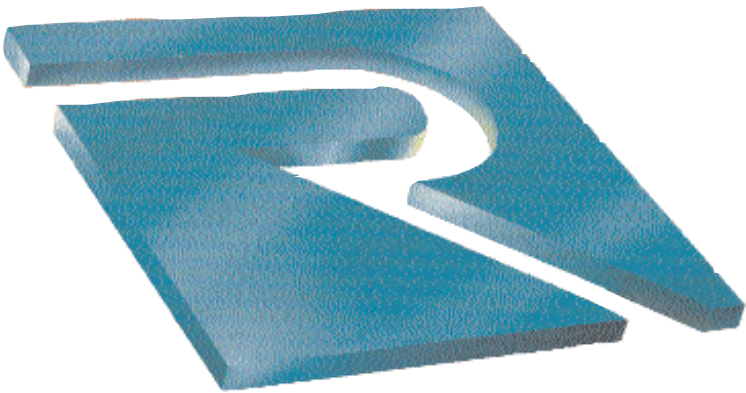


IN-WHEEL RF CRUISE CONTROL SWITCH

433 MHz WITH CANCEL FEATURE

INSTALLATION & TROUBLESHOOTING MANUAL



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REPLACEMENT PARTS

Part Number	Part Name	Quantity
250-2073	Transmitter (Bottom Mount)	1

WARNING!

UNDER NO CIRCUMSTANCE SHOULD INSTALLATION OF THIS KIT BE PERFORMED USING ELECTRICALLY POWERED EQUIPMENT. DOING SO CAN RESULT IN PERSONAL INJURY. MAKE SURE THAT THE IGNITION SWITCH IS IN THE OFF POSITION WITH THE KEY REMOVED FROM IGNITION AND THE BATTERY TERMINALS (POSITIVE AND NEGATIVE) REMOVED BEFORE YOU START THE INSTALLATION OF THIS KIT TO AVOID PERSONAL INJURY, ELECTRICAL SHOCK AND/OR DAMAGE TO THE VEHICLE'S ELECTRICAL SYSTEM. REMOVING THE AIR BAG FROM THE STEERING WHEEL COULD CAUSE INJURY AND/OR DEATH TO YOU OR ANY PERSON WORKING WITH YOU. REFER TO MANUFACTURER AIR BAG SERVICE MANUAL. DO NOT DISCONNECT THE AIR BAG WIRING HARNESS FOR ANY REASON, WHICH MAY CAUSE DAMAGE TO YOU AND/OR THE VEHICLE'S AIR BAG SYSTEM.

HELPFUL HINTS

1. BEFORE STARTING INSTALLATION:

Familiarize yourself with the Installation Instructions and Worldcruise components.

2. MATING CONNECTORS:

- a. When disconnecting, hold connector and press the lock downward while pulling connectors apart. **Figure 1**

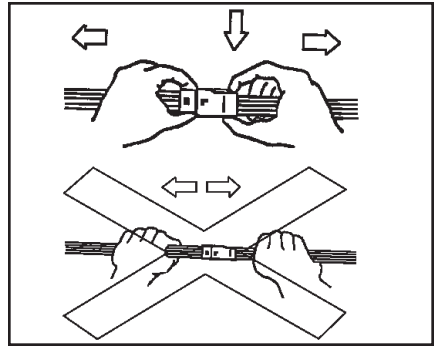


Figure 1

!CAUTION!

Do not pull on wires.

- b. When inserting, push mating connectors together until locking mechanisms are firmly locked together. **Figure 2**

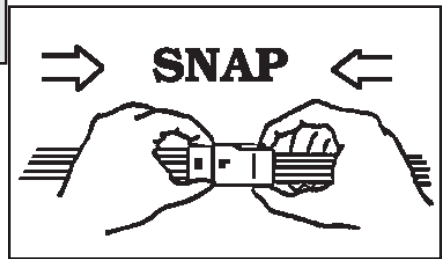


Figure 2

3. ANTI-THEFT RADIO:

If vehicle is equipped with an Anti-Theft Radio, the radio code must be written down prior to is connecting battery cable. The code must be reentered when the negative battery cable is reinstalled.

4. REMOVAL OF NEGATIVE BATTERY CABLE:

Disconnect the positive and negative battery cable before installing the Cruise Control Switch for safety precautions.

Figure 3

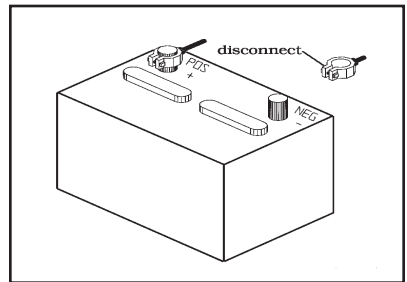


Figure 3

INSTALLATION

STEP 1: RECEIVER MODULE MOUNT

1. Choose a location under the driver's side dash to mount the receiver module. This location should be chosen such that interfacing to the existing cruise control harness does not cause stress on the wiring harness. It is best to leave at least 2 inches of slack in the wiring harness once it is connected. Also, for best performance, choose the location such that there is no significant metal (excluding wires) in the line of sight of the steering wheel.
2. Mount the receiver module in the location chosen using either tie straps supplied, or the bracket supplied.



CAUTION!

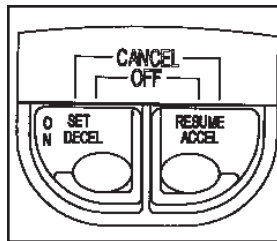
WHEN INSTALLING THE RF BRACKET, KEEP AIR BAG HARNESS AWAY FROM THE BRACKET TO AVOID CRIMPING OR DAMAGING THE WIRES WHICH MAY CAUSE PERSONAL INJURY. REFER TO THE MANUFACTURER'S INSTALLATION MANUAL WHEN RE-TIGHTENING THE AIR BAG MOUNTING SCREWS.

CAUTION!

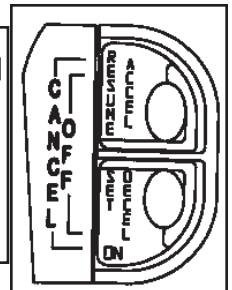
TO HELP AVOID PERSONAL INJURY DUE TO UNWANTED INFLATION: DO NOT REMOVE THE AIR BAG FROM THE STEERING WHEEL, CRUSH OR PUNCTURE THE AIR BAG IF YOU SEE AIR BAG LIGHT ON DASH, DO NOT SERVICE, DISPOSE OF OR APPLY HEAT OR ELECTRICAL POWER TO THE AIR BAG. FOLLOW THE INSTRUCTIONS IN THE VEHICLES MANUFACTURER AIR BAG SERVICE MANUAL.

STEP 2: TRANSMITTER MOUNTING

1. Secure the supplied transmitter mounting bracket to the steering wheel as indicated by the mounting bracket installation note.
2. Slide the transmitter onto the mounting bracket. Firmly press the transmitter on the bracket until it locks into place. The bracket has automatic locking pins to secure the transmitter.



**BOTTOM MOUNT
CONTROL SWITCH**



**RIGHT SIDE
MOUNT SWITCH**

CONTROL SWITCH TYPE

The RF transmitter is a NORMALLY OPEN CIRCUIT CONTROL SWITCH. It may be necessary to adjust the programming switch on the cruise control to the correct position. Refer to your CRUISE CONTROL INSTALLATION INSTRUCTIONS.

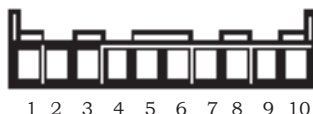
TROUBLESHOOTING

STEP 1: TRANSMITTER/ RECEIVER DIAGNOSTICS

1. Ensure that Transmitter and Receiver Function properly as an Open Circuit Control Switch using the Diagnostic procedures in your Cruise Control Installation Guide.

STEP 2: RECEIVER FUNCTIONALITY

1. If Transmitter and Receiver do not seem to function properly, check the functionality of the Receiver.
2. Using a Volt/Ohmmeter (DO NOT USE A TEST LIGHT SINCE IT MAY DAMAGE THE VEHICLE), verify that the appropriate voltages are on the wires at the harness connector.



HARNESS CONNECTOR

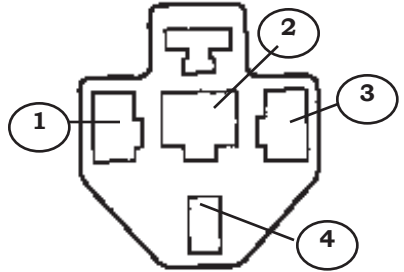
PIN	COLOR	FUNCTION	TEST
1	<i>BLACK</i>	CHASSIS GROUND	OHMMETER: CONTINUITY TO GROUND
2	<i>ORANGE</i>	PROGRAMMING WIRE	SEE PROGRAMMING PAGE 7
3	BLANK	NO FUNCTION	
4	<i>WHITE</i>	CANCEL/TRIGGER	OHMMETER: MOMENTARY CONTINUITY TO GROUND WHEN CANCEL BUTTON DEPRESSED.
5	BLANK	NO FUNCTION	
6	<i>YELLOW</i>	RESUME	VOLTMETER: +12V WHEN RESUME BUTTON DEPRESSED
7	<i>DARK GREEN</i>	SET	VOLTMETER: +12V WHEN SET BUTTON DEPRESSED
8	<i>RED/WHITE</i>	+12V CRUISE MODULE POWER (OUT)	VOLTMETER: +12V WHEN IGNITION ON
9	<i>RED</i>	BRAKE HOT +12V	VOLTMETER: CONSTANT +12V
10	<i>LIGHT BLUE</i>	+12V IGNITION POWER (IN)	VOLTMETER: +12V WHEN IGNITION ON

TROUBLESHOOTING

STEP 3: CANCEL FEATURE

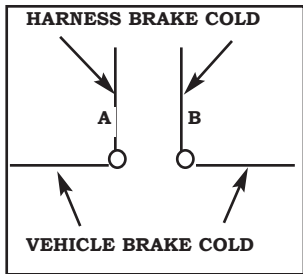
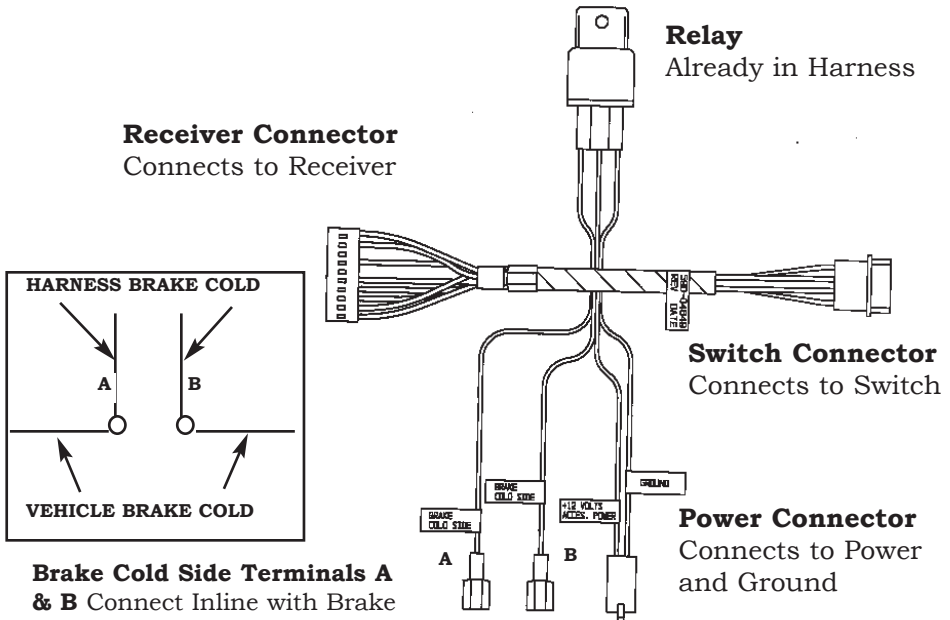
If **CANCEL** feature does not function:

1. Ensure there is a relay in harness adapter.
2. Ensure continuity on the **Violet** wire through the relay via the following test procedures using a **Volt/Ohmmeter**.



PIN	COLOR	FUNCTION	TEST
1	White	Cancel/Trigger	Ohmmeter: Momentary continuity to ground when CANCEL button depressed
2	Violet	Brake Cold	Voltmeter: +12V when brake depressed
3	Lt. Blue	+12 V Ignition Power (In)	Voltmeter: +12V when ignition on
4	Violet	Brake Cold	Voltmeter: +12V when brake depressed

VEHICLE INTERFACE HARNESS



Brake Cold Side Terminals A & B Connect Inline with Brake Cold Side

PROGRAMMING TRANSMITTER/RECEIVER

The transmitter and receiver module for the remote controlled switch are pre-programmed at the factory and should never need to be re-programmed unless either the transmitter or receiver are replaced. In that event, follow the steps below to program a new transmitter or receiver.

1. Install the new transmitter or receiver as described in the manual.
2. Use **Volt/Ohmmeter** to verify the steps you are about to make.
3. Connect the **Volt/Ohmmeter** to the 3rd pin on the 10 Pin Connector of the interface harness (between the **Orange** and **White** wires).
4. Turn the ignition power on, without starting the engine.
5. The **Volt/Ohmmeter** should read **+5 Volts**.
6. Locate the **Orange** wire with the T-Tap on the interface harness.
7. Using the jumper harness, momentarily ground the **Orange** wire.
8. The Volt/Ohmmeter should read **0.0 Volts**.
9. Using the jumper harness, momentarily ground the **Orange** wire again.
10. The **Volt/Ohmmeter** should read **+5 Volts**.
11. Momentarily press the SET button on the transmitter.
12. The **Volt/Ohmmeter** should read **0.0 Volts**.
13. Momentarily press the SET button on the transmitter again.
14. The **Volt/Ohmmeter** should oscillate from **0** to **+5 Volts** for approximately 4 seconds indicating the programming was successful.
15. The remote controlled cruise switch is now ready for use.

NOTE: At Step 14, if the Volt/Ohmmeter didn't oscillate, but stays at +5 Volts for 1 second, then stays at 0.0 Volts, then the programming was unsuccessful. Turn the ignition power off and repeat Steps 1 to 15.

CAUTION!

BE SURE TO ROAD TEST YOUR CRUISE CONTROL AFTER INSTALLATION. IF YOUR CRUISE CONTROL WAS INSTALLED CORRECTLY, IT SHOULD PERFORM AS INDICATED IN THE INSTALLATION MANUAL. THE CRUISE CONTROL SWITCH IS USED TO OPERATE THE SYSTEM.

CAUTION!

DO NOT USE CRUISE CONTROL ON SLIPPERY ROADS OR IN HEAVY TRAFFIC.

WARNING!

WHEN CONNECTING THIS SYSTEM TO THE VEHICLE, ENSURE THAT YOU FOLLOW THIS INSTRUCTION MANUAL AND CONNECT ONLY TO SPECIFIED WIRES. FAILURE TO DO THIS MAY CAUSE THE CRUISE CONTROL SWITCH TO WORK IMPROPERLY, CAUSE ELECTRICAL OR ENGINE FAILURE AND MAY RESULT IN DAMAGE TO THE VEHICLE AND/OR INJURY TO THE OCCUPANTS. WE MUST DEPEND ON YOUR SKILL AND GOOD JUDGEMENT AS YOU INSTALL THIS SYSTEM. WE URGE YOU EVERY STEP OF THE WAY TO CONSIDER THE SAFETY OF YOURSELF, THE OWNER OF THE VEHICLE, AND THOSE WHO RIDE IN IT.

OPERATING INSTRUCTIONS

SPEED CONTROL OPERATING INSTRUCTIONS

ON- THE CRUISE CONTROL IS AUTOMATICALLY TURNED ON WITH IGNITION POWER. HOWEVER, ONCE THE CRUISE CONTROL HAS BEEN MANUALLY TURNED OFF BY PRESSING BOTH BUTTONS AS DESCRIBED BELOW, IT CAN BE MANUALLY TURNED BACK ON BY MOMENTARILY PRESSING THE "SET/DECEL" BUTTON ALSO LABELED "ON".

SET SPEED- TO ENGAGE SYSTEM, DRIVE AT ANY SPEED ABOVE 33 MPH (50 KPH), PRESS "SET/DECEL" AND RELEASE, THEN REMOVE YOUR FOOT FROM THE ACCELERATOR PEDAL. THE CRUISE CONTROL WILL SET AT THE SPEED OF THE VEHICLE WHEN BUTTON IS RELEASED PLUS OR MINUS 1- 1/2 MPH (3 KPH).

COAST- PRESS AND HOLD THE SET/DECEL" BUTTON AND YOUR SPEED WILL DECREASE. RELEASE BUTTON AND SPEED OF VEHICLE AT TIME BUTTON IS RELEASED WILL BE NEW SET SPEED IF ABOVE 33 MPH (50KPH).

ACCEL- PRESS AND HOLD THE RESUME/ACCEL" BUTTON AND YOUR SPEED WILL INCREASE. RELEASE BUTTON AND YOU WILL HAVE A NEW HIGHER SET SPEED.

TAP-UP- YOU CAN GRADUALLY INCREASE YOUR SPEED BY QUICKLY PRESSING AND RELEASING THE "RESUME/ ACCEL" BUTTON. EACH TIME YOU PRESS AND RELEASE THE BUTTON YOUR SPEED WILL INCREASE BY ONE TO TWO MPH (ONE AND A HALF TO THREE KPH).

TAP-DOWN- YOU CAN GRADUALLY DECREASE YOUR SPEED (ON SELECTED CRUISE CONTROL MODULES ONLY) BY QUICKLY PRESSING AND RELEASING THE "SET/DECEL" BUTTON. EACH TIME YOU PRESS AND RELEASE THE BUTTON YOUR SPEED WILL DECREASE BY ONE OR TWO MPH (ONE AND A HALF TO FIVE KPH).

DISENGAGE- DEPRESS BRAKE PEDAL SLIGHTLY AUTOMATIC SPEED CONTROL WILL CEASE BUT SET SPEED WILL STAY IN SYSTEM'S MEMORY. ALSO, YOU CAN DISENGAGE BY PRESSING BUTTON TO OFF POSITION, BUT THIS ERASES THE MEMORY. TO GET THE RESUME FEATURE TO WORK AGAIN, YOU MUST FIRST SET A SPEED. TURNING OFF THE IGNITION ALSO CLEARS THE SYSTEM'S MEMORY.

RESUME- AFTER DISENGAGING SYSTEM WITH BRAKE OR CLUTCH, RETURN TO SET SPEED BY

DRIVING ABOVE 33 MPH (50 KPH). THEN PRESS "RESUME/ACCEL" BUTTON AND RELEASE IT. IF ACCELERATION RATE IS FASTER OR SLOWER THAN YOU LIKE, DRIVE TO WITHIN A FEW MPH OF YOUR SET SPEED, THEN PRESS AND RELEASE THE RESUME/ACCEL BUTTON.

OFF- PRESS AND HOLD BOTH BUTTONS SIMULTANEOUSLY TO DISENGAGE AND TURN OFF THE CRUISE CONTROL. THE CRUISE CONTROL WILL NO LONGER ACCEPT ANY CONTROL SIGNALS UNTIL A NEW SET SPEED IS ESTABLISHED.

CANCEL- PRESS AND RELEASE BOTH BUTTONS SIMULTANEOUSLY WITHIN ONE SECOND - THE CRUISE CONTROL WILL DISENGAGE AND THE PREVIOUS SET SPEED WILL STAY IN THE SYSTEM'S MEMORY, THUS ALLOWING THE RESUME FEATURE TO BE USED.

THINGS YOU SHOULD KNOW ABOUT YOUR CRUISE CONTROL SWITCH

THE CRUISE CONTROL SWITCH IS POWERED BY A 3V LITHIUM BATTERY, AND EVENTUALLY IT WILL NEED TO BE REPLACED. THE CRUISE CONTROL SWITCH HAS A DIAGNOSTIC FEATURE WHICH ALERTS THE DRIVER IF THE BATTERY NEEDS TO BE REPLACED. WHEN THE SWITCH BATTERY IS LOW, THE CRUISE CONTROL IS INOPERATIVE.

TO REPLACE A LOW BATTERY IN THE SWITCH:

1. REMOVE THE SWITCH FROM THE STEERING WHEEL BY FIRMLY GRASPING ON THE SIDES AND PULLING STRAIGHT UPWARD AWAY FROM THE STEERING WHEEL.
2. REMOVE THE BATTERY LOCATED ON THE BACK OF THE SWITCH BY GENTLY PRYING ONE SIDE OF THE BATTERY UP WITH A JEWELER'S SCREWDRIVER OR SIMILAR INSTRUMENT. NOTE THE POSITION OF THE BATTERY TO AID IMPROPER REPLACEMENT.
3. REPLACE THE BATTERY WITH A 3V LITHIUM MODEL CR2032 OR EQUIVALENT BY FIRST INSERTING AT AN ANGLE, THEN GENTLY PRESSING UNTIL BATTERY IS SEATED FLAT WITH THE SIDE OF THE BATTERY MARKED "+" IN VIEW.
4. REPLACE THE SWITCH ON THE STEERING WHEEL BY REVERSING THE PROCEDURE BY WHICH IT WAS REMOVED.