STEP 9
ANTENNA/RECEIVER

First, stick the antenna on windsheild at least 7 cm (2¾ in.) below top trim of windsheild. Next, attach receiver over antenna ensuring that contacts are correctly aligned and that connector points up.

BEGIN HERE

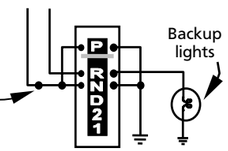
NOTE
Do not connect any harness to control module prior to Step 13.

Follow arrows to locate next step.

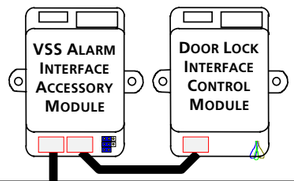
STEP 6
DETECTING PARK/NEUTRAL

Turn ignition key to Accessories position and put gearshift in drive (D).
Apply brakes and feed +12 volts to starter circuit.
Repeat this procedure for each gearshift position (P-R-N-OD-D-2-1).

If starter **reacts** in any position other than "**P**" and "**N**", connect **WHITE/ORANGE** wire to gearshift switch.



If vehicle starter does **not** react in **any** gearshift position, connect **WHITE /ORANGE** wire to "PARK TAB" terminal on side of module.

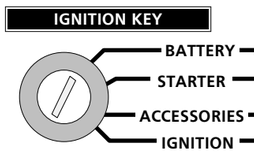


For details, see instructions supplied with relevant module kit.

STEP 8
MAIN HARNESS CHECK

See procedure on reverse.

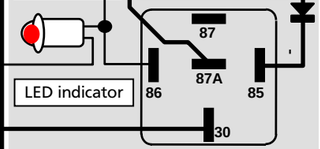
STEP 13
Connect all harnesses to control module starting with main harness (251).



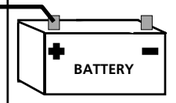
Connect this terminal to **ORANGE** wire of harness 252 (Antitheft).

Antitheft circuit

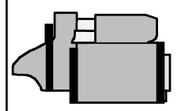
Parts in shaded area are not supplied with kit.



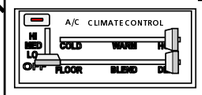
STEP 7



FEED CIRCUIT
Connect **RED** wire of Harness 251 to feed circuit (+12 Vdc) located in ignition key harness.



STARTER CIRCUIT
Connect **BLUE** wire of Harness 251 to STARTER circuit located in ignition key harness. Some vehicles have a second STARTER circuit. ✞



ACCESSORY CIRCUIT
Connect **YELLOW** wire of Harness 251 to climate control (air-conditioning) feed circuit.
This circuit is located in ignition key harness. Some vehicles have a second accessory circuit. ✞❀

IGNITION CIRCUIT
Connect **ORANGE** of Harness 251 to ignition key harness on vehicle ignition circuit. This circuit is main feed to vehicle control modules. Some vehicles have a second ignition circuit. ✞

SYSTEM GROUND
Connect **BLACK** wire of Harness 251 to vehicle chassis on **LEFT KICK PANEL** or **FIREWALL**.
NEVER CONNECT THIS WIRE TO DASHBOARD.

PARKING LIGHTS
Connect **GREEN** wire of Harness 251 to parking light circuit. Parking lights give a visual confirmation when commands are received and starter is in operation.

✞ When a second circuit is required, use a relay connected to an output from Harness 252.

See "SPECIAL APPLICATIONS".

❀ When "Remote - free" mode antitheft is being used, this wire **must be connected** to an accessory circuit.

STEP 15
Connect Antitheft circuit (optional) as illustrated in shaded area.

Note: Antitheft may be used to cut any circuit required to operate engine. Two types of Antitheft are programmable at programming level 7.

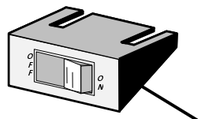
STEP 14
PROGRAMMING SWITCHES

See procedure on reverse. Consult Installation Manual (193-126-121) for information on other methods (MultiTest- Remote control).

STEP 5
MAIN SWITCH

Must be mounted under dashboard where driver can reach it.

Connect the two female terminals (**RED** wire and **BLACK** wire) to switch male terminal.



NOTE

When switch is turned to "**OFF**" position, only remote start functions are disabled.

Switch controls feed to **RED** wire of harness 252.

STEP 10
TRIGGER INPUT (START/STOP)

Connect **WHITE/BLUE** wire to output of any remote-controlled device that can produce a 0.3-second negative pulse minimum.

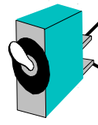
E.g., Alarm secondary channel.

STEP 11 (CONT.)
Input (**BLUE** wire) is used to enable/disable Sentinel mode when module is programmed to operate without remote control (STS-120).

STEP 11
VALET SWITCH

Adding a VALET switch (optional) allows Antitheft to be disabled.

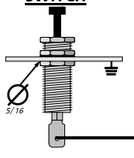
Mount switch in hidden location known only to vehicle owner. Connect **BLUE** and **BLACK** wires to switch terminals.



STEP 2
HOOD SWITCH

Install switch so that it contacts vehicle chassis when hood is open.

Connect **BLACK/RED** wire to hood switch.



ATTENTION !!!
For additional protection, we recommend adding a 1-amp fuse at junction to ignition coil.

STEP 1
Run these two wires into engine compartment through a rubber grommet.

STEP 3
TACHOMETER INPUT

For gas-powered vehicles.

Connect **BLACK/GREEN** wire to negative terminal of ignition coil or to **TACH** input on ignition module. For further details on how to locate tach wire and on programming, consult complete Installation Manual (193-126-121).

For diesel-powered vehicles.

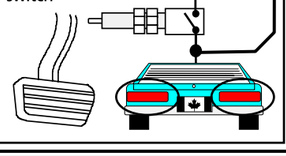
You have to add a (DTS-2) module which transforms electromagnetic fields generated by alternator into a tach signal.

This module is mounted on alternator.

Wiring instructions are supplied with kit (310-066-502).

STEP 4
+12 V from fuse box

Brake switch



STEP 12
(Diesel vehicles)

Connect **ORANGE** wire to GLOW PLUG indicator circuit or directly to glow plug circuit itself.

Check circuit polarity when indicator is lit and select this polarity at programming level 3.

When programmed in diesel mode (Level 3), module waits for glow plug to go out before proceeding to start.

Antitheft "Remote - free mode"

Program module in Antitheft remote - free mode (Level 7).

Connect **ORANGE** wire to any original vehicle switch.

This switch will then be used to disarm antitheft system when key is turned to "Ignition" position.

This mode cannot be used for diesel vehicles.

See details on reverse

SPECIAL APPLICATIONS

These outputs are used to polarize additional relay coils.
Use these outputs when a second circuit or alarm override is necessary.

Never connect two circuits with a jumper.

These inputs can also be used for a wide variety of applications.
See programming levels 6, 7 and 8 on reverse.

NOTE
On this putput, a maximum of three relays can be energized at same time.

RED wire provides +12 Vdc when main switch is in "ON" position.

LED

MODULE IN OPERATING MODE

TACH Indicates tach speed when engine is running and module is not in programming mode.

ERROR MESSAGES Indicate fail-to-start codes following unsuccessful attempt to remote start.

MODULE IN PROGRAMMING MODE
Indicates last level where programming was done.

FOR FULL DETAILS, SEE REVERSE.

STEP 16
CHECKS AFTER INSTALLATION

When installation is complete, check all safety devices. Start vehicle with remote control. (Consult User Guide for information on commands.)

Check that engine does not start or that it stops if:

- hood is open;
- transmission is not in "**P**" or "**N**";
- engine speed exceeds 3,000 rpm;
- brakes are applied.

Also check that everything operates normally during a remote start. Pay attention to following points:

- vehicle charging system;
- un/lock functions (remote control);
- run time (programming);
- starter does not remain engaged when engine starts;
- remote control range.

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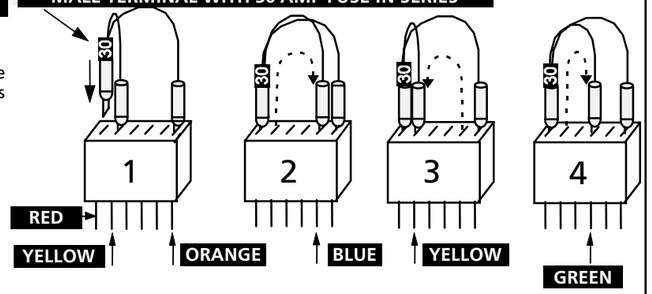
STEP 8

CHECK HARNESS 251

Check connections to Harness 251 by following the four steps below; at each step, check if vehicle circuits react correctly.

1) **Ignition and Accessories**
   - Dashboard lights should come on;
   - You should be able to turn on heating system fan.
2) **Start**
   - Starter should respond.
3) **Air-conditioning system (if applicable)**
   - Air from the air-conditioning system should start to get cold.
4) **Parking lights**
   - All 4 parking lights should come on.

MALE TERMINAL WITH 30-AMP FUSE IN SERIES



NOTES:

If vehicle circuits do not react as described in each step, vehicle may require an additional circuit of the same type.

If vehicle does not start or is difficult to start in Step 2, it may need an additional ignition or start circuit.

STEP 12

ANTITHEFT "REMOTE - FREE " MODE

This accessory must go from **OFF** position to **ON** position then return to **OFF** when vehicle ignition circuit is energized in order to disable ouput that controls cut-out.

This input can be programmed to detect a positive or negative polarity.

See programming level 3.

For more details, consult complete Installation Manual (193-126-121).

TACHOMETER MODE

In this mode, LED should flash approximately 4 times per second when engine is idling.

If it flashes faster, increase number of programmed cylinders.

If it flashes slower, reduce number of programmed cylinders.

After reaching appropriate number of cylinders, start engine with remote control. Turn engine over while watching LED. When speed reaches approximately 3,000 rpm, LED should stay lit and remote starter should cut engine.

FAIL TO START CODES

1	Stopped by remote control
2	Stopped by applying brakes
3	Not applicable
4	No tach reading (rpm)
5	Hood open
6	Transmission not in P or N
7	Ignition already in "**ON**" position
8	Main switch in "**OFF**" position
9	Run time expired
10	Start cycle expired
11	Tach signal already present
12	Rpm above 3,000
13	Rpm too low
16	Internal module error

PROGRAMMING

If module is in programming mode, LED flashes same number of times as current programming level, when brakes are applied.

Refer to installation manual "Troobleshooting" section (193-226-121).

STEP 14 PROGRAMMING

Programming is done by levels; use DIP switches 1-3 to select programming level (group).

In each level, all parameters must be programmed in a single programming step, i.e., select DIP switches 4-8 to combine parameters to be programmed.

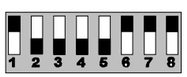
Programming is done as follows.

1. Select DIP switches for programming required: DIP switches 1-3 determine programming level, DIP switches 4-8 determine parameters to be programmed.
2. Apply brakes (to enter selected parameters in memory).
3. Repeat Steps 1 and 2 for each level that requires programming changes.
4. When finished, put all DIP switches back to "**OFF**" position, then apply brakes again.

EXAMPLE 1

Suppose you have to program the module for eight cylinders with a reduced starter cut-off speed and a 3 x 6 second start cycle.

1) Place DIP switches in following position.



Refer to programming level 2.

DIP switches 1-3 determine programming level (group).

DIP switches 4-6 determine number of cylinders.

DIP switch 7 determines starter cut-off speed.

DIP switch 8 determines start cycle.

2) Apply brakes (to enter in memory position of DIP switches).
3) When you have finished programming this level, proceed to next programming level or (if programming completed) put all DIP switches back to "**OFF**" position, then apply brakes again.

EXAMPLE 2

Suppose you have programmed the module as shown in Example 1 and you only want to change start cycle to 1 x 15 seconds.

1) Place DIP switches in following position:

DIP switches 1-3 determine programming level (group).

However, DIP switches 4-7 must still be placed in correct position for parameters you do not want to change since they are determined by position of these DIP switches when level is selected.

DIP switch 8 is then placed in "**OFF**" position to change start cycle to 1x 15 seconds.

2) Apply brakes.
3) When you have finished programming this level, proceed to next programming level or put all DIP switches back to "**OFF**" position, then apply brakes again.

WHITE parameters on BLACK background indicate initial programming (manufacturer).

Switch "ON" Switch "OFF"

LEVEL 1

INSTALLATION MODE (TEMPORARY)

RESET — INITIAL PROGRAMMING

CODE LEARNING OF ADDITIONAL REMOTE CONTROL

MULTITEST MODE

LEVEL 2

ENGINE CONFIGURATION (1)

1 CYLINDER
2 CYLINDERS
3 - 4 CYLINDERS
5 - 6 CYLINDERS
8 CYLINDERS
10 CYLINDERS
12 CYLINDERS

STARTER CUTOFF RPM — NORMAL / REDUCED

CRANKING CYCLE — 1X15 SECONDS / 3X6 SECONDES

LEVEL 3

ENGINE CONFIGURATION (2)

GAS / DIESEL

2 MIN 4 MIN
8 MIN 16 MIN
15 MIN 30 MIN
20 MIN 40 MIN

3 SECONDE DELAYED / CONSTANT

GLOW PLUGS / ANTI-THEFT DEACTIVATION +

LEVEL 4

ALARM AND UN/LOCK OPTIONS

VSS-100 — DISABLED / MANUAL / SEMI-AUTOMATIC / AUTOMATIC

30 SECONDS / 60 SECONDS

1 SECOND (ELECT) / 3 SECONDS (VACUUM)

AUTO — DISABLED / ENABLED

LEVEL 5

REARMING - RS/STS - SENTINEL

REARMING — DISABLED / ENABLED

TYPE (1) (2)

OPERATING MODE — RS-123/RS-126 / STS-120

-5° C / -15° C / -22°C / -30° C

LEVEL 6

HARNESS 252 GREEN

ACCESSORIES DELAY AND OUTPUT #1

3 SECONDES / NO DELAY

PULSE BEFORE / PULSE AFTER / PassKey®

GM IGNITION — PULSE AFTER IGNITION

STARTING — PULSE AFTER STARTING

IGNITION / ACCESSORIES / START

TRUNK / HORN / CARBURETOR / L.E.D. (DIAGNOSTICS)

UTILITY # 1 — 1 SECOND / 1 MINUTE / 8 MINUTES

LEVEL 7

HARNESS 252 WHITE/BLUE

ANTITHEFT TYPE AND OUTPUT #2

ANTI-THEFT DEACTIVATION — REMOTE / REMOTE - FREE

PULSE BEFORE / PULSE AFTER / PassKey®

GM IGNITION — PULSE AFTER IGNITION

STARTING — PULSE AFTER STARTING

IGNITION / ACCESSORIES / START

TRUNK / HORN / CARBURETOR / L.E.D. (DIAGNOSTICS)

UTILITY # 2 — 1 SECOND / 1 MINUTE / 8 MINUTES

LEVEL 8

HARNESS 252 WHITE

OPTION DL-(X) AND OUTPUT #3

DL-X — OPTION #1 / OPTION #2

PULSE BEFORE / PULSE AFTER / PassKey®

GM IGNITION — PULSE AFTER IGNITION

STARTING — PULSE AFTER STARTING

IGNITION / ACCESSORIES / START

TRUNK / HORN / CARBURETOR / L.E.D. (DIAGNOSTICS)

REARM / UNLOCK / UNLOCK