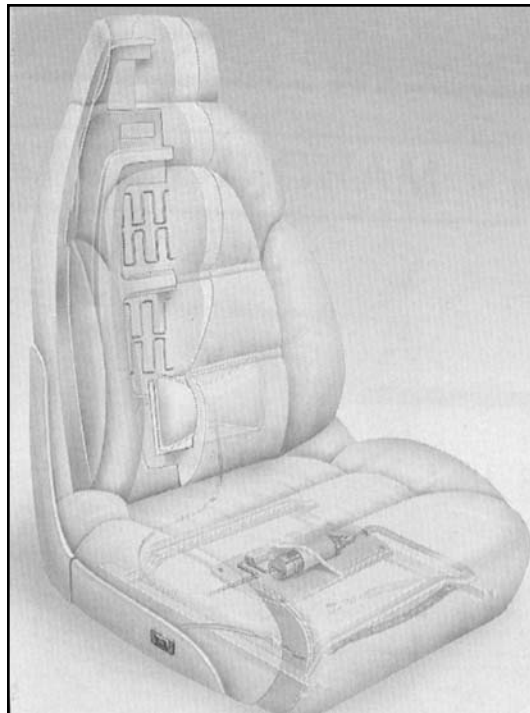


2004 TOYOTA POWER LUMBAR

PASSENGER KIT INSTALLATION INSTRUCTIONS



CONTENTS

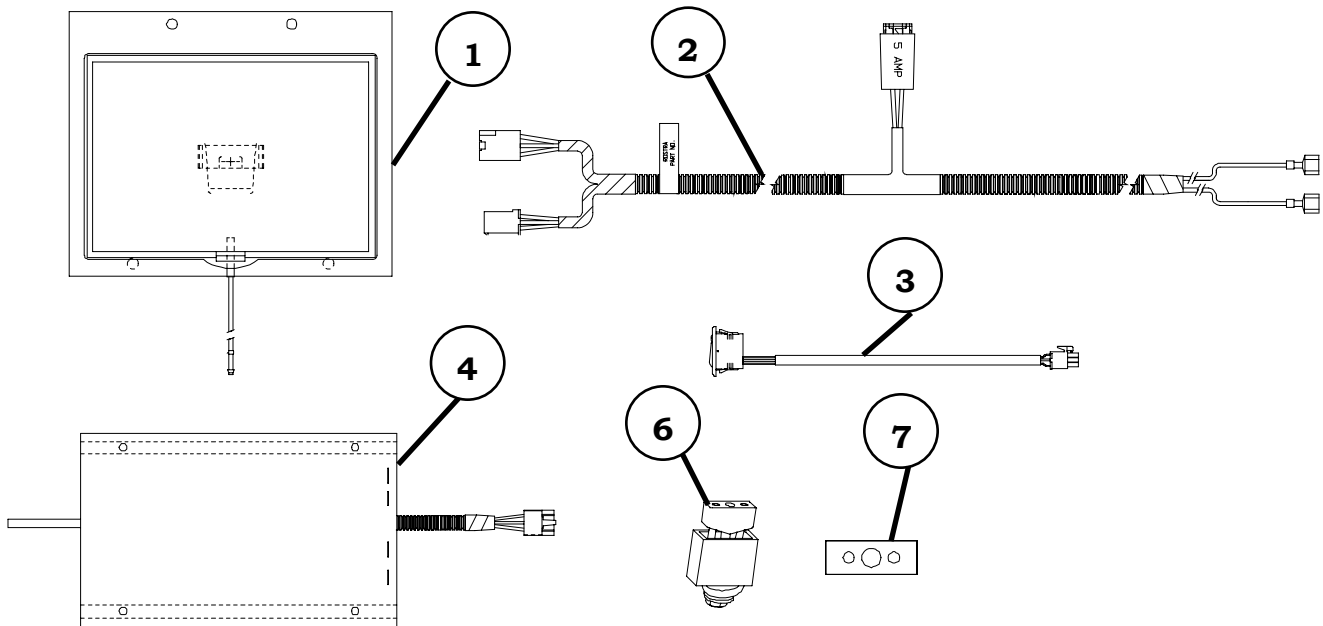
PARTS LIST.....	2
PARTS DIAGRAM.....	2
HELPFUL HINTS.....	3
BLADDER INSTALLATION.....	4
PUMP/POUCH INSTALLATION.....	5
CONTROL SWITCH INSTALLATION.....	5
VEHICLE HARNESS INSTALLATION.....	7
OPERATION PROCEDURES.....	9
WIRING DIAGRAM.....	9
TROUBLESHOOTING GUIDE.....	10

PARTS LIST

* INCLUDED IN HARDWARE PACKAGE-ITEM #5
 ** MUST BE PURCHASED INDIVIDUALLY
 (NOT INCLUDED IN KIT).

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00014-02057	BLADDER ASSEMBLY	1
2	59D-05631	HARNESS ASSEMBLY	1
3	00014-02054	SWITCH ASSEMBLY	1
4	00014-03997	POUCH/PUMP ASSEMBLY	1
5	59A-05635	SMALL PARTS PACKAGE:	1
A	*	CABLE TIES	12
B	*	T- TAP	2
C	*	LARGE FOAM ADHESIVE	1
D	*	SWITCH SPACER	1
6	00014-01428 **	TOOL DIE	1
7	00014-01429 **	SWITCH TEMPLATE	1

PARTS IDENTIFICATION



HELPFUL HINTS

1. BEFORE STARTING INSTALLATION:

FAMILIARIZE YOURSELF WITH THE INSTALLATION INSTRUCTIONS AND COMPONENTS.

2. MATING CONNECTORS:

A. WHEN DISCONNECTING CONNECTORS, HOLD CONNECTOR AND PRESS THE LOCK DOWNWARD WHILE PULLING CONNECTORS APART. **FIGURE 1**

CAUTION: DO NOT PULL ON WIRES

B. WHEN CONNECTING MATING CONNECTORS, PUSH CONNECTORS TOGETHER UNTIL LOCKING MECHANISMS ARE FIRMLY LOCKED TOGETHER. **FIGURE 2**

3. AIRBAG AND ANTI-THEFT RADIO:

A. 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 REENTERED WHEN THE NEGATIVE BATTERY CABLE IS REINSTALLED.

B. IF VEHICLE IS EQUIPPED WITH AN AIRBAG, IT IS ADVISABLE TO DISCONNECT NEGATIVE BATTERY CABLE FOR 3 MINUTES PRIOR TO INSTALLATION.

!WARNING!
DO NOT TAP OR SOLDER TO ANY AIRBAG CIRCUITS (YELLOW TAPE, TUBING, OR CONNECTORS WILL INDICATE AIRBAG CIRCUIT).

4. REMOVAL OF NEGATIVE BATTERY CABLE:

REMOVE THE NEGATIVE BATTERY CABLE BEFORE INSTALLING COMPONENTS FOR SAFETY PRECAUTIONS.

FIGURE 3

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 4**

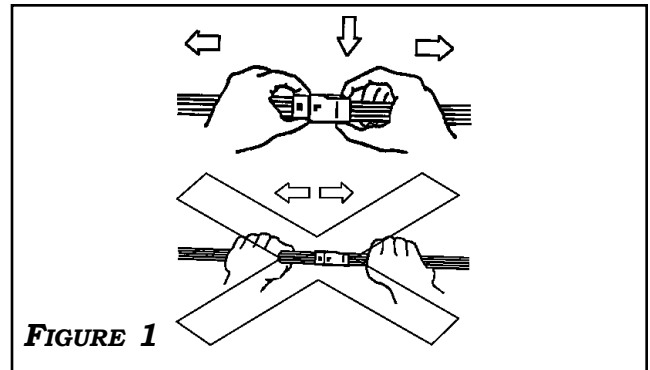


FIGURE 1

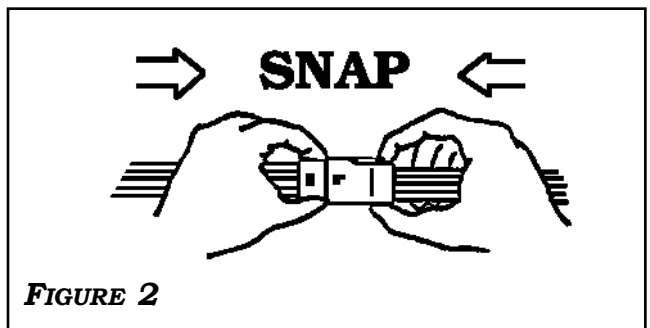


FIGURE 2

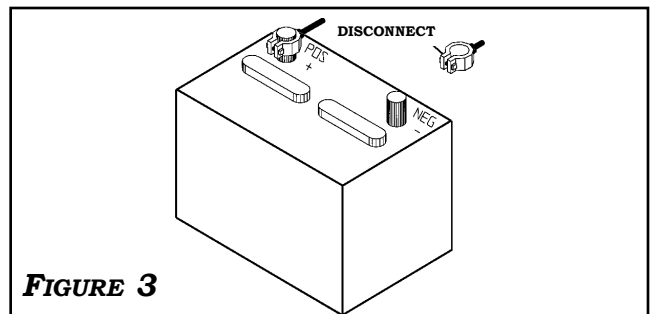


FIGURE 3

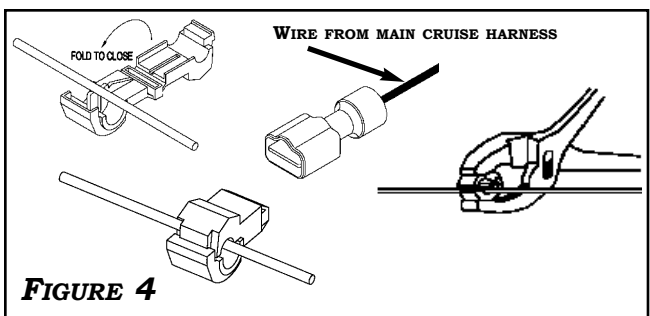


FIGURE 4

BLADDER INSTALLATION

NOTE: REMOVAL OF SEAT FROM VEHICLE IS RECOMMENDED FOR EASE OF ASSEMBLY. IF REMOVED, PROPER RE-ASSEMBLY TORQUE MEASUREMENT IS NECESSARY (27 FT-LBS).

DETACH SEAT BACK TRIM COVER

ONE OR A COMBINATION OF THESE METHODS ARE USED TO DETACH THE TRIM COVER. REFER TO SERVICE MANUAL FOR SPECIFIC INSTRUCTIONS:

PANEL SEAT BACK

UNSNAP SEAT BACK PANEL AT THE TOP AND SIDE OF THE SEAT BACK TO EXPOSE SUPPORT SPRINGS. PULL OUT AND PUSH DOWN ON PANEL SIMULTANEOUSLY. **FIGURE 5** REMOVE TWO SCREWS IN LOWER CROSS FRAME. **FIGURE 8**

J-STRIP CLOSURE

UNSNAP THE "J" CHANNEL AT THE BOTTOM OF THE SEAT BACK. LIFT SEAT COVER TO EXPOSE SUPPORT SPRINGS. **FIGURE 6**

HOG-RING ATTACHMENT

CUT EXISTING RINGS AND PULL COVER UP TO EXPOSE SUPPORT SPRINGS. **FIGURE 7**

POSITION AND ATTACH BLADDER

ONCE ALL LOWER SEAT BACK TRIM COVER ATTACHMENTS ARE RELEASED, EXPOSE THE SEAT BACK BASE PAD BY TURNING COVER INSIDE OUT AND ROLLING IT UP. THIS WILL REVEAL INDENTATIONS IN THE OCCUPANT SIDE OF THE FOAM ON AN 8 INCH DIAMETER. THIS TARGET IS THE UPPER-MIDDLE LUMBAR AREA. THE BLADDER SHOULD BE INSTALLED ON THE REAR SIDE OF THE FOAM, INLINE, OR SLIGHTLY BELOW THE CENTER OF THIS CIRCLE. MOST VEHICLES WILL HAVE A REINFORCEMENT CROSS-BAR FOR THE REAR SPRINGS. CENTERING ON OR SLIGHTLY BELOW THIS FEATURE IS ALSO SATISFACTORY.

SLIDE BLADDER BETWEEN SPRINGS AND SEAT BACK CUSHION WITH HARD BACKING TO SPRINGS AND SECURE WITH CABLE TIES.

CAUTION!

DO NOT APPLY ANY EXTERNAL AIR SOURCES TO INFLATE BLADDER OTHER THAN MANUFACTURER SUPPLIED.

ROUTE TUBING

ROUTE TUBING TO INBOARD SIDE, DOWN INSIDE OF SEAT HINGE AND EXIT UNDER SEAT. DO NOT KINK TUBE AND CHECK THAT MOVING PARTS WILL NOT CAUSE DAMAGE.

NOTE: BE VERY CAREFUL NOT TO CRIMP TUBING.

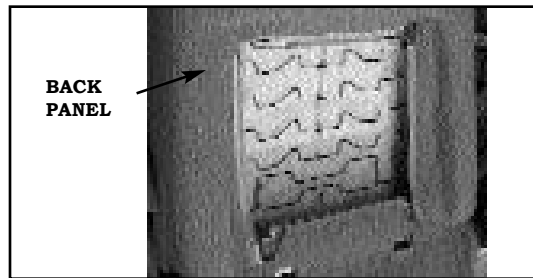


FIGURE 5



FIGURE 6



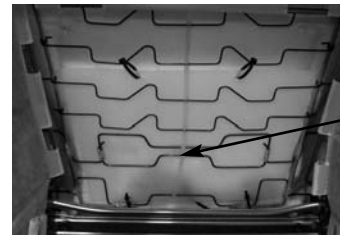
FIGURE 7



FIGURE 8



Center
Bladder here



Center
Bladder here

PUMP/POUCH INSTALLATION

CAUTION!

BE CAREFUL OF SHARP EDGES AROUND PAN UNDER SEAT.

1. MOUNT POUCH UNDER SEAT, ENSURING THAT ALL TUBING WILL NOT BE KINKED OR PINCHED. SECURELY ATTACH TO SEAT SUPPORT SPRINGS WITH CABLE TIES. **FIGURE 10**
2. CONNECT BLADDER TUBE TO RUBBER HOSE ON POUCH.
3. USE CABLE TIES TO SECURE BLADDER TUBE & POUCH RUBBER HOSE CONNECTION TO AVOID RUBBING AGAINST SEAT SHARP EDGES AND MOVING PARTS.

NOTE: BE VERY CAREFUL NOT TO CRIMP RUBBER TUBE.



FIGURE 10

CONTROL SWITCH INSTALLATION

IN GENERAL, THE SWITCH SHOULD BE LOCATED ON THE SEAT SIDE SHIELD WITH THE HIGH SIDE OF THE CONTOURED SWITCH TOWARD THE FRONT OF THE VEHICLE. SOME THIN-WALL SIDE SHIELDS MAY REQUIRE THE USE OF THE CLEAR PLASTIC SPACER (INCLUDED IN THE SMALL PARTS PACKAGE).

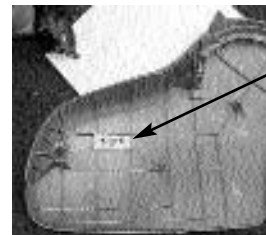


FIGURE 11

A) CUT HOLE IN SIDE SHIELD

1. REMOVE THE SIDE SHIELD FROM THE SEAT.
2. PLACE CUT OUT TEMPLATE IN CORNER OF RIB MATRIX (FOR PLACEMENT CONSISTENCY) AS SHOWN IN **FIGURE 11**.
3. DRILL (2) 13/64 DIA. HOLES AND (1) 11/32 DIA. HOLE THROUGH TEMPLATE.
4. CUT HOLE IN SHIELD USING 00014-01428 TOOL. INSERT DIE THRU 13/64" HOLES AND PLACE TOOL WITH BOLT ON OPPOSITE SIDE OF PLASTIC. WITH 13MM SOCKET, TIGHTEN THE BOLT UNTIL PLASTIC HOLE IS CUT. **FIGURE 12**

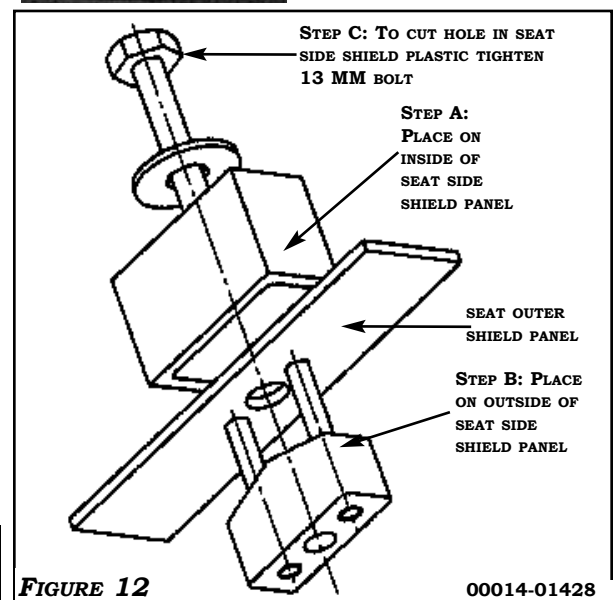


FIGURE 12

00014-01428

NOTE: SEAT OUTER SHIELD PANEL PLASTIC CUTS BEST AT ROOM TEMPERATURE.

B) INSERT SWITCH

PULL SWITCH HARNESS THROUGH OPENING AND SNAP INTO PLACE. ENSURE THAT THE HIGHER SIDE OF SWITCH IS TOWARD FRONT AND SWITCH LEGS SNAP IN PLACE SECURELY. **FIGURE 13.**

SEQUOIA/TUNDRA

1. POSITION TEMPLATE IN RIB MATRIX PER **FIGURE 11** (*SEQUOIA*), **FIGURE 15** (*TUNDRA*). DRILL AND USE TOOL PER SECTION A ABOVE TO CUT OUT OPENING FOR SWITCH.
2. USE OF THE CLEAR PLASTIC SPACER (INCLUDED IN SMALL PARTS PKG) IS NOT NECESSARY FOR THESE SHIELDS, BUT MAY BE USED ON THE SEQUOIA FOR STABILITY OF THE SWITCH. PLACE PLASTIC SPACER ON INBOARD SIDE OF SHIELD, PULL HARNESS THROUGH OPENING AND SNAP SWITCH INTO PLACE. **FIGURE 13** ENSURE THAT THE HIGH SIDE OF SWITCH IS TOWARD FRONT (**FIGURE 14 & 16**) AND SWITCH LEGS SNAP IN PLACE SECURELY.
3. RE-ATTACH SIDE SHEILD, PULLING HARNESS THROUGH SEAT FRAME TO CONNECT WITH PUMP HARNESS BELOW SEAT.

HIGHLANDER/CAMRY/SOLARA

1. POSITION TEMPLATE IN RIB MATRIX PER **FIGURE 17**. DRILL AND USE TOOL PER SECTION A ABOVE TO CUT OUT OPENING FOR SWITCH.
2. USE OF THE PLASTIC SPACER IS RECOMMENDED. SLIDE HARNESS THROUGH OPENING AND SNAP SWITCH INTO PLACE, MAKING SURE THE LEGS ARE FULLY ENGAGED AND THE HIGH SIDE OF SWITCH IS TOWARD FRONT OF VEHICLE.
3. PULL HARNESS THROUGH OPENING IN SEAT FRAME TO CONNECT WITH PUMP HARNESS. RE-ATTACH SIDE SHEILD AND HARDWARE. **FIGURE 18**

4RUNNER

1. POSITION TEMPLATE IN RIB MATRIX PER **FIGURE 19**. USE DATE CODE LINES TO LINE UP TEMPLATE. DRILL HOLES AND USE TOOL PER SECTION A ABOVE TO CUT OUT OPENING FOR SWITCH.
2. USE OF THE PLASTIC SPACER IS RECOMMENDED. SLIDE HARNESS THROUGH OPENING AND SNAP SWITCH INTO PLACE, MAKING SURE THE LEGS ARE FULLY ENGAGED AND THE HIGH SIDE OF SWITCH IS TOWARD FRONT OF VEHICLE.
3. PULL HARNESS THROUGH OPENING IN SEAT FRAME TO CONNECT WITH PUMP HARNESS. RE-ATTACH SIDE SHEILD AND HARDWARE. **FIGURE 20**

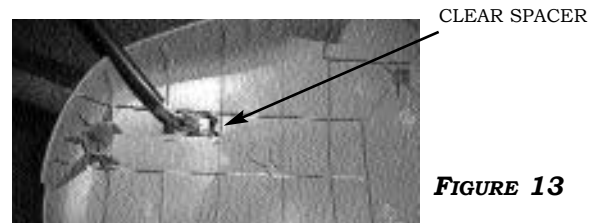


FIGURE 13

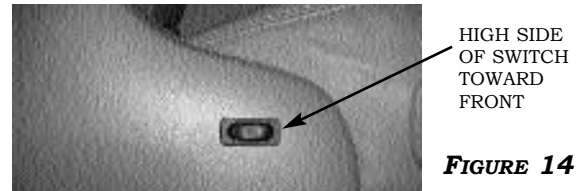


FIGURE 14

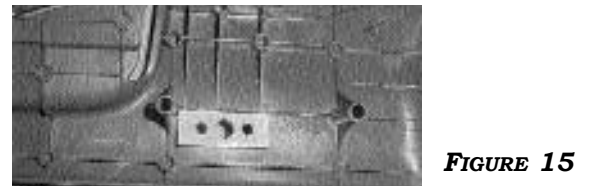


FIGURE 15



FIGURE 16



FIGURE 17



FIGURE 18

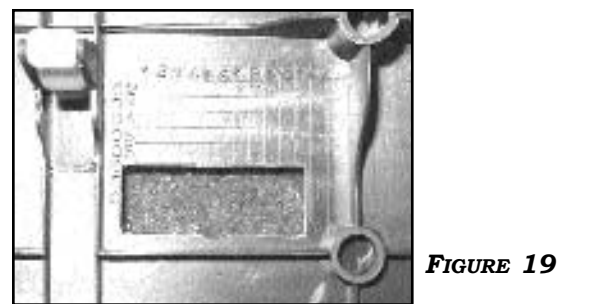


FIGURE 19

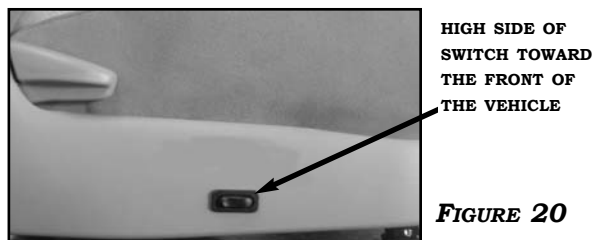


FIGURE 20

VEHICLE HARNESS INSTALLATION

FOR THESE (PASSENGER SIDE ONLY) APPLICATIONS, THE ELECTRICAL TAPS ARE FOUND IN THE CENTER CONSOLE AREA.

GENERAL INSTRUCTIONS:

1. FROM THE CENTER CONSOLE AREA ROUTE THE TWO THREE PIN CONNECTORS "D" AND "E" UNDER THE CARPET TOWARD THE PASSENGER DOOR, EXITING THROUGH THE CARPET OPENING UNDER THE PASSENGER'S SEAT. CONNECT "D" TO PUMP/POUCH. (FUSE HOLDER "C" SHOULD BE POSITIONED IN CARPET OPENING FOR SERVICE ACCESS). **FIGURE 21**
2. CONNECT CONNECTOR "E" TO THE TO THE CONTROL SWITCH. SECURE WITH CABLE TIES. **FIGURE 22**
3. WRAP LARGE FOAM PAD PROVIDED IN KIT, AROUND THE FUSE HOLDER. **FIGURE 22**
4. THE RED "B" (+12V) AND BLACK "A" (GRND) LEADS WITH BLUE TERMINAL COVERS SHOULD BE LEFT IN THE CENTER CONSOLE FOR ATTACHMENT TO CORRESPONDING T-TAPS.
5. VEHICLE SPECIFIC INSTRUCTIONS FOR POWER AND GROUND FOLLOW.

SEQUOIA/TUNDRA D-CAB:

1. DISASSEMBLE CONSOLE COVERS (**FIGURE 23**), AND ROUTE HARNESS TOWARD FRONT OF CONSOLE.
2. INSIDE FRONT OF CENTER CONSOLE, LOCATE THE WHITE CONNECTOR FOR THE PASSENGER SIDE AUXILLARY POWER PORTS. T-TAP INTO **WHITE WIRE** (SEE HELPFUL HINT 5 ON PAGE 3). T-TAP INTO **BLACK WIRE** (SEE HELPFUL HINT 5 ON PAGE 3). SEE **FIGURES 23, 24 AND 25**.
3. ATTACH THE **RED WIRE** FROM THE LUMBAR HARNESS TO THE FEMALE T-TAP ON **WHITE WIRE**. **FIGURE 24**
4. ATTACH THE **BLACK WIRE** FROM THE LUMBAR HARNESS TO THE FEMALE T-TAP ON **BLACK WIRE**. **FIGURE 24**
5. RE-CONNECT THE ACCESSORY PORT CONNECTOR **FIGURE 25**, AND REASSEMBLE CENTER CONSOLE.

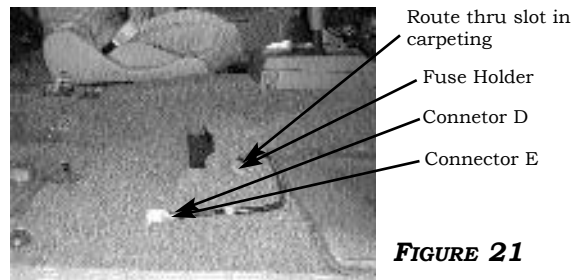


FIGURE 21

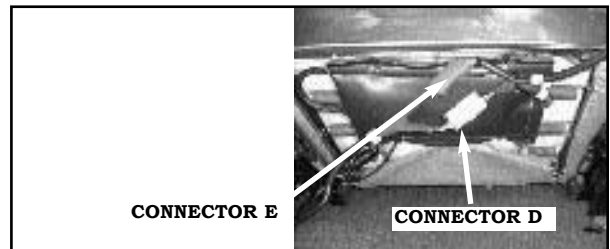


FIGURE 22

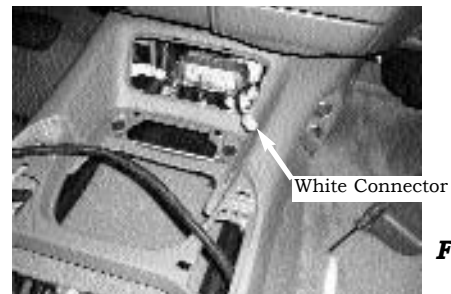


FIGURE 23

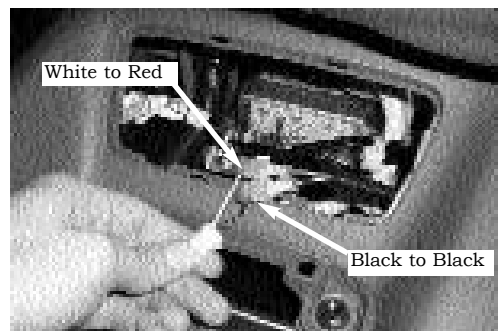


FIGURE 24

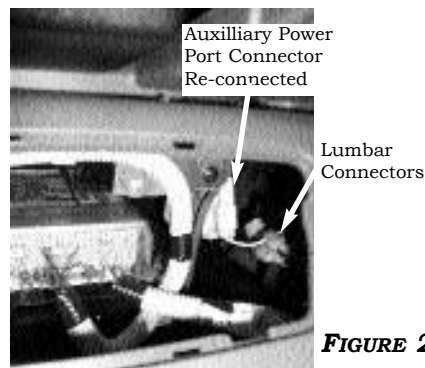


FIGURE 25

4-RUNNER:

1. PULL OFF CENTER CONSOLE COVERS. FIND THE ACCESSORY PORT CONNECTOR, P6, (ON DRIVER SIDE).
2. INSTALL RED T-TAPS TO PIN 2-**BROWN** WIRE AND PIN 1-**WHITE/BLACK** WIRE. **FIGURE 26**
3. ROUTE TERMINAL ENDS OF THE LUMBAR HARNESS TO THE T-TAPS AND CONNECT THE **RED** LEAD TO THE **BROWN** WIRE TAP (+12V) AND THE **BLACK** LEAD TO THE **WHITE/BLACK** LEAD (GRND). **FIGURE 26**
4. RE-CONNECT THE ACCESSORY PORT CONNECTOR, AND REASSEMBLE CENTER CONSOLE.

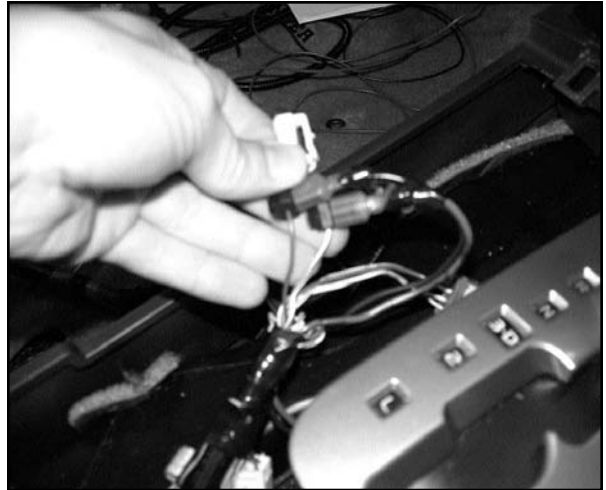


FIGURE 26

CAMRY:

1. PULL OFF CENTER CONSOLE COVERS. FIND THE ACCESSORY PORT CONNECTOR, P5, (ON DRIVER SIDE).
2. INSTALL RED T-TAPS TO PIN 1-**WHITE/BLACK** (GND) WIRE AND PIN 2- **PURPLE** (+12V) WIRE. **FIGURE 27**
3. ROUTE TERMINAL ENDS OF THE LUMBAR HARNESS TO THE T-TAPS AND CONNECT THE **RED** LEAD TO THE **PURPLE** WIRE T-TAP (+12V) AND THE **BLACK** LEAD TO THE **WHITE/BLACK** LEAD (GRND).
4. RE-CONNECT THE ACCESSORY PORT CONNECTOR, AND REASSEMBLE CENTER CONSOLE.



FIGURE 27

HIGHLANDER:

1. PULL OUT THE ACCESSORY PORT COVER IN THE LOWER SECTION OF THE CENTER CONSOLE. **FIGURE 28**
2. INSTALL RED T-TAPS TO PIN 1-**WHITE/BLACK** (GND) WIRE AND PIN 2- **GREEN** (+12V) WIRE. **FIGURE 28**
3. ROUTE TERMINAL ENDS OF THE LUMBAR HARNESS TO THE T-TAPS AND CONNECT THE **RED** LEAD TO THE **PURPLE** WIRE T-TAP (+12V) AND THE **BLACK** LEAD TO THE **WHITE/BLACK** LEAD (GRND).
4. RE-CONNECT THE ACCESSORY PORT CONNECTOR, AND REASSEMBLE CENTER CONSOLE.



FIGURE 28

OPERATION PROCEDURES

1. THE CONTROL SWITCH IS USED TO OPERATE THE SYSTEM. IF INSTALLED CORRECTLY, THE LUMBAR SYSTEM SHOULD PERFORM AS DESCRIBED BELOW.
 - A. (WHILE SITTING IN SEAT)
TO INFLATE THE BLADDER, DEPRESS THE FORWARD OR **HIGH** SIDE OF CONTROL SWITCH. THE PUMP MOTOR WILL CONTINUE PUMPING AIR UNTIL THE BLADDER MAXIMUM IS REACHED. (EXCESS PRESSURE WILL VENT OUT THROUGH THE PUMP SYSTEM.) **FIGURE 27**
 - B. (WHILE SITTING IN SEAT)
TO DEFLATE BLADDER, DEPRESS THE REARWARD OR **LOW** SIDE OF THE CONTROL SWITCH. THE BLADDER WILL VENT AS LONG AS THE CONTROL SWITCH IS DEPRESSED. **FIGURE 27**

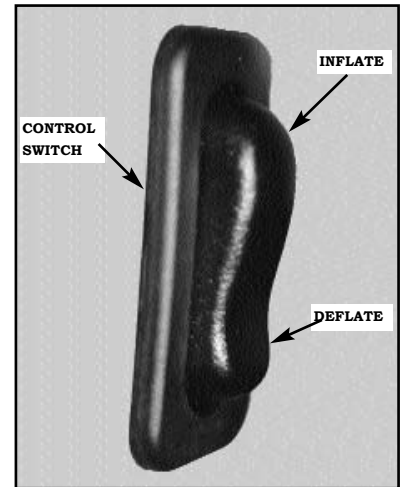
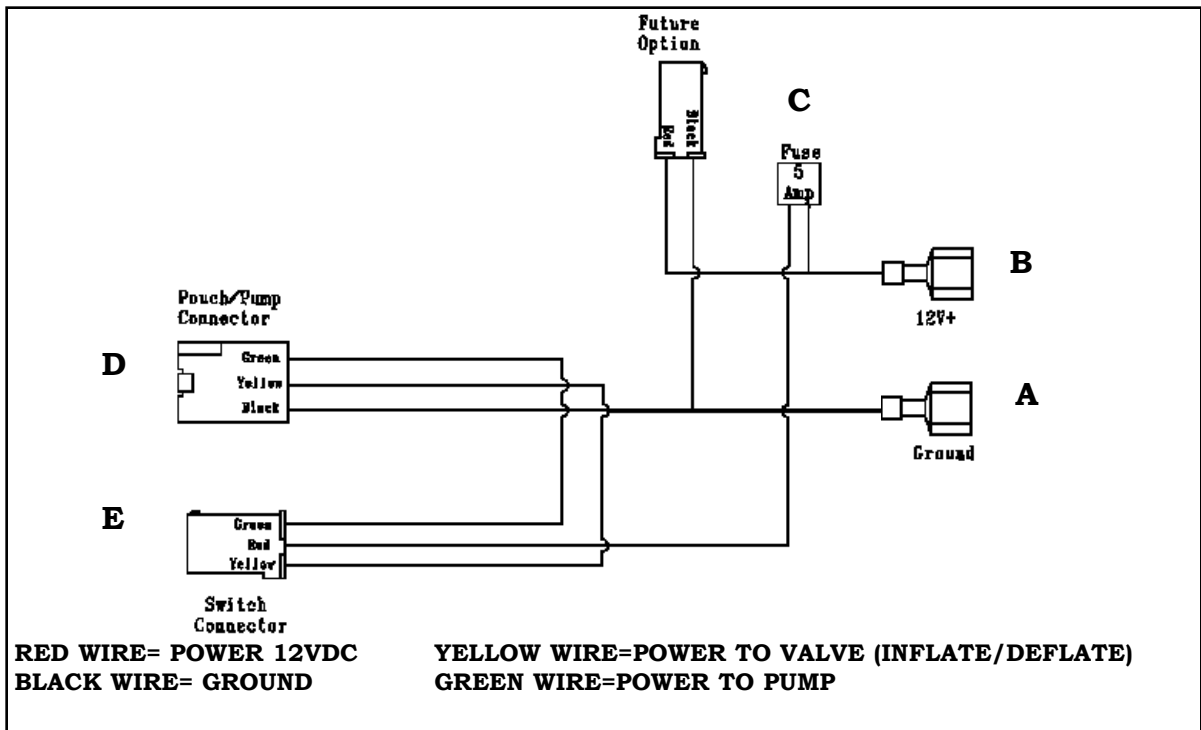


FIGURE 29

WIRING DIAGRAM

! WARNING !
 USING A TEST LIGHT MAY CAUSE DAMAGE TO THE VEHICLE.
 USE A VOLT/OHM METER FOR ALL ELECTRICAL TESTING.



TROUBLESHOOTING GUIDE

WITH BATTERY CONNECTED CHECK THE FOLLOWING STEPS:

STEP 1. PUMP OPERATIONAL BUT BLADDER IS NOT INFLATING/DEFLATING:

- A. NOT INFLATING:
DISCONNECT BLADDER FROM PUMP HOSE.
DEPRESS THE HIGH SIDE OF SWITCH.
CHECK IF THERE IS AIR FLOW FROM THE PUMP, (APPROXIMATELY 2 PSI)
IF NO GO TO STEP 2F
IF YES REPLACE BLADDER
- B. NOT DEFLATING:
DISCONNECT BLADDER FROM THE PUMP HOSE
IS AIR FLOW COMING OUT OF THE BLADDER HOSE WHEN INITIALLY DISCONNECTED?
IF NO GO TO STEP 1A
IF YES GO TO STEP 2F

STEP 2. PUMP NOT OPERATIONAL: (REFER TO WIRING DIAGRAM ON PAGE 10, FIGURE B)

USE A VOLT METER TO CHECK STEP 2 (A, B AND D) .

- A. CHECK 5 AMP LUMBAR FUSE FOR POWER. (UNDER THE SEAT). REPLACE FUSE IF NEEDED.
- B. CHECK FOR 12 VOLTS ACCESSORY VEHICLE FUSE AT **1H**. REPLACE FUSE IF NEEDED.
- C. USING AN OHM METER, CHECK HARNESS GROUND FOR CONTINUITY.
- D. CHECK VEHICLE FOR 12 VOLTS AT **1H**
FOR PASSENGER, ALSO CHECK THE 2 PIN FUTURE OPTION CONNECTOR FOR 12 VOLTS.
IF NO POWER GO TO STEP 2B.
- E. CHECK ALL CONNECTIONS. (I.E. PUMP & SWITCH CONNECTORS, TEE-TAP...)
- F. UNPLUG THE SWITCH FROM THE HARNESS. USING A VOLT METER, CHECK VOLTAGE AT THE HARNESS CONNECTION:
GR= 0 VOLTS , R= 12 VOLTS , Y= 0 VOLTS. IF BAD REPLACE HARNESS, IF GOOD, GO TO STEP 2G.
- G. UNPLUG THE HARNESS FROM THE PUMP CONNECTOR. USING AN OHM METER, CHECK HARNESS CONTINUITY:
GR AT PUMP TO GR AT SWITCH= CONTINUITY
Y AT PUMP TO Y AT SWITCH= CONTINUITY
B AT PUMP TO VEHICLE GROUND= CONTINUITY,
IF BAD REPLACE HARNESS, IF GOOD GO TO STEP 2H.
- H. CHECK SWITCH CONTINUITY WITH SWITCH UNPLUGGED AT THE SWITCH CONNECTOR:
R TO Y NO ACTIVATION= INFINITY
LOW SWITCH SIDE ACTIVATED= CONTINUITY
HIGH SWITCH SIDE ACTIVATED= CONTINUITY
R TO GR NO ACTIVATION= INFINITY
LOW SWITCH SIDE ACTIVATED= INFINITY
HIGH SWITCH SIDE ACTIVATED= CONTINUITY
IF BAD REPLACE SWITCH. IF GOOD REPLACE PUMP/POUCH SYSTEM.

IF YOUR SYSTEM STILL DOES NOT WORK PROPERLY, REPEAT TROUBLESHOOTING 1 MORE TIME.

! WARNING !
DO NOT TAMPER WITH POUCH, IT WILL VOID YOUR WARRANTY.

NOTES:



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