

1—Relay panel 8166534
 2—Timer (I20A), item 31
 3—Flat washer, item 33

4—Lockwasher, item 32
 5—Hexagon nut, item 25

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Figure 3. Modification of relay panel 8166534.

Step	From	To	Remarks	Indication
1			Remove lamps from I61F, I61G, I61H, and I61I	Continuity Continuity Continuity Continuity Discontinuity Discontinuity Discontinuity
	J4G-15	I61I-2	Replace the lamps in I61F, I61G, I61H, and I61I	
	J4F-15	I61H-2		
	J4E-15	I61G-2		
	J4D-15	I61F-2		
	J4D-15	J4E-15		
	J4D-15	J4F-15		
	J4D-15	J4G-15		

Step	From	To	Remarks	Indication
2	J4G-32	K1C-4 pin 8		Continuity
	J4F-32	K1C-3 pin 8		Continuity
	J4E-32	K1C-2 pin 8		Continuity
	J4D-32	K1C-1 pin 8		Continuity
	J4D-32	J4E-32		Discontinuity
	J4D-32	J4F-32		Discontinuity
	J4D-32	J4G-32		Discontinuity
3			Position manual fire switch S10B as indicated below	
	J4N-20	P65B-B	S10B ON	Continuity
4	J4N-20	P65B-B	S10B OFF	Discontinuity
	J4N-4	P65B-C		Continuity
5	J4N-17	BA2-1 pin S1		Continuity
6			Position alert selector switch S43A:	
	E1Q-8	P65B-A	RED	Continuity
	E1Q-8	P65B-A	AUTO	Discontinuity
7			Position launcher designation switch S44A:	
	J4N-28	J4D-17	Launcher #1	Continuity
	K1M-5	K1C-1 pin 7	Launcher #1	Continuity
	K1M-5	K1C-1 pin 7	Launcher #2	Discontinuity
	K1M-5	K1C-2 pin 7	Launcher #2	Continuity
	K1M-5	K1C-2 pin 7	Launcher #3	Discontinuity
	K1M-5	K1C-3 pin 7	Launcher #3	Continuity
	K1M-5	K1C-3 pin 7	Launcher #4	Discontinuity
	K1M-5	K1C-4 pin 7	Launcher #4	Continuity
	K1M-5	K1C-4 pin 7	NONE	Discontinuity

Note. Determine the polarity of the ohmmeter with a voltmeter to ascertain which is the negative and which is the positive

test lead. Mark the positive lead with masking tape or similar material for identification.

Positive lead	Negative lead	
P62A-N	K1D-1 pin 11	Over 400 ohms
P62A-P	K1D-2 pin 11	Over 400 ohms
P62A-R	K1D-3 pin 11	Over 400 ohms
P62A-S	K1D-4 pin 11	Over 400 ohms
K1D-4 pin 11	P62A-S	Less than 40 ohms
K1D-3 pin 11	P62A-R	Less than 40 ohms
K1D-2 pin 11	P62A-P	Less than 40 ohms
K1D-1 pin 11	P62A-N	Less than 40 ohms
J4D-19	J4E-16	Over 400 ohms
J4E-19	J4E-16	Over 400 ohms
J4F-19	J4E-16	Over 400 ohms
J4G-19	J4D-16	Over 400 ohms
J4E-16	J4D-19	Less than 40 ohms
J4E-16	J4E-19	Less than 40 ohms
J4E-16	J4F-19	Less than 40 ohms
J4E-16	J4G-19	Less than 40 ohms

From	To	Remarks	Indication
		Check modified relay panel 8166534	
J65B-A	I20A-4		Continuity
J65B-B	I20A-6		Continuity
J65B-B	I20A-1		Continuity
J65B-C	I20A-2		Continuity

- (39) Secure all the loose wires and wiring harnesses installed in the preceding operations as required using insulation tape, item 24.

- (40) Reidentify the panel assemblies listed below, as indicated, using stamping kit 7520-264-3718. Line out the existing markings and cover coat the new markings.

Panel	Part number	Location of existing markings	Reidentify to
Launching section operating panel	8525396	Bottom right on rear of panel	9978287
Launching section operating panel	8165774	Bottom left on rear of panel	9978277
Launcher section relay rack	9025466	Upper left rear of panel	9978243
Relay panel	8166534	Lower rear center of panel	9978278

- (41) Impression stamp the serial number of the existing identification plate 9025513, located on the lower rear of the control-indicator, into the identification plate, item 26, using the metal stamping dies, components of tool kit 5180-092-9079.
- (42) Remove and retain the four round-head screws, the four flat washers, and the four self-locking hexagon nuts used to secure the existing identification plate to the control-indicator. Discard identification plate 9025513.
- (43) Install the identification plate, item 26, on the control-indicator, in place of the identification plate removed in a(42) above, with four round-head screws, four flat washers, and four self-locking hexagon nuts, retained in a(42) above. Apply sealing compound 8518468 to the threads of the screws before installation.

Note 1. The new identification plate reidentifies the modified control-indicator as follows: Control-indicator C-2620A/TSW (9978279), for future reference.

Note 2. Perform the steps (44) through (46) below in accordance with TM 9-1440-250-20.

- (44) Close the rear door of the control-indicator and secure it in place with the 15 captive fasteners.
- (45) Install launcher section relay rack 9978243, relay panel 8165725, and relay panel 9978278.
- Note.* Install thermal relay K13A, which was previously removed, on the relay rack.
- (46) Close launching section operating panel 9978287 and engage the four

catches to secure the upper and lower access doors.

- (47) Return modified control-indicator 9978279 to the launching area and connect all cables.

b. Modify control-indicator 9032238 with serial numbers 1021 through 4085 and 50000 through 50087 using modification kit 1440-858-5771 as outlined below.

Warning: Control-indicator 9032238 must be removed to the assembly building or a suitable work area at a minimum of 100 feet from the launching area for the application of this modification.

Note 1. Whenever wires are added to cable assemblies or wiring harnesses enclosed in insulation tubing, the added wires are to be routed and secured to the outside of the insulation tubing.

Note 2. Perform steps (1) through (3) below in accordance with TM 9-1440-253-35.

- (1) Release and open panel cover 9032144.
- (2) Remove launcher control-indicator panel 9032157 and position the panel upside down on the control-indicator.
- (3) Gain access to the interior of the control-indicator by releasing the 16 captive fasteners on the relay compartment door and removing the two terminal access covers. Remove and retain relay panel 9032245.

Note. Refer to TM 9-1440-250-35 and TM 9-1440-251-20 for assistance in locating components and cable assemblies in step (4) through (11) below.
- (4) Remove the bus bars between terminals 109 and 110 of E30Q and between terminals 142 and 143 of E30R; discard two bus bars 8528938.

Note. Cut string ties as required to remove, relocate, or add wires, in the following steps.

- (5) Remove the 24-inch length of wire connecting terminals 97 and 119 of E30Q and connect it between terminals 121 and 146 of E30R.
- (6) Disconnect, insulate using the insulation sleeving, item 83, and tie back using insulation tape, item 84, the following wire terminal ends.

Wire No.	Disconnect from	Disconnect from
3033A18	E30P-76	
3011Z18	E30Q-119	I61A pin 2
3032A18	E30S-169	
3031A18	E30U-223	
2908CG16	E30Z-385	I61A pin 1

- (7) Relocate the wires listed in the table below, removing the existing identification sleeves and replacing them with the designated insulation sleeves as required. Secure the insulation sleeves to the wires using insulation tape, item 84.

Wire No.	Disconnect from	Equip with	Reidentify to	Connect to
3011K18	E30Q-97	Sleeving, item 61	4024A18	E30N-59
3011L18	E30Q-97	Sleeving, item 62	4025A18	E30P-61
14BH18	E30Q-109			E30Q-92
14BL18	E30Q-110	Sleeving, item 65	4030A18	E30Q-111

Note 1. Cut, remove, and discard the shield wire and the terminal between E30S-180 and the shield termination point on wire 86L18, when modifying control-indicator C-2699/TSW with serial number 1021 through 3862 and 50000 through 50087, before proceeding further with this step.

Note 2. Wire 11JM18 is connected between E30Q-117 and J87AA. Wire 11HK20 is connected between E30Q-117 and S30A, deck 18, pin H.

Wire No.	Disconnect from	Equip with	Reidentify to	Connect to
14BM18	E30Q-110	Sleeving, item 66	4031A18	E30S-180
³ 11JM18	E30Q-117	Sleeving, item 76	29AFU18	E30R-121
³ 11HK20	E30Q-117	Sleeving, item 115	20AFZ20	E30R-121
15BJ18	E30R-142	Sleeving, item 69	4034A18	E30R-143
15BK18	E30R-142	Sleeving, item 70	4035A18	E30P-89
¹ 15BL18	E30R-143	Sleeving, item 71	4036B18	E30T-210
² 15BM18	E30R-143			E30W-300
19BG18	E30V-244			E30V-269

- ¹ Note. Relocate these two wires simultaneously.
- ² Note. Relocate these two wires simultaneously.
- ³ Note. Reidentify both ends of the wires so noted.

- (8) Reidentify the wires listed in the following table by removing the existing identification sleeves and replacing them with the designated insulation

sleeves. Secure the insulation sleeves to the wires using insulation tape, item 84.

Wire No.	Location	Equip with	Reidentified to
3011M18	E30Q-97	Sleeving, item 63	4026A18
14BS18	E30Q-109	Sleeving, item 67	4032B18
14BN18	E30Q-110	Sleeving, item 64	4029A18
15BH18	E30R-142	Sleeving, item 68	4033A18
19BF18	E30V-244	Sleeving, item 72	4038B18
173BA18	E30V-257	Sleeving, item 60	303BY18

- (9) Remove and discard wire 20AAQ18 from between I61A, pin 3 and the battery load switch S8G. Remove the end of wire 20AAP18 from I61A, pin 3 and install the terminal lug, item 98, to the end of the wire.
- (10) Connect wire 20AAP18 to the battery load switch S8G common to wire 20XM18.
- (11) Remove indicator light I61A from panel 9032157 and retain the lamp-holder, the hexagon nut, the lock-washer, the flat washer, the ring, the seal, and the lamp. Discard the red lens.

Caution: Protect the wires and components in the immediate cutting area from chips and drill damage.

Note. The key numbers shown below in parentheses refer to figure 4 except where otherwise indicated.

- (12) Install the launcher control-indicator panel (1) temporarily in the launcher control-indicator cabinet and cut three 5/8-inch holes in accordance with dimensions shown in figure 4, view A.
- (13) Drill two 0.173-inch diameter holes (2) in the panel (1), in accordance with figure 4, view A, using a No. 17 drill bit.
- (14) Remove all burs and break all sharp edges.
- (15) Eradicate, using available methods, the I61A marking on the rear of the panel (1).
- (16) Identify the four holes, using stamping kit 7520-264-3718, as indicated in the table below. Stamp the number approximately 1/4-inch above each hole and cover coat the markings.

Hole number	Identify as
3	I61B
4	I61C
5	I61D
6	I61E

- Note.* Refer to figure 1 and paragraph 10a(15) (a), (b), and (c) for the assembly and installation of the indicator lights.
- (17) Install indicator light 9026585 (formerly I61A) in the hole (3) marked I61B on the panel (1) and install the indicator light lens, item 85, on the indicator light.
- (18) Install the terminal board (9), component of the branched wiring harness, item 109, on the rear of the panel (1) in accordance with figure 4, view B, using the two seelskrews, item 89, (10), the two flat washers, item 99, (8), and the two self-locking nuts, item 86, (7) through the two holes (2).
- (19) Install the three indicator lights, components of the branched wiring harness, item 109, as indicated in the table below.

Hole No.	Indicator light	Lens No.
4	I61C	3
5	I61D	2
6	I61E	1

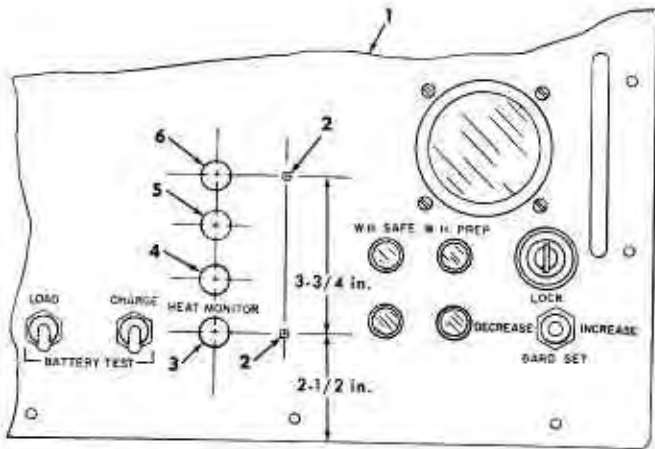
Note. Refer to TM 9-1440-250-35 for assistance in locating the components and cable assemblies in steps (20) through (29) below.

- (20) Remove the five round head screws, the five hexagon nuts, and the five loop clamps that secure cable assembly 8525173 to the control-indicator cabinet. Discard one loop clamp MS21919DG22.

Note. Do not remove the loop clamp adjacent to TB-E30M.

- (21) Install the branched wiring harness, item 109, in accordance with figure 5 and the table below. Route the wires along cable assembly 8525173.

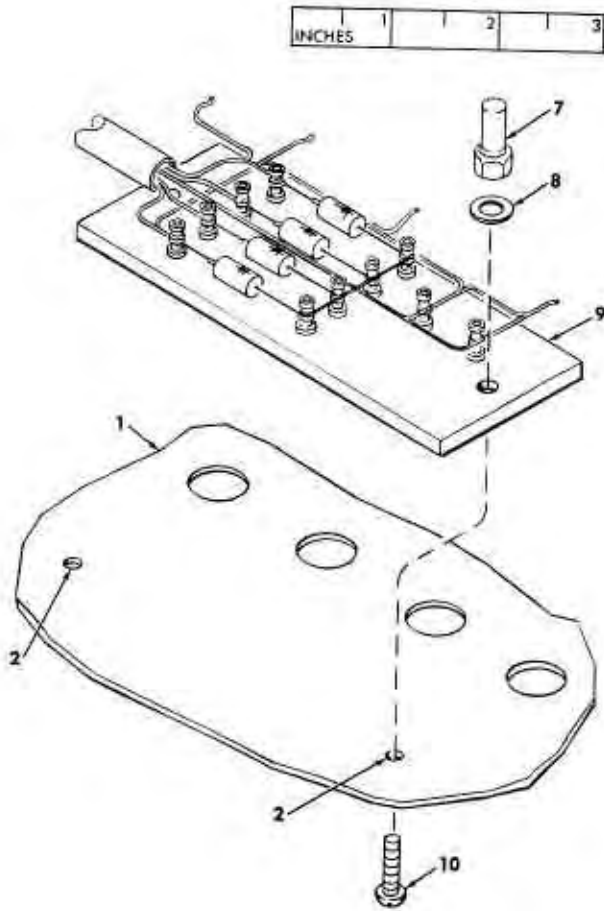
Note. If there are no screws and washers on the unused terminals of the rotary switches, obtain others of the same size.



A. LOCATION OF HOLES FOR LAMPS AND TERMINAL BOARD

- 1—Launcher control-indicator panel 9032157
- 2—0.173-inch diameter hole (for terminal board 9978231)
- 3—Hole (for existing heat monitor light I61A)
- 4—5/8-inch diameter hole (for indicator light 3, I61C)
- 5—5/8-inch diameter hole (for indicator light 2, I61D)
- 6—5/8-inch diameter hole (for indicator light 1, I61E)
- 7—Self-locking nut, item 86
- 8—Flat washer, item 99
- 9—Terminal board 9978231 (component of the wiring harness, item 109)
- 10—Sealscrew, item 89

Figure 4—Continued.



B. ADDITION OF TERMINAL BOARD 9978231

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Figure 4. Modification of launcher control-indicator panel 9032157.