

IntelliStart 4

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Lifetime Warranty <input type="checkbox"/> Remote Engine Starting - Manual or Automatic Transmissions, Gas or Diesel <input type="checkbox"/> AutoStart - Battery Voltage, Engine Compartment Temperature, or both <input type="checkbox"/> Utilizes CliffNet Digital Network | <ul style="list-style-type: none"> <input type="checkbox"/> Completely programmable using CliffNet Wizard <ul style="list-style-type: none"> <input type="checkbox"/> Fully-adjustable crank time <input type="checkbox"/> Fully-adjustable AutoStart Thresholds <input type="checkbox"/> Real Time Tach monitoring <input type="checkbox"/> Fully-adjustable Engine Run Time <input type="checkbox"/> Tachless Mode Compatible |
|---|--|

IntelliStart 4 Control Unit: Wiring Description for the 9-Pin Pigtail Connector

Pin	Color	Connects to
1	Orange	Accessory output
2	Red	Battery positive (30-amp fuse) 12V (+) input
3	Orange/Gray	Ignition 2 output
4	Green/Blue	Ignition 1 output
6	Gray/Orange	Heater 2 output
7	White/Blue	Starter output
8	Red	Battery positive (30-amp fuse) 12V (+) input
9	Gray	Heater / Air Conditioner 1 output

IntelliStart 4 Control Unit: Wiring Description for the 12-Pin Connector

Pin	Color	Connects to
1	Black/Green	Ground for automatic transmission mode
2	Violet/White	Pulse out (negative) after remote start for door lock upon remote start
3	White/Black	Hood input (-)
4	White/Violet	Pulse out (negative) before remote start for factory disarm prior to remote start
5	Red	Battery positive (5-amp fuse) 12V (+) input
6	Blue/Orange	Out (negative) when remotely started for additional ignition relay or factory disarm
7	Black	Ground
8	Blue/Black	Negative switching "Wait to Start" bulb for diesel engine installations
9	Blue/Yellow	Positive switching "Wait to Start" bulb for diesel engine installations
10	Blue/Green	Automatic transmission, connect to reverse light / manual, connect to emergency brake light
11	Blue/White	Brake light input (+)
12	Black/Gray	RPM Input

Starter and Ignition Connections

Ignition Connection

1. Locate the ignition switch wireloom under the dash and use a voltmeter to locate the one wire that carries +12V throughout **BOTH the cranking AND engine running cycles**, and 0 volts when the ignition is off.

You may find two wires in the steering column wireloom that test this way. If so, see the Secondary Ignition or Heater/AC wire section below.

2. Start the engine, then cut the ignition wire. The engine should stop running.
3. Connect the GREEN/BLUE wire of the IntelliStart 4 to the ignition line. If the alarm you are interfacing with has an ignition interrupt, be sure you connect to the **ignition** side of the interrupt, as indicated in the diagram.

Starter Connection

You MUST connect the starter wires before the neutral safety switch, otherwise the engine could be started while in gear. Also note that the starter circuit may have very high current. Be certain that the starter wires are solidly connected. For maximum dependability, solder and shrink tube these connections.

1. Use a voltmeter to locate the **one** wire that carries +12V during the **cranking cycle ONLY**. Cut this wire, then try to start the engine. It should not crank.
2. Connect the WHITE/BLUE wire of the IntelliStart 4 to the starter line. If the alarm you are interfacing with has a starter interrupt, be sure you connect to the **starter side** of the interrupt, as indicated in the diagram.

Heater/Air Conditioner Connection

1. Turn the vehicle's heater/AC switch on and rotate the ignition key toward START one increment at a time. Observe at which position the blower turns on.
2. Turn the engine OFF.
3. Connect the voltmeter black lead to ground and set the dial to DC volt.
4. Locate the one wire that carries +12V *only* when the ignition key is at the position where the blower activates.
5. Cut the wire.
6. Start the engine. The blower should not operate.
7. Connect the GRAY wire to the heater/AC wire.

Secondary Ignition or Heater/AC Wire

More and more vehicles are being manufactured with two ignition or two heater/AC wires in order to split up the power requirements of the temperature control system, on-board computers, fuel delivery system, electronic transmission control, etc. If you are working on such a vehicle, you will find two wires that both test as ignition lines or two wires that supply the heater/AC. Connect the ORANGE/GRAY wire to the 2nd ignition line and the GRAY/ORANGE to the second heater/AC line.

Accessory Line Connection

Most vehicles have a separate accessory line to power the radio, electric windows, demister, etc.

1. Turn the vehicle's radio ON and rotate the ignition key to ACC. The radio should turn on.
2. Locate the one wire that carries +12V *only* when the ignition key is in the ACC and ON positions, but 0V while the key is in the START position.
3. Cut this wire.
4. Start the engine. The radio should not operate.
5. Connect the ORANGE wire to the accessory wire.

Automatic Transmission

1. If the vehicle has an automatic transmission, connect the BLACK/GREEN wire to ground.

CONNECT THE BLACK/GREEN WIRE TO GROUND ONLY IF THE VEHICLE HAS AN AUTOMATIC TRANSMISSION! AN INCORRECT CONNECTION CAN CAUSE SEVERE INJURY OR DEATH.

2. Verify that the reverse lights illuminate when the transmission is put in reverse.
3. Find the one wire in the kick panel that reads +12V *only* when the transmission is in reverse.
4. Connect the BLUE/GREEN wire to this wire.

Manual Transmission

1. Find two wires going in to a connector on the clutch pedal.
2. Unplug the clutch pedal connector, then try to start the vehicle *while pressing the clutch pedal*. The engine should neither start nor crank.
3. Connect the BLUE/ORANGE wire to an optional relay as shown.
4. Turn on the ignition.
5. Find the one wire near the emergency brake that carries +12V when the emergency brake is engaged and 0V when it is disengaged.
6. Connect the BLUE/GREEN wire to this wire as shown on page 2.

Diesel Engines

There are two methods for interfacing the remote engine starting on diesel engines. You can either interface via the "Wait-to-Start" light which will trigger the starter when the light turns off, or you can use the built-in 20 second timer which cranks the engine 20 seconds after the remote start command is received.

Using the 20 second delay:

Using the *Installer-Programming* for the system, change the engine setting to "Diesel Engine," or use the CliffordWizard Pro installation software to program the system. The CliffordWizard Pro will also allow you to customize the delay to an interval other than 20 seconds.

Using the Wait-to-Start light:

Note: Skip this section if using the 20 second delay method.

Check the polarity of the two wires at the bulb of the Wait-to-Start light.

- If the polarity is positive when the light turns off, connect the BLUE/YELLOW wire to this wire.
- If the polarity is negative when the light turns off, connect the BLUE/BLACK wire to this wire.

Brake Lights

The IntelliStart 4 monitors the brake light to prevent an unauthorized driver from driving the car. The brake light input wire MUST be connected and brake light must be in working condition. This connection not necessary if the alarm is already connected to the brake.

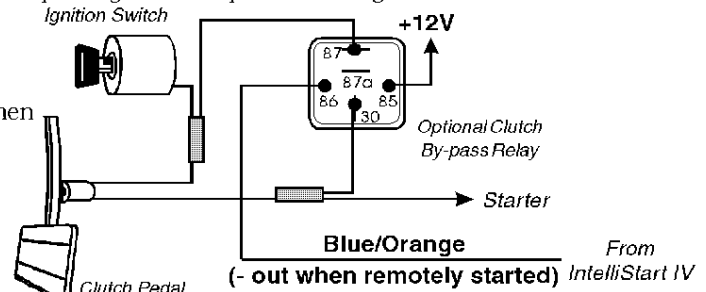
1. Turn the ignition ON and press the brake pedal to make sure the brake light turns on.
2. Connect the black lead of the voltmeter to ground and set the dial to DC volt.
3. Probe one of the two wires at the brake pedal switch with the voltmeter red lead. The voltmeter should read +12V when you press the brake pedal; 0 volts when released. If no signal is detected, try the other wire.
4. Connect the BLUE/WHITE wire to the brake light wire.

Factory Theft Deterrent Bypass

The wires noted below are to disarm a vehicle's factory alarm system to permit remote starting.

For more information on the vehicle on which you are installing the IntelliStart 4, download this information from our www.clifforddealer.com website, our AutoFax service or ring our Dealer Technical Support Helpline.

1. The BLUE/ORANGE wire is a negative out whenever the vehicle is remotely started. It can be used for extra ignition relays or for factory alarm bypass. This wire comes from the factory pre-wired to the Parking/sidelight relays.
2. The WHITE/VIOLET wire is a negative pulse out just prior to remote engine starting. It can be used to pulse a factory disarm wire or unlock the doors.
3. The VIOLET/WHITE wire is a negative pulse out after remote engine starting. This can be used to lock the doors after remote starting if the doors had been unlocked prior to starting.



Engine Compartment Connections

Hood Trigger

If the existing alarm system has already been connected to the hood, then this connection is not necessary.

Vehicles with an ground-switching hood pin switch interface directly with IntelliStart 4 (on positive switching Rolls-Royce vehicles, use a relay to invert polarity). If a switch cannot be located, you must add the supplied pin switch in a location away from water channels. Connect the WHITE/BLACK wire to the hood pin wire.

RPM Monitoring

This is required for remote engine starting. See the **RPM Monitoring** section in this binder for information or use the CliffNet Wizard Pro to program for tachless mode.

Power and Ground

1. Connect the two 14AWG RED wires to the 30amp fuse holder and connect to the battery.
2. Connect the 18AWG RED wire to the 5amp fuse holder and connect to the battery.
3. Connect the 18AWG BLACK wire to the battery negative cable clamp.

Mandatory RPM Programming

Note: This MANDATORY programming step must be completed for the IntelliStart 4 to operate properly.

1. **Drive** the vehicle to a nearby open area and allow the engine to warm-up until the RPMs drop to the normal idle speed.
2. With the engine still running, place the transmission in **PARK** (or **NEUTRAL** if the vehicle has a manual transmission).
3. Enter installer-programming mode following the instruction provided in the *Programmable Features* section of the alarm.
4. Press the **unmarked** button of the PlainView 2 Switch once. After a three-second pause, the system will sound one chirp to confirm column one selection (see the *Installer-Programmable Features* section of the system to which you are adding IntelliStart 4).
5. Press the ***** button of the PlainView 2 Switch five times (you will hear a chirp each time you press the button) to select row five. After a two-second pause, you will hear two chirps and two parking light flashes to confirm idle RPM has been set (if you hear just one chirp, check the connection of the BLACK/GRAY wire, then repeats steps 1 - 5).
6. Turn the ignition OFF.