

PARTS & SERVICE NEWS

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SUBJECT: GRADER HEATER/AIR CONDITIONER SWITCH REPLACEMENT

PURPOSE: To replace the master switch switch that controls the heater, A/C and blower with one that is more reliable.

APPLICATION: 830B Motor Grader Serial Number 210400 thru 210733
 830C Motor Grader Serial Number 210400 thru 210733
 850B Motor Grader Serial Number 210400 thru 210733
 850C Motor Grader Serial Number 210400 thru 210733
 870B Motor Grader Serial Number 210400 thru 210733
 870C Motor Grader Serial Number 210400 thru 210733
 GD530A-2BY Motor Grader Serial Number 210400 thru 210733
 GD530A-2CY Motor Grader Serial Number 210400 thru 210733
 GD530AW-2BY Motor Grader Serial Number 210400 thru 210733
 GD530A-2CY Motor Grader Serial Number 210400 thru 210733
 GD650A-2BY Motor Grader Serial Number 210400 thru 210733
 GD650AW-2CY Motor Grader Serial Number 210400 thru 210733
 GD630AW-2BY Motor Grader Serial Number 210400 thru 210733
 GD650AW-2CY Motor Grader Serial Number 210400 thru 210733
 GD670A-2BY Motor Grader Serial Number 210400 thru 210733
 GD670A-2CY Motor Grader Serial Number 210400 thru 210733
 GD670AW-2BY Motor Grader Serial Number 210400 thru 210733
 GD670AW-2CY Motor Grader Serial Number 210400 thru 210733

FAILURE CODE: 821LFP

DESCRIPTION:

Graders are experiencing a high rate of failure of the heater and A/C master switch. The typical failure results in melting the rocker switches toggle arm rollers. This campaign replaces the suspect switches from the prime vendor from the point in time that they changed manufacturing locations.

The following replacement part kit must be ordered:

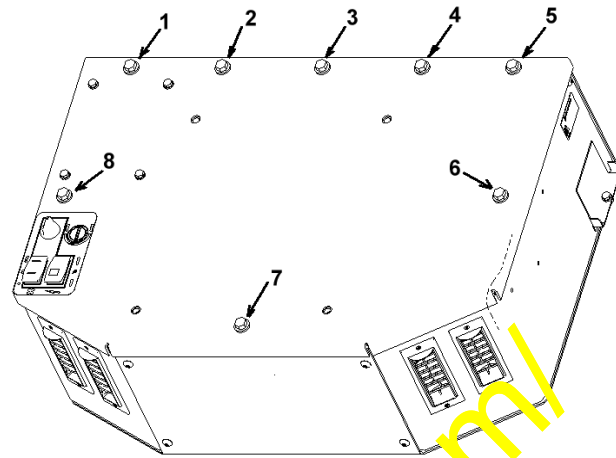
Part Number	Qty	Description
8100618H91	1	Kit-Heater Switch
This kit includes:		
1440376H91	1	Harness
1440282H91	1	Switch Plate
1314082H1	1	Switch, Rocker Master
1314083H1	1	Switch, Rocker Blower
	4	Tree Straps
Distributor supplied shop items		
2 x 4	1	Wood - 2" x 4" x 30"



Tools required: 9/16" socket wrench, 5/8" open end wrench, 2x4, pliers, and wire cutters.

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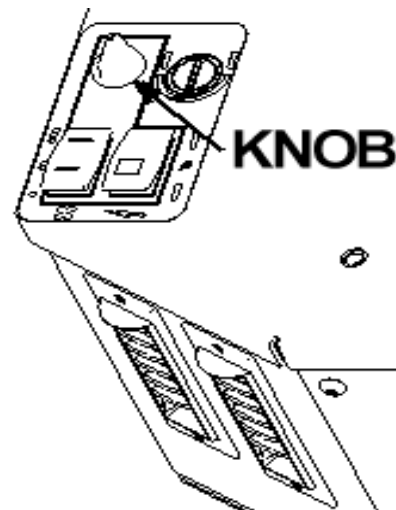
1. Remove the 8 screws securing cover on HVAC unit (seat does not have to be removed in most machines). On AWD machines, the AWD module does not have to be removed from the cover of the unit.



2. Tilt seat back fully forward. Move seat to the forward most position and lift the front of the HVAC unit cover. Cover and seat should be propped up with a 2x4 approximately 30 inches long under the front lip of the cover.



3. Remove temperature control knob and hex nut holding the water valve cable in place.



- The switch plate assembly may be removed by gently pulling on the plate. Separate the switches from its connector by lifting the locking tab on the connector body. After the plate is removed, the unit should look similar to the photo:

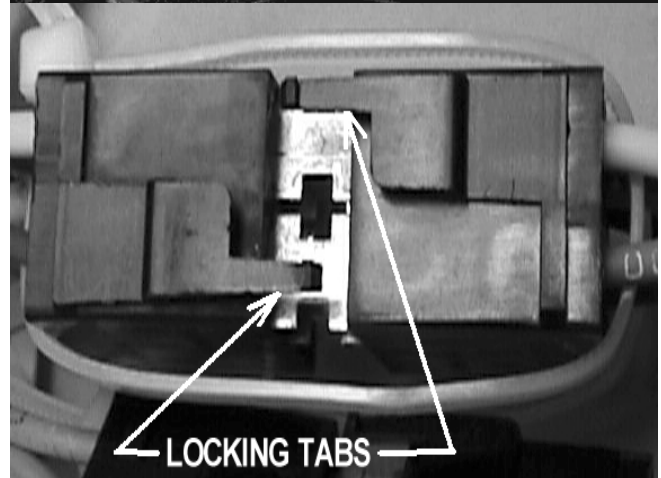
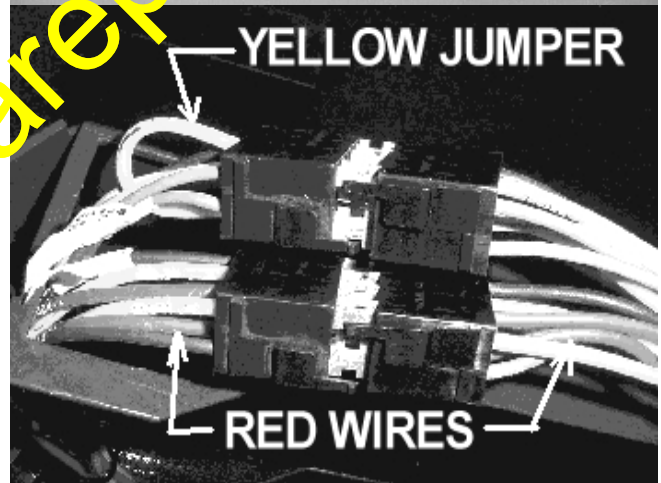
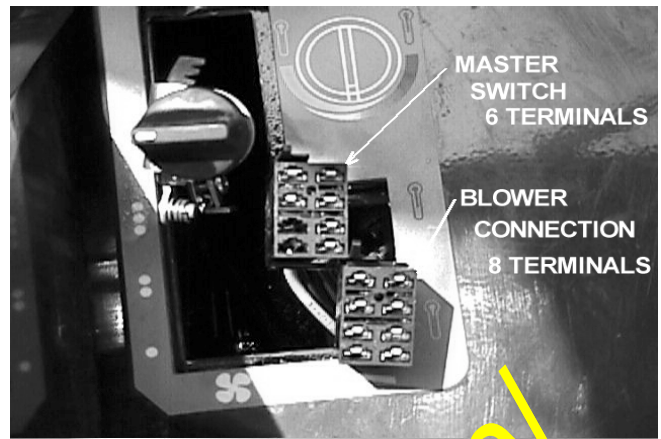
NOTE: Identify the Master switch connector body, which has 6 terminals and the blower switch connector body, which has 8 terminals.

- A new switch plate assembly including a jumper harness has been provided in the field fix kit. The switch plate assembly is shown in more detail below:

- Attach blower switch with yellow jumper wire and 8 terminals connector to harness in units shown.

The locking tabs on the 2 connectors must be on the same side in the position shown for the circuits to line up correctly.

- Attach the master switch with 6 terminals and red wires as shown. Note: The locking tabs on the same side in the position shown for the circuits to line up correctly.



8. Because the jumper terminals do not have a locking feature, 4 wire ties have been provided to tie the connectors between the jumper harness and the unit harness together.
9. Trim off extra strap length.
10. Push the harness into the unit and reinstall the water valve cable, nut and knob.



Water Valve Knob

11. It is recommended to electronically test the switches for proper operation at this time.

Master Switch function:

Red Light - Blower on / AC off

Blue Light - Blower on / AC on

Centered - Blower Off

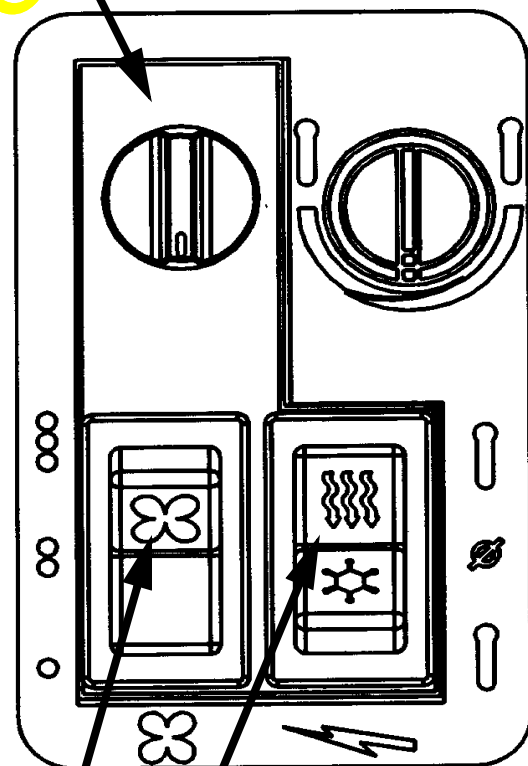
Blower switch function:

λ Low speed

λλ Medium speed

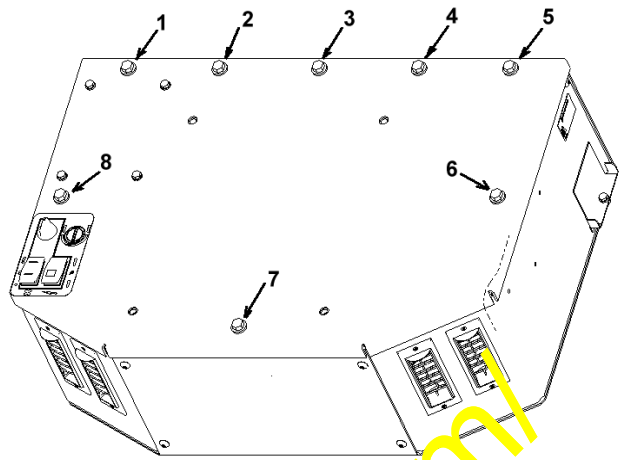
λλλ High speed

12. The travel of the knob should be checked to verify the water valve cable has been correctly installed. Turn knob to ensure that it travels the path as indicated by the graphic. Readjustment of the cable at water valve should not be required.



**Master Switch
Blower Switch**

13. Reinstall the cover and the 8 screws.
Torque 28 ft/2.38 newton meters.

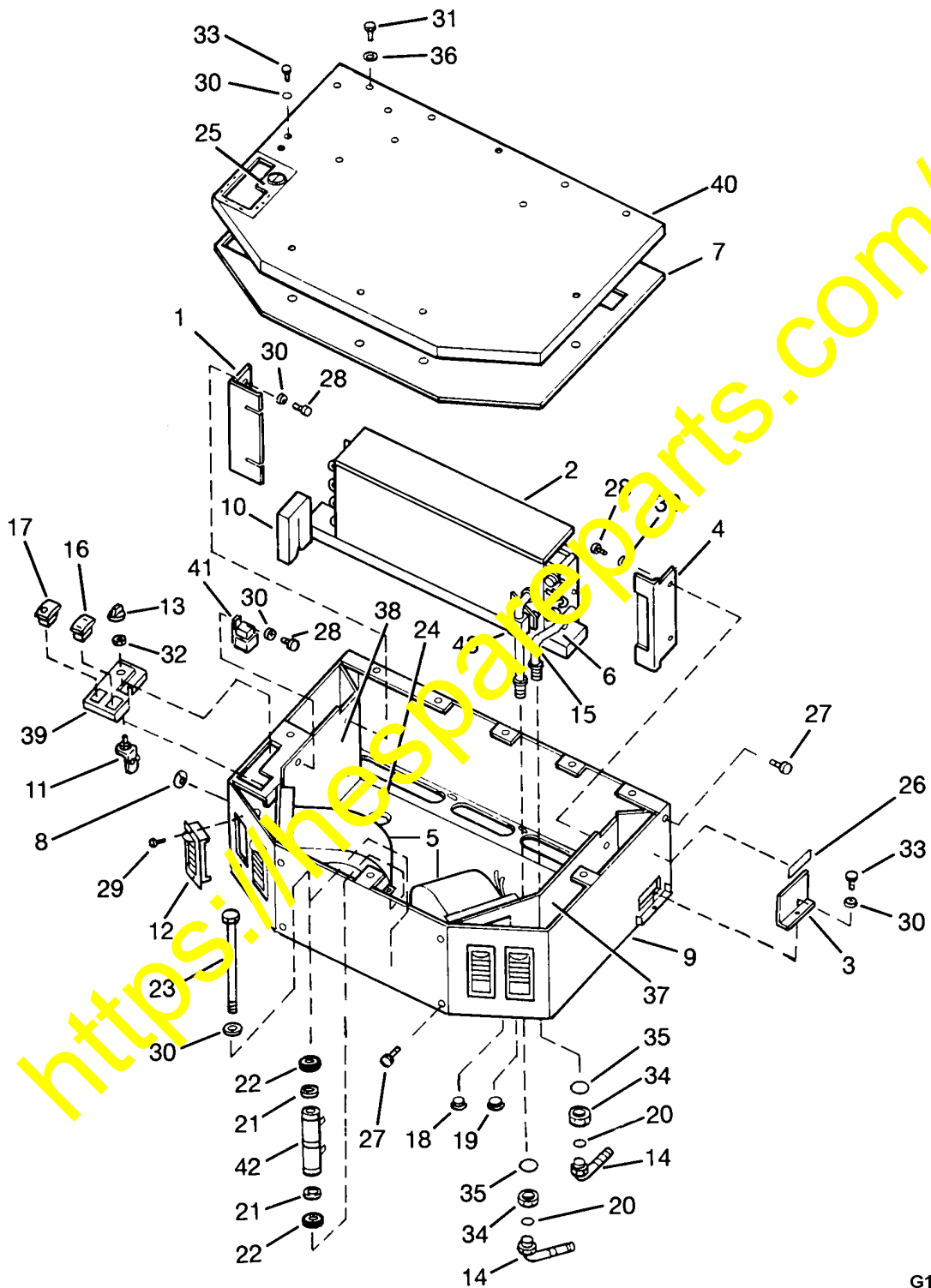


14. For future service reference, place the attached updated parts pages in the parts book.

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K5280-01A6

HEATER BOX ASSEMBLY



G13DZ038

K5280-01A6

HEATER BOX ASSEMBLY

	1439 652 H92	HEATER BOX ASSEMBLY	1	
1	1439 694 H1	.ANGLE, COIL RETAINER	1	
2	1437 224 H91	.CORE ASSEMBLY, HEATER.	1	
	1308 742 H1	..VALVE	1	
	1431 225 H1	..FITTING, HOSE BULKHEAD.	1	
	1434 665 H1	..CLAMP	4	
	1434 982 H1	..COIL, HEATER.	1	
	1437 225 H1	..VALVE, HEAT	1	
	1437 226 H1	..HOSE, FORMED.	1	
	1437 227 H1	..ASSEMBLY, HEATER HOSE	1	
3	1439 618 H1	.PLATE, OUTLET.	2	
4	1439 619 H1	.ANGLE, COIL RETAINER	1	
	1439 741 H1	.SEAL, OUTLET PLATE	1	
	1439 620 H1	.GASKET, CASE BOTTOM.	1	
5		.BLOWER MOTOR	1	
6	1439 621 H1	.GASKET, CORE	1	
7	1439 622 H1	.GASKET, TOP COIL	1	
8	1439 638 H1	.GROMMET.	1	
	1439 624 H1	.GASKET, CABLE BLOCK-OFF.	1	
9	1439 687 H91	.CASE WELDMENT.	1	
10	1439 703 H1	.GASKET, HEATER SUPPORT	1	
11	1439 626 H91	.CABLE, WATER VALVE	1	
12	1439 627 H1	.LOUVER	4	
13	1439 628 H1	.KNOB, HEATER - A/C CONTROL	1	
14	1431 254 H1	.FITTING.	2	
15	364 359 C1	.HOSE	1	
16	1434 954 H1	.SWITCH, MASTER	1	F1
	1314 082 H1	.SWITCH, MASTER	1	F2
17	1434 955 H1	.SWITCH, FAN.	1	F1
	1314 083 H1	.SWITCH, FAN.	1	F2
18	432 610	.PLUG, BUTTON (3/4 IN. HOLE).	1	
19	192 105	.PLUG, BUTTON (1 IN. HOLE).	1	
20	1440 152 H1	.O-RING, #10.	2	
21	1439 633 H1	.WASHER, CENTERING.	2	
22	LA 0716	.WASHER, RUBBER RESISTOR MOUNTING	2	

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HEATER BOX ASSEMBLY

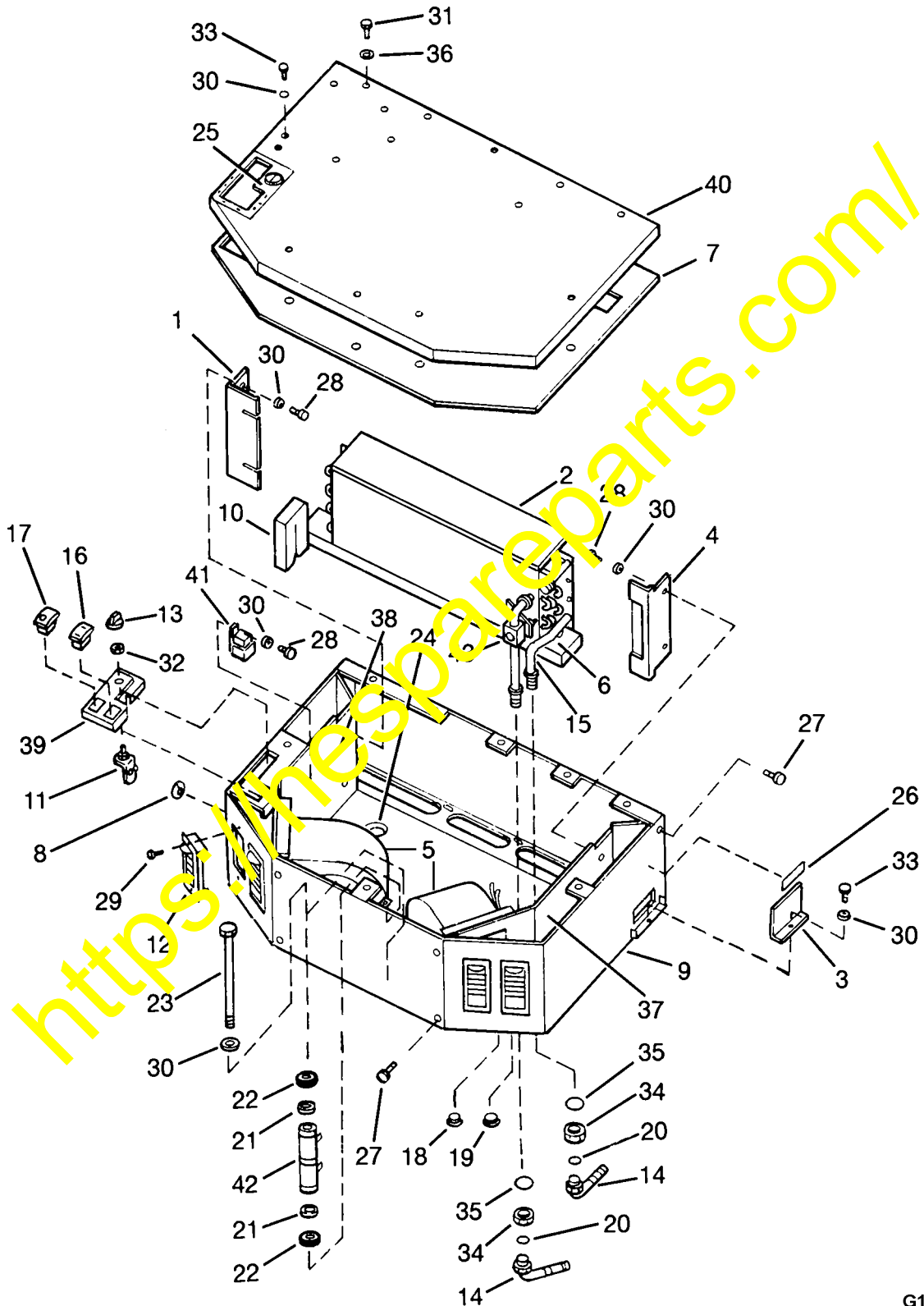
1439 634 H1	.CLAMP, HOSE.	2
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K5280-01A6

HEATER BOX ASSEMBLY



G13DZ038

K5280-01A6

HEATER BOX ASSEMBLY

23	LA 0718	.SCREW.	1	
24	432 449	.PLUG, BUTTON (1.5 IN. HOLE).	1	
25	1434 956 H1	.DECAL, TEMPERATURE	1	
26	LA 0722	.DECAL, NAMEPLATE	1	
27	1439 635 H1	.SCREW.	8	
28	1439 636 H1	.SCREW.	9	
29	23 978 R1	.SCREW, FLAT HEAD	8	
30	30 325 R1	.WASHER, M6	12	
31	23 086 R1	.SCREW.	8	
	LA 0725	.LOCKNUT.	1	
32	1439 639 H1	.NUT.	1	
33	21 024 R1	.SCREW.	6	
34	LA 0729	.NUT.	2	
35	1437 230 H1	.LOCK WASHER.	2	
36	LA 0733	.WASHER	8	
37	1439 689 H91	.LEFT SIDE WELDMENT	1	
38	1439 688 H91	.RIGHT SIDE WELDMENT.	1	
39	1439 690 H91	.SWITCH PLATE WELDMENT.	1	F1
	1440 282 H91	.SWITCH PLATE WELDMENT.	1	F2
40	1439 692 H91	.BOX COVER.	1	
41	1439 684 H1	.RELAY.	1	
42	LA 0738	.RESISTOR.	1	
	1439 696 H91	.WIRING HARNESS	1	F1
	1440 281 H91	.WIRING HARNESS	1	F2
43	1439 686 H91	.VALVE, WATER	1	

F1 - S/N 210399 AND DOWN

F2 - S/N 210400 AND UP