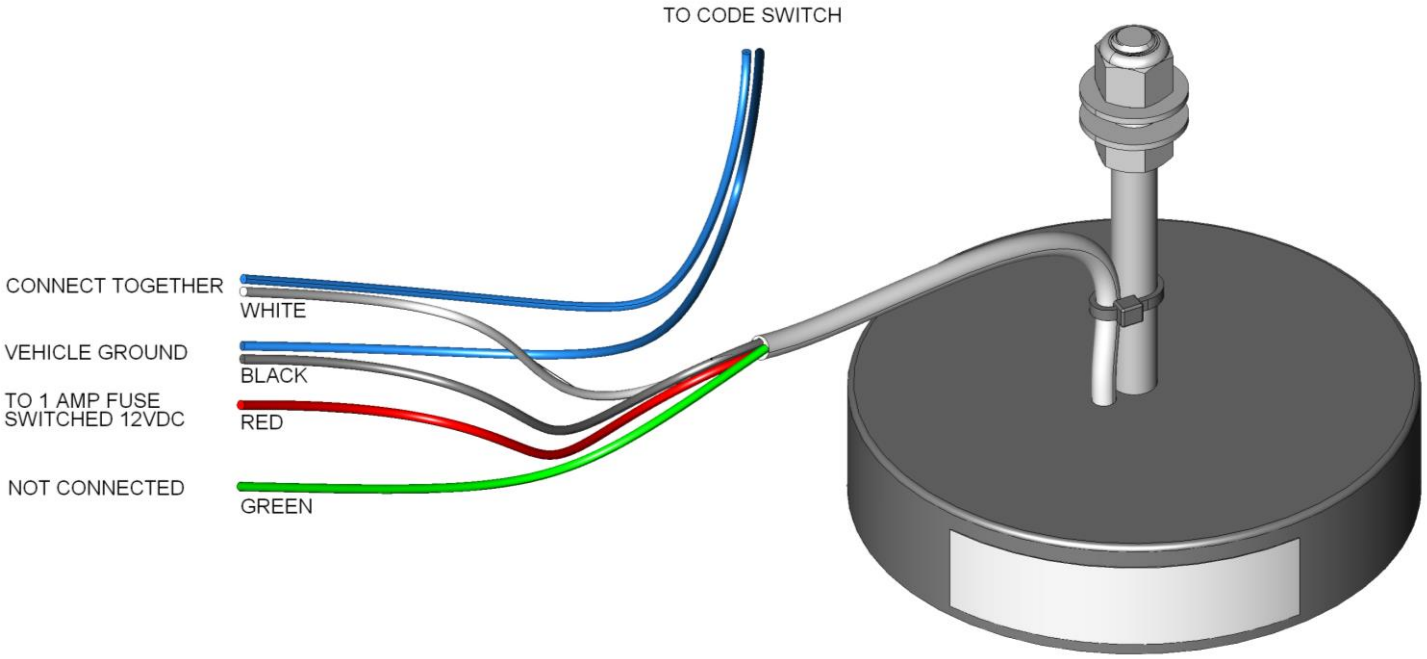

Overview

The Diablo Controls AVI-X transmitter is part of an Automatic Vehicle Identification (AVI) system. This device transmits a coded signal that can be received by an AVI receiver that is configured to receive the transmitter's code.

The AVI-X can optionally be installed with a Diablo Controls AVI-SD security device. This device makes the AVI-X transmitter inoperable if removed from the vehicle. See the AVI-SD installation instructions for the correct wiring instructions when the security device is used.

The AVI-X requires a 12 volt DC connection fused at 1 amp and a vehicle ground connection. The 12 volt DC power should be a power source that is switched on and off with the vehicle key or the emergency lights, if so equipped. An optional alternate code switch can be installed for transmitters that support its use.

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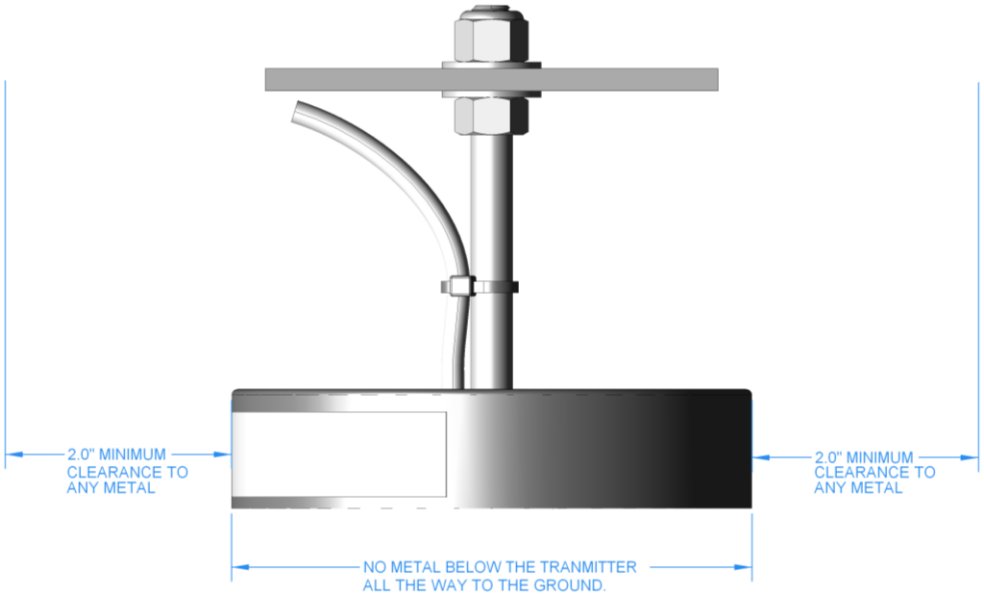
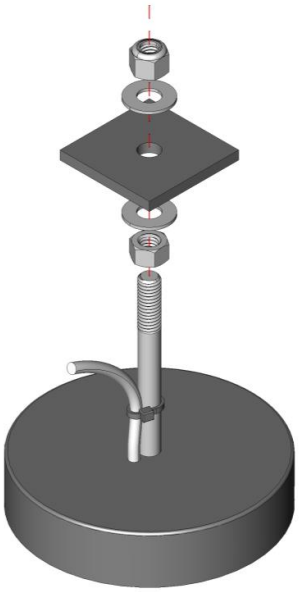
Pros Who Know Trust Diablo

Step 1: **Determine AVI-X Transmitter mounting location**

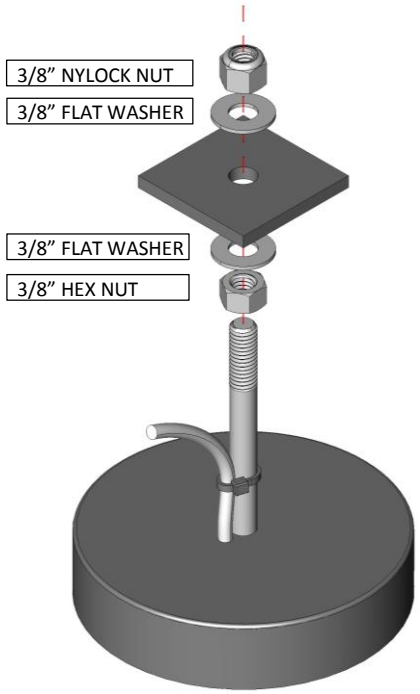
The transmitter must be mounted parallel to the road surface. It cannot have any metal within 2” of its sides. It must have no metal between the bottom of the transmitter and the road surface. It must not be mounted within 6” of a heat source (exhaust system, radiator, etc.). Excessive heat will damage the unit.





Step 2: **Mount AVI-X Transmitter**

Use an “X” size bit or 13/32” bit to drill the mounting hole. All hardware used should be stainless steel.



Step 2: **Determine the source for 12VDC power**

The transmitter should be connected to a switched 12VDC source. This can be either a source switched by the ignition key or by the emergency lighting system (if so equipped). A 1 amp fuse (not supplied) will need to be installed between the AVI-X transmitter and the 12VDC source.

Step 3: **Route the cable from the AVI-X to the power source location**

When routing the cable make sure to avoid high heat sources (exhaust system, radiator, etc.) that could damage the cable. If passing through any holes, a grommet should be used to insure that the cable will not be damaged due to vibration. If the fire wall of the vehicle must be penetrated, the penetration should be properly sealed after the cable is installed. The cable should never be run in an area where occupants may rest there feet.

Step 4: **Optional – Mount alternate code switch and route wiring to the power source location**

If the AVI-X transmitter supports an alternate code and the feature is to be used, an alternate code switch must be installed. This can be any normally open switch. Route both leads from the switch to the power source location.

Step 5: **Optional – Connect wires from alternate code switch**

If the alternate code switch was installed, connect one wire to vehicle ground and the other wire to the AVI-X white wire.

Step 6: **Connect the AVI-X black wire to vehicle ground**

Connect the black wire from the AVI-X transmitter to a vehicle ground point.

Step 6: **Connect the AVI-X red wire to 12VDC**

Connect the red wire from the AVI-X transmitter to a 12VDC source that is fused at 1 amp. The 12VDC source should not be a constantly powered source. The source should be switched with the ignition key or the emergency lights (if equipped)

Step 7: **Confirm that the installation works correctly**

The best way to confirm that the installation works correctly is to drive the vehicle over an operational AVI receier location and see if the vehicle is detected.

Optionally, if a Diablo Controls AVI-CR Code Reader is available it can be used to verify that the transmitter is functioning and that the correct code is being transmitted.

If the optional alternate code switch was installed, you will need to activate the switch to confirm that the correct code is transmitted when the switch is active.