

Installation Guide

24 Volt Relay Module

Alcohol Interlock V3



V3 24V ECU is intended for installation on vehicles with 24V electrical systems.

This installation guide is intended for use by trained technicians only. Local laws and approvals should be observed during installation.

Kit/Tools Needed

V3 ECU (24 Volt) (ACS # **79-005504**)

V3 Alcohol Interlock handset (**79-005555**)

Handset Mounting Clip (**58-000144**)

Handset Clip Fixture (**58-000257**)

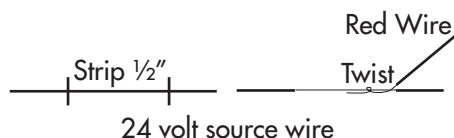
ECU to Interlock Handset Cable (**13-001050**)

ECU Wiring Harness (**13-001045**)

Installation kit (velcro tape, tie wraps, hardware, heat shrink tubing, terminal ring/crimp/nut) (**95-000514**)

Round style Mouthpieces (bag of 25) (**95-000140**)

Also: Wire strippers, Soldering iron, Heat gun, Multimeter, Screwdriver. To order replacement parts, consult the preceding list.



Inspection

Before the Alcohol Interlock is installed, an inspection of the vehicle's electrical system is required.

Check:

- Battery Voltage
- Charging System
- Starting System

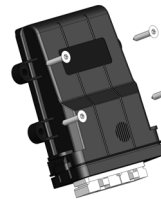
Installing the ECU

Mounting the ECU

1. Locate an easily accessible area that does not obstruct the normal operation of the vehicle (preferably under the dashboard to the right of the driver's side of the vehicle) to install the ECU.
2. Mount the ECU with the wiring harness connector opening facing downwards (so that the open part of the ECU case would be facing down).

Note! Position the ECU as to not interfere with the normal operation of the vehicle.

3. To mount the ECU to the vehicle use Velcro[®], tie wraps or screws.



4. If Velcro is used to mount the relay, attach the loop half of the hook, and loop tape to the back of the ECU, and attach the hook half to the vehicle. If tie wraps are used, put them through the screw holes in the ECU case. If screws are used, try to use existing holes to avoid any modifications to the vehicle.

Connecting the ECU Wiring Harness



The ECU wiring harness consists of 14 colored wires. Only 7 of these wires are connected to specific points in the vehicle's wiring system (see table). The other 7 wires are used to connect optional accessories.

1. Prepare the ECU wire harness by stripping all wires 1 to 2", and insert heat shrink tubing to all wires except the red, black and white wires.
2. Solder the terminal ring to the Black ground wire in the wiring harness. Connect to a ground point with the metal crimp ring and nut provided.

Note! The ground connection is made first to prevent any damage to the ECU.

3. Using the Multimeter, locate a continuous unswitched +24 volt source in the vehicle's main harness. Test the source in all ignition states including Start and Accessory. The +24 volts must be present in all states. Connect the red wire in the wiring harness to this source (follow next two steps for instructions).

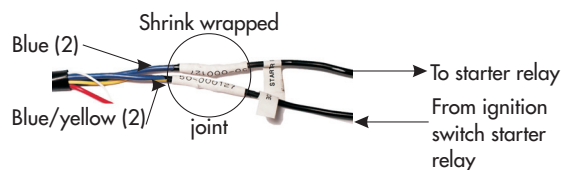
Note! This source should be connected to a source with a 20A fuse.

4. Locate a section of the +24 volt source wire which is close to the vehicle's fuse box. Using the wire strippers, expose a 1/2" section of the wire (see diagram).
5. Twist the exposed end of the red wire in the wiring harness to the exposed section of source wire.

- Using the Multimeter, locate a +24 volt source in the vehicle's main harness that is present only when the ignition is in the Start and On state (not the Accessory state). The white wire in the wiring harness is connected to this source.
- Using the wire strippers, expose a 1/2" section of the wire. Twist the exposed end of the white wire in the wiring harness to the exposed section of source wire.
- Locate the wire in the vehicle's main harness that runs between the ignition switch and the starter relay or solenoid. Cut this wire and attempt to start the vehicle (see diagram).

The motor should not start.

- Attach the two blue wires in the wiring harness to the key side of the cut starter cable (see diagram).
- Attach the two blue/yellow wires in the wiring harness to the starter side of the cut starter cable (see diagram).
- Solder all connections. Slide the heat shrink tubing over the joint and apply the heat gun. In other cases, tape the joint.



- Tape off or heat shrink the used wires in the wiring harness and tie wrap the wires. Connect the wire harness to the ECU and replace all vehicle panels.

- Wait for the Start Motor message indicating the breath test has passed. Turn the key to start the motor.
The motor should start.
- Turn off the ignition and attempt to start the motor again within 30 minutes.
The motor should start without requiring another breath test.

Uninstalling the ECU

To be done only when removing ECU from car.

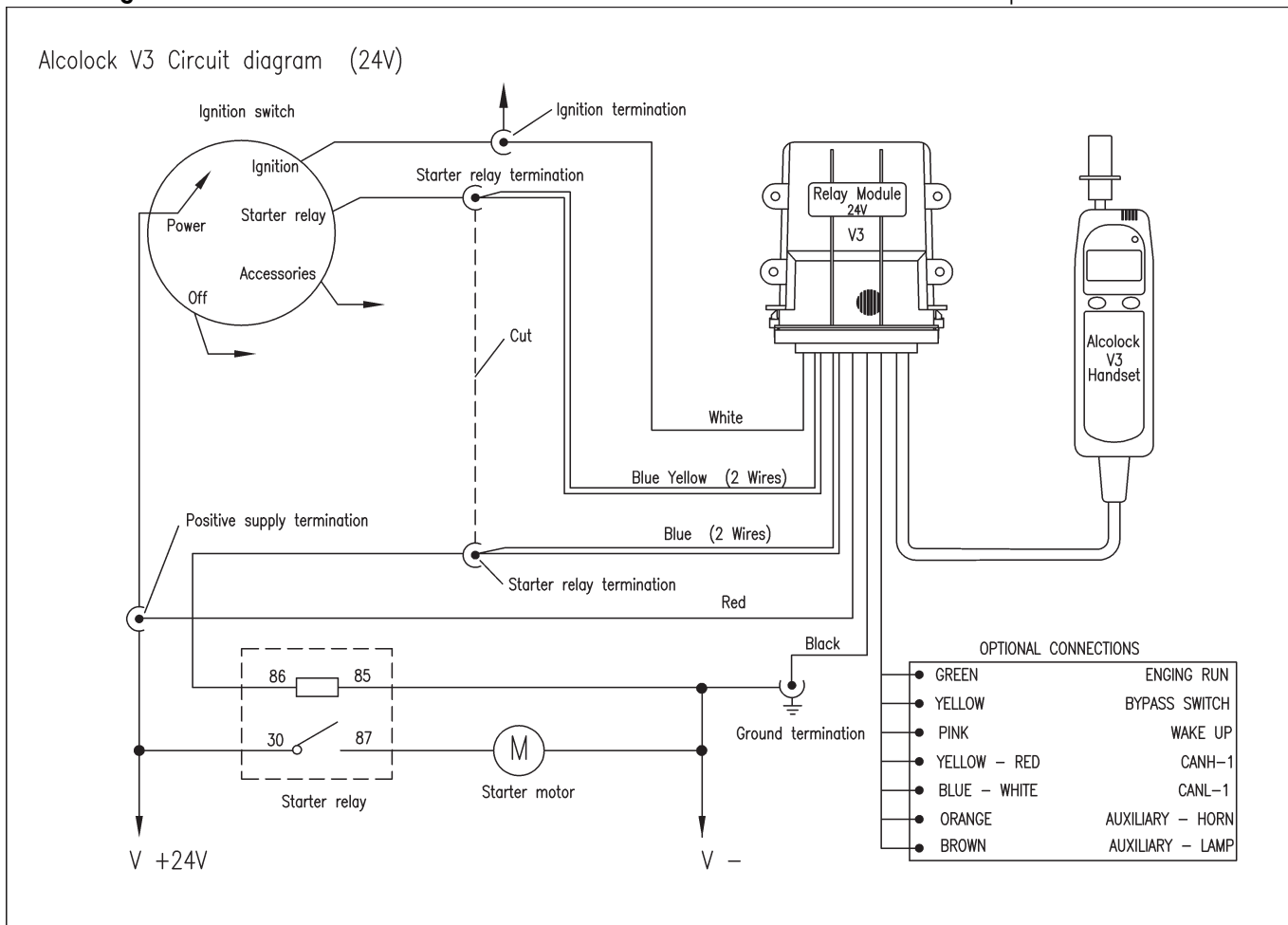
- Disconnect the 7 wires that come from the ECU wiring harness which are connected to different parts of the car's electrical system. Unsolder all connections and tape off the wires.
- Disconnect the terminal ring (which is connected to the Black ground wire in the wiring harness) from the ground point on the vehicle (the connection was made with a metal crimp ring and nut).
- Locate the wire that was cut during installation, the wire was part of the vehicle's main harness and it ran between the ignition switch and the starter relay or solenoid. Reconnect the wire.
- Once the ECU uninstallation is complete (the above 3 steps), attempt to start the motor by turning the ignition switch.

Disposal of Unit at End of Service Life

To dispose of the Alcohol Interlock (ECU, handset, or both) when it is deemed to be at the end of its service life:

- Return the unit to the dealer for disposal.

Connecting the Handset



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Type Approval: ECE Regulation No.10

1. This type approval follows only the specifications regarding the electromagnetic compatibility.
2. The devices must be installed in such a manner that all applicable technical rules, and also observing other technical directives and regulations, for the vehicle to be modified still apply.
3. The national regulations and behavioral rules must be observed when using this device.