

CCM401

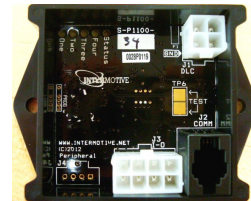
Cruise Control Module

2011-2016 Ford F250 - F550

2017-2022 Ford F250 - F550 (*B-CCM401-A)

2007 - 2015 Chevy Silverado and Suburban

Contact InterMotive for additional applications



***Uses the Ford 24-pin Data Link Harness**

Introduction

The CCM401 product is designed for vehicles equipped to travel on railroad tracks. The module will disable cruise control when the vehicle is travelling on the rails. A single input to the module (Low or High true) is required to indicate when the vehicle is on the rails. The module has an additional output that indicates to the user when it is in the cruise control disable mode.

Installation Instructions

Disconnect vehicle battery before proceeding with installation.



WARNING

Disconnect the battery to prevent setting a check engine light.

IMPORTANT - READ BEFORE INSTALLATION

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers.

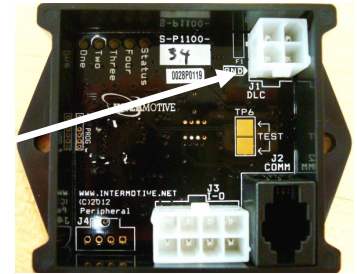
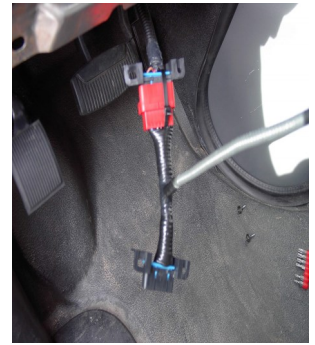
It is important to avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Also avoid radio frequency energy from antenna's or inverters next to the module. Finally, avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

CCM401 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the CCM401 module. Locate the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not actually mount the module until all wire harnesses are routed and secure. The last step will be to mount the module.

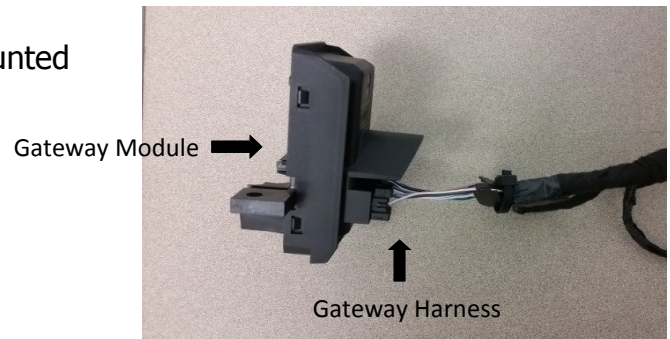
Data Link Harness

1. Locate the vehicle OBDII Data Link Connector. It will be mounted below the lower left dash panel.
2. Remove the mounting screws for the OBDII connector. Plug the Red connector from the CCM401 Data Link Harness into the vehicle's OBDII connector. Ensure the connection is fully seated and secure with the supplied wire tie.
3. Mount the Black pass through connector from the CCM401 Data Link Harness in the former location of the vehicle's OBDII connector.
4. Secure the CCM401 Data Link harness so that it does not hang below the lower dash panel.
5. Plug the free end of the Data Link harness into the mating 4-pin connector on the CCM401 module.



Ford 24-pin Data Link Harness (B-CCM401-A)

1. Locate the vehicles Gateway Module. It will be mounted below the lower left dash panel.
2. Remove the harness behind the Gateway module by pressing the locking tab and pulling outward.
3. Plug the Female side of the Intermotive Gateway Harness into the back of the Gateway module. Ensure the connection is fully seated and secured by the locking tab.
4. Plug the Male side of the Intermotive Data Link Harness into the Gateway harness.
5. Secure the CCM Gateway harness so that it does not hang below the lower dash panel.
6. Plug the free end of the Data Link harness into the mating 4-pin connector on the CCM401 module.



Cruise Control Connections

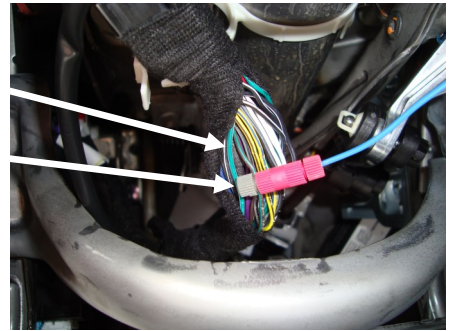
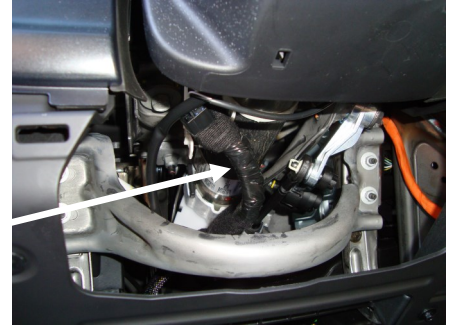
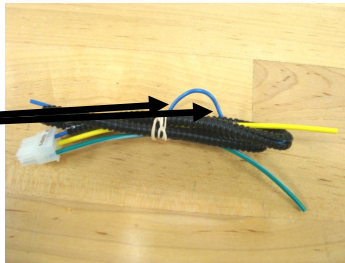
2011-2022 Ford F250 - F550

- The Ford F-Series needs no additional connections other than the Data Link Connector.

2015 Chevy Silverado and Suburban

The 2015 Chevy Silverado and Suburban require connecting the single (Blue) wire from pin 3 of the module to a Cruise Control wire using the "Posi-Tap" connector included in the kit.

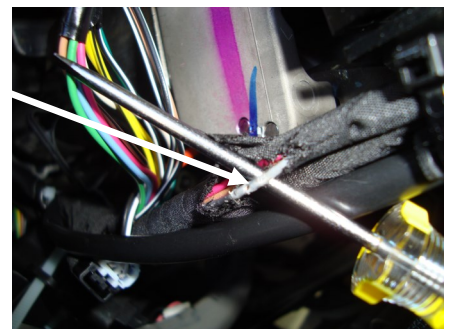
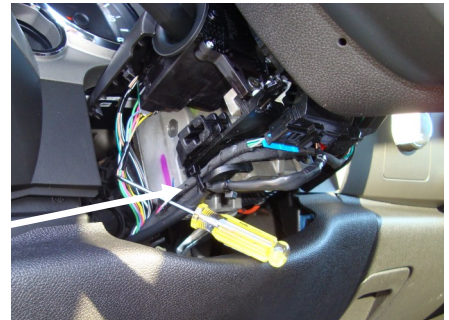
1. Remove the large panel directly below the steering wheel to get access to the Cruise Control wire.
2. Carefully remove a portion of the wire bundle wrap (as shown) and find the Green/Brown wire in the bundle.
3. Install the Posi-Tap connector on the Green/Brown wire.
4. Tape the wire bundle as needed.
5. Cut the additional Blue wire "loop" that extends outside the loom on both ends and stuff the ends back in the loom.



2007 - 2014 Chevy Silverado and Suburban

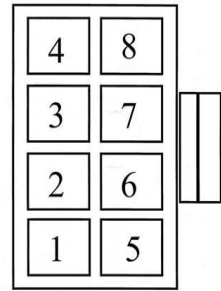
The 2007 - 2014 Chevy Silverado and Suburban require connecting the single (Blue) wire from pin 3 of the module to a Cruise Control wire using the "Posi-Tap" connector included in the kit.

1. Remove the cowl on the steering wheel shaft to get access to the Cruise Control wire.
 2. Carefully remove a portion of the wire bundle wrap (as shown) and find the Gray wire in the bundle.
 3. Install the Posi-Tap connector on the Gray wire.
 4. Tape the wire bundle as needed.
- For this installation, **Do Not** cut the external loop on the Blue wire.
 - The photo indicating the wire location was taken on a 2012 vehicle. The location may differ slightly on different model years, but will always be a gray wire.



8-pin connector pin out definition

- Pin #1 - High True input indicating vehicle is on the rails (if installed)
- Pin #2 - Optional indicator (output) for Cruise Control disabled status (if installed)
- Pin #3 - Cruise Control disable output for Chevy vehicles
- Pin #4 - Not installed on connector, but may be used for diagnostic purposes
- Pin #5 - Low True input indicating vehicle on rails
- Pin #6 - Optional indicator (Output) for Cruise Control disabled status (if installed)
- Pin #7 - Output indicator for Cruise Control disabled status
- Pin #8 - N/C



Back of Connector

Cruise Control Disable Output (Chevy Vehicles Only)

Connect the Blue wire from Pin #3 of the 8 pin connector to the OEM Cruise Control wire (see Cruise Control Connections on previous pages).

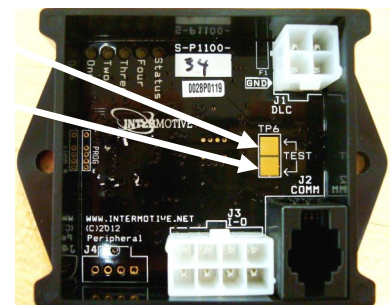
Vehicle on Rails Input

Connect the Green/White wire from Pin #5 to a switch that provides a ground signal when the vehicle is on the rails. If a 12V input is desired, connect the switch to Pin #1 on the 8 pin connector.

CCM Diagnostic Mode Testing

Enabling Diagnostic Mode allows a visual indication of system status and is a good troubleshooting tool used in conjunction with the above tests. The module is fully functional in this mode. Enter Diagnostic Mode by the following steps:

1. Place transmission in Park and turn ignition switch to run position.
2. Momentarily short the two "Test" pads together or press the Red "Test" button.
3. Initially, when the module goes into Diagnostic Mode, the LED's will scroll twice followed by LED1 blinking out the installed firmware version. After this, the LED's will display the following:
 - LED 1 will be on when the high true input (J3/Pin1) is active.
 - LED 2 will be on when the low true input (J3/Pin5) is active.
 - LED 3 Blinks every 5 seconds to indicate the module is disabling Cruise Control (Ford).
 - LED 4 Blinks every 5 seconds to indicate the module is disabling Cruise Control (Chevy).
 - Cycling the key will exit Diagnostic Mode and all LED's will be off.



Post Installation

Testing the module consists of putting the vehicle in the "On Rail" mode and attempting to drive using Cruise Control. The module will prevent Cruise Control operation when vehicle is in this condition. Taking the vehicle out of the "On Rail" mode should allow full cruise control operation once again. NOTE: the module checks periodically for Cruise Control requests so even though it may be possible to put the vehicle into Cruise Control, it will be disengaged within a few seconds after doing so.

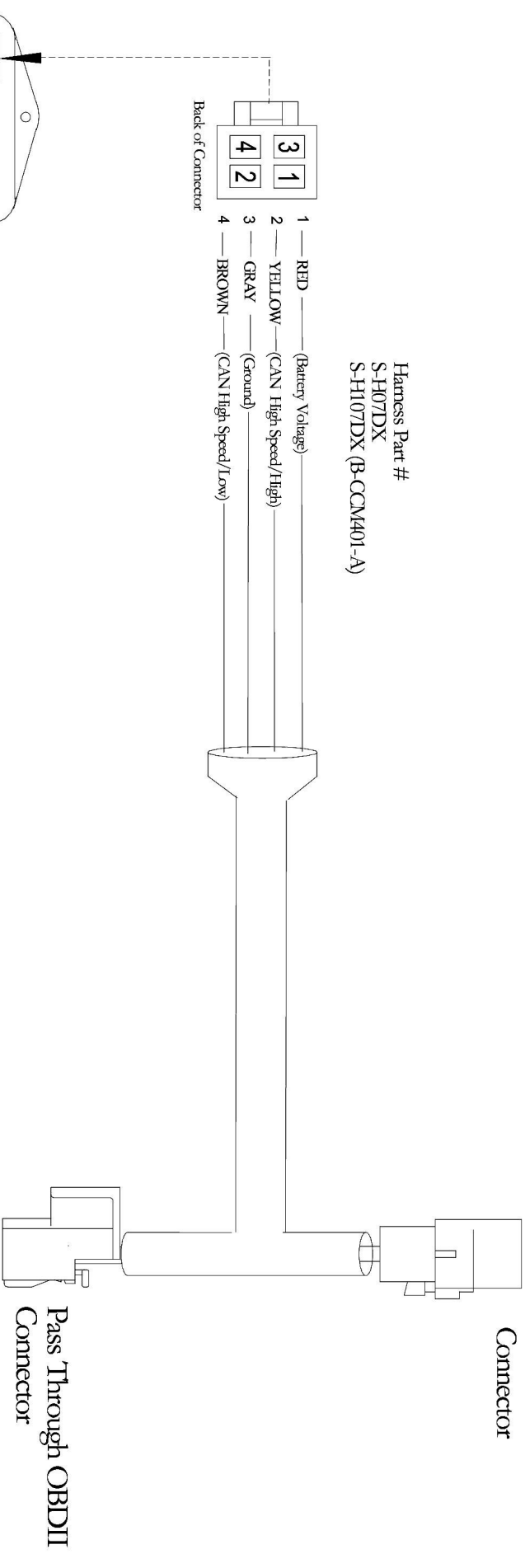
Cruise Control Disabled Status Indicator Output

Connect the Yellow wire from Pin #7 to a device or LED that will indicate whether the module is disabling Cruise Control or not. This output will be a ground output when Cruise Control is enabled (highway mode) and either a 5V (default) or a 12V (Source) output when Cruise Control is disabled. To switch between a 5V output and a 12V output, perform the following procedure:

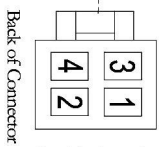
1. Put module into Diagnostic Mode (see previous section).
2. Momentarily jump a ground signal to Pin# 4 on the 8 pin connector. This cavity does not come with a wire, but for this operation the J3 connector can be removed so the pin becomes available. LED 1 should start flashing On/Off and the Status LED will either be On or Off.
3. Within 8 seconds of LED 1 flashing , ground Pin# 4 an additional time. During the time when LED 1 is blinking, the Status LED on the module will either be Off (indicating the current sense of Pin7 is the 5V mode) or On (indicating the 12V mode).
4. After LED 1 flashes for 8 seconds, the Status LED will start flashing On/Off for 8 seconds. During this period, ground Pin #4 again to exit this mode. Confirm that Pin #7 has the desired output when Cruise Control is not disabled.

If the CCM401 fails any step in the Post Installation Instructions, please contact Intermotive Technical Support at (530) 823-1048.

Data Link Harness-
Attach To OEM OBDII
Connector



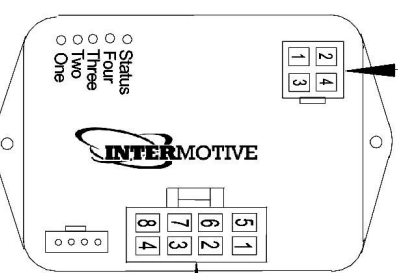
Harness Part #
S-H107DX
S-H107DX (B-CCM401-A)



- 1 — RED — (Battery Voltage)
- 2 — YELLOW — (CAN High Speed/High)
- 3 — GRAY — (Ground)
- 4 — BROWN — (CAN High Speed/Low)

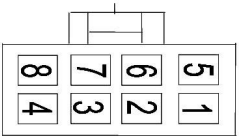
Back of Connector

Harness Part # S-H95D1



- Status
- Four
- Three
- Two
- One

CCM401
Part # S-M1100-09



Back of Connector

- 1 — (Vehicle On Rails 12V Input - If Installed)
- 2 — (Cruise Control Disabled Status Indicator Output - If Installed)
- 3 — BLUE — (Cruise Control Disable Output - Chevy Vehicles Only)
- 4 — (Diagnostic Purposes Only)
- 5 — GREEN/WHITE — (Vehicle On Rails Ground Input)
- 6 — (Cruise Control Disabled Status Indicator Output - If Installed)
- 7 — YELLOW — (Cruise Control Disabled Status Indicator Output)
- 8 — N/C

Submit product registration at www.intermotive.net

If the CCM401 fails any step in the Post Installation Test, review the installation instructions and check all connections. If necessary, call Intermotive Technical Support at (530) 823-1048.