

WARNING

• All connections must be soldered. • Do not connect any harnesses to command module before completing all connections.

CONNECTOR 251

WIRING

Connect harness 251 Red. Yellow. Blue and Orange wires to corresponding circuits of ignition switch harness.

- RED, Power source: To key cylinder feed circuit (constant +12 Vdc), on circuit with largest wire.
- YELLOW, Accessories: To circuit that feeds heating system fan.
- BLUE, Starter: To circuit that controls starter
- ORANGE, Ignition: To circuit that feeds engine control module (ECM).

Connect **BLACK** wire to vehicle chassis on left KICK PANEL or FIREWALL.

NEVER CONNECT THIS WIRE TO DASHBOARD.

Connect GREEN wire to (+) circuit that feeds parking lights.

If they are controlled by a negative (-) signal (factory relay), use Green wire on connector 254

TESTING HARNESS 251

To determine if you need to feed other ignition switch circuits, proceed with following four steps and check that vehicle circuits respond correctly at each step.

I IGNITION AND ACCESSORIES

Dashboard lights should come on and you should be able to turn on heating system fan.

STARTER

Starter should crank the engine.

COOLING SYSTEM (IF APPLICABLE)

Air from cooling system should get cold.

When the module is

configured in "Gas" mode

(programming level 3),

connect this input to the

negative (-) control on

Astroflex's RST-2

programmable timer

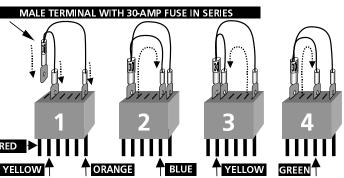
Harness

254 Red

wire

PARKING LIGHTS

Parking lights (4) should come on.



REMARKS:

- If vehicle circuits do not respond as described in each step, vehicle may require an additional circuit of the same type as the one being tested
- If vehicle does not start or is difficult to start in step 2, it may need an additional ignition or start circuit (see connector 252)
- If engine still does not start or stalls shortly after starting, vehicle may be equipped with a PASSKey®, PASSLock®, PATS or other type of immobilizer. If this is the case, you must override this system.
- Astroflex has several override modules, please check with your dealer.

When the module is configured in "Diesel" mode

indicator light circuit or directly to the plugs

BLUE WIRE AND BROWN WIRE

Unlock: BLUE (-), BROWN (+)

Lock: BROWN (-), BLUE (+)

Each of these outputs can deliver 350 mA

87

Harness 254

Blue wire

Factory or additional relay

87A 👷

programming level 3), connect this input to glow plugs'

CONNECTOR 252

SPECIAL APPLICATIONS PROGRAMMABLE DEFAULT **DEDICATED OUTPUTS** OUTPUTS **FUNCTION** Yellow: Accessories (-), 350 mA Green: (-), 350 mA PassKev Blue: Starter (-), 350 mA White/Blue: (-), 350 mA Pulse Before Orange: Ignition (-), 350 mA White: (-), 350 mA Pulse After

Red: +12V. 4A protected by an automatic reset circuit-breaker and controlled by main switch (connector 253)

See available settings on reverse for programming levels 6, 7 and 8.

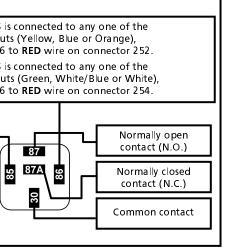
The total amount of current drawn on all negative (-) outputs on connector 252 combined MUST NOT exceed 500 mA

When terminal 85 is connected to any one of the dedicated outputs (Yellow, Blue or Orange), connect terminal 86 to **RED** wire on connector 252.

When terminal 85 is connected to any one of the programmable outputs (Green, White/Blue or White). connect terminal 86 to RED wire on connector 254.

To required output on connector 252 depending on application

When circuit is used to switch a +12V supply source, add fuse of adequate rating.



BLACK/GREEN WIRE (TACHOMETER)

Connect **BLACK/GREEN** wire to negative terminal (-) on ignition coil, or to TACH input on ignition module.

CAUTION !!!

For additional protection, we suggest adding a 0.5 amp fuse to the connecting junction on ignition coil or ignition module.

PROGRAMMING

- · Start vehicle with key and allow engine to warm up.
- Place DIP switches 1, 4, 5 and 6 in ON position while engine is idling, then apply brakes.
- Parking lights will blink the number of cylinders programmed.
- Place all Dip switches to the OFF position.
 - Finally, apply brakes.

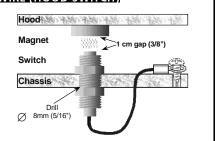
BLACK/RED WIRE (HOOD SWITCH)

Mount switch as shown. Secure magnet under hood with a drop of Loctite®.

CONNECTOR 253

Connect wire with ring terminal to vehicle chassis

Connect other wire to BLACK/RED wire on connector 253.



RED WIRE AND BLACK WIRE (MAIN SWITCH)

RED: +12 Vdc Output, 4 A (automatic reset circuit-breaker). BLACK: +12 Vdc Input coming exclusively from Red wire on connector 253 through main switch (supplied with kit).

NOTE: When switch is OFF only remote start features are disabled.

WHITE/ORANGE WIRE (PARK/NEUTRAL DETECTION)

While applying brakes, energize vehicle's starter circuit (+12 volts).

Repeat procedure for every shift position.

If starter reacts when gearshift is in Por N positions only, connect WHITE/ORANGE wire to PARK TAB terminal on side of module.



If starter reacts when gearshift is in any position other than P or N, connect WHITE/ORANGE wire to a circuit on gearshift switch that provides a contact to ground only when gearshift is in P or N.

Astroflex Technical Assistance.

at the brake pedal.

applied.)

CONNECTOR 254

UTILITY INPUTS/OUTPUTS

WHITE/BLUE WIRE

87

87A

Harness 254

Brown wire

PARKING LIGHTS OUTPUT (-), 350 mA. Connect GREEN wire to circuit that controls factory parking lights relay.

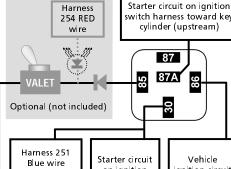
This circuit is usually located in a harness on steering column

GREEN WIRE

When this wire is connected, Green wire on connector 251 should not be connected.

ORANGE WIRE

(-) output, 350 mA, Antitheft control (circuit disabler).



Harness 254 Orange wire

on ignition switch harnes with harness toward starte 251 Orange

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Place key in ignition, turn to ACCESSORIES and shift transmission into D (drive).

If such a circuit is not available, contact

Connect to a normally open contact on stop lights switch

WHITE/GREEN WIRE (BRAKES)

(Circuit which reads +12 Vdc when brakes are

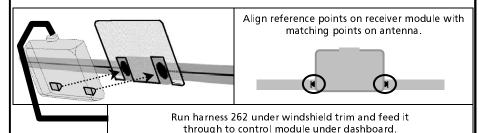
Never connect to cruise control disabling circuit.

NOTES AND PROGRAMMING **SERIES 1000**

HARNESS 262

RECEIVER/ANTENNA

Mount dipole antenna (film) on windshield, at least 7 cm (2 3/4 in.) below upper windshield trim. Mount receiver module on antenna ensuring that connector faces up.



TESTING AFTER INSTALLATION

When installation is complete, check all safety devices.

Start vehicle with remote (see User Guide for information on commands)

Check that engine stops or does not start if:

- ♦ hood is open; ♦ transmission is not in PARK or NEUTRAL;
- ♦ RPM is over 3000; ♦ brakes are applied; ♦ main switch is OFF.

Also check that everything operates normally during a remote start.

Pay attention to following points:

♦ battery charging system; ♦ lock/unlock functions (remote control); ♦ runtime (programming); ♦ starter disengages when engine starts; ♦ remote control range.

TROUBLESHOOTING

Check the fail-to-start codes and related circuits.

Code 4: If engine cranks, check connection of Black/Green wire on connector 253.

If engine does not crank, ♦ check connection of Blue wire (connector 251) to starter circuit of ignition switch harness: \blacklozenge check if vehicle is equipped with a secondary starter circuit, and if so, add a relay (see Connector 252 on reverse); ♦ check if vehicle is equipped with an immobilizer (add an appropriate overriding circuit).

Check that total load of connector 252, 253 and 254 Red wires does not exceed 4 A. ♦ If code 8 occurs during remote starter runtime, reduce load on connector 251 by adding a relay (see Connector 252 on reverse) to isolate accessories circuit.

DEL

TACH

When engine is running, LED shows tach speed; it should flash approximately three 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.

When you have found right number of cylinders, gradually rev the engine while checking the LED. At approximately 3000 RPM, LED should stay on.

FAIL-TO-START CODES

After a failure to remote start, LED shows fail-to--start codes.

- Stopped by remote
- Stopped by applying brakes (253, White/Green)
- 3 Not applicable
- 4 No Tach reading (253, Black/Green)
- 5 Hood open (253, Black/Red)
- 6 Transmission not in P or N (253, White/Orange)
- 7 Ignition already in ON position

RECEIVING COMMANDS

LED flashes rapidly when a command is received to confirm positive communication between remote and receiver

PROGRAMMING

Programming is divided into eight groups of parameters called levels. Parameters are selected by setting a series of DIP switches.

Use DIP switches 1, 2 and 3 to select programming level (group) and use DIP switches 4 to 8 to select options in each group.

In each level, all parameters must be programmed in a single programming step

Programming is done as follows

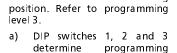
- Use DIP switches 1, 2 and 3 to select group in which you want to do programming. Use DIP switches 4 to 8 to combine options you wish to select.
- Apply brakes (to enter selected parameters in memory based on position of DIP switches). LED flashes same number of times as programming level selected, confirming that parameters have been memorized
- Repeat steps 1 and 2 for each level that requires programming
- When programming is complete, put all DIP switches back to OFF then apply brakes.

NOTE: Should any programming changes be made in one level, entire level must be reprogrammed.

EXAMPLE

Suppose you wish to program the module for a diesel engine with a runtime of 4 minutes

1. Place DIP switches in following level 3.



- DIP switch 4 determines engine type.
- DIP switches 5 and 6 have effect on current programming
- d) DIP switches 7 and 8 determine runtime.
- Apply brakes; LED flashes three times to confirm that DIP switch positions have been memorized.

Go to next programming level or if you have finished programming, put all DIP switches back to OFF and apply brakes again.

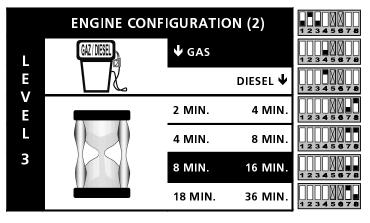
LEGEND

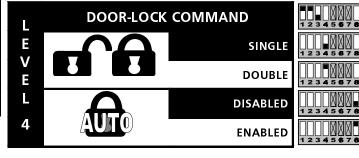
PARAMETERS IN WHITE ON A BLACK BACKGROUND **SHOW FACTORY PROGRAMMING**

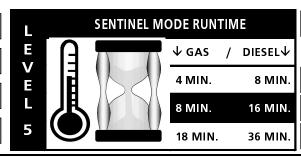
- (1) DIP switch in OFF position (2) DIP switch in ON position
- (3) See other parameters in same level (4) DIP switch has no effect on current level
- 1234

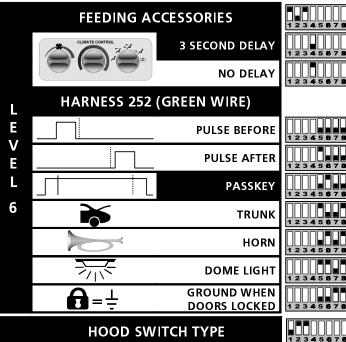
12345678

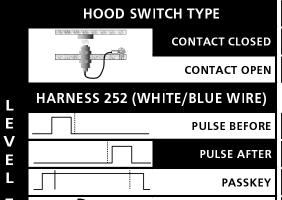
ENGINE CONFIGURATION (1) 1 CYLINDER 2345675 2 CYLINDERS 3 - 4 CYLINDERS 5 - 6 CYLINDERS 8 CYLINDERS 10 CYLINDERS 12 CYLINDERS AUTOMATIO **SETTING** NORMAL **STARTER** CUT-0FF RPM 🚫 🦠 REDUCED

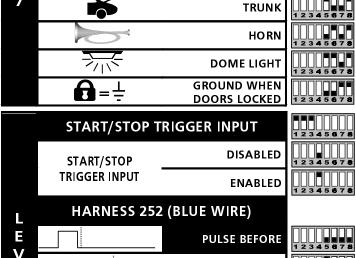


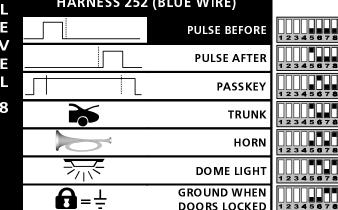












8 Main switch OFF

Runtime expired

11 Tach signal already present

10 Start cycle expired

12 RPM above 3000

16 Internal module error

13 RPM too low

INSTALLER/USER MODE COMMAND RECEPTION MODE LEARNING OF ADDITIONAL REMOTE CONTROLS **INITIAL PROGRAMMING** RESET

