



AS - 9151N

Remote Car Starter Installation Instructions

**For installation in vehicles with 12 volt negative ground circuits,
gasoline engines, with automatic transmission only!**

KIT CONTENTS

- (1) Remote Start Control Module
- (2) Wiring Harnesses
- (1) Parts Bag Containing
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 - (1) Control Switch
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 - (1) Pin Switch
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- (1) RF Antenna Extender (AS-9166)

The AS-9151N is for Automatic Transmission vehicles only! Although it is a sophisticated system, with multiple built-in safety features, it **must not be** installed into vehicles with manual transmissions. Doing this can cause serious personal injury and property damage.

IMPORTANT ! DO NOT PLUG THE SIX PIN MAIN POWER HARNESS OR THE 12 PIN INPUT / OUTPUT HARNESS INTO THE REMOTE START CONTROL MODULE UNTIL ALL CONNECTIONS HAVE BEEN MADE TO THE VEHICLE.

WIRING CONNECTIONS: 6 Pin Main Power Harness

1. RED w/ WHITE Tracer Wire : + 12 VDC Battery 1 Source

Connect this wire to a + 12 VDC constant source. Using the 30 A fuse provided, connect this wire to the positive terminal of the vehicle's battery.

The Battery 1 source provides + 12 volts to the AS-9151N module for Ignition 1 output, Ignition 2 output, and circuit logic.

2. RED Wire : + 12 VDC Battery 2 Source

Connect this wire to a + 12 VDC constant source, but not the same source as the battery 1 wire, unless connecting directly to the battery terminal. Using the 30 A fuse provided, connect this wire to the positive terminal of the vehicle's battery.

The Battery 2 source provides + 12 volts to the AS-9151N module for Starter output and Accessory output.

3. YELLOW Wire : Starter Output

Connect this wire to the starter wire from the ignition switch harness. This wire will show +12 Volts when the ignition key is turned to the " START " or " CRANK " position, and 0 Volts when the ignition key is in any other position.

NOTE: If installing the AS-9151N with an alarm that utilizes a starter cut relay, make sure the Yellow wire is connected to the " starter " side of the relay contacts, and not the " switch " side.

When installing the AS-9151N into vehicles with a factory installed security system, connect the Yellow wire between the output of the starter cut relay and the neutral safety switch.

4. BLUE Wire : Ignition 1 Output

Connect this wire to the ignition 1 wire from the ignition switch harness. This wire will show +12 Volts when the ignition key is turned to the " RUN " or " ON " and the " START " or " CRANK " positions, and 0 Volts when the key is turned to the " OFF " and " ACCESSORY " positions.

5. LIGHT GREEN Wire : Ignition 2 Output

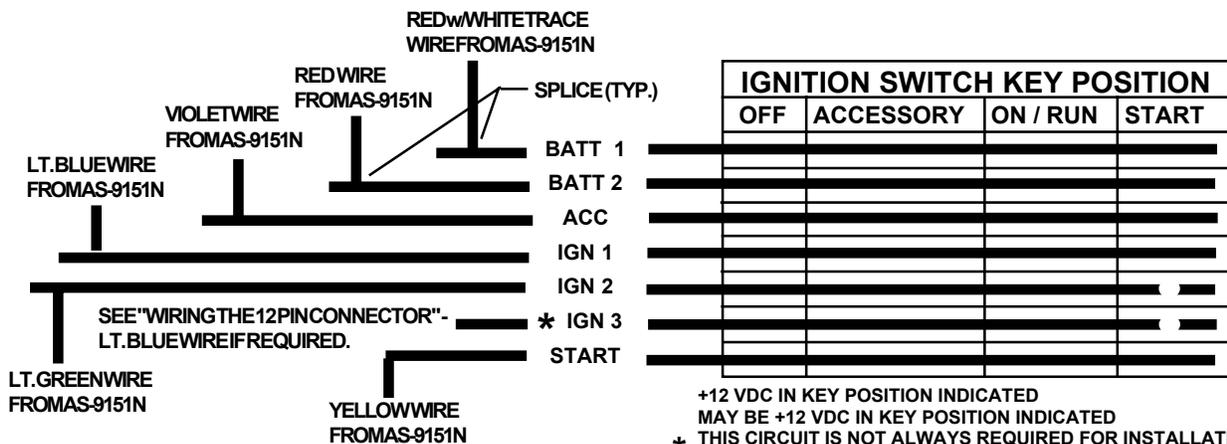
Connect this wire to the ignition 2 wire from the ignition switch. This wire will show +12 Volts when the ignition key is turned to the " RUN " or " ON " position, and in some cases, the " START " or " CRANK " position. This wire will show 0 Volts when the key is turned to the " OFF " and " ACCESSORY " positions.

NOTE: Some older vehicles may not require the second ignition wire.

6. VIOLET Wire : Accessory Output

Connect this wire to the accessory wire from the ignition switch. This wire will show +12 Volts when the ignition key is turned to the " ACCESSORY " and " RUN " or " ON " positions, and 0 Volts when the key is turned to the " OFF " and " START " or " CRANK " positions.

WIRING THE 6 PIN MAIN POWER HARNESS



WIRING CONNECTIONS: 12 Pin Input / Output Harness

1. BLACK Wire: Chassis Ground Source

Connect this wire to a solid, clean chassis ground source.

2. DARK BLUE Wire: Remote Start Signal Input

Connect this wire to the pulsed ground output from the remote alarm system. In most cases, it will be connected to the second or third channel output from the alarm. When the Dark Blue wire receives a ground pulse, the vehicle will start.

3. BLACK w/WHITE Tracer Wire: Control Switch

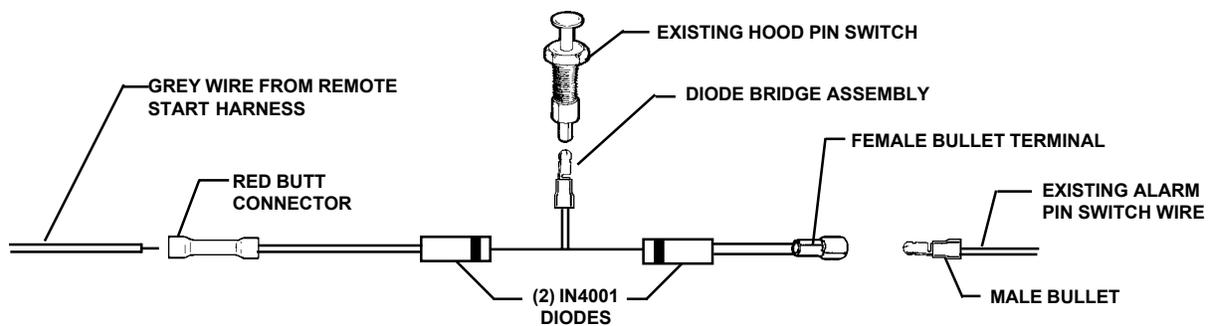
The Black w/ White tracer wire provides ON-OFF control of the Remote Starter.

When the Black w/ White wire is switched to a full time ground, the AS-9151N Remote Start Module is operative. When the Black w/ White wire is at open circuit through the control switch, the remote starter is disabled.

Connect the Black w/ White tracer wire to one of the terminals from the back of the control switch. Connect the remaining terminal on the control switch to chassis ground. Always try to mount the switch so that the ON position is in an upward direction.

4. GREY Wire: Negative Inhibit Input 1

Connect this wire to the existing hood pin switch from the alarm system, using the diode bridge included in the package. Wire the diode bridge as shown in the illustration below. Any time the Grey wire is grounded, the Remote Starter will stop operating, even if the signal is received from the alarm.



IMPORTANT ! If the alarm system does not incorporate a hood pin switch, **you must** add a switch to the Remote Start system. This is an important safety feature of the AS-9151N Remote Starter, and failure to use this feature can result in serious injury.

5. GREY w/ BLACK Tracer Wire: Negative Inhibit Input 2

Any time the grey w/ black tracer wire is grounded, the Remote Starter will stop operating, even if the signal is received from the alarm.

If the brake light switch in the vehicle switches ground to the brake light circuit, connect the Grey w/ Black trace wire to the output of the brake light switch. If the brake light switch in the vehicle switches +12 Volts, do not use the Grey w/ Black wire; see Brown w/ White tracer wire.

6. BROWN Wire: Positive Inhibit Input 1

Any time + 12 Volts is applied to the Brown wire, the Remote Starter will stop operating, even if the signal is received from the alarm.

If the vehicle has a factory installed hood pin switch, and that switch provides + 12 Volts to an under hood light, the Brown wire can be connected to the existing pin switch.

7. BROWN w/ BLACK Tracer Wire: Positive Inhibit Input 2

Any time + 12 Volts is applied to the Brown w/ Black tracer wire, the Remote Starter will stop operating, even if the signal is received from the alarm. If the brake light switch in the vehicle switches + 12 Volts to the brake light circuit, connect the Brown w/ Black trace wire to the output of the brake light switch. If the brake light switch in the vehicle switches ground, do not use the Brown w/ Black wire; see Grey w/ Black tracer wire.

8. YELLOW w/ BLACK Tracer Wire: + 12 Volt Alarm By - Pass Output

This wire provides a 500 mA + 12 Volt transistorized output when the ignition key is turned to the "ON" position, and 0 Volts when the ignition key is "OFF" and when the vehicle is running under the control of the remote starter. This wire should be connected to the ignition input of the alarm system (Yellow wire for Audiovox alarms).

NOTE: You must disconnect the ignition input of the alarm from any other wire that it is presently connected to in the vehicle.

The Yellow w/ Black wire output will allow you to remote start the vehicle while leaving the alarm armed.

9. (2) WHITE Wires: Parking Light Flasher

These wires are the COMMON and NORMALLY OPEN contacts of the on-board parking lamp relay.

If the vehicle's parking lights are a +12 volt switched system, connect (1) of the White wires to a fused (at least 15A) +12 volt battery source, and connect the second White wire to the vehicle's parking light wire.

If the vehicle's parking lights are a chassis ground switched system, connect (1) of the White wires to a chassis ground source, and connect the second White wire to the vehicle's parking light wire.

10. LIGHT BLUE Wire: Ignition 3 / Shock Disable Output

This is a 500 mA transistorized ground output, and an external relay will be required in all cases that this output is needed.

NOTE: This Light Blue wire is energized 3 seconds before starting and remains energized for 4 seconds after shut down.

The Light Blue output serves the following functions.

A. Shock Sensor Override: If the alarm is connected to a shock sensor, then the vibration caused by remote starting the vehicle may trip the alarm. If this is the case, connect the Light blue wire to terminal 86 of an external relay. Connect terminal 85 of the relay to a fused + 12 Volt battery source. Cut the trigger wire from the shock sensor, and connect one side of the cut wire to terminal 30 of the relay. Connect the other side of the cut wire to terminal 87a of the relay. Just before the remote starter is activated, the relay contacts will open, and the shock sensor will not trip the alarm.

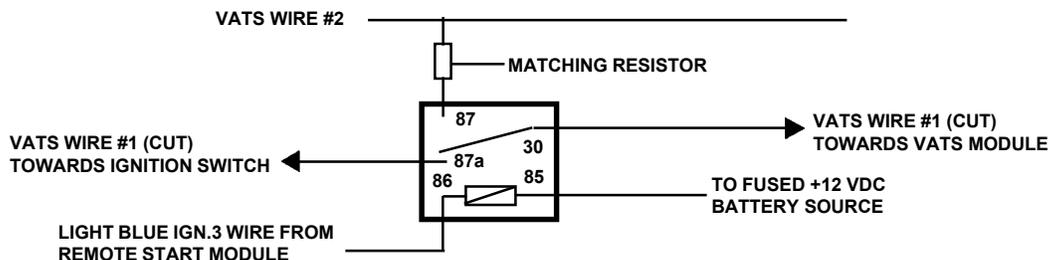
B. Ignition 3 Output: Some newer vehicles use a third ignition wire, which is necessary to keep the engine running. If this is the case, connect the Light Blue wire to terminal 86 of an external relay. Connect terminals 85 and 30 together to a + 12 Volt battery source that is fused for a minimum 25 A rating. Connect terminal 87 of the external relay to the third ignition wire in the vehicle.

C. G.M. VATS Key Override: If the vehicle has the General Motors VATS system installed, you will need to by-pass the starter cut portion of the VATS system. To do this;

1. Measure the resistance of the ignition key, and get a resistor whose value is within 5% of the key value.
2. Locate the pair of VATS wires in the vehicle, usually running from the ignition switch to the passenger side of the vehicle.

NOTE: These wires are typically White w/ Black tracer and Violet w/ Yellow tracer, however in late model Cadillacs, they are run through an Orange sleeve, and are either both Black, both Yellow, or both White wires.

3. Connect the Light Blue wire from the Remote Starter to terminal 86 of an external relay. Connect terminal 85 of the relay to a fused + 12 Volt battery source.
4. Cut (1) of the VATS wires, and connect the ignition switch side of the cut wire to terminal 87a of the relay. Connect the other side of the cut wire to terminal 30 of the relay.
5. Connect the resistor from terminal 87 of the relay to the second VATS wire.



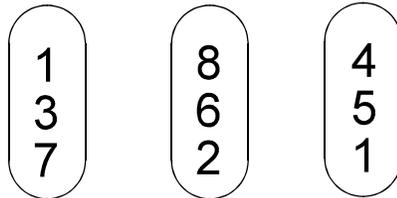
Multi Coil Pack Adaptor:

The multi coil pack adaptor is designed for use with vehicles having multiple ignition coils where a single point tach signal is unavailable.

To use the adaptor, the Green/Black wires must connect to the negative side of the ignition coil(s).

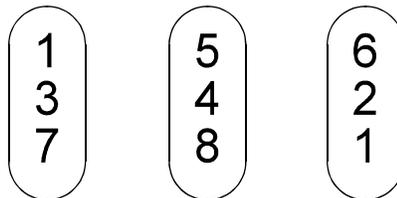
1. For vehicles utilizing independent coils per cylinder, connect the three Green/Black leads to alternate coils. To achieve optimum performance the coil signals must be evenly distributed. This is done by first mapping out the firing order of the engine in groups as indicated below. Draw a circle around any of the columns. The Green/Black wires should be connected to the negative (-) terminal of the respective cylinder number which appears in any of the circles.
2. For vehicles utilizing 2 cylinder firing per coil pack, connect Green/Black to the tach side of each coil pack. For 8 cylinder, four coil systems, connect to any of the three coils.
3. Connect the Yellow wire to a +12 volt ignition 1 source. This wire must have +12 volts with the ignition in the on and start position and have 0 volts with the ignition in the off position.
4. Connect the Green wire to the (Green) tach input of the remote start unit.

IF THE FIRING ORDER IS 1,8,4,3,6,5,7,2

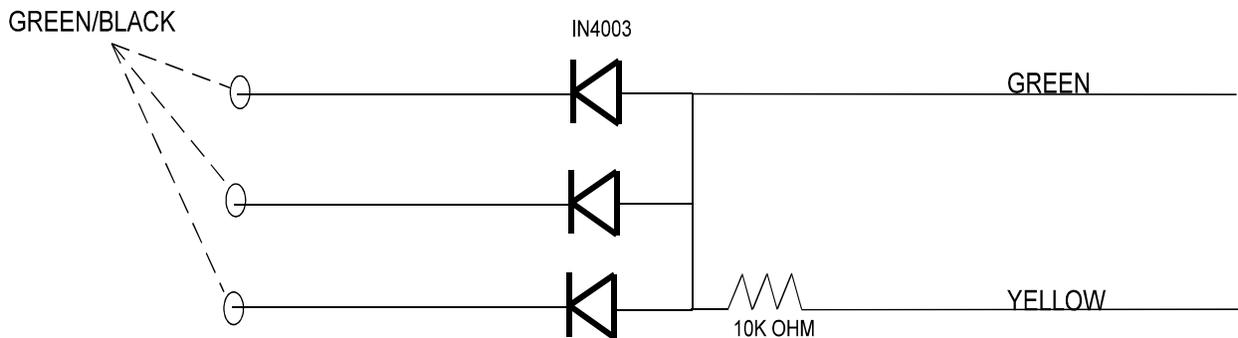


CONNECT TO CYLINDERS 137, OR 862, OR 451

IF THE FIRING ORDER IS 1,5,6,3,4,2,7,8



CONNECT TO CYLINDERS 1,3,7 OR 5,4,8 OR 6,2,1



11. DARK GREEN Wire: Tach Sensor Input

This wire will continually monitor the tach rate while the engine is running under power supplied by the Remote Starter. Connect this wire to the existing tach wire, or the negative side of the ignition coil in the vehicle. (See dip switch settings below).

PROGRAMMING AND TESTING:

1. You will notice a 4 position dip switch on board the remote start module. Dip switch #1 and #2 are used to program the Tach Rate. Refer to the chart below for proper setting of these dip switches.

SW #1	SW #2	CYLINDERS
ON	OFF	4
ON	ON	6
OFF	ON	8
OFF	OFF	12

2. Dip switch #3 controls the run time of the AS-9151N.
ON = 10 Minute Run Time
OFF = 15 Minute Run Time
3. Dip switch #4 controls the operation of the on board parking light flasher relay. This feature provides visual confirmation whenever the vehicle is running under the control of the remote starter.
ON = Parking lights flash while the vehicle is running
OFF = Parking lights turn on steady while the vehicle is running

4. Test the System:

Press the appropriate button on the transmitter, that you have selected for the remote start operation. If the vehicle did not start;

- A. If the remote start did not activate in any way, check;
 1. Is the control switch in the ON position.
 2. Is there a solid connection on the Dark Blue remote input wire, and did the alarm send the ground signal to this wire.
 3. Verify that the fuses in the Red and Red w/ White tracer wires are not blown, and the connections onto the fuseholders are adequate.
 4. Verify that the Black wire is connected to a good, clean chassis ground source.
 5. Check all inhibit circuits that have been connected, (i.e. is the hood opened, is the transmission in park, are the brake lights on...etc.).
- B. If the starter motor cranked, but engine did not start, check the connection and location of the Light Blue primary ignition wire.
- C. If the lights turned on, but the starter motor did not crank, check the connection and location of the Yellow start wire.

COMPLETING THE INSTALLATION:

1. Mount the control switch in the passenger compartment, where it is easily accessible to the driver of the vehicle. Always try to mount the switch so that the upward position is the ON or CLOSED position.
2. Mount the control module behind the dash using cable ties or sheet metal screws.
3. Securely tie all wiring up and away from all hot or moving parts of the vehicle. It is always recommended to use split vinyl convoluted tubing along wire routing paths.
4. Apply the Caution label included in the kit to an area in the engine compartment that is clearly visible when the hood is opened. Make sure the surface is clean before applying the label.
5. Replace all panels that were removed for installation ease, and re-test the system.
6. Explain all activated features of the remote starter to the customer.

WIRING THE 12 PIN INPUT / OUTPUT HARNESS

