

2010 GM VAN/ 08-NISSAN SENTRA

ELECTRONIC CRUISE KIT

Part Number: 250-1858

AUTOMATIC TRANSMISSION

General Applicability

This cruise control was tested and verified on:

- 2010 Chevrolet Express
- 2010 GMC Van
- 2008 - 2011 Nissan Sentra w/o ABS

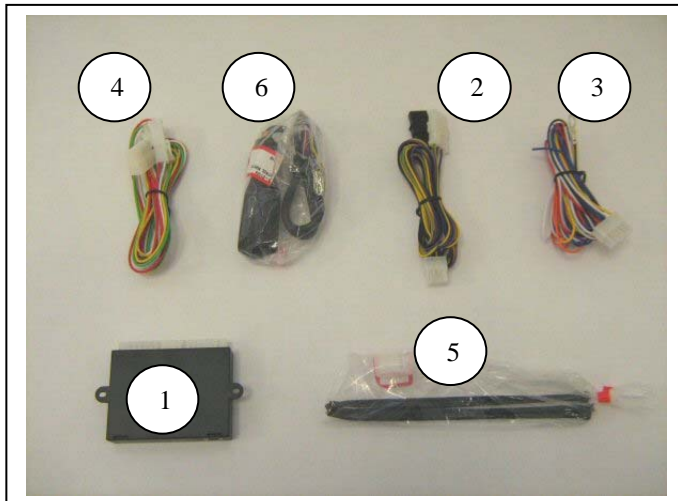
This cruise control may not function correctly on unverified vehicles. See www.rostra.com for vehicle compatibility.

Kit Contents

Item	Qty	Description	Service Part #
1	1	Cruise Control Module	250-2768
2	1	Switch Harness	250-2760
3	1	Main Wiring Harness	250-2759
4	1	Pedal Interface Harness	250-2771
5	1	Hardware Kit	250-2773
6	1	Control Switch	250-3742
7	1	VSS Divider (not shown)	250-4379

Contents of Hardware Bag

Qty	Description
8	Wire Zip Ties
1	Weather Sealant
4	Adhesive Foam



Recommended Tools

Safety Tools	
Gloves, Safety Glasses	
Special Tools	
Volt-Ohm Meter	
Installation Tools	
Side cutter	To cut wire ties
Drill Bit or Knockout Punch	9.5mm or 3/8" (for switch)
10mm wrench	
Soldering Tool	
Special Chemicals	

Conflicts

Note:

Legend

	STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.
	OPERATOR SAFETY: Use caution to avoid risk of injury
	CRITICAL PROCESS: Proceed with caution to ensure a quality installation.
	GENERAL PROCESS: This highlights specific processes to ensure a quality installation.
	TOOLS & EQUIPMENT: This calls out the specific tools and equipment required for this process



WARNING: DO NOT USE HAND-HELD 2-WAY TRANSCEIVERS INSIDE YOUR VEHICLE WHILE DRIVING WITH CRUISE CONTROL ENGAGED.

WHEN TRANSMITTING FROM INSIDE THE CAR, 2-WAY RADIOS THAT OPERATE IN THE 25 MHz - 700 MHz FREQUENCY RANGE WITH MORE THAN 2.0 WATTS OF POWER CAN PRODUCE ELECTROMAGNETIC INTERFERENCE THAT COULD INTERFERE WITH THE OPERATION OF CRUISE AND THROTTLE CONTROLS RESULTING IN VEHICLE "LIMP MODE".


Use of cell phones will not interfere with these controls.



DUE TO SENSITIVE NATURE OF SIGNALS USED FOR THIS PRODUCT ALL NON PLUG AND PLAY CONNECTIONS MUST BE SOLDERED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL VOID WARRANTY.

Section I – Installation Procedure

A. Pre-Installation Suggestions

- 1.  It is advisable to disconnect the negative battery cable for 3 minutes before beginning installation, to avoid unintended air bag deployment. Note and record any anti-theft radio codes prior to disconnecting. **Figure 1**

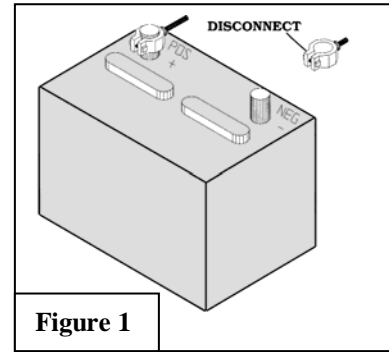




Figure 1

- 2.  Remove the driver side lower dash and kick panels. Remove the steering wheel shroud. **Figures 2 & 3**

 B. Install Electronic Module

- 1.  Plug in the **Main Wiring Harness, Switch Harness, and Pedal Interface Harness** onto mating connectors of the **Cruise Control Module**. **Figure 4**
- 2. Place the **Cruise Control Module** in a secure location behind the driver side dash area near the firewall away from moving parts. Secure with supplied wire ties.
- 3. Route the **Pedal Interface Harness** through steering column and down to the accelerator.

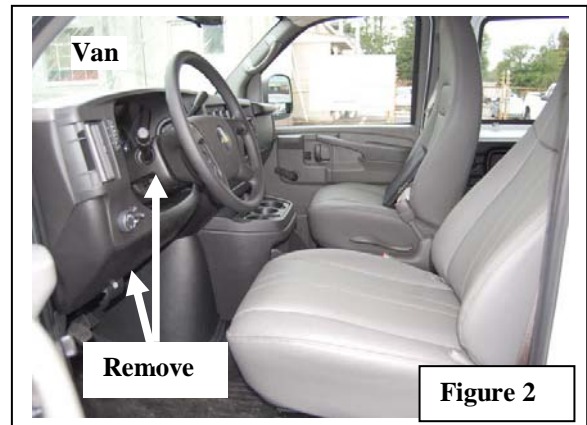


Figure 2

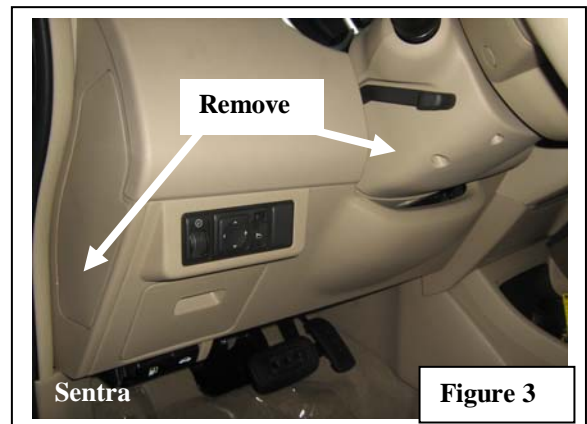


Figure 3

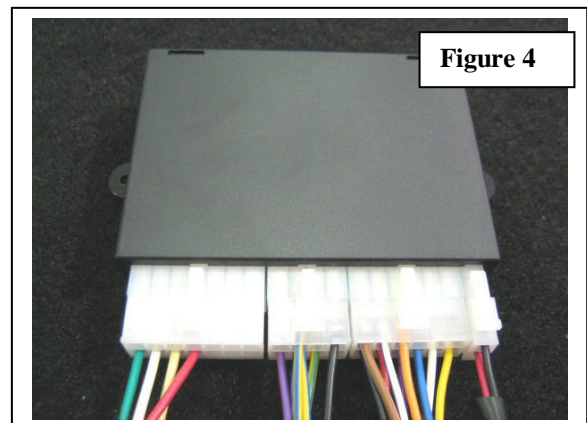


Figure 4

C. Install Pedal Interface Harness

1. Use the diagram and chart below to install the pedal interface harness. Disconnect the Pedal Interface Harness at the 2-pin connectors to ease installation of solder connections. Cut the selected wires at the accelerator harness leaving at least 2 inches of harness from the connector. Solder the wire ends from the pedal interface harness to the accelerator pedal harness according to each wire color listed in chart. **After soldering, wrap the exposed wires with electrical tape. Figure 5**



WARNING: PROCEED WITH CAUTION TO BE SURE PEDAL INTERFACE HARNESS IS MATED PROPERLY TO THE ACCELERATOR HARNESS. FAILURE TO DO THIS CORRECTLY WILL DISABLE THE ACCELERATOR.

: Solder Joint

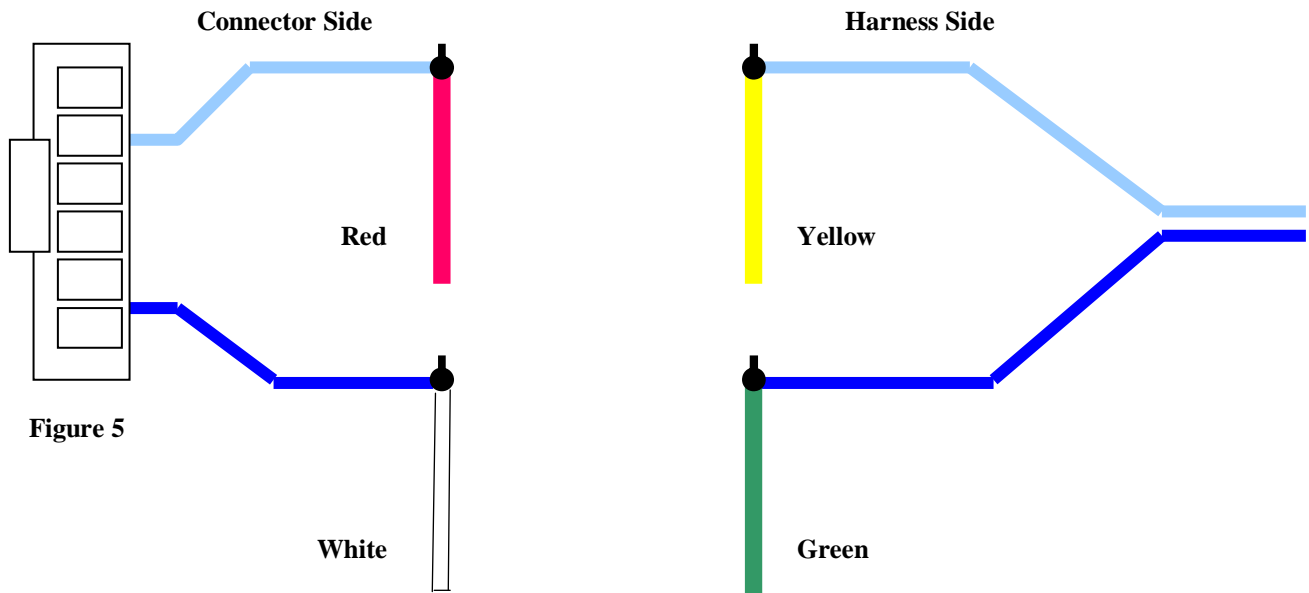


Figure 5

GM CONNECTIONS

Splice & Solder Direction	Cruise Harness Color	Vehicle Wire
CONNECTOR	RED	LIGHT BLUE
CONNECTOR	WHITE	BLUE
HARNESS	YELLOW	LIGHT BLUE
HARNESS	GREEN	BLUE

SENTRA CONNECTIONS

Splice & Solder Direction	Cruise Harness Color	Vehicle Wire
CONNECTOR	RED	YELLOW/GREEN
CONNECTOR	WHITE	WHITE
HARNESS	YELLOW	YELLOW/GREEN
HARNESS	GREEN	WHITE

1. Check for good solder connection:
Before continuing cruise installation, plug the 2-pin mating connectors in to each other as shown in **Figure 6**. Reconnect negative side of battery. Start engine and depress accelerator to confirm operation. Turn off engine and disconnect battery.



- a. If a DTC code appears, restart Section C and ensure proper wire matching and good solder connections.
2. Unplug the 2-pin mating connectors from each other (connected together in the last step) and reconnect to the 2-pin mating connectors of Pedal Interface Harness. Use **electrical tape** to wrap all connections.

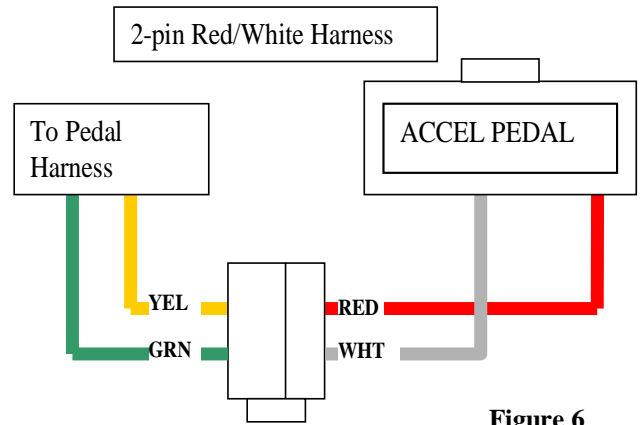


Figure 6

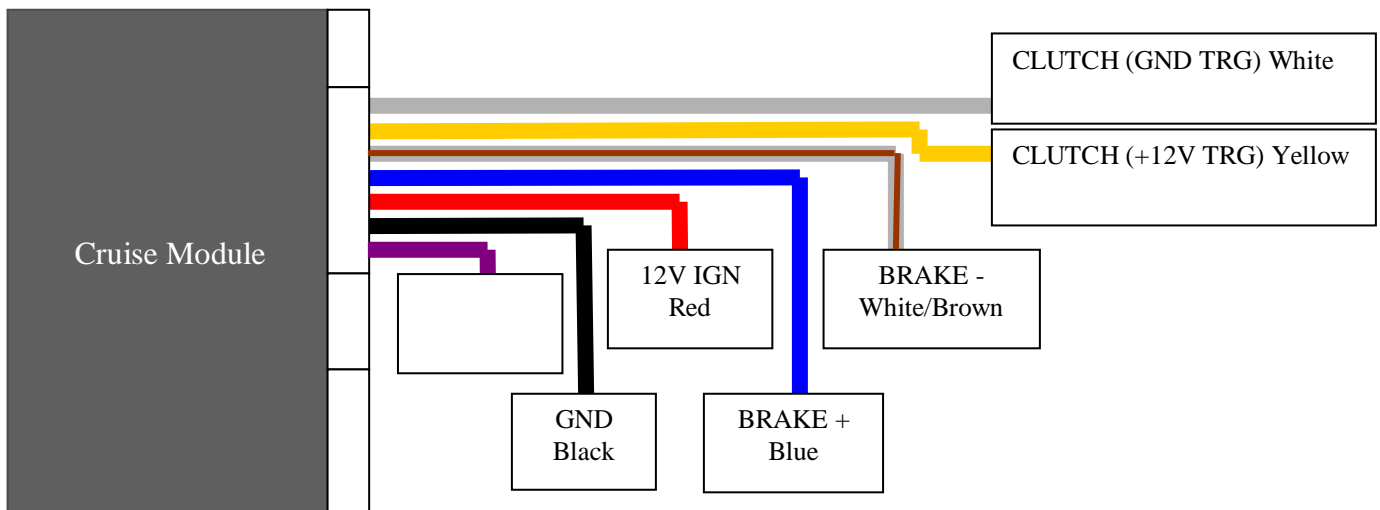
D. Wiring Connections (See Wiring Harness



Description on last page)



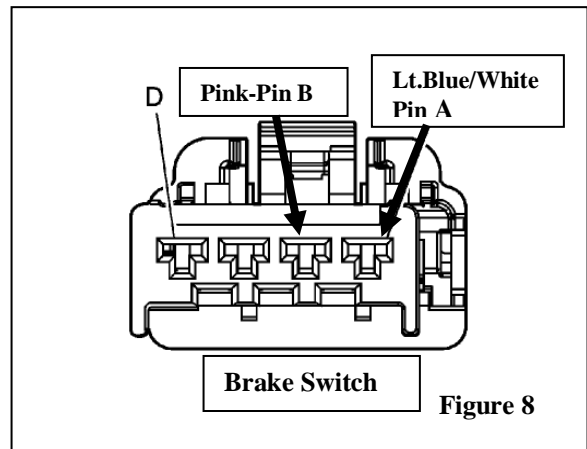
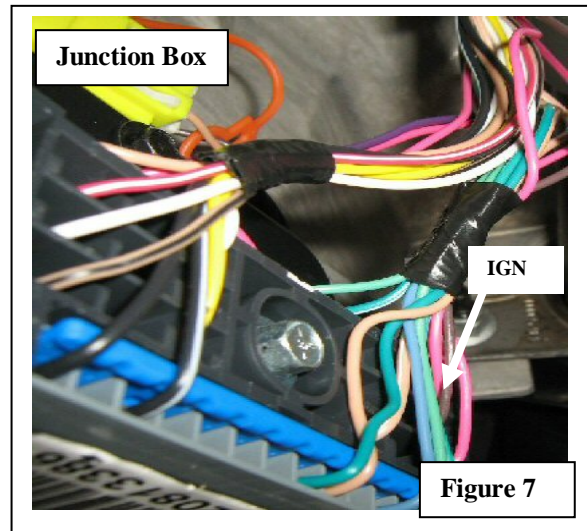
1. Use the following wiring diagram as a reference to make the following connections if vehicle connections are not listed in the instructions:



E. GM Van Wiring Connections (It is advisable use solder for all wiring connections)

1. Locate the following wires to connect to the main harness from the control module:

Function	See Fig.	Vehicle Color
IGN	7	BROWN
BRAKE +	8	PINK
BRAKE -	8	LT.BLUE/WHITE
GROUND	9	GROUND POINT
VSS	11	YELLOW/BLACK
CLUTCH		PAGE 4



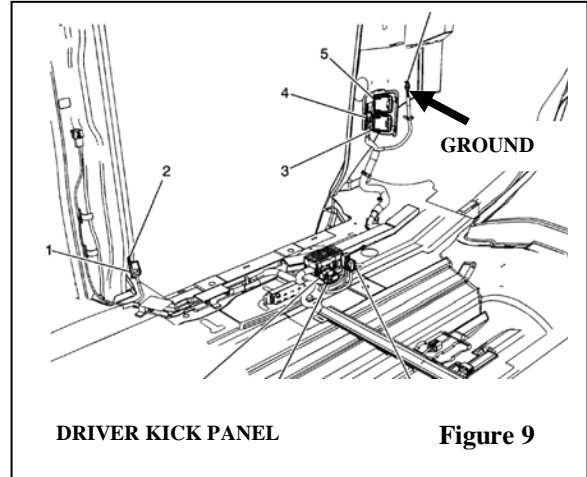
GM Connections Continued...



2. Connect the Main Harness to vehicle wire by using the chart below.



Function	Cruise Harness Color	Vehicle Wire
IGN	RED	BROWN
BRAKE +	BLUE	PINK
BRAKE -	WHITE/BROWN	LT.BLUE/WHITE
VSS	VIOLET	YELLOW/BLACK
CLUTCH	WHITE OR YELLOW	PAGE 4

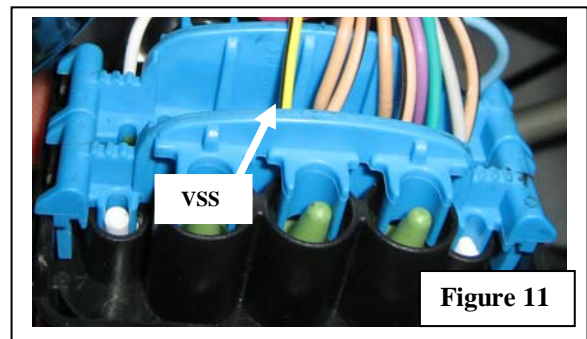
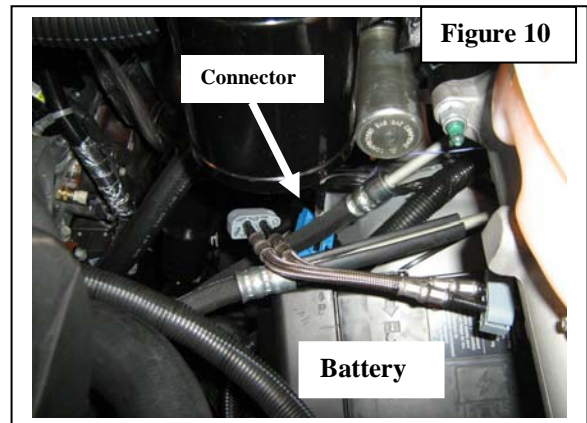


3. Apply the **Black Ground Wire** from the Main Harness to the Vehicle Ground Point at the driver side kick panel. Figure 9
4. **VSS:** Locate blue pass-through connector on the driver side wheel well of the engine compartment. **Figure 10.** Connect the **Violet Wire** from the Main Wiring Harness to the **Yellow/Black VSS** wire. **Figure 11.**



Note: Cut the violet wire inside vehicle 12 inches away from cruise control module to install Speed Signal Divider.

5. Connect the **Speed Signal Divider** supplied in hardware bag to the following wiring locations:
 - (1) **Green:** to **Violet Wire** toward VSS wire from blue pass-through connector.
 - (2) **Yellow:** to **Violet Wire** in main wiring harness to cruise control module.
 - (3) **Red:** to **Red Wire** Ignition 12 volts.
 - (4) **Black:** to **Black Wire** to Ground.



F. Nissan Versa & Sentra Wiring Connections (It is advisable use solder for all wiring connections)



1. Locate the following wires to connect to the main harness from the control module:

Function	See Fig.	Vehicle Color
IGN	12	RED
BRAKE +	13	BLUE OR RED/YELLOW
BRAKE -	13	RED OR RED/GREEN
GROUND	14	GROUND POINT
VSS	17	WHITE
CLUTCH		PAGE 4

2. Connect the Main Harness to vehicle wire by using the chart below:

Function	Cruise Harness Color	Vehicle Wire
IGN	RED	RED
BRAKE +	BLUE	BLUE OR RED/YELLOW
BRAKE -	WHITE/BROWN	RED OR RED/GREEN
VSS	VIOLET	WHITE
CLUTCH	WHITE OR YELLOW	PAGE 4

3. Apply the **Black Ground Wire** from the Main Harness to the Vehicle Ground Point behind removed lower dash panel. **Figure 14**

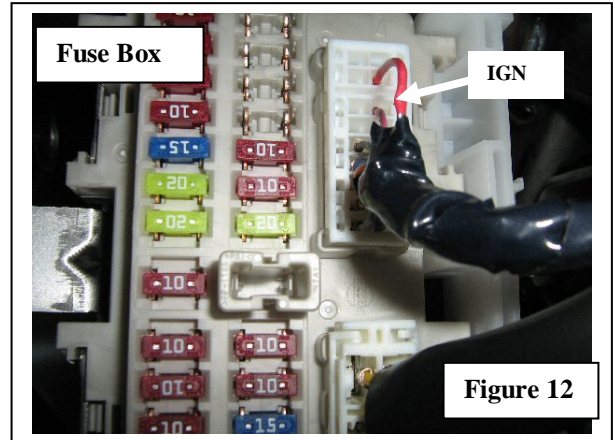


Figure 12

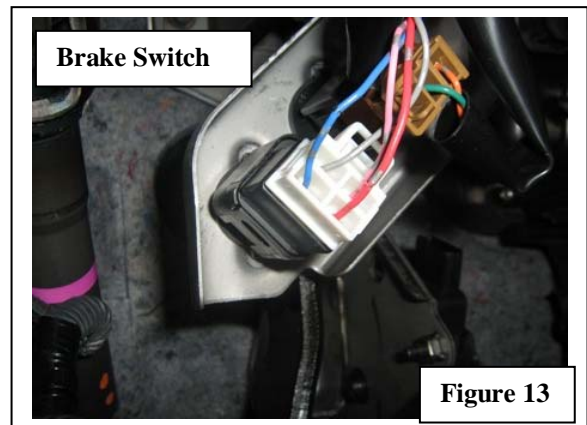


Figure 13

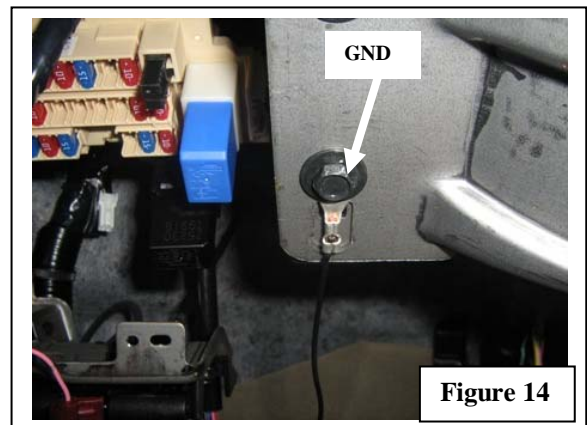



Figure 14

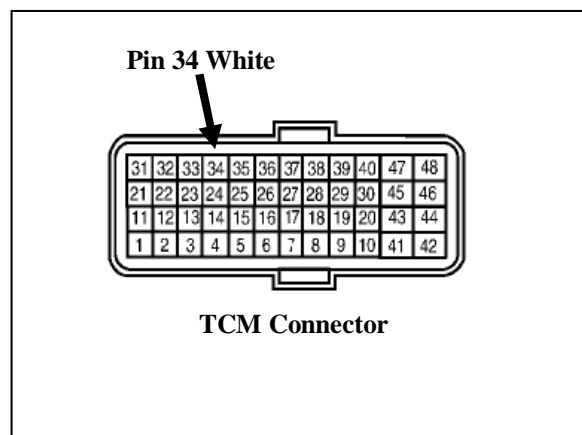
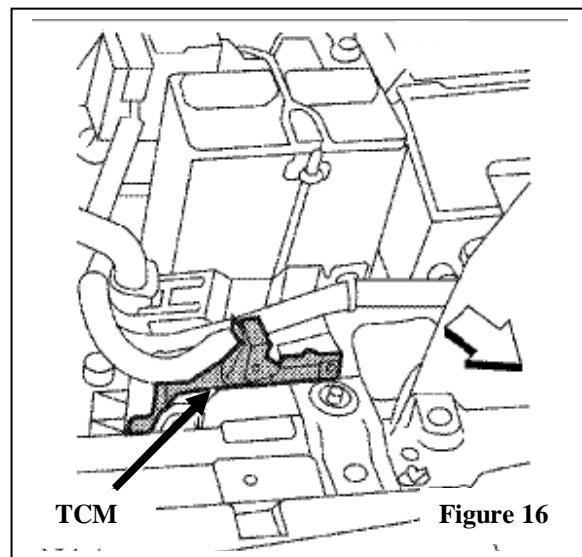
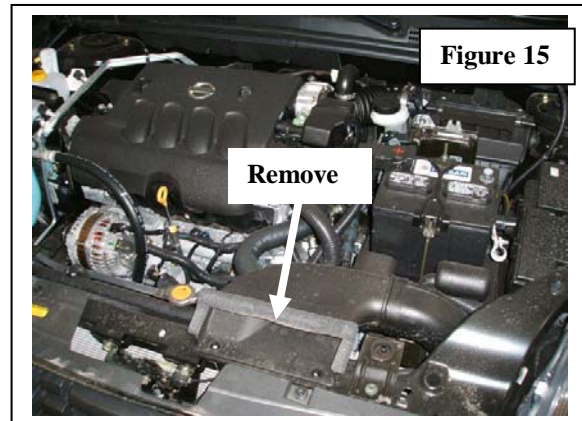
G. Nissan Sentra Speed Signal

-  1. Release two plastic clips to remove the air intake at front of engine compartment. **Figure 15**. Locate the transmission control module from underneath. Connect the **Violet Wire** from the Main Wiring Harness to the **White Wire** of the connector on the transmission control module as shown in **Figure 17**.



Note: Cut the violet wire inside vehicle 12 inches away from cruise control module to install Speed Signal Divider.

2. Connect the **Speed Signal Divider** supplied in hardware bag to the following wiring locations:
- (1) **Green:** to **Violet Wire** toward **VSS Wire** from Transmission Control Module.
 - (2) **Yellow:** to **Violet Wire** in main wiring harness to cruise control module.
 - (3) **Red:** to **Red Wire** Ignition 12 volts.
 - (4) **Black:** to **Black Wire** to Ground.



Part Number: 250-1858

AUTOMATIC TRANSMISSION

H. Install Control Switch



1. Use the **lever wedges** on the **Control Switch** at an angle template to drill a 3/8" or 9.5mm hole in the lower shroud of the steering column cover. Position lock-washers as shown. **Figure 21**
2. Apply nut and position **Control Switch** for driver's best view.
3. Assemble (2) 3-pin connectors from the sack parts to the mating wire colors on the **Control Switch Harness**. Use the diagram to mate the **module harness** to **switch harness**. **Figure 22**
4. Route the assembled **Control Switch Harness** to the mating connector of the **Cruise Control module**.
5. Secure the **Control Switch Harness** with zip ties away from moving parts.

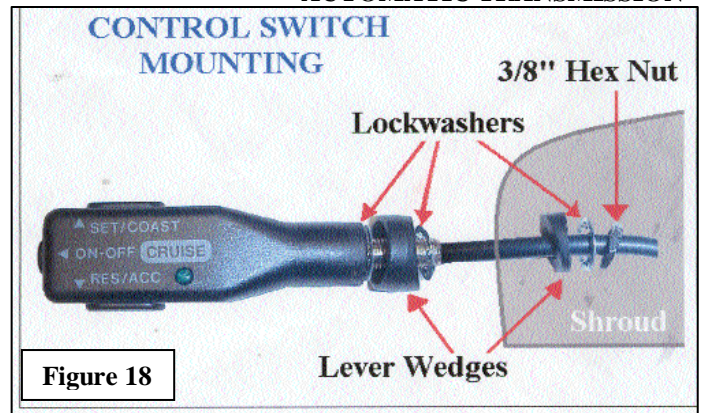


Figure 18

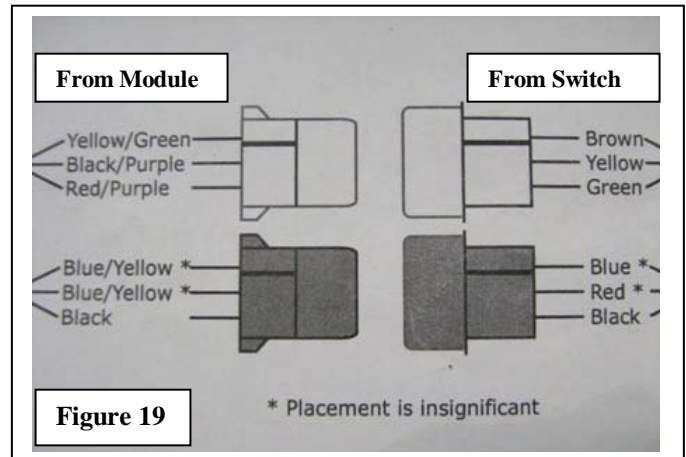


Figure 19

I. Testing



1. Reconnect negative battery cable and torque to 35 in*lbs. Reenter anti-theft radio codes.
2. Turn ignition on. Apply the on/off button of Cruise Control Switch.

J. Reassembly

1. Reinstall all removed pieces taking care to ensure harnesses and wiring connections are properly secured.
2. Make sure all harnesses are not pinched or bound by trim pieces.

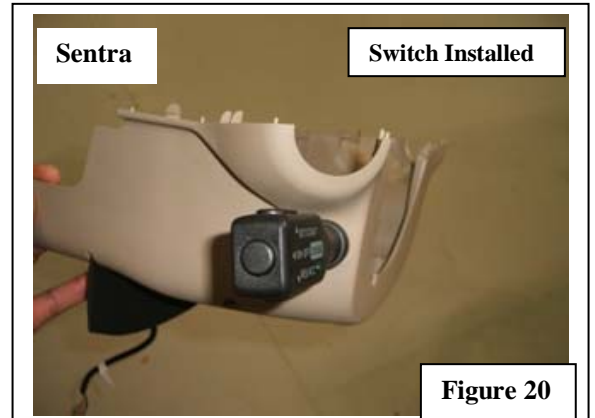
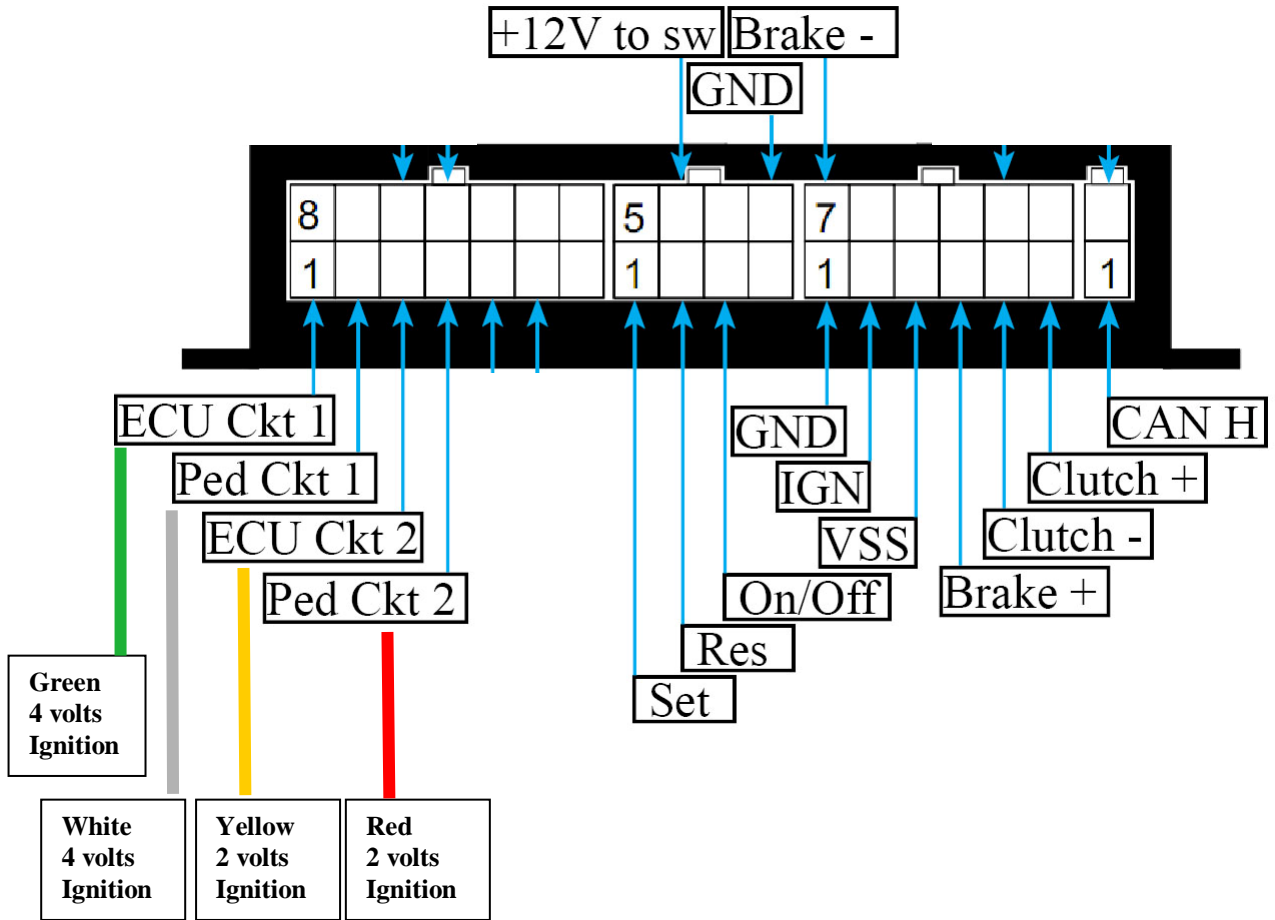


Figure 20





Figure 21

Section II - Wiring Diagram



MAIN WIRING HARNESS

Function	Color	Results	Fault Conditions
Ignition	Red	+12V when switched on and +0V when switched off. Ignition must be greater than +10V while cranking vehicle.	No power, voltage drop, or intermittent connection will cause Loss of pedal or "Limp Mode" condition.
Brake positive +	Blue	"Hot" side of brake switch. +12V all the time.	Cruise will not function if this connection is not installed correctly.
Brake negative -	Brown/White	"Cold" side of Brake switch. Zero (0) resistance to ground when brake is not pressed. +12V when brake is pressed.	Cruise will not function if this connection is not installed correctly. If connection is good, and there is a high resistance to ground, a 5 terminal relay will be required to complete installation. See diagram below.
Ground	Black	Lowest resistance to ground closest to zero (0) ohms as possible. Use a vehicle ground point where other ground wires are connected to.	A bad ground connection will cause the following conditions: Cruise will not function; Loss of pedal or "Limp Mode" condition.
Clutch (GND triggered)	White	Ground active wire at switch when clutch is depressed.	Cruise will not function if wrong wire is connected –OR–  Cruise will not disengage when clutch is depressed.
Clutch (+12V triggered)	Yellow	+12V active wire at switch when clutch is depressed.	Cruise will not function if wrong wire is connected –OR–  Cruise will not disengage when clutch is depressed.

5 Terminal Relay for Brake Switch

