blue	H6/4 White/Blue	H6/4 White/Blue	
6 <b>%</b> + 🗱	wire	wire	wire	
	= 1 pulse activate	= 2 pulse activate	= 3 pulse activate	
Δ. 4	AUTOMATIC			
7 = * 🏲	TRANSMISSION			

**Exit:** Turn Ignition to 'ON' position, or leave it for 15 seconds. parking light 5 times will confirm exit.

# SAFE START (Child safety mode)

Factory defaults setting to press the \*button once to start the vehicle Programming this feature to eliminate an accidental remote start,

1. The user presses the transmitter \* buttons "twice" within 3 seconds to start the vehicle.

or

2. The user presses the transmitter and buttons at the "same time" to start the vehicle.

#### START FEATURE: "E" PROGRAMMING:

- 1. Turn the Ignition 'switch 'ON/OFF' 3 TIMES and stay in OFF position.
- 2. Push the Valet switch 11times (holding in on the 11<sup>th</sup> push) until five chirps &five parking flashes then release the valet switch. You are now in the Start feature "E" programming mode.
- 3. Press and release the transmitter button corresponding to the feature you want to

Press Transmitter	One Chirp / LED	Two Chirps/ LE	ED	Three Chirps/ LED	Four Chirps/ LED	
Button	one pulse Factory	two pulse		three pulse	four pulse	
	Default Setting					
1 ♣	Exit the programmin	ig mode. (5 park	king lig	ght flashes to confirm	this exit)	
0.2	Tachometer	Voltage check		Timer checking		
2	Check type (3A)	type (go to 3B)	)	type (go to 3B)		
2	A>RPM learning-see RPM Learni			ng page 20		
3	B> Start Crank		1.2-second (2 chirps), 1.6-second (3 chirps),			
	Time:		2.0-9	second (4 chirps), 3.0-	second (5 chinos).	
	0.8-second		4.0-8	second (6 chinos).		
4 <b>*</b>		Т	ESTI	NG exit		
a . •	"TEST" Mode for	TEST" Mode for	or			
5 <b>- •</b>	Zone 2 / instant	Zone 1&Zone	4 (2			
	trigger & Zone 3 /	Stage Shock				
	Door trigger	Sensor)				

Exit: Press the button on the transmitter. Parking light flashes 5 times will confirm exit.

# PRM LEARNNING/TACHOMETER CHECKING TYPE

The control module learning RPM method has 2 types.

### One type of method:

[Engine speed (RPM) Learning process]

As engine running detection, select TACH meter Impulse, and it needs to complete engine speed (RPM) learning process.

After completed engine speed (RPM) learning process.

\*Each time the system start engine, as successfully detect engine running, start switch will immediately close, it does not need to reach the maxim 4 seconds.

Attention! It needs special engine speed (RPM) learning process before installation.

- <1>Red line, connect to +12V.
- <2>Black line, connect to GND.
- <3>White/Red wire connection. (H6/10) line; connect to TACH meter Impulse (ignition

signal).

- <4>Start engine with key, LED will fast flash when the lines are properly connected
- <5>Shut down the engine when the engine speed to stabilize.
- <6>when use UNI2 or remote control module will auto exit the learning mode.
- <7> To re-learn the engine speed (RPM), it can learn again after Disarm the host power and then send power.
  - <8> RPM can't not learn if foot brake.

# 2<sup>nd</sup> type of method:

- 1. Turn the Ignition switch 'ON/OFF' 3 TIMES and stay in OFF position.
- 2.Push the Valet switch **11 times and hold it on the 11<sup>th</sup> push** until five chirps &five parking flashes then release the valet switch.
- 3. Press and release the transmitter and buttons at the same time once to set the "Tachometer Checking Type'. [1] LED flash, [1] chirp to confirm this setting.
- 4. Press and release the transmitter 

  button once, [1] LED flash, [1] chirp to indicate your are in features "RPM Learning mode"
- 5. Start the vehicle with the key. (While the engine is running, the parking&LED will flash, If don't, please check tachometer White/Red wire connection. (H6/10)

  Press the valet switch, the siren will chirp one long sound then exit the learning mode.
- 6. Turns off the ignition switch to stop the engine running.

\_\_\_\_\_

#### Remote Start Function

#### [Remote Start Operation]

The control module should be under the arm status then can be remote.

\*button 4(2 seconds) to cancel engine start program; engine operation can be stopped if running.

Engine start is fixed to 4 times:

First time: 0.8~3.0 seconds.(function setting) Second time: automatically plus 0.2seconds. Third time: automatically plus 0.2seconds. Fourth time: automatically plus 0.2seconds.

\* If the engine does not start successfully, the system will automatically re-start, a total of 4 times, ignition set by function, it will plus 0.2seconds every time.

After the successful operation of the ignition detection of 7 second period, Ignition off/on re-start interval 5seconds.(a total of 13 seconds)

- \* Start the engine 4 times without success, it will stop and start.
- \* Remote start the engine, and engine running, the security must first disarm, open car door, Insert the key and rotate to ON, and can start the car.
  - \*After start the engine by remote in engine running, setting arm Ignition and sensor

<sup>\*</sup>press Button 4(once), can start engine by remote.

vibration sensor does not detect automatically.

#### Note:

Attention! start the engine by remote, the system must be arm status base on security.

# **TEST MODE**

In this test made, this system can test the Zone 2 (Instant ground trigger), the Zone 3 (Door trigger), and the Zone1&Zone 4 (2 stage shock sensor) sensitivity. The installer can save time to test the 2-stage shock sensor sensitivity and sensor without using the traditional arming/disarming procedures to test the sensors.

#### Enter

- 1. Turn the Ignition 'switch 'ON/OFF' 3 TIMES and stay in OFF position.
- 2. Push the Valet switch **11** times (holding in on the 11<sup>th</sup>) until five chirps &five parking flashes then release the valet switch. You are now in the Start feature "E" programming mode.

# a. Test the Zone 2 / Instant Ground Trigger 8 Zone3 / Door Trigger:

Press and release the transmitter and buttons at the same time once. [1] LED flash, [1] siren/horn chirp to indicate your are in Zone 2/instant Around trigger and Zone 3/Door trigger test mode.

Trigger sensor	Siren chirps
Zone 2/Instant Ground trigger (H6/16 Blue wire)	2
Zone 3/Door trigger (H6/14 Green or H6/1R Violet wire)	3

#### b. Test the Zone 1&Zone 4 / Two Stage Shock Sensor (Connected to H9 4 Pin Plug):

Press and release the transmitter and buttons at the same time again. [2] LED flash, [2] siren/horn chirps to indicate you are in the shock sensor (connected to H9 4 pin plug) test mode.

- 1. Activate the warn-away (ffirst stage of the shock sensor / Zone 1) ,system will emit a short chirp.
- 2. Activate the full alarm (second stage of the shock sensor/Zone 4), system will emit a long chirp.

Press the button on the transmitter. Siren chirp 1 times will confirm test mode exit.

Press the button on the transmitter, parking light flashes 5 times will confirm exit.

# RETURN TO FACTORY DEFAULT SETTING:

- 1. Turn the ignition ON then OFF 3 TIMES and stay in OFF position.
- 2. Push the Valet switch 12 times (holding in on the 12<sup>th</sup> push) until ten chirps then release the valet switch. You are now in the "Return To Factory Default Setting" programming mode.
- 3. Press and hold the and buttons at the same time on the transmitter for 6 seconds, there will be a confirmation 5 Flashes parking light to confirm the system "Alarm Feature A, B,C,D&E Programming" all returns to factory default setting.

## SHUTDOWN DIAGNOSTICS

1 , Press remote start into remote mode, if that the remote failed the LED light will flash random times.

Engine Stop diagnostic: (The reason for failed remote start, or unusual engine stop)

LED flash 3 times. DISARM ERROR OR TRIGGER BY HOOD OR IGNITION.

LED flash 4 times, DOOR OPEN.

LED flash 5 times, HOOD OPEN.

LED flash 6 times, TRUNK OPEN.

LED flash 7 times, IGNITON ON.

LED flash 8 times, HAND BRAKE ERROR.

LED flash 9 times, NETRAL ERROR

LED flash 10 times, RPM TOO SLOW OR HIGH.

LED flash 11 times, Try 4 TIMES FAIL.

## **TESTING YOUR INSTALLATION:**

Caution!! The follow procedure must be performed after the installation of the Remote Start Device. It is the responsibility of the installing technician to complete these tests. Failure to test the unit in the following manner may result in personal injury, property damage, or both.

- 1. Test the BRAKE shutdown circuit: With the vehicle in park (P), start the vehicle using the remote transmitter. Once the engine is running press the brake pedal. The vehicle should shut down immediately. If the vehicle continues to run, check the brake circuit WHITE/ VIOLET wire (H6/17) connection.
- 2. Test the HOOD PIN shutdown circuit: Start the vehicle using the remote transmitter. Once the engine is running pull the hood release and raise the noon. The vehicle should shut down immediately. If the vehicle continues to run, check the hood pin WHITE/ BLACK wire (H6/19) connection.

#### 3. NEUTRAL START SAFETY TEST:

- 1. Set the vehicle parking brake.
- 2. Block the drive wheels to prevent vehicle movement
- 3. Sitting in the vehicle, turn the ignition switch to "ON" or "RUN" position. But do not start the engine.

- 4. Step on the brake pedal and shift the gear selector into "DRIVE (D).
- 5. Put your foot over the brake pedal but do not press down on it. Be ready to step on the brake to shut down the Remote Start Device.
- 6. Start the vehicle using remote transmitter.
- a. If the starter does not engage, the test is complete.
- b. If the starter engages, immediately step on the brake pedal to shut down the system, recheck your VIOLET wire (H1/1 starter output wire) connection. The heavy gauge VIOLET wire must be connected to the ignition switch side of the Neutral Start Switch. If the vehicle you are working on does not have an Electrical Neutral Safety Switch, it will be necessary to reconfigure the Remote Starts Wiring to accommodate this vehicle. The information concerning the Mechanical Neutral Safety Switch provided below will help you to determine if the vehicle you are working on has this type of safety switch and will provide alternative wiring methods to accommodate this situation.

#### **MECHANICAL NEUTRAL SAFETY SWITCH CONSIDERATIONS:**

Mechanical neutral safety switch configurations differ slightly in that they do not offer the same level of safety when installing a remote start device. Often when the ignition switch is turned off while the gear selector is in any position other than park or neutral the mechanical function will not allow the key to be turned to the start position or be removed from the ignition cylinder. This configuration prevents mechanical operation while the vehicle is in gear but offers no consideration for electrical operation Because of this potential problem, this installation requires the additional connection of a safety wire from the remote start device to the vehicle PARK/NEUTRAL ECM input or the vehicle key in sensor. This connection will prevent remote start operation if the key is left in the ignition switch regardless of the gear selector position.

#### PARK/NEUTRAL ECM INPUT

The Park/Neutral ECM input is the preferred method of installation. This not only maintains the integrity of the factory circuit, it is also the easiest to install, providing the vehicle you are working on has this ECM input.

The installation required for this application (shown below), indicates in the slight

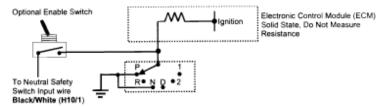
reconfiguration of the control switch wiring

Shown is a typical GM Park/Neutral ECM input circuit. To connect the Remote Start unit to the GM Park/Neutral ECM input:

- Locate the Orange/Black reference wire in the "C2" connector found at the ECM in GM B Body vehicles or, locate the equivalent reference wire in the vehicle you are installing the Remote Start Unit in
- 2. Connect the BLACK/VJHITE Neutral Safety Switch wire (H6/8) to this reference wire NOTE: If the optional remote starts enable toggle switch is installed, connect the one side the enable switch to this reference wire

and connect the other side of the enable switch to the BLACKIW HITE Neutral Safety Switch wire (H6/8) of the Remote Start unit The reference diagram on the next page shows a typical GM B Body ECM reference wire and how it is to be connected to the

#### Remote Start Unit



#### **KEY IN SENSOR CIRCUITS**

If the vehicle you are working on does not have or you cannot locate the ECM reference wire, there are two alternatives available Although not preferred, the vehicle Key In Sensor may be reconfigured to allow a margin of safety and will prevent the vehicle with a Mechanical Neutral Start Switch from starting in gear.

WE ADVISE THAI YOU MAINTAIN THE FACTORY CIRCUIT WHENEVER POSSIBLE. The following two circuits may be used only if the above circuit is not available.

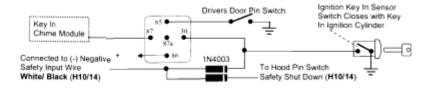
**NOTE:** When completing an installation using either of the following key in sensor circuits, if the operator inserts the ignition key while the vehicle is running under the control of the Remote Start, the vehicle will shut down. This must be explained to the operator as it is in contrast to the normal operation of a vehicle utilizing an electrical neutral start switch and is inconsistent with the operators manual.

Additional information concerning Key in Sensor methods 182 are listed below and should be reviewed before considering either alternative

Method 1 w JI allow the safety required for the remote start unit and prevent the vehicle from starting while in any gear other than Park or Neutral while the key is in the ignition cylinder however, if the key is left in the ignition switch and the door is left opened, the added relay will be energized causing a 150mA drain on the battery.

Method 2 will allow the safety required for the remote start unit and prevent the vehicle from starting while in any gear other than Park or Neutral while the key is in the ignition cylinder. However, the original factory key in chime module will not alert the owner that the key has been left in the ignition switch. In addition, this may also affect other warning tones such as the light on reminder These situations should be carefully considered before altering the vehicle's wiring and must be fully explained to the consumer.

#### **METHOD 1**



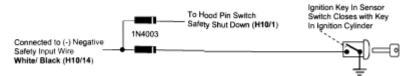
To connect to the key in sensor as shown in method 1:

A. Locate the control wire that connects the driver's door pin switch to the key in sensor switch

- B. Cut this wire and connect the ignition cylinder side to chassis ground
- C. Locate the key in sensor switch wire that connects the chime module to the ignition cylinder
- D. Cut this wire and connect the ignition cylinder side to terminal 30 of a P&B VF45F11 or equivalent relay
- E. Connect the cathode (striped) side of a 4003 series diode to this same wire, and connect the (non striped) side to the negative safely input wire (WHITE/ BLACK) (H6/19) of the Remote Start Unit
- F. Connect terminal 86 of the relay to a fused+12 volt constant battery source
- G. Connect terminal 87 of the relay to the Chime Module side of the previously cut wire in step D
- H. Connect terminal 85 of the relay to the Drivers Door side of the pin switch wire previously cut in step B

**Note:** A second 4003 series diode may be required to maintain the integrity of the hood open, shut down circuit If this is the case, it must be installed as shown in the diagram above. The anode (Non Stripped) side must be connected to the WHITE/ BLACK wire (H6/19) of the Remote Start Unit. The cathode (Striped) side must be connected to the hood pin switch. If the hood pin switch is also used for an alarm trigger input, be certain to use the dual diode assembly packaged with the Remote Start Unit as shown in this installation guide.

#### **METHOD 2**



To connect to the key in sensor circuit as shown for method 2:

- A. Locate the control wire that connects the driver's door pin switch to the key in sensor switch
- B. Cut this wire and connect the ignition cylinder side to chassis ground
- C. Locate the key in sensor switch wire that connects the chime module to the ignition cylinder
- D. Cut this wire and connect the ignition cylinder side to the Remote Start Negative Safety Shut down wire WHITE/ BLACK **(H6/19)**, using a 4003 series diode as shown above.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna.
- -Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference and
- 2) this device must accept any interference received, including interference that may cause undesired operation of the device.