

## PCS CAN Add-on Connection Kit User Guide

### Kit Contents

- 1 - CAN Tee Connector
- 1 - CAN Extension Wire

If any of the above items are missing, please contact Powertrain Control Solutions.

CAN communication uses a two wire connection that can be used to connect a series of devices together. PCS CAN devices use a connector system to provide an easy means for connecting new devices to CAN without cutting or splicing wires. The four components to the PCS CAN connector system are listed below.

- Device Connector
- Tee Connector
- Extension Cable
- Terminating Resistor Plug

The Device Connector is on the harness of the device, such as the Transmission Controller, D200, XFC, Accelerometer, or EGT. This connector has an orange key in the connector and can only plug into one of the three ports on the Tee Connector.

The Tee Connector has three ports on it. One is keyed for a device (the orange key), while the other two ports are used for the Extension Cable or the Terminating Resistor Plug (both with black keys).

The Extension Cable is twelve inches on two twisted wires and has a black keyed connection on each end.

The Terminating Resistor Plug is a necessity. It looks like a connector with no wires coming out of it. It is keyed black and can be inserted in two of the three ports of the Tee Connector. A CAN network should have one terminating resistor plug on each end of the bus for a total of two resistors.

On all Device Connectors and Extension Cables, the white with red stripe wire should connect to pin 1 and the white with black stripe wire should connect to pin 2. The pin numbers can be found on the side of the connector body.

**NOTE: CAN communication will NOT WORK if Terminating Resistor Plugs are not used.**

**NOTE: Orange or black keys may be in connectors with black or gray housings. The key color can be seen by looking at the end of the connector that is inserted into the Tee.**

This CAN Add-on Connection Kit is used to connect devices to an existing CAN network. If a CAN network does not already exist, the purchase of the CAN Master Connection Kit (Part #CON-5500) is required. The connections for a two device CAN network using only the CAN Master Connection Kit are shown in Figure 1.

This CAN Add-on Connection Kit is required for every new device. The connections for a three device network are shown in Figure 2. To add a new device, simply remove one of the Terminating Resistor Plugs, and insert the Extension Cable. Connect the other end of the Extension Cable to the new Tee Connector. Insert the Termination Resistor Plug into the other black keyed port on the new Tee and insert the new device's orange keyed device connector into the remaining port on the Tee. Repeat this for every new device on the network.

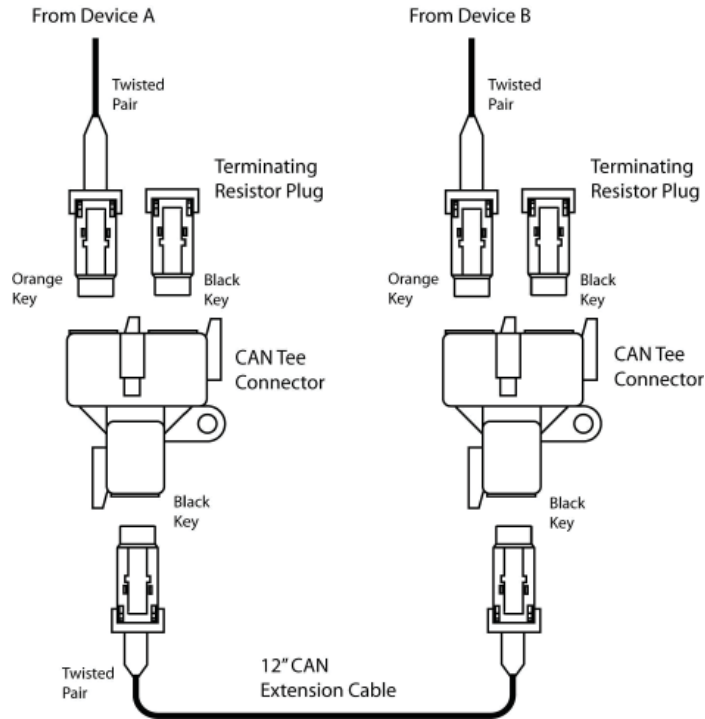


Figure 1: Two Device CAN Network using the CAN Master Connection Kit

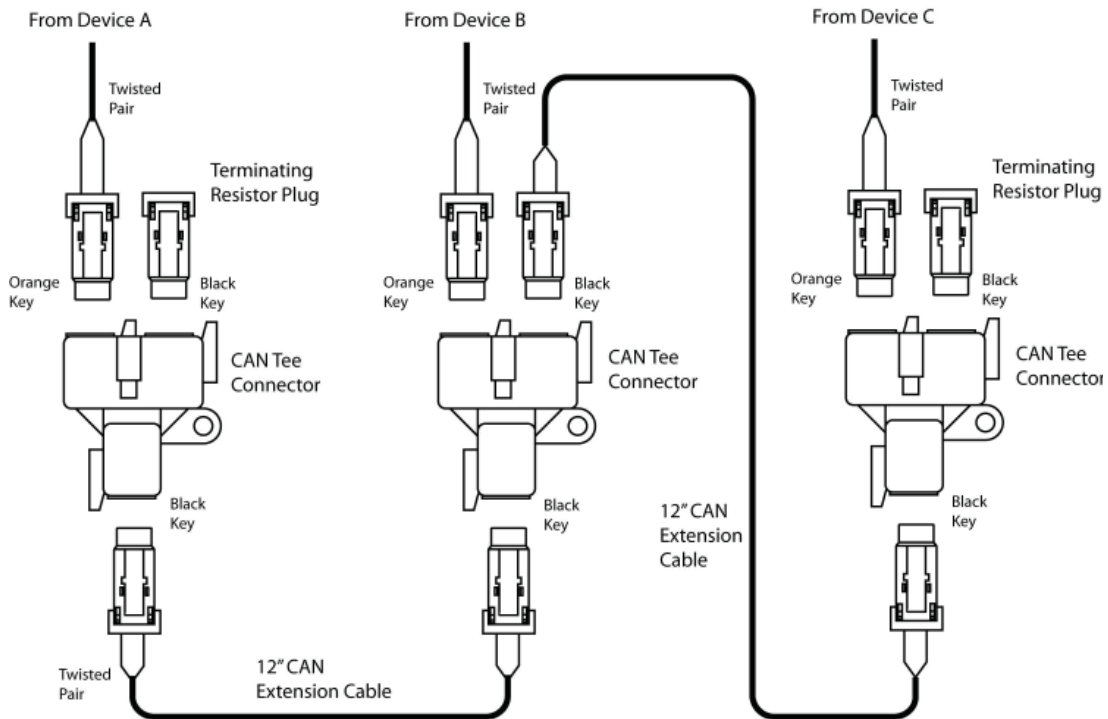


Figure 2: Three Device CAN Network using the CAN Master Connection Kit and one CAN Add-on Connection Kit

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