

# **2000-02 TOYOTA TUNDRA (6 CYL)**

## **CRUISE CONTROL INSTALLATION INSTRUCTIONS EXCEPT MANUAL TRANSMISSION 4x4 PART No. 00016-34010**



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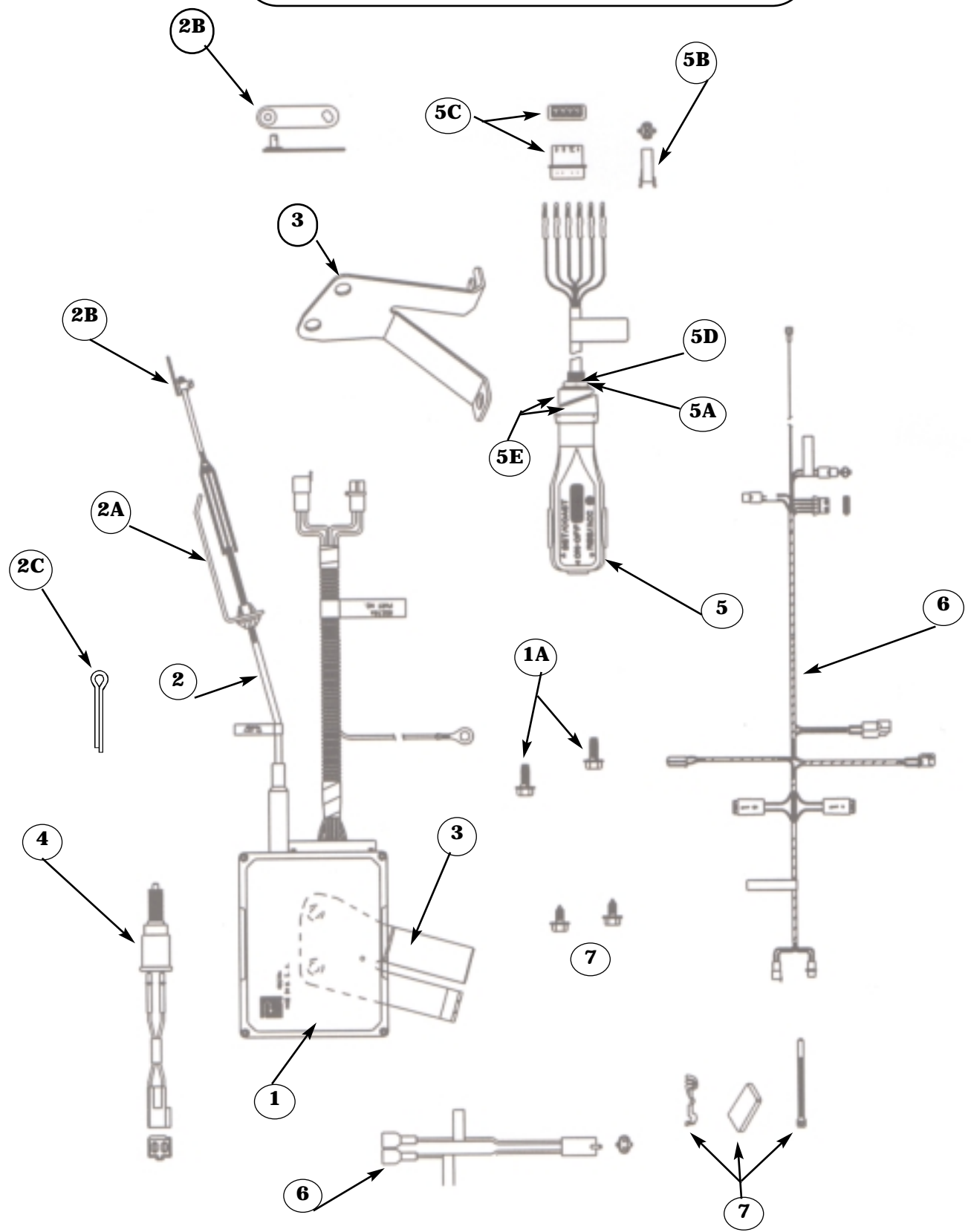
# PARTS LIST

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
<b>1</b> A	<b>1</b> <b>2</b>	<b>00016-03762</b> *	<b>MODULE/HARNESS ASSEMBLY</b> <b>MODULE MOUNTING SCREWS</b>
<b>2</b> A B C D	<b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b>	<b>00016-34010-02</b> <b>00016-34010-03</b> <b>00016-34010-04</b> <b>00016-34010-05</b> *	<b>CABLE ASSEMBLY</b> <b>CABLE BRACKET</b> <b>THROTTLE LEVER BRACKET</b> <b>COTTER PIN</b> <b>WASHER PLAIN</b>
<b>3</b>	<b>1</b>	<b>00016-34010-06</b>	<b>MODULE BRACKET</b>
<b>4</b>	<b>1</b>	<b>00016-03372</b>	<b>CLUTCH SWITCH</b>
<b>5</b> A B C D E	<b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>2</b> <b>2</b>	<b>00016-03717</b> ** * * ** **	<b>CONTROL SWITCH ASSEMBLY</b> <b>NUT-HEX 3/8"-24 THIN</b> <b>CONNECTOR-FEMALE 2 PIN</b> <b>CONNECTOR-FEMALE 4 PIN</b> <b>LOCK WASHER-3/8" INTERNAL</b> <b>WEDGE-17.5 DEGREES</b>
<b>6</b>	<b>1</b>	<b>00016-34010-09</b>	<b>HARNESS ASSEMBLY</b>
<b>7</b>	<b>1</b>	<b>00016-34010-HW</b>	<b>HARDWARE PACKAGE: CABLE TIES, T-TAP, SEALING PUTTY</b>

\* INCLUDED IN HARDWARE PACKAGE - ITEM #7

\*\* INCLUDED IN CONTROL SWITCH ASSEMBLY - ITEM #5

# PARTS DIAGRAM



# HELPFUL HINTS

## 1. BEFORE STARTING INSTALLATION:

FAMILIARIZE YOURSELF WITH THE INSTALLATION INSTRUCTIONS AND CRUISE CONTROL COMPONENTS.

## 2. MATING CONNECTORS:

A. WHEN DISCONNECTING CONNECTORS, HOLD CONNECTOR AND PRESS THE LOCK DOWNWARD WHILE PULLING CONNECTORS APART. **FIGURE A**

**CAUTION: DO NOT PULL ON WIRES**

B. WHEN CONNECTING MATING CONNECTORS, PUSH CONNECTORS TOGETHER UNTIL LOCKING MECHANISMS ARE FIRMLY LOCKED TOGETHER. **FIGURE B**

## 3. ANTI-THEFT RADIO:

IF VEHICLE IS EQUIPPED WITH AN ANTI-THEFT RADIO, THE RADIO CODE MUST BE WRITTEN DOWN PRIOR TO DISCONNECTING BATTERY CABLE. THE CODE MUST BE RE-ENTERED WHEN THE NEGATIVE BATTERY CABLE IS RE-INSTALLED.

## 4. REMOVAL OF NEGATIVE BATTERY CABLE:

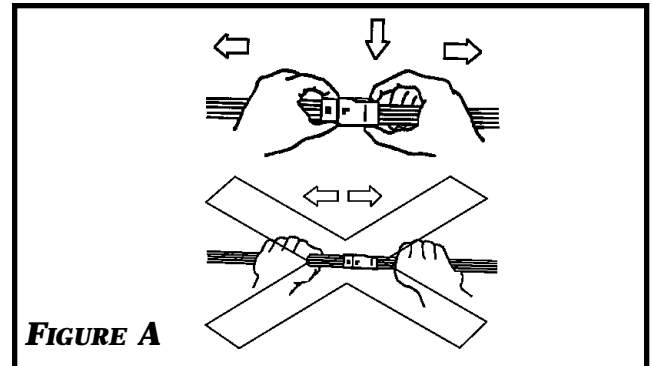
REMOVE THE NEGATIVE BATTERY CABLE BEFORE INSTALLING THE CRUISE CONTROL COMPONENTS FOR SAFETY PRECAUTIONS. **FIGURE C**

## 5. FEMALE T-TAP CONNECTOR:

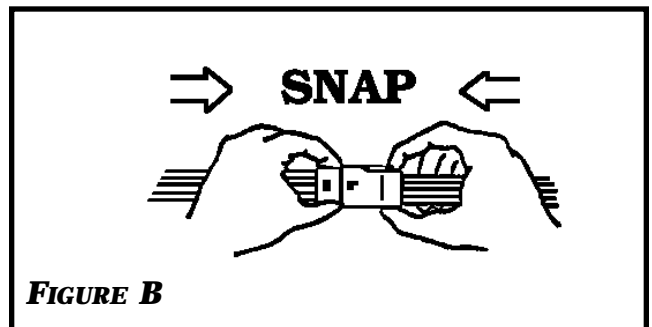
WHEN INSTALLING FEMALE T-TAP CONNECTORS, ENSURE WIRE IS INSIDE GROOVE OF THE FEMALE T-TAP CONNECTOR BEFORE CLOSING ON WIRE WITH PLIERS. **FIGURE D**

## 6. JUMPER CLIP:

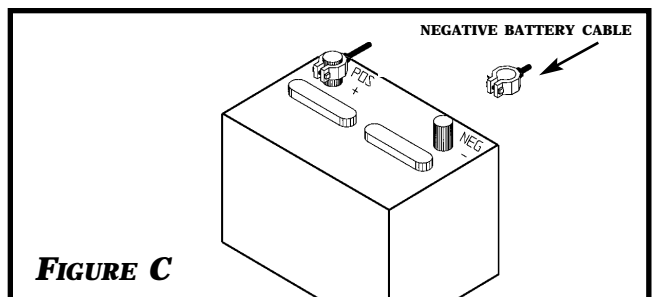
THE **JUMPER CLIP** IS INSTALLED IN THE **CRUISE HARNESS** AND IS REMOVED ONLY ON MANUAL TRANSMISSION VEHICLES FOR CONNECTION TO THE CLUTCH SWITCH. **FIGURE E**



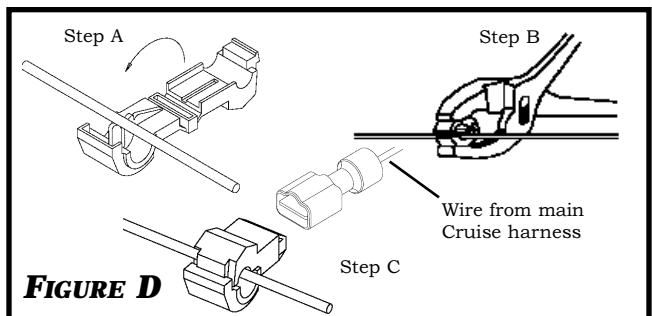
**FIGURE A**



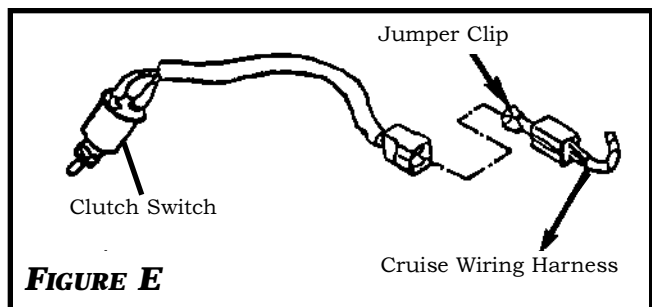
**FIGURE B**



**FIGURE C**



**FIGURE D**



**FIGURE E**

# VEHICLE PREPARATION

## STEP 1: DASH DISASSEMBLY

1. REMOVE (4) PHILLIPS HEAD SCREWS FROM DRIVER'S SIDE SCUFF PLATE. STARTING AT THE REAR, LIFT AND REMOVE SCUFF PLATE.

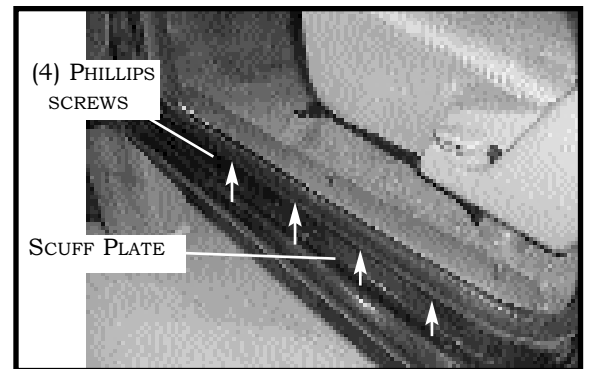
**FIGURE F**

2. REMOVE DRIVER'S KICK PANEL BY REMOVING THE 10-MM NUT AND SLIDING IT REARWARD AWAY FROM THE BULKHEAD. **FIGURE G**

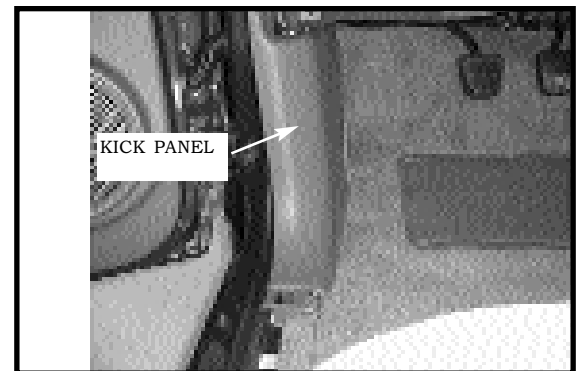
3. REMOVE THE DRIVER'S SIDE UNDER DASH COVER BY REMOVING (4) 10MM BOLTS. REMOVE HOOD RELEASE CABLE FROM UNDER DASH COVER.

**FIGURE H**

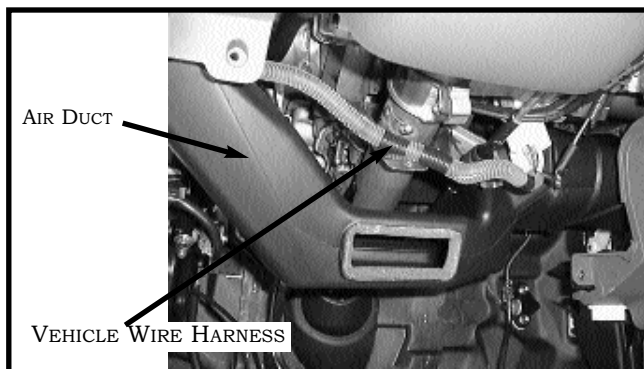
4. REMOVE DRIVER'S HEATER DUCT TO GAIN ACCESS TO THE BRAKE CONNECTORS. CAREFULLY REMOVE HEATER DUCT. **FIGURE J**



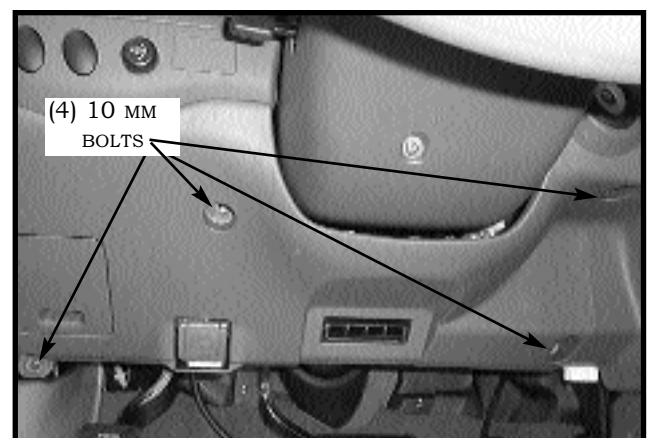
**FIGURE F**



**Figure G**



**FIGURE J**



**FIGURE H**

# INSTALLATION

## STEP 2: MODULE MOUNTING/CABLE ROUTING

**LOCATION: PASSENGER'S SIDE FENDER WELL**

**HARDWARE: SELF TAPPING SCREW AND NUT.**

1. REMOVE EXISTING 10MM BOLT SECURING THE VEHICLES IGNITOR. **FIGURE 1**

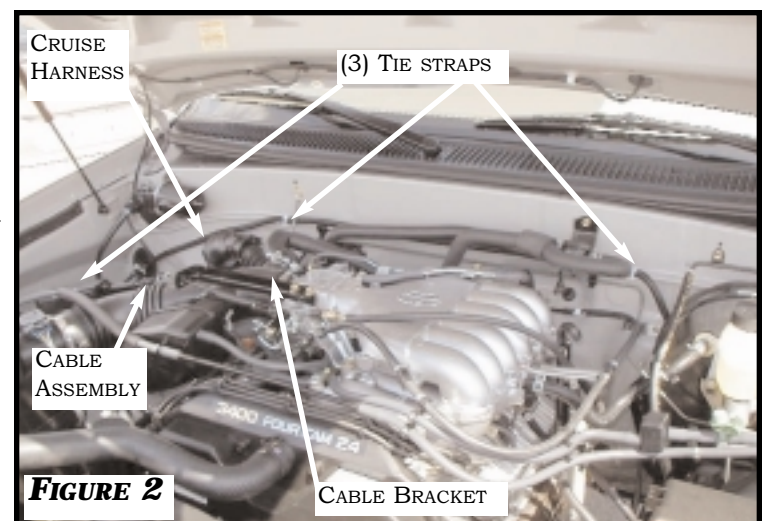
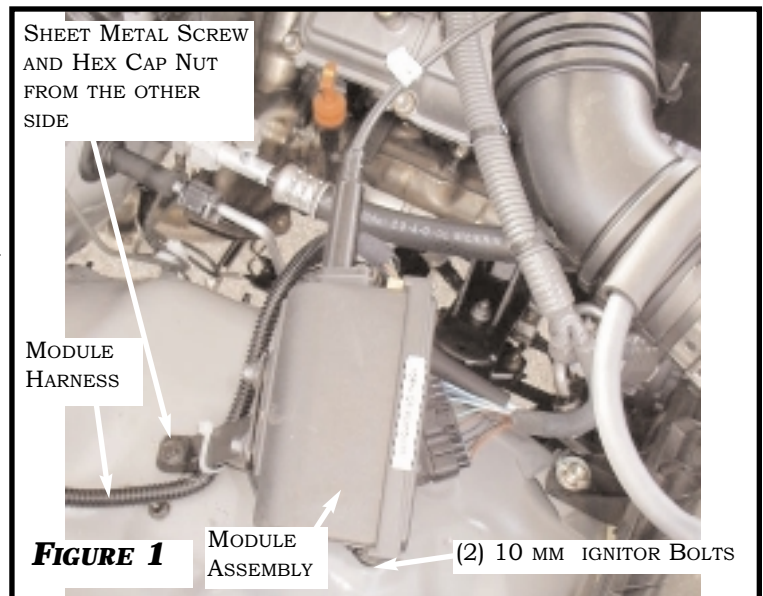
2. POSITION THE **MODULE ASSEMBLY** WITH **MOUNTING BRACKET** OVER THE EXISTING THREADED HOLE ON THE PASSENGER'S SIDE FENDER WELL WHERE THE 10MM BOLT PREVIOUSLY REMOVED.

3. INSTALL **CRUISE HARNESS BLACK GROUND WIRE** ON THE **10MM BOLT** AND THE **MODULE BRACKET** USING THE 10MM BOLT PREVIOUSLY REMOVED AND SECURE. **FIGURE 1**

4. ROUTE **CABLE ASSEMBLY** FROM **MODULE ASSEMBLY** TO THE VEHICLE'S THROTTLE AREA. **FIGURE 2**

5. SECURE **CABLE ASSEMBLY** WITH **CABLE**. **FIGURE 2**

6. WITH THE **MODULE ASSEMBLY** IN THE POSITION SHOWN IN **FIGURE 1**, DRILL A 15/64" HOLE, COVER BARE METAL WITH A SILICONE SEALER (NOT SUPPLIED). INSTALL THE **SHEET METAL SCREW** AND SECURE ASSEMBLY USING THE **HEX CAP NUT** SUPPLIED IN KIT.



**NOTE: KEEP CABLE CLEAR OF SHARP, HOT, OR MOVING OBJECTS.**

# INSTALLATION

## STEP 4: THROTTLE ATTACHMENT

### **LOCATION: ENGINE THROTTLE SHAFT AREA**

#### 1. VEHICLES WITH OEM CABLE BRACKET:

REMOVE (2) 10 MM BOLTS SECURING OEM BRACKET, IF EQUIPPED, AND DISCARD OEM BRACKET.

2. INSTALL **CRUISE CONTROL CABLE BRACKET** USING (2) 10 MM BOLTS TO TORQUE 69 IN. LBS (5-6 FT. LBS.) PREVIOUSLY REMOVED AS SHOWN IN **FIGURE 3**

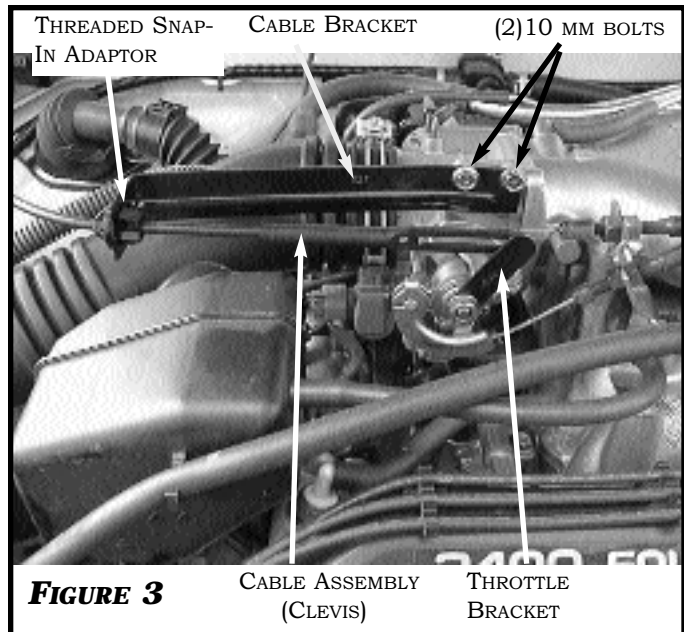
3. REMOVE THE PIVOT NUT AND LOCKWASHER FROM THE PULLEY SEGMENT OF THE THROTTLE BODY. ATTACH THE **THROTTLE LEVER BRACKET** AS SHOWN. RE-INSTALL THE FACTORY LOCKWASHER AND PIVOT NUT. **FIGURE 3**

4. TIGHTEN PIVOT NUT TO 84 IN. LBS. (7 FT. LBS.)

**CAUTION: THREAD NUT BY HAND TO AVOID CROSS THREADING.**

**DO NOT OVERTIGHTEN.**

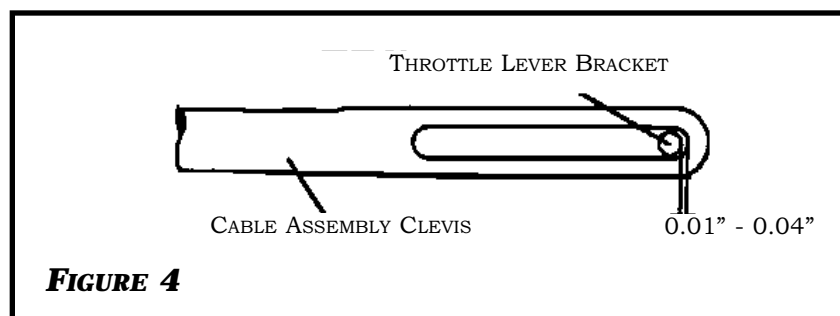
5. AFTER ASSEMBLY IS SECURED, MAKE SURE THE **CABLE ASSEMBLY** IS NOT HOLDING THE THROTTLE OPEN IN ANY WAY. WITH THE **ENGINE IDLING**, THERE SHOULD BE **.010" - .040"** SLACK BETWEEN THE **CRUISE CONTROL CABLE CLEVIS** AND THE **PIN**. **FIGURE 4**



**FIGURE 3**

#### **NOTE:**

TO ACHIEVE PROPER SLACK DIMENSIONS, REMOVE THE **THREADED SNAP-IN ADAPTOR** FROM THE **CABLE BRACKET**. TURN **THREADED SNAP-IN ADAPTOR** TO ADJUST THE SLACK.



**FIGURE 4**

# INSTALLATION

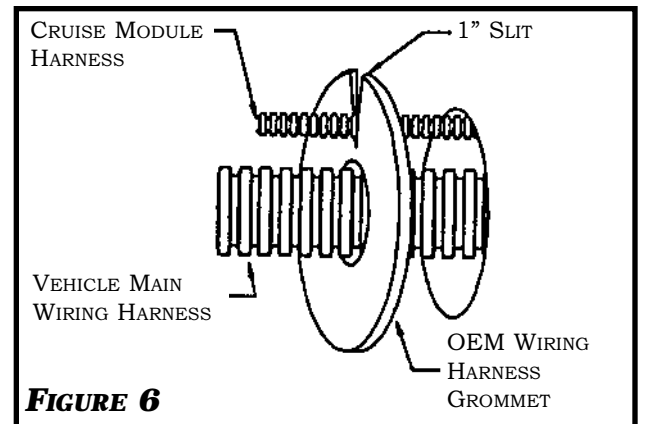
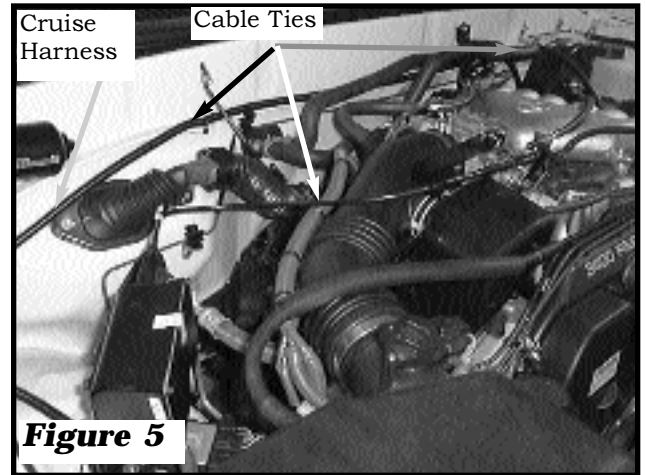
## STEP 5: WIRING HARNESS ROUTING

**LOCATION: MAIN WIRING HARNESS ASSEMBLY TO BE ROUTED ALONG BULKHEAD TO DRIVER'S SIDE FENDER WELL ACCESS HOLE.**

1. ROUTE **MAIN HARNESS** FROM **MODULE ASSEMBLY** ALONG THE VEHICLE BULKHEAD, UNDER THE BRAKE BOOSTER TO THE VEHICLE'S GROMMET IN THE DRIVER'S SIDE FENDER WELL. SECURE **MAIN HARNESS** WITH **CABLE TIES** AS SHOWN IN **FIGURE 5**

2. FROM OUTSIDE THE VEHICLE, REMOVE OEM MAIN HARNESS GROMMET FROM BULKHEAD AT THE DRIVER'S SIDE. CUT A 1" SLIT AT LOCATION SHOWN. **FIGURE 6**

3. AFTER ROUTING **CRUISE MAIN HARNESS** THROUGH SLIT IN GROMMET TO INSIDE THE VEHICLE, REINSTALL GROMMET INTO VEHICLE ACCESS OPENING SO THE CRUISE MAIN HARNESS IS LOCATED AS SHOWN IN **FIGURE 6**. SEAL **CRUISE MAIN HARNESS** AND SLIT IN GROMMET WITH **SEALING PUTTY (DUM- DUM)** PROVIDED IN KIT.



## STEP 6: BRAKE SWITCH CONNECTIONS

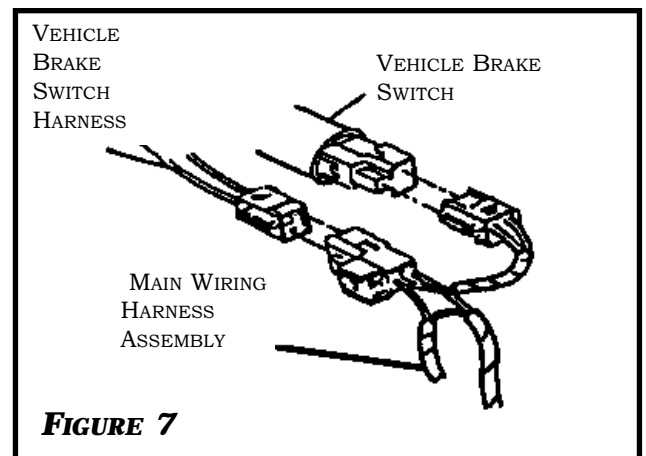
**LOCATION: BRAKE PEDAL ASSEMBLY**

1. DISCONNECT VEHICLE BRAKE SWITCH HARNESS FROM BRAKE SWITCH. (SEE PAGE 4, **FIGURE A**)

2. CONNECT MATING CONNECTORS OF **CRUISE MAIN HARNESS ASSEMBLY** TO THE VEHICLE BRAKE SWITCH AND HARNESS. (SEE PAGE 4, **FIGURE B**). **FIGURE 7**

3. ROUTE HARNESS ASSEMBLIES SO THAT THEY DO NOT INTERFERE WITH ANY MOVING COMPONENTS.

**NOTE:** CRUISE SHOULD DISENGAGE PRIOR TO ACTUAL VEHICLE BRAKING WHEN APPLYING THE BRAKE PEDAL. REFER TO TOYOTA REPAIR MANUAL FOR BRAKE SWITCH ADJUSTMENTS.





# INSTALLATION

## STEP 7: POWER AND NEUTRAL SAFETY

**LOCATION: IGNITION SWITCH HARNESS**

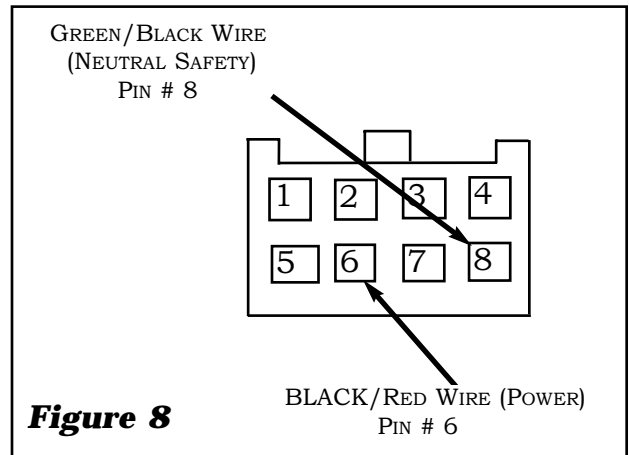
**HARDWARE: PIGTAIL HARNESS, AND(2) FEMALE BLUE T-TAP**

### VEHICLES WITH SECURITY SYSTEM

1. DISCARD THE **PIG TAIL** SUPPLIED IN **CRUISE CONTROL KIT**.
2. LOCATE 2 PIN CONNECTOR ON THE **SECURITY MAIN HARNESS** BY THE STARTER INTERRUPT RELAY.  
**BROWN & GREEN**
3. CONNECT MATING 2 PIN CONNECTOR OF THE **CRUISE CONTROL HARNESS** TO THE **SECURITY SYSTEM HARNESS** AND SECURE THE CONNECTION WITH CABLE TIE.
4. SECURE ALL WIRES UNDER DASH WITH **CABLE TIES**. AND SECURE THE CONNECTION WITH CABLE TIE.

### VEHICLES WITHOUT SECURITY SYSTEM:

1. CONNECT PIG TAIL HARNESS SUPPLIED IN KIT TO MATING CONNECTORS OF THE MAIN WIRING HARNESS ASSEMBLY AND SECURE THE CONNECTION WITH CABLE TIE.
2. LOCATE THE 8 PIN CONNECTOR AT THE IGNITION SWITCH AND IDENTIFY THE **BLACK/RED WIRE (POWER)** AND IDENTIFY THE **GREEN/BLACK WIRE (NEUTRAL SAFETY)**.
3. ROUTE **BROWN WIRE (POWER)** AND THE **LIGHT GREEN WIRE (NEUTRAL SAFETY)** OF THE PIG TAIL HARNESS TO THE IGNITION CONNECTOR. INSTALL THE **BLUE T-TAP** CONNECTOR ON THE **(BLACK/RED)** WIRE AND CONNECT THE **BROWN WIRE** TO THE **T-TAP** CONNECTOR. INSTALL THE **BLUE T-TAP** CONNECTOR ON THE **(GREEN/BLACK)** WIRE AND CONNECT THE **LIGHT GREEN WIRE** TO THE **T-TAP** CONNECTOR. **FIGURE 8**
4. SECURE ALL WIRES UNDER DASH WITH **CABLE TIES**.



**Figure 8**

**NOTE: KEEP HARNESS CLEAR OF SHARP, HOT, OR MOVING OBJECTS.**

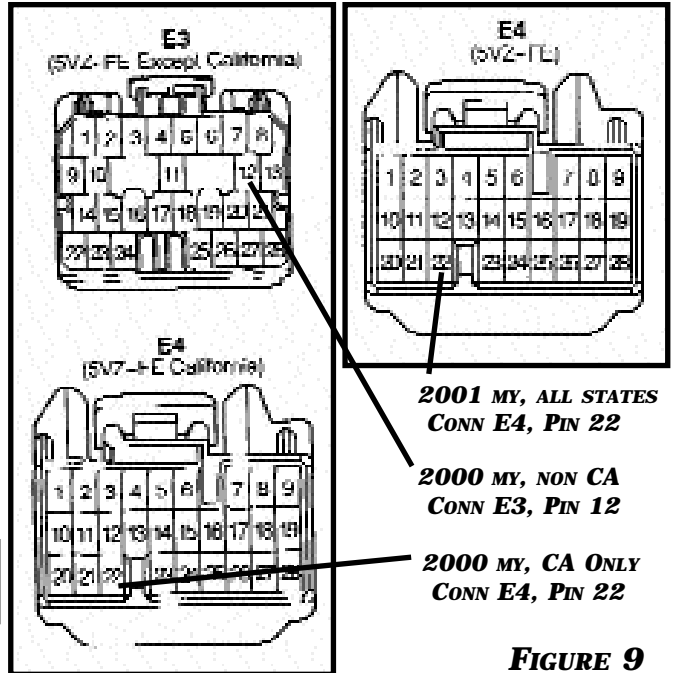
# INSTALLATION

## STEP 8: VEHICLE SPEED SENSOR

**LOCATION:** ENGINE CONTROL UNIT BEHIND GLOVE BOX  
**WIRE COLOR:** GREEN/ORANGE STRIPE

**HARDWARE:** FEMALE RED T-TAP

1. ROUTE **GRAY** WIRE OF **CRUISE HARNESS** TO ECU BEHIND GLOVE BOX. USE **CABLE TIES** TO SECURE GRAY WIRE.
2. LOCATE THE **WHITE E3 (2000 NON CALIFORNIA)** OR THE **WHITE E4 (2001 ALL STATES AND 2000 CALIFORNIA)** CONNECTOR AT THE ECU. INSTALL **FEMALE T-TAP CONNECTOR** ON THE **GREEN/ORANGE STRIPE VEHICLE SPEED SENSOR WIRE** AS ILLUSTRATED IN **FIGURE 9**.
3. ATTACH THE **GRAY WIRE** OF **CRUISE HARNESS** TO THE **FEMALE T-TAP CONNECTOR** INSTALLED ON THE **VEHICLE SPEED SENSOR WIRE**.



**FIGURE 9**

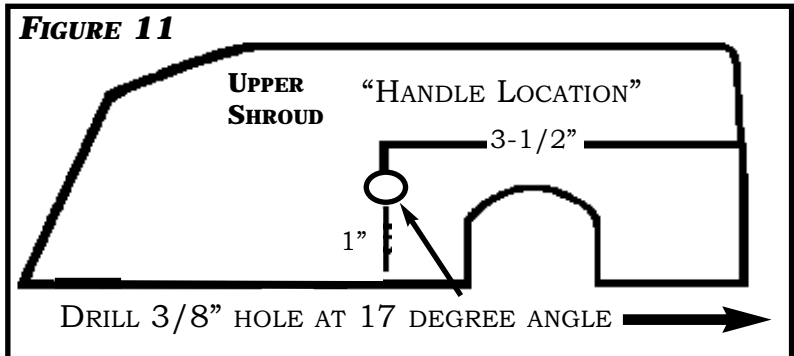
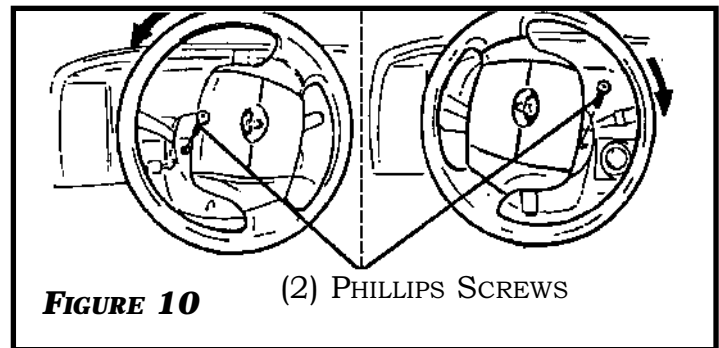
**NOTE: KEEP VSS HARNESS CLEAR OF SHARP, HOT, OR MOVING OBJECTS.**

**NOTE: REFER TO FIGURE 9 FOR CONNECTOR AND PIN LOCATION.**

## STEP 9: CONTROL SWITCH

**LOCATION:** STEERING COLUMN LEFT SIDE

1. APPLY SOAPY WATER ALONG SHIFT SELECT LEVER TO EASE DISASSEMBLY; REMOVE UPPER STEERING COLUMN SHROUD **FIGURE 10 & 12**
2. USING THE **LEVER WEDGE** AS AN ANGLE TEMPLATE, DRILL  $3/8$ " HOLE IN UPPER SHROUD AT 17 DEGREE ANGLE TOWARDS THE STEERING WHEEL AS SHOWN IN **FIGURE 11**.

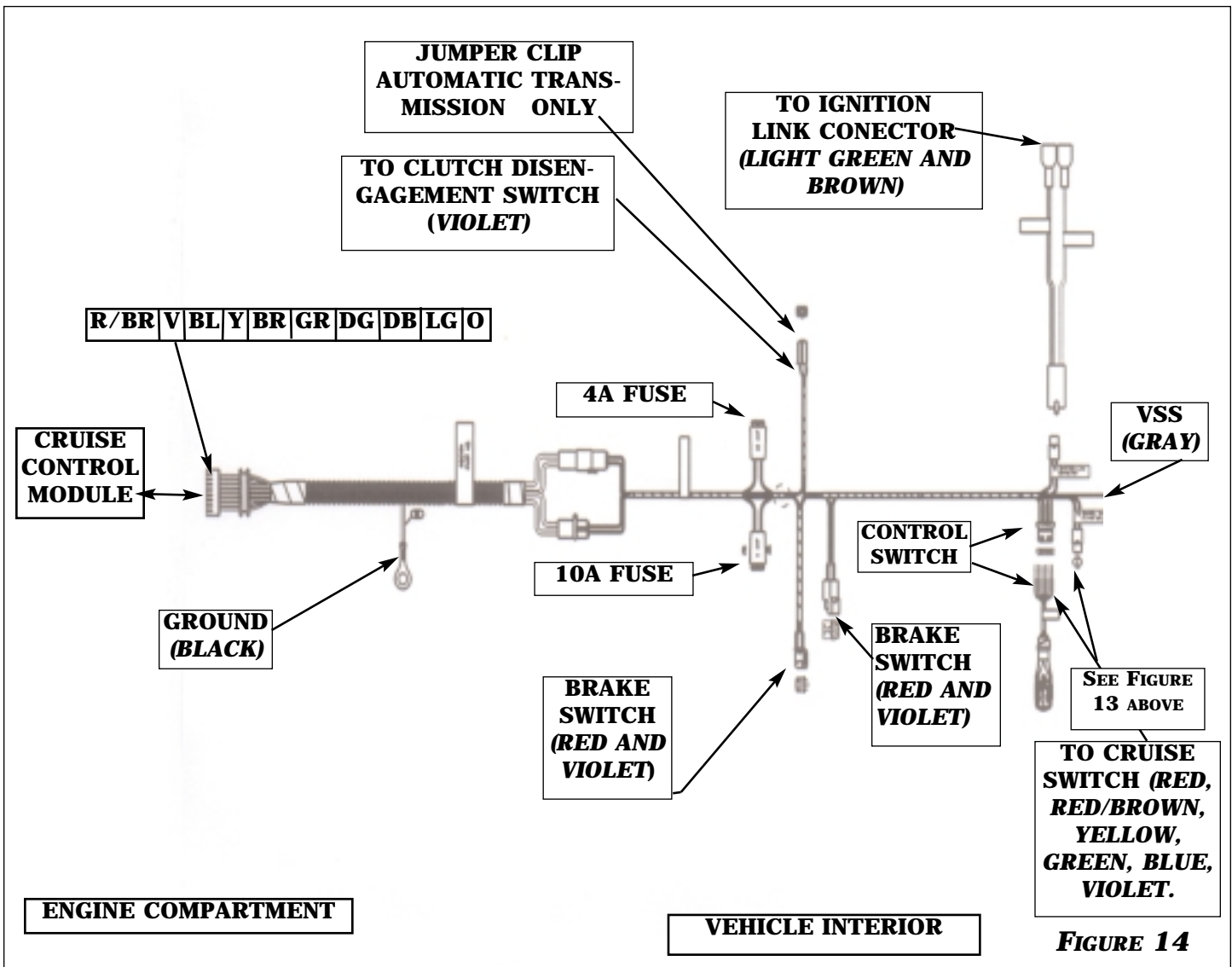
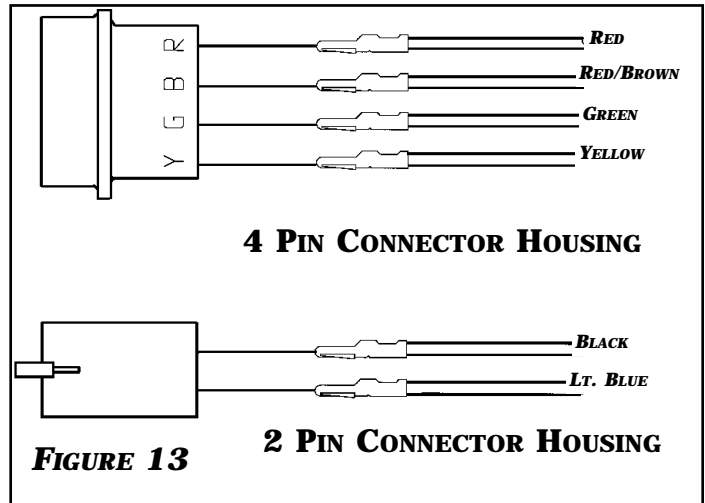


# WIRING DIAGRAM

## CONTROL SWITCH CONNECTION TO MODULE ASSEMBLY HARNESS

3. INSTALL 4 PIN CONNECTOR ON **RED, BROWN, GREEN, AND YELLOW** WIRES. INSTALL 2 PIN CONNECTOR ON TO **BLUE AND BLACK** WIRES OF SWITCH HARNESS. **NOTE: THE MATING CONNECTOR TO THIS 4 PIN CONNECTOR WILL HAVE A RED WIRE MATING TO THE BROWN WIRE, ALL OTHER COLORS SHOULD MATCH.** CONNECT 4-PIN AND 2-PIN CONNECTORS TO **MODULE ASSEMBLY HARNESS.** ENSURE THAT ALL PINS LOCK INTO CONNECTOR. **FIGURE 13**

4. SECURE **MODULE ASSEMBLY HARNESS** WITH **CABLE TIES** TO PREVENT HARNESS FROM COMING INTO CONTACT WITH **HOT, SHARP OR MOVING OBJECTS.**



# TROUBLESHOOTING

## A. ELECTRICAL TESTING:

1. TESTING OF THE CRUISE CONTROL SYSTEM IS BEST DONE AT THE (8) WIRES AT THE CRUISE CONTROL MODULE.
2. DEPENDING UPON THE TEST BEING CONDUCTED, A VOLT OR OHM METER MUST BE USED FOR ACCURATE RESULTS. A TEST LIGHT WILL NOT PROVIDE ACCURATE INFORMATION IN SOME CIRCUITS BEING TESTED

**WARNING: TEST LIGHTS MAY CAUSE DAMAGE TO THE VEHICLE.**

3. USING A VOLT/OHM METER, CONDUCT THE FOLLOWING TESTS WHERE THE WIRING HARNESS ENTERS THE CRUISE CONTROL MODULE. **VIEW FIGURE 15 FOR WIRE COLOR AND LOCATION AT REAR OF CRUISE CONTROL MODULE.**

**R/BR V BL Y BR GR DG DB LG O**

**FIGURE 15**

CONNECTOR AS VIEWED FROM THE HARNESS SIDE

<p><b>R/BR=RED/BROWN=CONTROL SWITCH POWER</b>  <b>V=VIOLET=BRAKE LIGHT GROUND</b>  <b>BL=BLACK=MODULE GROUND</b>  <b>Y=YELLOW=ACCEL/RESUME</b>  <b>DB=DARK BLUE=NO FUNCTION</b></p>	<p><b>BR=BROWN=IGNITION POWER</b>  <b>GR=GRAY=VSS SIGNAL CIRCUIT</b>  <b>DG=DARK GREEN=SET/COAST</b>  <b>LG=LIGHT GREEN=NEUTRAL SAFETY</b>  <b>O=ORANGE=NO FUNCTION</b></p>
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TEST	FUNCTION	CONDITION	DESIRED RESULTS	OK	NG
A-1	"OFF"	IGNITION "OFF"	ZERO VOLTS AT ALL WIRES	A-2	B-1
A-2	SYSTEM POWER	CONTROL SWITCH "OFF" IGNITION "ON"	12VDC ON <b>BROWN</b> WIRE ONLY	A-3	B-2
A-3	CRUISE SWITCH	CONTROL SWITCH "OFF" IGNITION "ON"	12VDC ON <b>BROWN</b> WIRE	A-4	B-3
A-4	POWER BRAKE CIRCUIT	CONTROL SWITCH "ON" IGNITION "ON" CONTROL SWITCH "ON"	12VDC ON <b>RED</b> WIRE 12VDC ON <b>VIOLET</b> WIRE	A-5	B-1
A-5	SET/COAST	PUSH BRAKE PEDAL IGNITION "ON" CONTROL SWITCH "ON"	12VDC ON <b>DARK GREEN</b> WIRE	A-6	B-4
A-6	ACCEL/RESUME	PUSH SET BUTTON IGNITION "ON" CONTROL SWITCH "ON" PUSH ACCEL BUTTON	12VDC ON <b>YELLOW</b> WIRE	A-7	B-4
A-7	VEHICLE SPEED SENSOR	IGNITION "ON" CONTROL SWITCH "ON"	4.5VDC TO ZERO VOLTS ON <b>GRAY</b> WIRE, 3-4 TIMES IN 10 FEET	A-8	B-5
A-8	SYSTEM GROUND (OHM METER)	ROLL VEHICLE 10 FEET IGNITION "ON" CONTROL SWITCH "ON"	CONTINUITY TO GROUND ON <b>BLACK</b> WIRE	A-9	B-6
A-9	NEUTRAL SAFETY AUTOMATIC (VOLT METER)	IGNITION "ON" CONTROL SWITCH "ON" MOVE SHIFT LEVER FROM "P" OR "N" TO ANY GEAR POSITION	ZERO TO 0.5 VOLTS IN "P" OR "N" ON <b>LIGHT GREEN</b> WIRE	A-10	B-7
A-10	CLUTCH SWITCH MANUAL (OHM METER)	IGNITION "ON" CONTROL SWITCH "ON" PUSH ON CLUTCH PEDAL	CONTINUITY TO GROUND WITH CLUTCH PEDAL <u>NOT</u> DEPRESSED AND " <b>NO</b> " CONTINUITY TO GROUND WITH CLUTCH PEDAL DEPRESSED ON THE <b>VIOLET</b> WIRE	C-1	B-8

# TROUBLESHOOTING

## **B. ELECTRICAL TESTING DIAGNOSTIC:**

- B-1....CHECK BRAKE LIGHT FUSE, BULBS, WIRES & CONNECTORS TO BRAKE SWITCH AND CLUTCH SWITCH IF MANUAL**
- B-2.....CHECK IGNITION SWITCH LINK WIRES, CONNECTOR AND IGNITION FUSE.**
- B-3.....CHECK IGNITION SWITCH LINK WIRES, CONNECTOR AND IGNITION FUSE, CRUISE SWITCH WIRES AND CONNECTOR.**
- B-4.....CHECK CRUISE CONTROL SWITCH WIRES AND CONNECTOR.**
- B-5.....CHECK VEHICLE ECU WIRE AND CONNECTOR, T-TAP AT VSS WIRE.**
- B-6.....CHECK VEHICLE BATTERY GROUND, MODULE GROUND WIRE CONNECTION.**
- B-7.....CHECK IGNITION LINK HARNESS, WIRES AND CONNECTOR, VEHICLE NEUTRAL SAFETY SWITCH.**
- B-8....CHECK WIRES AND CONNECTOR, CLUTCH SWITCH FOR DAMAGE AND/OR ADJUST SWITCH.**

## **C. MECHANICAL TESTING PROCEDURES:**

### **C-1 VERIFY CABLE AND/OR LINKAGE:**

**VISUALLY INSPECT ALL RELATED PARTS OF THE THROTTLE CONNECTION. ENSURE THAT CABLE OPERATES FREELY AND ALL BRACKETS ARE SECURED AND NOT DAMAGED. REPLACE ANY DAMAGED OR WORN PARTS.**

# SELF DIAGNOSTICS TEST

### **ENTERING DIAGNOSTIC MODE:**

1. TRANSMISSION SHIFTER IN THE "P" POSITION WITH **EMERGENCY BRAKES ON** AND THE IGNITION TO THE OFF POSITION.
2. PRESS AND HOLD THE RESUME/ACCEL BUTTON AND DO THE FOLLOWING. 1- TURN THE IGNITION SWITCH TO THE ON POSITION WITHOUT STARTING THE ENGINE. 2- TURN THE CONTROL SWITCH TO THE "ON" POSITION..
3. THE DIAGNOSTIC LED SHOULD BE ON AT THIS TIME.
4. NOW RELEASE THE RESUME/ACCEL BUTTON AND MOVE THE TRANSMISSION SHIFTER IN THE "D" OR "R" POSITION
5. THE DIAGNOSTIC LED SHOULD BE OFF AT THIS TIME.

### **TESTING THE CRUISE CONTROL SWITCH, BRAKE SWITCH WIRING, NEUTRAL SAFETY AND VEHICLE SPEED SENSOR (VSS) SIGNAL:**

- 1-PRESS AND RELEASE SET/COAST BUTTON. LED SHOULD LIGHT ONLY WHEN THE BUTTON IS PRESSED .
- 2-PRESS AND RELEASE RESUME/ACCEL BUTTON. LED SHOULD LIGHT ONLY WHEN THE BUTTON IS PRESSED.
- 3-PRESS AND RELEASE THE BRAKE. LED SHOULD LIGHT ONLY WHEN THE BRAKE IS PRESSED
- 4-LED SHOULD LIGHT EACH TIME THE TRANSMISSION SHIFT LEVER IS NOT ON "P" OR "N".
- 5-PUSH THE CAR AT LEAST THREE (3) FEET FORWARD OR BACKWARD. THE LED SHOULD FLASH AND CONTINUE TO FLASH AT THE SAME RATE INDICATING A GOOD VSS SIGNAL.

**IF TEST #1 FAILS: CHECK STEPS TO ENTERING DIAGNOSTIC MODE AND TRY AGAIN. IF THE TEST FAILED AGAIN, CHECK THE ELECTRICAL TESTING ON PAGE 14.**

**FOR ANY OTHER TEST FAILURE, REFER TO THE ELECTRICAL AND MECHANICAL TESTS ON PAGE 14 AND 15**

IF ALL THE TESTS ABOVE PASSED AND THE CRUISE STILL DIDN'T WORK CHECK THE VACUUM CONNECTION AND THE NOTE BELOW

### **VACUUM CHECK:**

RUN THE ENGINE AT IDLE. UNPLUG THE VACUUM HOSE AT THE SERVO ASSEMBLY AND MEASURE THE VACUUM USING A VACUUM GAUGE. THE GAUGE SHOULD READ ABOVE 13 INCHES OF VACUUM WHEN APPLYING A LOAD TO THE VEHICLE.

### **NOTE:**

THE CRUISE CONTROL WILL NOT FUNCTION IF THERE IS ANY ELECTRICAL NOISE PICKED UP BY THE CRUISE CONTROL HARNESS. THIS HAPPENS WHEN ANY ACCESSORY WIRE IS DIRECTLY HOOKED-UP TO THE CRUISE HARNESS. RE-ROUTE ACCESSORY WIRES AWAY FROM CRUISE HARNESS.

# NOTES

# NOTES

# OPERATING INSTRUCTIONS

## **SPEED CONTROL OPERATING INSTRUCTIONS**

**ON-** TO OPERATE THE CRUISE CONTROL, PUSH THE CRUISE “ON/OFF” BUTTON “ON”. (GREEN INDICATOR WILL LIGHT.) WAIT 3 SECONDS BEFORE SETTING SPEED.

**SET SPEED-** TO ENGAGE SYSTEM, DRIVE AT ANY SPEED ABOVE 33 MPH, PRESS “SET/COAST” OR PRESS “RESUME/ACCEL” AND RELEASE, THEN REMOVE YOUR FOOT FROM THE ACCELERATOR PEDAL. AUTOMATIC CONTROL WILL BE AT THE SPEED OF THE VEHICLE WHEN BUTTON IS RELEASED PLUS OR MINUS 1- 1/2 MPH. PRESS ACCELERATOR AND SPEED WILL INCREASE, RELEASE ACCELERATOR AND YOU WILL RETURN TO SET SPEED. THE RESUME/ACCEL BUTTON WILL SET THE CRUISE CONTROL WITHOUT PRESSING THE SET BUTTON FIRST.

**COAST-** PRESS AND HOLD THE “SET/COAST” 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.

**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.

**TAP-DOWN-** YOU CAN GRADUALLY DECREASE YOUR SPEED BY QUICKLY PRESSING AND RELEASING THE “SET/COAST” BUTTON. EACH TIME YOU PRESS AND RELEASE THE BUTTON YOUR SPEED WILL DECREASE BY ONE OR TWO MPH.

**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. 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.

## **THINGS YOU SHOULD KNOW ABOUT YOUR CRUISE CONTROL**

THE PERFORMANCE OF THE CRUISE CONTROL IS DEPENDENT UPON THE CONDITION OF THE ENGINE, ITS SIZE AND EVEN BY THE TYPE OF EMISSION CONTROL EQUIPMENT IT HAS. DRIVING AT HIGHER ALTITUDES WILL HAVE AN EFFECT ON THE VEHICLE CRUISE CONTROL PERFORMANCE.

UNDER NORMAL CONDITIONS AND WITH PROPER REGULATOR ADJUSTMENTS, SPEED SHOULD BE CONTROLLED WITHIN PLUS OR MINUS 1- 1/2 MPH. THERE MAY BE SITUATIONS; HOWEVER, WHICH MAKE IT SEEM AS IF THE CRUISE CONTROL IS NOT CAPABLE OF FUNCTIONING ACCURATELY, SUCH AS AN EXTRA HEAVY LOAD, A VERY STEEP HILL, OR A SEVERE HEADWIND.

**CAUTION: Do not use CRUISE CONTROL ON A SLIPPERY ROAD NOR IN HEAVY TRAFFIC.**

**CAUTION: (MANUAL TRANSMISSION)** WHILE DRIVING WITH CRUISE CONTROL “ON”, DO NOT SHIFT TO NEUTRAL WITHOUT DEPRESSING THE CLUTCH PEDAL, AS THIS MAY CAUSE ENGINE RACING OR OVERREVING. IF THIS HAPPENS, DEPRESS THE CLUTCH PEDAL OR TURN “OFF” THE MAIN CRUISE CONTROL SWITCH IMMEDIATELY.