

CF/AB PARTS MANUAL SUPPLEMENT

FOR CF/AB GRAIN DRYERS MANUFACTURED MARCH 1995 and LATER

This supplement covers the design improvements made to CF/AB model dryers manufactured March 1995 and later. In addition, this supplement includes the CF/AB-320 fan-heater assembly.

Note: Previous parts supplements CFAB-03-3S and CFAB-04-3S still apply to models built between April 1992 and March 1995.

When ordering a part, please check this supplement first to see if a particular part is covered within this supplement. Refer to bulletins CF/AB150-01-3, CF/AB190-01-3, and CF/AB270-01-3 for all other parts on those model dryers. Complete CF/AB-320 parts information will be included in a forthcoming parts manual update.

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FIG. 1 ASC CONTROL PANEL CHASSIS, 1-PHASE

	415-3106-2	ASC CHASSIS ASSY - CF/AB-150, 1 PH	X	-	-	-
	415-3107-0	ASC CHASSIS ASSY - CF/AB-190, 1 PH	-	X	-	-
	415-3108-8	ASC CHASSIS ASSY - CF/AB-270, 1 PH	-	-	X	-
	415-3109-6	ASC CHASSIS ASSY - CF/AB-320, 1 PH	-	-	-	X
<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>
1	415-3076-7	CONTROL PANEL ASSEMBLY, CF/AB-150 (see Fig. 2)	1	-	-	-
1	415-3077-5	CONTROL PANEL ASSEMBLY, CF/AB-190 (see Fig. 2)	-	1	-	-
1	415-3078-3	CONTROL PANEL ASSEMBLY, CF/AB-270 (see Fig. 2)	-	-	1	-
1	415-3161-7	CONTROL PANEL ASSEMBLY, CF/AB-320 (see Fig. 2)	-	-	-	1
2	401-3693-9	DEADFRONT - CF/AB	1	1	1	1
3	056-1931-7	SAFETY CIRCUIT MONITOR ASSY	1	1	1	1
4	325-1569-4	CLIP, HOLD-DOWN	1	1	1	1
5	325-1506-6	BAR, HOLD-DOWN	1	1	1	1
6	401-1683-2	CLOSURE PLATE	1	1	1	1
7	325-1495-2	GUSSET, CORNER - LH	2	2	2	2
8	325-1494-5	GUSSET, CORNER - RH	2	2	2	2
9	056-1726-1	TEMPERATURE CONTROL	1	1	1	1
10	401-4368-7	MOUNTING RAIL 23.75"	2	2	2	2
11	325-1603-1	HINGE - 16 HOLE	1	1	1	1
12	023-1023-3	SPRING LATCH	2	2	2	2
13	035-1004-7	INDICATOR LIGHT - AMBER	6	6	6	6
14	026-1044-2	SWITCH, PUSH BUTTON	1	1	1	1
16	056-1644-6	SPEED POT W/KNOB	1	1	1	1
17	056-1861-6	SWITCH, TOGGLE 3PDT 2 POS	1	1	1	1
18	026-1096-2	SWITCH, TOGGLE DPST 2 POS	1	1	1	1
19	026-1021-0	SWITCH, TOGGLE SPST 2 POS	1	1	1	1
20	026-1015-2	SWITCH, TOGGLE SPDT 3 POS	2	2	2	2
21	056-1981-2	TIMER 3M/30M/3H 120VAC	3	3	3	3
22	044-1026-2	HOUR METER	1	1	1	1
23	200-1005-4	BUTTON, PUSH - RED	1	1	1	1
24	006-1181-4	BUTTON, PUSH - BLACK	1	1	1	1
25	406-2034-6	GASKET, 1/4 x 1/2 x 3/4	1	1	1	1
26	021-1065-8	MOUNTING TRACK 8"	1	1	1	1
27	026-1032-7	SWITCH, TOGGLE SPDT 2 POS	1	1	1	1
28	056-1983-8	SOCKET, 11 PIN	3	3	3	3
29	056-1984-6	ADAPTER, PANEL MOUNT	3	3	3	3
30	056-1584-4	SWITCH	2	2	2	2
31	006-1150-9	BOOT, RUBBER	1	1	1	1
A	090-1287-3	CBLT, 1/4-20 x 1/2	10	10	10	10
B	090-1193-3	PHST #8 x 3/8 B	4	4	4	4
C	090-1233-7	RHMS #6-32 x 3/4	5	5	5	5
D	090-1159-4	PHMS #6-32 x 3/8	2	2	2	2
E	090-1193-3	PHST #8 x 3/8 B	2	2	2	2
F	095-1005-8	POP RIVET 1/8	19	19	19	19
G	090-1516-5	WASHER, RIVET BACK-UP	19	19	19	19
H	091-1036-2	NUT, HEX 1/4-20	10	10	10	10
J	091-1027-1	NUT, HEX #6-32	5	5	5	5
K	092-1003-0	WASHER, FLAT #8	2	2	2	2
L	092-1006-3	WASHER, FLAT 1/4	10	10	10	10
M	092-1025-3	WASHER, SPLIT LOCK 1/4	10	10	10	10
N	092-1021-2	WASHER, SPLIT LOCK #6	2	2	2	2

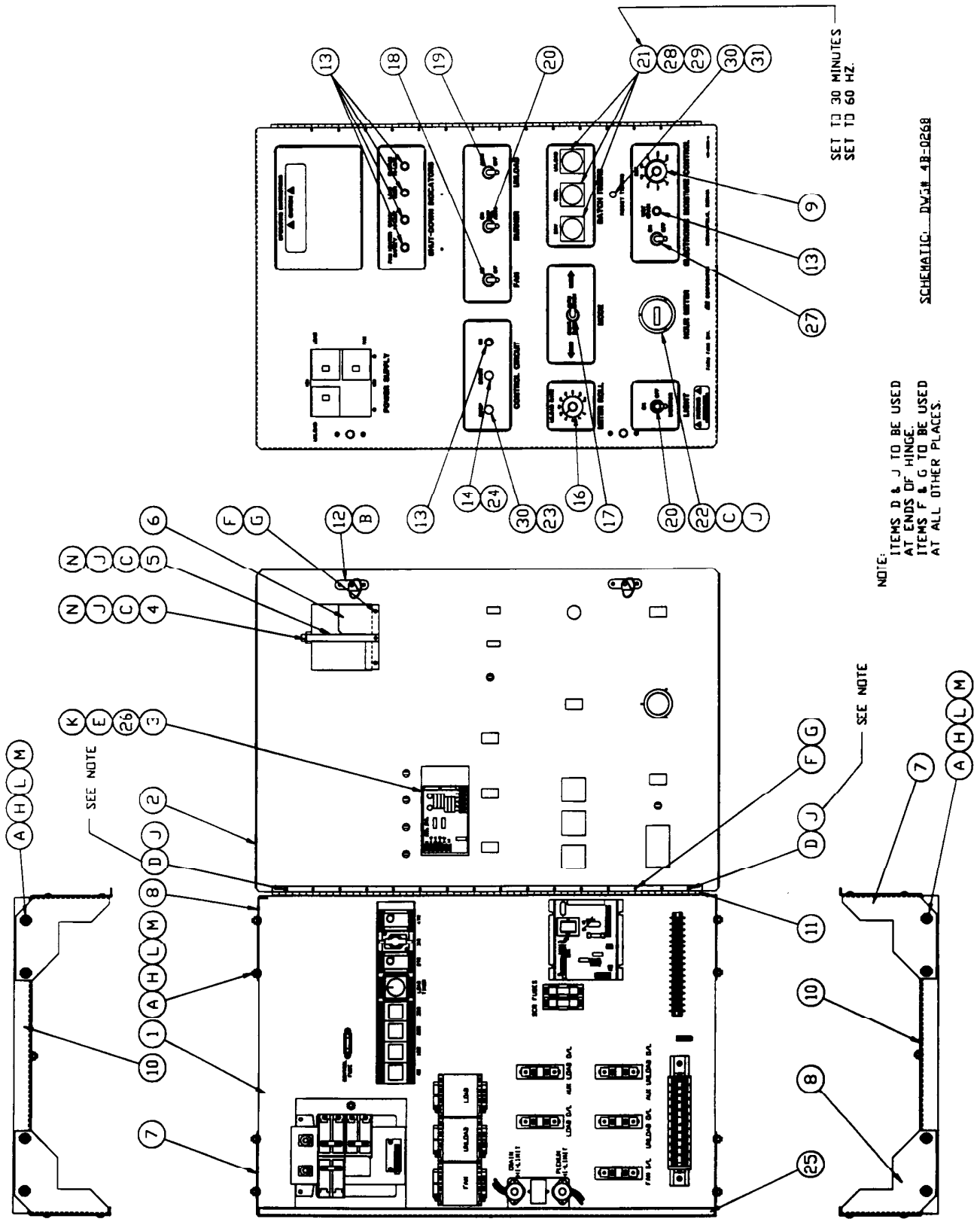


Fig. 1 ASC Control Panel Chassis, 1 Phase.

3D-0202

SCHEMATIC DWG# 4B-0268

NOTE: ITEMS D & J TO BE USED AT ENDS OF HINGE. ITEMS F & G TO BE USED AT ALL OTHER PLACES.

FIG. 2 CONTROL PANEL, 1-PHASE

Item	Part No.	Description	Qty	Qty	Qty	Qty
	415-3076-7	CF/AB-150 CONTROL PANEL 220VAC 1 PH	X	-	-	-
	415-3077-5	CF/AB-190 CONTROL PANEL 220VAC 1 PH	-	X	-	-
	415-3078-3	CF/AB-270 CONTROL PANEL 220VAC 1 PH	-	-	X	-
	415-3161-7	CF/AB-320 CONTROL PANEL 220VAC 1 PH	-	-	-	X
1	401-4179-8	CONTROL PANEL MOUNTING PLATE	1	1	1	1
2	325-1533-0	BRACKET SPACER	1	1	1	1
3	037-1007-6	FUSE BLOCK 1POS.	1	1	1	1
4	050-1001-2	FUSE 5A 250V	1	1	1	1
5	006-1184-8	GROUNDING BAR	1	1	1	1
6	056-1839-2	CIRCUIT BREAKER 80A 2PL	1	-	-	-
6	056-1674-3	CIRCUIT BREAKER 100A 2PL	-	1	-	-
6	056-1953-1	CIRCUIT BREAKER 125A 2PL	-	-	1	-
6	056-1988-7	CIRCUIT BREAKER 200A 2PL	-	-	-	1
7	056-1839-2	CIRCUIT BREAKER 80A 2PL	2	2	2	2
8	056-1672-7	LOAD CENTER 200A 1PH 220V	1	1	1	1
9	025-1044-4	MOUNTING BACKET	1	1	1	1
10	056-1025-8	CONTACTOR 40A 2PL	1	-	-	-
10	056-1189-2	CONTACTOR 60A 2PL	-	1	-	-
10	056-1191-8	CONTACTOR 75A 3PL	-	-	1	-
10	056-1952-3	CONTACTOR 120A 2PL	-	-	-	1
11	056-1025-8	CONTACTOR 40A 2PL	1	1	1	-
11	056-1189-2	CONTACTOR 60A 2PL	-	-	-	1
12	056-1189-2	CONTACTOR 60A 2PL	1	1	1	1
13	027-1047-3	THERMOSTAT HI-LIMIT 210 DEG	1	1	1	1
14	401-4158-2	BRACKET - HI-LIMIT MOUNTING	1	1	1	1
15	027-1035-8	THERMOSTAT HI-LIMIT 300 DEG	1	1	1	1
16	021-1084-9	RELAY MOUNTING TRACK 13"	1	1	1	1
17	415-2877-9	TIME DELAY RELAY ASSY 10SEC	1	1	1	1
18	056-1927-5	TIMER 60MIN	1	1	1	1
19	056-1795-6	TIMER 100SEC	1	1	1	1
20	056-1365-8	TIMER - LOAD 6MIN/60MIN/12HR	1	1	1	1
21	044-1018-9	RELAY 115VAC 5A 8PIN	3	3	3	3
22	055-1019-3	SOCKET BASE 8PIN	7	7	7	7
23	047-1008-3	FUSE HOLDER 30A 2POS. 250V	1	1	1	1
24	415-3087-4	SCR CONTROL ASSEMBLY	1	1	1	1
25	050-1014-5	FUSE 6A 250V	2	2	2	2
26	021-1070-8	TERMINAL STRIP TRACK 9-3/4"	1	1	1	1
27	045-1035-0	TERMINAL SECTION 50A 600V	12	12	13	10
28	045-1033-5	TERMINAL END 50A	1	1	1	1
29	054-1020-4	TERMINAL RETAINER	2	2	2	2
30	045-1010-3	TERMINAL STRIP 16POS.	1	1	1	1
31	056-1062-1	O/L RELAY 27A 1PL	2	2	2	2
32	056-1046-4	O/L RELAY 45A 1PL	2	2	2	2
33	056-1233-8	O/L RELAY 100A 1PL	-	-	-	1
33	056-1083-7	O/L RELAY 90A 1PL	-	1	1	-
33	056-1046-4	O/L RELAY 45A 1PL	1	-	-	-
34	056-1199-1	HTR. ELEMENT C12.5	-	1	1	-
34	056-1166-0	HTR. ELEMENT C22.8	-	-	-	1
34	056-1132-2	HTR. ELEMENT C8.67	1	-	-	-
35	056-1166-0	HTR. ELEMENT C22.8	1	1	1	1
36	056-1152-0	HTR. ELEMENT F65.8	-	1	-	-
36	056-1955-6	HTR. ELEMENT E97	-	-	-	1
36	056-1146-2	HTR. ELEMENT F84.8	-	-	1	-
36	056-1202-3	HTR. ELEMENT F43.0	1	-	-	-
37	056-1199-1	HTR. ELEMENT C12.5	-	-	1	-
37	056-1342-7	HTR. ELEMENT C15.1	-	-	-	1
37	056-1168-6	HTR. ELEMENT C6.95	1	-	-	-
37	056-1132-2	HTR. ELEMENT C8.67	-	1	-	-
38	056-1166-0	HTR. ELEMENT C22.8	1	1	1	1
39	006-1188-9	GROUND LUG	1	1	1	1
40	025-1029-5	MOUNTING BRACKET O/L - SMALL	1	-	-	-
40	056-1084-5	MOUNTING BRACKET O/L - LARGE	-	1	1	1
41	025-1029-5	MOUNTING BRACKET O/L - SMALL	4	4	4	4
42	044-1014-8	RELAY, 220V	1	1	1	1
43		OPT. AUX AUGER COMPONENTS	AR	AR	AR	AR

A	090-1205-5	SCREW - #8 x 1/2" TYPE "A"	57	57	57	57
B	090-1190-9	PHST #6 x 3/8 TYPE "B"	3	3	3	3
C	090-1287-3	CARRIAGE BOLT 1/4-20 x 1/2"	4	4	4	4
D	092-1025-3	SPLIT LOCK WASHER 1/4"	4	4	4	4
E	092-1006-3	FLATWASHER 1/4"	4	4	4	4
F	091-1036-2	HEX NUT 1/4-20	4	4	4	4
G	090-1297-2	CARRIAGE BOLT 5/16-18 x 2-3/4	1	1	1	1
H	092-1008-9	FLATWASHER 5/16	1	1	1	1
I	091-1037-0	HEX NUT 5/16-18	1	1	1	1
J	092-1013-9	FLATWASHER 7/16	1	1	1	1
K	090-1195-8	PHST #8 x 1/2 B	4	4	4	4
L	090-1516-5	WASHER BACKUP 1/8 POP RIVET	4	4	4	4

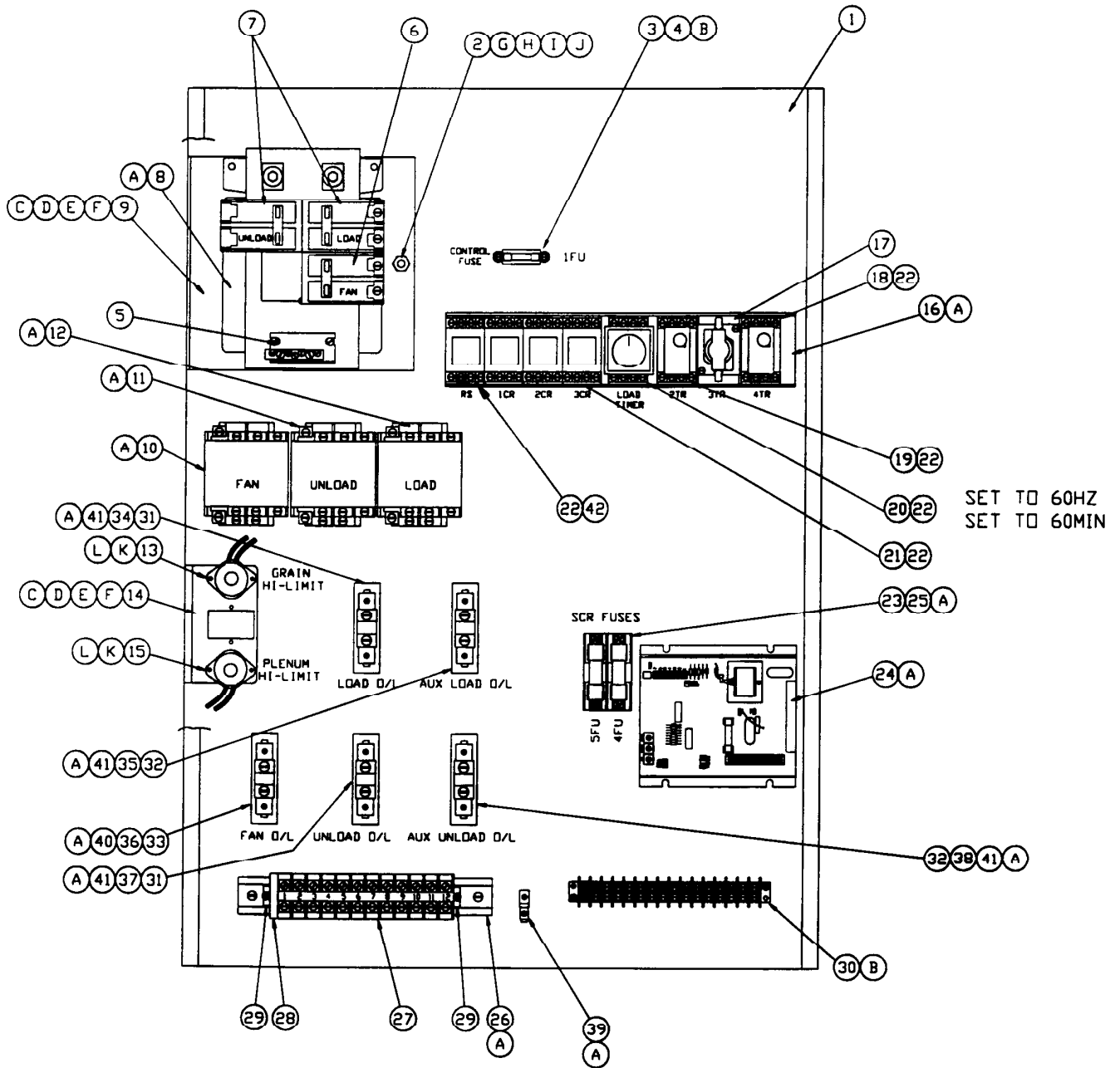


Fig. 2 Control Panel, 1 Phase.

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FIG. 3 ASC CONTROL PANEL CHASSIS, 220V 3-PHASE

415-3110-4	CHASSIS ASSY - CF/AB-150, 220V 3 PHX	-	-	-
415-3112-0	CHASSIS ASSY - CF/AB-190, 220V 3 PH	.....-	X	-	-
415-3114-6	CHASSIS ASSY - CF/AB-270, 220V 3 PH	.....-	-	X	-
415-3116-1	CHASSIS ASSY - CF/AB-320, 220V 3 PH	.....-	-	-	X

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>
1	415-3068-4	CONTROL PANEL ASSY-CFAB150 3 ϕ 220V (see Fig. 5)	1	-	-	-
1	415-3070-0	CONTROL PANEL ASSY-CFAB190 3 ϕ 220V (see Fig. 5)	-	1	-	-
1	415-3072-6	CONTROL PANEL ASSY-CFAB270 3 ϕ 220V (see Fig. 5)	-	-	1	-
1	415-3074-2	CONTROL PANEL ASSY-CFAB320 3 ϕ 220V (see Fig. 5)	-	-	-	1
2	401-3693-9	DEADFRONT CF/AB	1	1	1	1
3	056-1931-7	SAFETY CIRCUIT MONITOR ASSY	1	1	1	1
4	325-1569-4	CLIP, HOLD-DOWN	1	1	1	1
5	325-1506-6	BAR, HOLD-DOWN	1	1	1	1
6	401-1683-2	CLOSURE PLATE	1	1	1	1
7	325-1495-2	GUSSET, CORNER - LH	2	2	2	2
8	325-1494-5	GUSSET, CORNER - RH	2	2	2	2
9	056-1726-1	TEMPERATURE CONTROL	1	1	1	1
10	401-4368-7	MOUNTING RAIL 23.75"	2	2	2	2
11	325-1603-1	HINGE - 16 HOLE	1	1	1	1
12	023-1023-3	SPRING LATCH	2	2	2	2
13	035-1004-7	INDICATOR LIGHT - AMBER	6	6	6	6
14	026-1044-2	SWITCH, PUSH BUTTON	1	1	1	1
16	056-1644-6	SPEED POT W/KNOB	1	1	1	1
17	056-1861-6	SWITCH, TOGGLE SPDT 2POS	1	1	1	1
18	026-1096-2	SWITCH, TOGGLE DPST 2POS	1	1	1	1
19	026-1021-0	SWITCH, TOGGLE SPST 2POS	1	1	1	1
20	026-1015-2	SWITCH, TOGGLE SPDT 3POS	2	2	2	2
21	056-1981-2	TIMER 3M/30M/3H 120VAC	3	3	3	3
22	044-1026-2	HOUR METER	1	1	1	1
23	200-1005-4	BUTTON, PUSH - RED	1	1	1	1
24	006-1181-4	BUTTON, PUSH - BLACK	1	1	1	1
25	406-2034-6	GASKET 1/4 x 1/2 x 3/4	1	1	1	1
26	021-1065-8	MOUNTING TRACK 8"	1	1	1	1
27	026-1032-7	SWITCH, TOGGLE SPDT 2POS	1	1	1	1
28	056-1983-8	SOCKET, 11 PIN	3	3	3	3
29	056-1984-6	ADAPTER, PANEL MOUNT	3	3	3	3
30	056-1584-4	SWITCH	1	1	1	1
31	006-1150-9	BOOT, RUBBER	1	1	1	1
A	090-1287-3	CBLT 1/4-20 x 1/2	10	10	10	10
B	090-1193-3	PHST #8 x 3/8 B	4	4	4	4
C	090-1233-7	RHMS #6-32 x 3/4	5	5	5	5
D	090-1159-4	PHMS #6-32 x 3/8	2	2	2	2
E	090-1193-3	PHST #8 x 3/8 B	2	2	2	2
F	095-1005-8	POP RIVET 1/8	19	19	19	19
G	090-1516-5	WASHER, RIVET BACK-UP	19	19	19	19
H	091-1036-2	NUT, HEX 1/4-20	10	10	10	10
J	091-1027-1	NUT, HEX #6-32	5	5	5	5
K	092-1003-0	WASHER, FLAT #8	2	2	2	2
L	092-1006-3	WASHER, FLAT 1/4	10	10	10	10
M	092-1025-3	WASHER, SPLIT LOCK 1/4	10	10	10	10
N	092-1021-2	WASHER, SPLIT LOCK #6	2	2	2	2

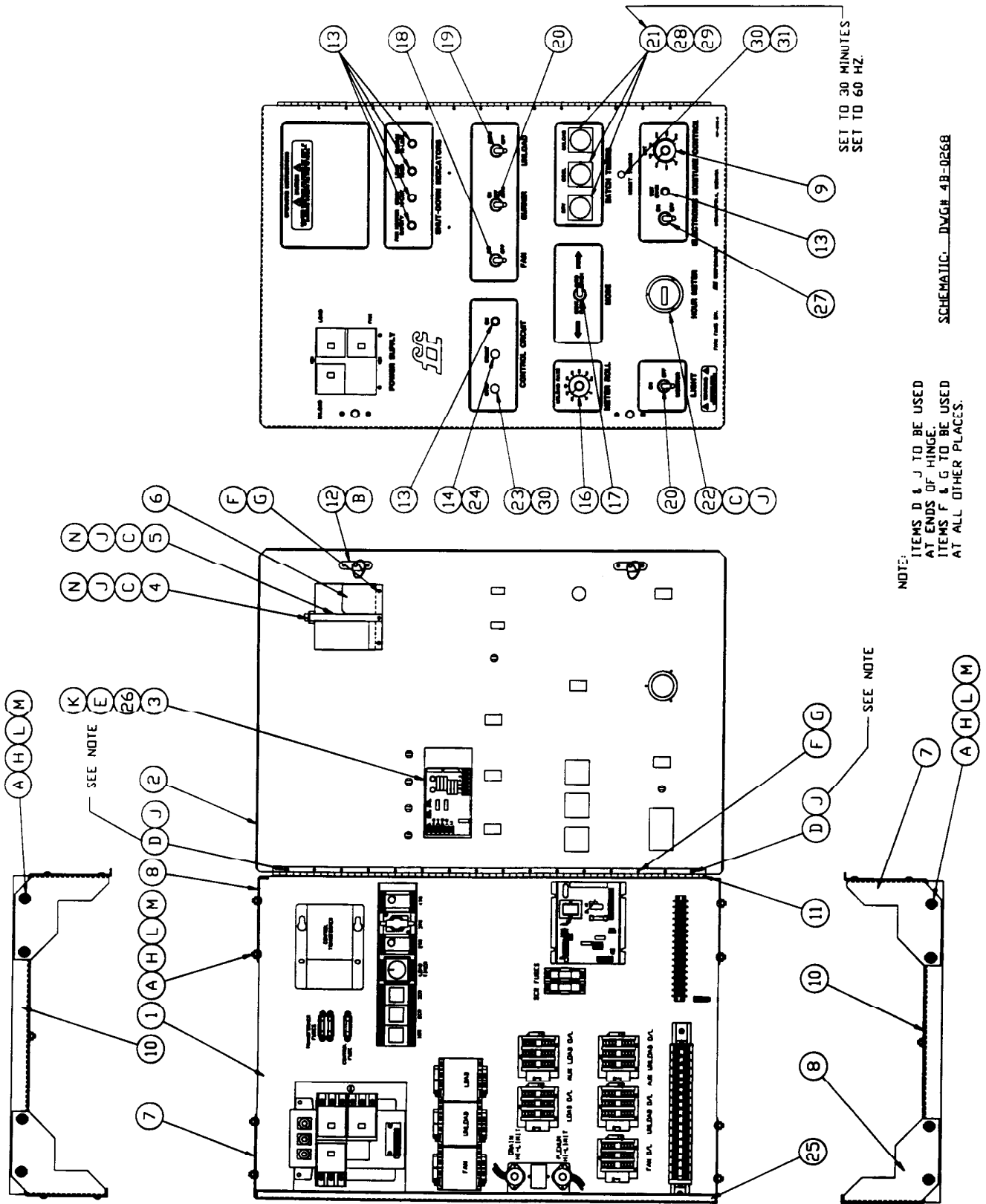


Fig. 3 ASC Control Panel Chassis, 220V 3-Phase.

3D-0203

SCHEMATIC DWG# 4B-0268

NOTE:
 ITEMS D & J TO BE USED
 AT ENDS OF HINGE.
 ITEMS F & G TO BE USED
 AT ALL OTHER PLACES.

SET TO 30 MINUTES
 SET TO 60 HZ.

FIG. 4 ASC CONTROL PANEL CHASSIS, 440V 3-PHASE

Item	Part No.	Description	Qty	Qty	Qty	Qty
	415-3111-2	CHASSIS ASSY - CF/AB-150, 440V 3 PH	X	-	-	-
	415-3113-8	CHASSIS ASSY - CF/AB-190, 440V 3 PH	-	X	-	-
	415-3115-3	CHASSIS ASSY - CF/AB-270, 440V 3 PH	-	-	X	-
	415-3117-9	CHASSIS ASSY - CF/AB-320, 440V 3 PH	-	-	-	X
1	415-3069-2	CONTROL PANEL ASSY-CFAB150, 3 ϕ 440 (see Fig. 6)	1	-	-	-
1	415-3071-8	CONTROL PANEL ASSY-CFAB190, 3 ϕ 440 (see Fig. 6)	-	1	-	-
1	415-3073-4	CONTROL PANEL ASSY-CFAB270, 3 ϕ 440 (see Fig. 6)	-	-	1	-
1	415-3075-9	CONTROL PANEL ASSY-CFAB320, 3 ϕ 440 (see Fig. 6)	-	-	-	1
2	401-3693-9	DEADFRONT CF/AB	1	1	1	1
3	056-1931-7	SAFETY CIRCUIT MONITOR ASSY	1	1	1	1
6	021-1044-3	DEADFRONT CLOSURE PLATE	1	1	1	1
7	325-1495-2	GUSSET, CORNER - LH	2	2	2	2
8	325-1494-5	GUSSET, CORNER - RH	2	2	2	2
9	056-1726-1	TEMPERATURE CONTROL	1	1	1	1
10	401-4368-7	MOUNTING RAIL 23.75"	2	2	2	2
11	325-1603-1	HINGE - 16 HOLE	1	1	1	1
12	023-1023-3	SPRING LATCH	2	2	2	2
13	035-1004-7	INDICATOR LIGHT - AMBER	6	6	6	6
14	026-1044-2	SWITCH, PUSH BUTTON	1	1	1	1
16	056-1644-6	SPEED POT W/KNOB	1	1	1	1
17	056-1861-6	SWITCH, TOGGLE SPDT 2POS	1	1	1	1
18	026-1096-2	SWITCH, TOGGLE DPST 2POS	1	1	1	1
19	026-1021-0	SWITCH, TOGGLE SPST 2POS	1	1	1	1
20	026-1015-2	SWITCH, TOGGLE SPDT 3POS	2	2	2	2
21	056-1981-2	TIMER 3M/30M/3H 120VAC	3	3	3	3
22	044-1026-2	HOUR METER	1	1	1	1
23	200-1005-4	BUTTON, PUSH - RED	1	1	1	1
24	006-1181-4	BUTTON, PUSH - BLACK	1	1	1	1
25	406-2034-6	GASKET 1/4 x 1/2 x 3/4	1	1	1	1
26	021-1065-8	MOUNTING TRACK 8"	1	1	1	1
27	026-1032-7	SWITCH, TOGGLE SPDT 2POS	1	1	1	1
28	056-1983-8	SOCKET, 11 PIN	3	3	3	3
29	056-1984-6	ADAPTER, PANEL MOUNT	3	3	3	3
30	056-1584-4	SWITCH	1	1	1	1
31	006-1150-9	BOOT, RUBBER	1	1	1	1
A	090-1287-3	CBLT 1/4-20 X 1/2	10	10	10	10
B	090-1193-3	PHST #8 x 3/8 B	4	4	4	4
C	090-1233-7	RHMS #6-32 x 3/4	5	5	5	5
D	090-1159-4	PHMS #6-32 x 3/8	2	2	2	2
E	090-1193-3	PHST #8 x 3/8 B	2	2	2	2
F	095-1005-8	POP RIVET 1/8	19	19	19	19
G	090-1516-5	WASHER, RIVET BACK-UP	19	19	19	19
H	091-1036-2	NUT, HEX 1/4-20	10	10	10	10
J	091-1027-1	NUT, HEX #6-32	5	5	5	5
K	092-1003-0	WASHER, FLAT #8	2	2	2	2
L	092-1006-3	WASHER, FLAT 1/4	10	10	10	10
M	092-1025-3	WASHER, SPLIT LOCK 1/4	10	10	10	10
N	092-1021-2	WASHER, SPLIT LOCK #6	2	2	2	2

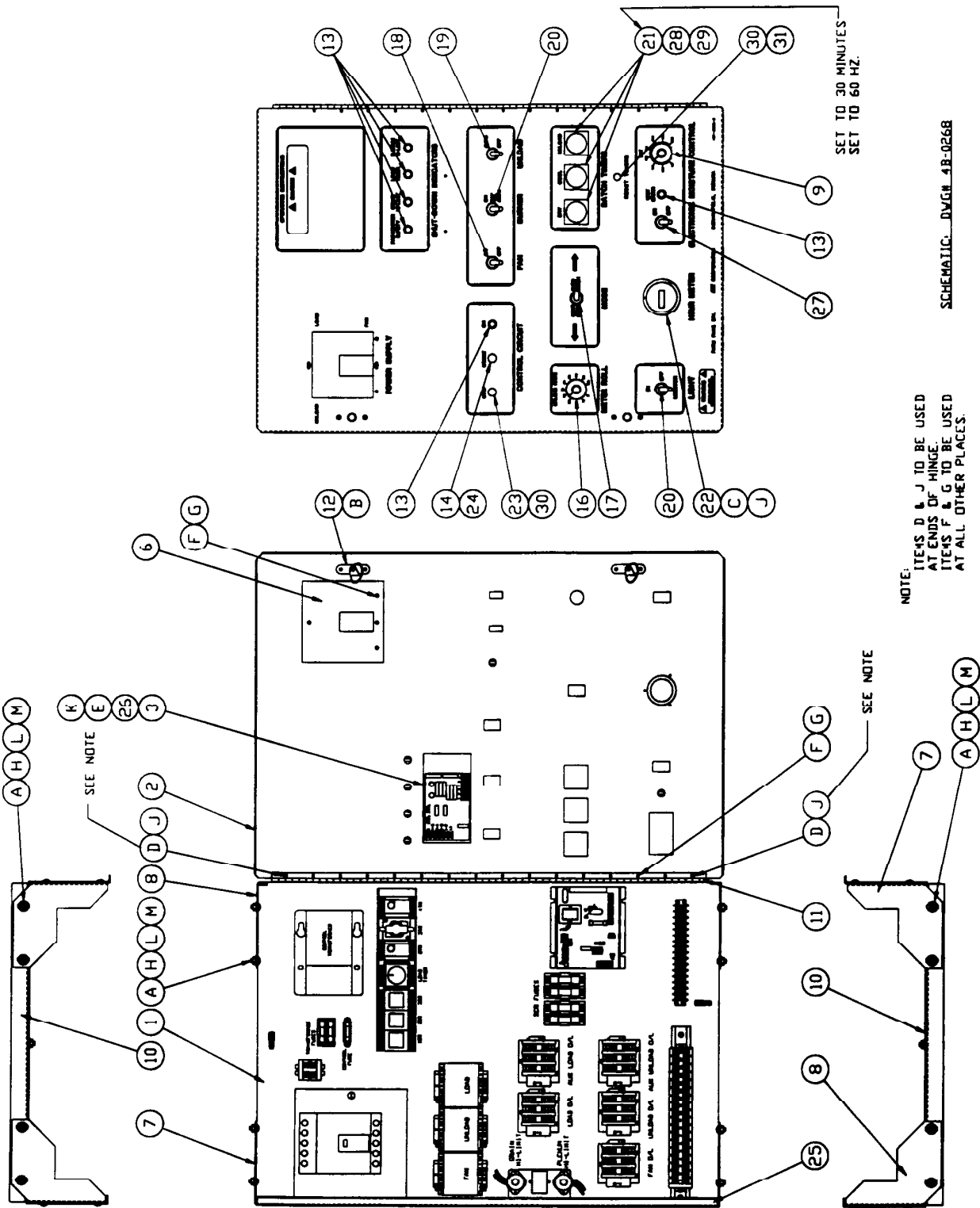


Fig. 4 ASC Control Panel Chassis, 440V 3-Phase.

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FIG. 5 CONTROL PANEL, 220V 3-PHASE

415-3068-4	CTRL PANEL ASSY - CF/AB-150, 220V 3 PHX	-	-	-
415-3070-0	CTRL PANEL ASSY - CF/AB-190, 220V 3 PH	.....-	X	-	-
415-3072-6	CTRL PANEL ASSY - CF/AB-270, 220V 3 PH	.....-	-	X	-
415-3074-9	CTRL PANEL ASSY - CF/AB-320, 220V 3 PH	.....-	-	-	X

Item	Part No.	Description	Qty	Qty	Qty	Qty
1	401-4179-8	CONTROL PANEL MOUNTING PLATE	1	1	1	1
2	043-1007-4	TRANSFORMER 440V/220V .25KVA	1	1	1	1
3	037-1007-6	FUSE BLOCK 1POS.	1	1	1	1
4	050-1001-2	FUSE 5A 250V	3	3	3	3
5	047-1001-8	FUSE HOLDER 2POS.	1	1	1	1
6	056-1642-0	CIRCUIT BREAKER 100A 3PL 250V	1	1	1	1
7	026-1052-5	CIRCUIT BREAKER 50A 3PL 250V	2	2	2	2
8	056-1438-3	LOAD CENTER 125A 3PH	1	1	1	1
9	025-1044-4	MOUNTING BRACKET	1	1	1	1
10	056-1030-8	CONTACTOR 40A 3PL	2	2	2	2
11	056-1190-0	CONTACTOR 60A 3PL	1	1	1	1
12	027-1047-3	THERMOSTAT HI-LIMIT 210 DEG	1	1	1	1
13	401-4158-2	BRACKET - HI-LIMIT MOUNTING	1	1	1	1
14	027-1035-8	THERMOSTAT HI-LIMIT 300 DEG	1	1	1	1
16	021-1084-9	RELAY MOUNTING TRACK 13"	1	1	1	1
17	415-2877-9	TIME DELAY RELAY ASSY 10SEC	1	1	1	1
18	056-1927-5	TIMER 60MIN	1	1	1	1
19	056-1795-6	TIMER 100SEC	1	1	1	1
20	056-1365-8	TIMER - LOAD 6MIN/60MIN/12HR	1	1	1	1
21	044-1018-9	RELAY 115VAC 5A 8PIN	3	3	3	3
22	055-1019-3	SOCKET BASE 8PIN	6	6	6	6
23	047-1008-3	FUSE HOLDER 30A 2POS. 250V	1	1	1	1
24	415-3087-4	SCR CONTROL ASSEMBLY	1	1	1	1
25	050-1014-5	FUSE 6A 250V	2	2	2	2
26	021-1071-6	TERMINAL STRIP TRACK 13-1/4"	1	1	1	1
27	045-1035-0	TERMINAL SECTION 50A 600V	18	18	18	18
28	045-1033-5	TERMINAL END 50A	1	1	1	1
29	054-1020-4	TERMINAL RETAINER	2	2	2	2
30	045-1010-3	TERMINAL STRIP ASSY 16POS.	1	1	1	1
31	056-1348-4	O/L RELAY 27A 3PL 3 ELEM	4	4	4	4
32	056-1347-6	O/L RELAY 45A 3PL 3 ELEM	1	1	1	-
32	056-1235-3	O/L RELAY 60A 3PL 3 ELEM	-	-	-	1
33	056-1064-7	HTR ELEMENT C6.30A	3	-	-	-
33	056-1160-3	HTR ELEMENT C7.78	-	3	3	-
33	056-1143-9	HTR ELEMENT C16.3	-	-	-	3
34	056-1166-0	HTR ELEMENT C22.8	-	-	-	3
34	056-1143-9	HTR ELEMENT C16.3	3	3	3	-
35	056-1251-0	HTR ELEMENT E77	-	-	-	3
35	056-1153-8	HTR ELEMENT C33.0	-	3	-	-
35	056-1147-0	HTR ELEMENT C44.0	-	-	3	-
35	056-1142-1	HTR ELEMENT C30.3	3	-	-	-
36	056-1064-7	HTR ELEMENT C6.30	-	3	-	-
36	056-1194-2	HTR ELEMENT C11.3	-	-	-	3
36	056-1066-2	HTR ELEMENT C4.66	3	-	-	-
36	056-1160-3	HTR ELEMENT C7.78	-	-	3	-
37	056-1143-9	HTR ELEMENT C16.3	3	3	3	3
38	325-1533-0	BRACKET SPACER	1	1	1	1
39	006-1184-8	GROUNDING BAR	1	1	1	1
40	006-1188-9	GROUND LUG	1	1	1	1
41		OPT. AUX AUGER COMPONENTS	AR	AR	AR	AR
A	090-1205-5	SCREW - #8 x 1/2" TYPE "A"	68	68	68	68
B	090-1190-9	PHST #6 x 3/8 TYPE "B"	3	3	3	3
C	090-1287-3	CARRIAGE BOLT 1/4-20 x 1/2"	4	4	4	4
D	092-1025-3	SPLIT LOCK WASHER 1/4"	4	4	4	4
E	092-1006-3	FLATWASHER 1/4"	4	4	4	4
F	091-1036-2	HEX NUT 1/4-20	4	4	4	4
G	090-1297-2	CARRIAGE BOLT 5/16-18 x 2-3/4	1	1	1	1
H	092-1008-9	FLATWASHER 5/16	1	1	1	1
I	091-1037-0	HEX NUT 5/16-18	1	1	1	1
J	092-1013-9	FLATWASHER 7/16	1	1	1	1
K	090-1195-8	PHST #8 x 1/2 B	4	4	4	4

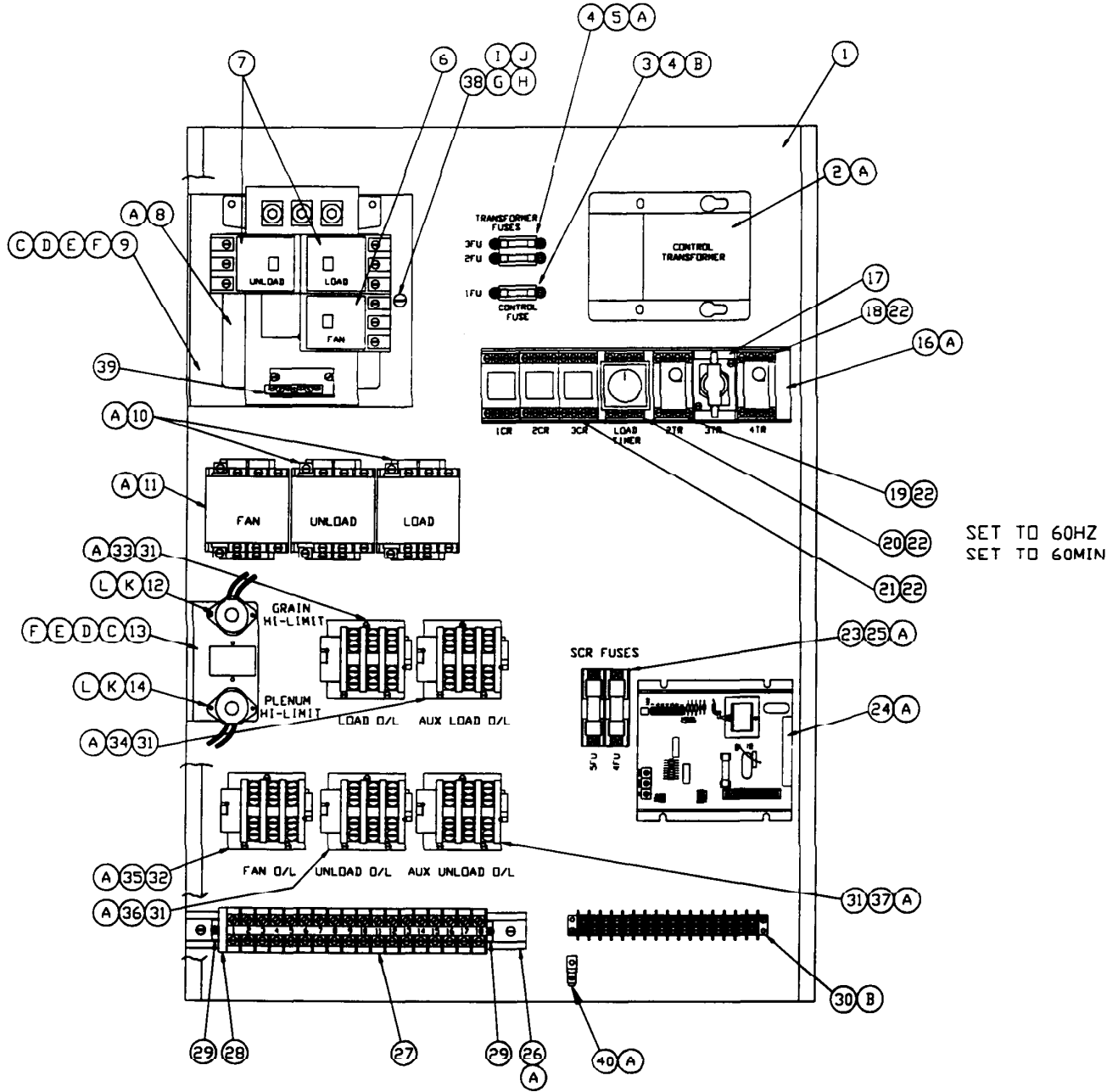


Fig. 5 Control Panel, 220V 3-Phase. 3C-0436

FIG. 6 CONTROL PANEL, 440V 3-PHASE

415-3069-2	CTRL PANEL ASSY - CF/AB-150, 440V 3 PH	..... X	-	-	-
415-3071-8	CTRL PANEL ASSY - CF/AB-190, 440V 3 PH	..... -	X	-	-
415-3073-4	CTRL PANEL ASSY - CF/AB-270, 440V 3 PH	..... -	-	X	-
415-3075-9	CTRL PANEL ASSY - CF/AB-320, 440V 3 PH	..... -	-	-	X

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>	<u>Qty</u>
1	401-4179-8	CONTROL PANEL MOUNTING PLATE	1	1	1	1
2	043-1007-4	TRANSFORMER 440V/220V .25KVA	1	1	1	1
3	037-1007-6	FUSE BLOCK 1POS.	1	1	1	1
4	050-1001-2	FUSE 5A 250V	1	1	1	1
5	047-1011-7	FUSE HOLDER 2POS. 30A 600V	2	2	2	2
6	026-1040-0	CIRCUIT BREAKER 90A 3PL 400V	1	1	1	1
7	006-1188-9	GROUND LUG	2	2	2	2
8	045-1035-0	TERMINAL SECTION 50A 600V	2	2	2	2
9	325-2120-5	MOUNTING BRACKET	1	1	1	1
10	056-1030-8	CONTACTOR 40A 3PL	3	3	3	3
12	027-1047-3	THERMOSTAT HI-LIMIT 210 DEG	1	1	1	1
13	401-4158-2	BRACKET - HI-LIMIT MOUNTING	1	1	1	1
14	027-1035-8	THERMOSTAT HI-LIMIT 300 DEG	1	1	1	1
16	021-1084-9	RELAY MOUNTING TRACK 13"	1	1	1	1
17	415-2877-9	TIME DELAY RELAY ASSY 10SEC	1	1	1	1
18	056-1927-5	TIMER 60MIN	1	1	1	1
19	056-1795-6	TIMER 100SEC	1	1	1	1
20	056-1365-8	TIMER - LOAD 6MIN/60MIN/12HR	1	1	1	1
21	044-1018-9	RELAY 115VAC 5A 8PIN	3	3	3	3
22	055-1019-3	SOCKET BASE 8PIN	6	6	6	6
23	047-1008-3	FUSE HOLDER 30A 2POS. 250V	1	1	1	1
24	415-3087-4	SCR CONTROL ASSEMBLY	1	1	1	1
25	050-1014-5	FUSE 6A 250V	2	2	2	2
26	021-1071-6	TERMINAL STRIP TRACK 13-1/4"	1	1	1	1
27	045-1035-0	TERMINAL SECTION 50A 600V	18	18	18	18
28	045-1033-5	TERMINAL END 50A	2	2	2	2
29	054-1020-4	TERMINAL RETAINER	2	2	2	2
30	045-1010-3	TERMINAL STRIP 16POS.	1	1	1	1
31	056-1348-4	O/L RELAY 27A 3PL 3 ELEM	4	4	4	4
32	056-1347-6	O/L RELAY 45A 3PL 3 ELEM	1	1	1	1
33	056-1132-2	HTR ELEMENT C8.67	-	-	-	3
33	056-1059-7	HTR ELEMENT C3.79	-	3	3	-
33	056-1472-2	HTR ELEMENT C3.56	3	-	-	-
34	056-1132-2	HTR ELEMENT C8.67	3	3	3	-
34	056-1167-8	HTR ELEMENT C13.7	-	-	-	3
35	056-1682-6	HTR ELEMENT C27.3	-	-	-	3
35	056-1136-3	HTR ELEMENT C25.0	-	-	3	-
35	056-1143-9	HTR ELEMENT C16.3	3	-	-	-
35	056-1051-4	HTR ELEMENT C18.0	-	3	-	-
36	056-1163-7	HTR ELEMENT C5.92	-	-	-	3
36	056-1058-9	HTR ELEMENT C2.68	3	-	-	-
36	056-1059-7	HTR ELEMENT C3.79	-	-	3	-
36	056-1472-2	HTR ELEMENT C3.56	-	3	-	-
37	056-1132-2	HTR ELEMENT C8.67	3	3	3	3
38	325-1533-0	BRACKET SPACER	1	1	1	1
39	050-1008-7	FUSE, 5A 600V	4	4	4	4
40		OPT. AUX AUGER COMPONENTS	AR	AR	AR	AR
A	090-1205-5	SCREW - #8 x 1/2" TYPE "A"	72	72	72	72
B	090-1190-9	PHST #6 x 3/8 TYPE "B"	3	3	3	3
C	090-1287-3	CARRIAGE BOLT 1/4-20 x 1/2"	4	4	4	4
D	092-1025-3	SPLIT LOCK WASHER 1/4"	4	4	4	4
E	092-1006-3	FLATWASHER 1/4"	4	4	4	4
F	091-1036-2	HEX NUT 1/4-20	4	4	4	4
G	090-1297-2	CARRIAGE BOLT 5/16-18 x 2-3/4	1	1	1	1
H	092-1008-9	FLATWASHER 5/16	1	1	1	1
I	091-1037-0	HEX NUT 5/16-18	1	1	1	1
J	092-1013-9	FLATWASHER 7/16	1	1	1	1
K	090-1195-8	PHST #8 x 1/2 B	10	10	10	10
L	090-1516-5	WASHER BACKUP(1/8 POP RIVET)	4	4	4	4

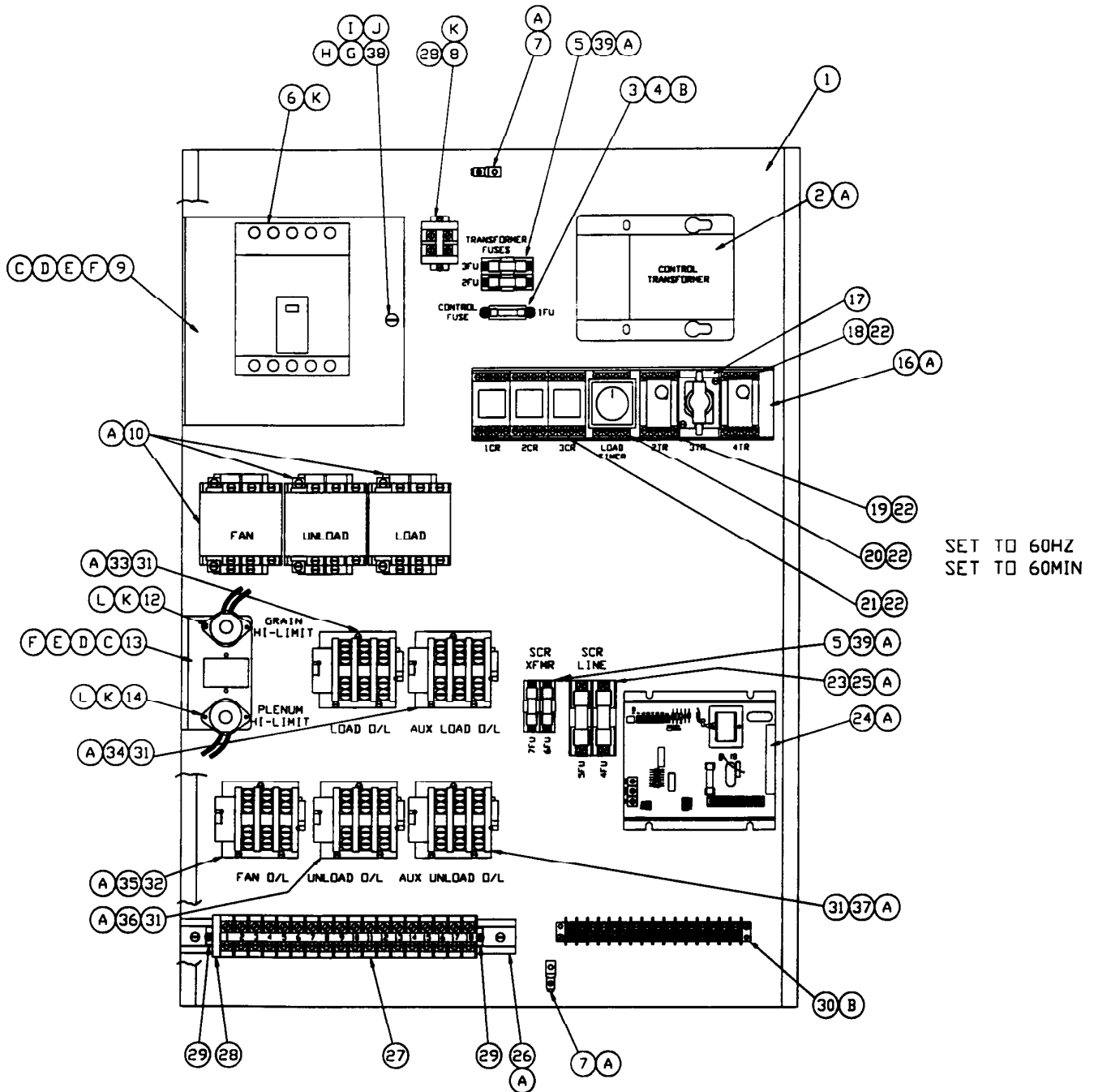


Fig. 6 Control Panel, 440V 3-Phase.

3C-0542

FIG. 7 DUAL-TEMP BURNER CONTROL ASSEMBLY

415-3119-5 Dual Temp Burner Control AssyX

Item	Part No.	Description	Qty
1	325-1571-0	WELDMENT, MOUNTING	1
2	027-1029-1	THERMOSTAT	2
3	067-1022-2	CONNECTOR, 1/2"	2
4	415-2824-1	18-2 SJO CORD ASSY	1
5	415-2823-3	18-3 SJO CORD ASSY	1
6	041-1005-2	DIAL THERMOMETER	1
7	016-1008-8	RUBBER GROMMET	2
8	420-1301-1	DECAL, HIGH-LOW HEAT	1
A	090-1193-3	PHST #8 x 3/8 B	4
B	090-1190-9	PHST #6 x 3/8 B	3

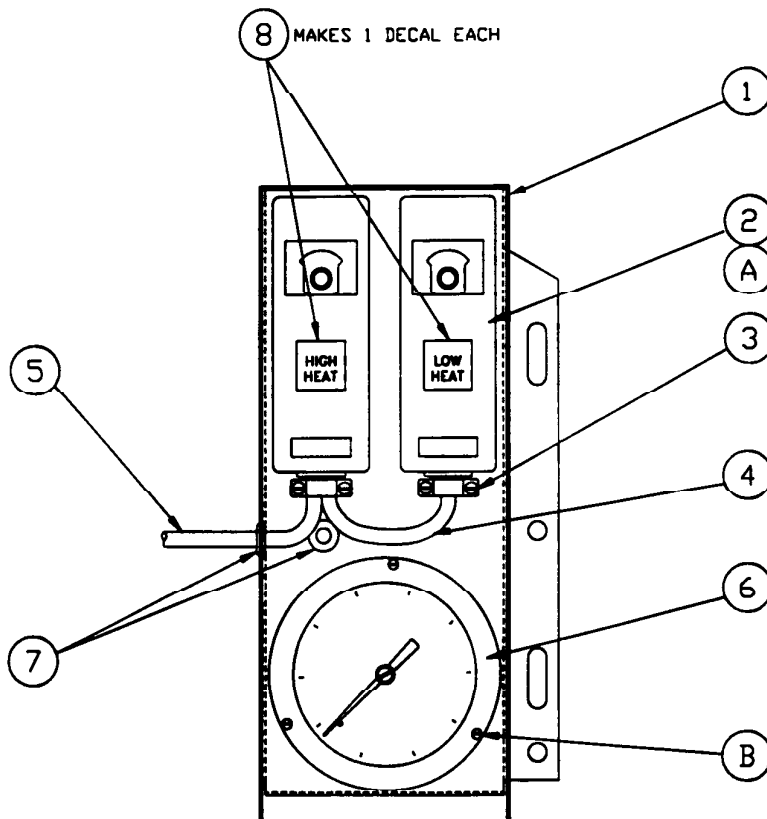


Fig. 7 Dual Temp Plenum Temperature Control Assembly.

3C-0360

FIG. 8 RTD GRAIN TEMPERATURE SENSOR ASSEMBLY

Item	Part No.	Description	Qty
	415-2664-1	RTD Junction Box Assy ETN-01	X
1	401-3807-5	MOUNTING PLATE, ET JUNCTION BOX	1
2	006-1227-5	JUNCTION BOX, TRIPLE OUTLET	1
3	067-1057-8	STRAIN RELIEF 1/2 NPT-1/8"	1
4	006-1232-5	WIRE CONNECTOR	2
5	415-2666-6	COND ASSY 3/8 x 53, WIRE 125"	1
6	044-1090-8	1000 OHM RTD x 22"	1
7	006-1110-3	COVER & GASKET	1
8	069-1131-7	PIPE SEALANT	AR
A	090-1252-7	RHMS #10-32 x 1/2	4
B	092-1023-8	LOCKWASHER #10	4

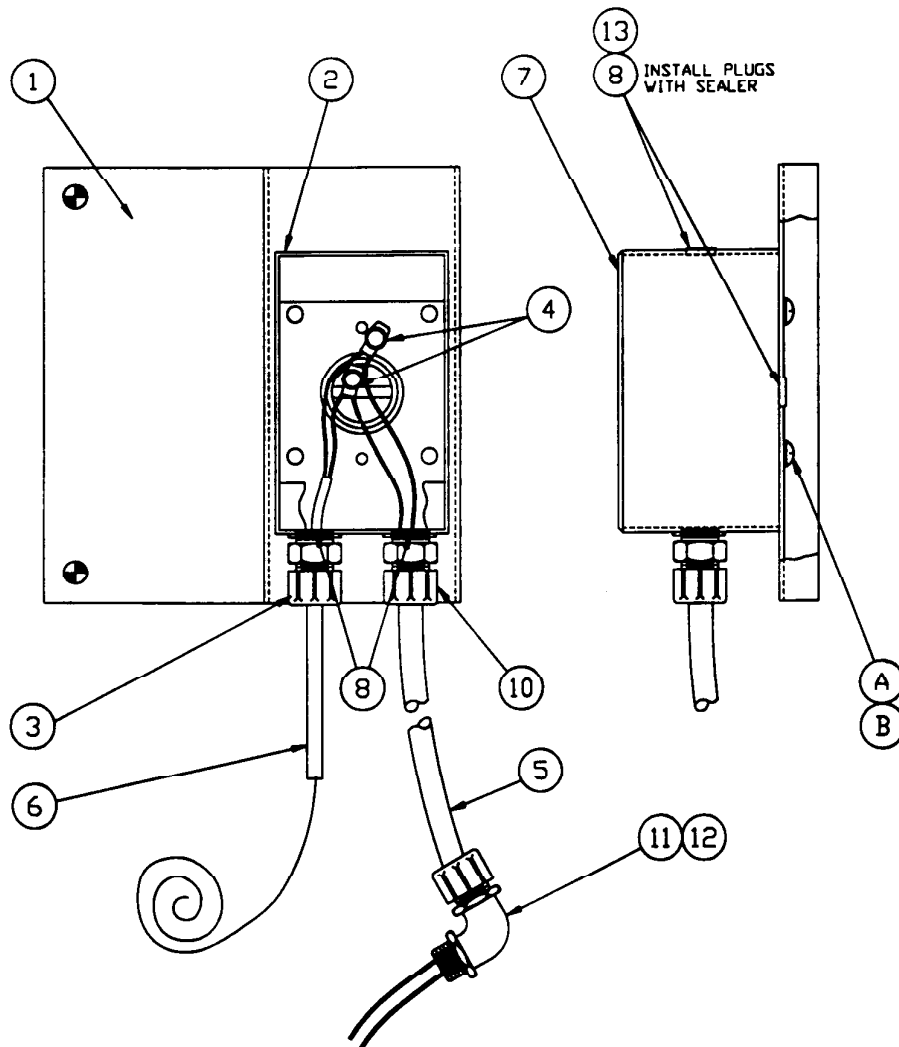


Fig. 8 RTD Grain Temperature Sensor Assembly (ETN).

3C-0351

FIG. 9 CF/AB-320 FAN-HEATER ASSEMBLY

U2039C3-2V-LP	FAN-HEATER ASSY. - U2039C3 230V 3-PH LP	..... X	-	-	-
U2039C3-2V-N	FAN-HEATER ASSY. - U2039C3 230V 3-PH NAT. GAS	-	X	-	-
U2039C3-4V-LP	FAN-HEATER ASSY. - U2039C3 460V 3-PH LP	-	-	X	-
U2039C3-4V-LP	FAN-HEATER ASSY. - U2039C3 460V 3-PH NAT. GAS	-	-	-	X

Item	Part No.	Description	Qty	Qty	Qty	Qty
1	410-1824-3	HOUSING WELDMENT U2539	1	1	1	1
2	401-4085-7	BURNER SUPPORT BRACKET	4	4	4	4
3	401-4086-5	BURNER LINER	1	1	1	1
4	406-1989-2	BURNER LINER SPACER	8	8	8	8
5	011-1067-5	ACCESS DOOR	1	1	1	1
6	023-1015-9	HANDLE ASSEMBLY	1	1	1	1
7	029-1172-5	DECAL - WARNING CLOSE COMP	1	1	1	1
8	029-1143-6	DECAL - WHITE TRIANGLE	2	2	2	2
9	027-1006-9	THERMOSTAT HI-LIMIT 200°F	1	1	1	1
10	067-1107-1	ELEC BOX UNILET 1/2	1	1	1	1
11	067-1091-7	ELEC COVER UNILET 1/2	1	1	1	1
12	067-1090-9	ELEC GASKET UNILET 1/2	2	2	2	2
13	067-1117-0	PLUG 1/2	1	1	1	1
14	415-2214-5	CONDUIT ASSEMBLY 3/8 x 16	1	1	1	1
15	048-1068-5	HOLE PLUG 5/16	2	2	2	2
16	002-1071-6	MOTOR 20HP 3PH 17 256T ODP	1	1	1	1
17	062-1008-2	MOTOR SHIM 16 GA	AR	AR	AR	AR
18	415-2215-2	CONDUIT ASSEMBLY 1 x 36	1	1	1	1
19	415-2151-9	PROPELLER ASSEMBLY - 39", 19P	1	1	1	1
20	069-1145-7	CORROSION INHIBITOR	AR	AR	AR	AR
21	401-3418-1	VENTURI 39"	1	1	1	1
22	410-1691-6	BASKET GUARD	1	1	1	1
23	011-1094-9	GUARD CENTER CAP	1	1	1	1
24	410-1842-5	BURNER ASSEMBLY - U2X39	1	1	1	1
25	415-3528-7	PLUMBING ASSEMBLY U2039-N	-	1	-	1
25	415-3527-9	PLUMBING ASSEMBLY U2039-LP	1	-	1	-
26	401-4090-7	PLUMBING BRACKET	1	1	1	1
27	401-4089-9	PLUMBING CLAMP	1	1	1	1
28	415-1713-7	CONDUIT ASSEMBLY 3/8 x 16	1	1	1	1
29	415-1714-5	CONDUIT ASSY. 3/8x24 (2 WIRE)	1	1	1	1
30	415-2213-7	CONDUIT ASSEMBLY 3/8 x 22	1	-	1	-
31	415-3029-6	VAPORIZER PLUMBING ASSEMBLY	1	-	1	-
32	401-4092-3	VAPORIZER SUPPORT BRACKET	1	-	1	-
33	401-4093-1	VAPORIZER HOLE COVER	1	-	1	-
33	410-1827-6	VAPORIZER SUPPORT WELDMENT	1	-	1	-
34	029-1076-8	DECAL - LP SUPPLY	1	-	1	-
34	029-1078-4	DECAL - NAT. GAS SUPPLY	-	1	-	1
35	029-1040-4	DECAL - OPERATING PRECAUTIONS	1	-	1	-
36	007-1156-4	COUPLER 3/4 80	1	-	1	-
37	007-1080-6	ELBOW 3/4 80	1	-	1	-
38	007-1059-0	STRAINER ASSEMBLY 3/4"	1	-	1	-
39	007-1339-6	CONN 3/4NPT TO 1/2TU BRASS	1	-	1	-
40	033-1039-8	COPPER TUBE ASSEMBLY 1/2x36	1	-	1	-
41	007-1295-0	NIPPLE CL 3/4 80	1	-	1	-
42	007-1084-8	BUSHING HEX 3/4 TO 1/4	1	-	1	-
43	415-2163-4	HEATER CONTROL BOX 4V	-	-	1	1
43	415-2160-0	HEATER CONTROL BOX 2V	1	1	-	-
44	010-1001-6	DECAL - MODEL NUMBER	1	1	1	1
45	325-1818-5	GASKET	2	2	2	2
46	067-1058-6	ELECTRICAL CONNECTOR STRAIN RELIEF	1	1	1	1
47	048-1032-1	HOLE PLUG 7/8 - DOMED	-	2	-	2
48	026-1023-6	FLAME SWITCH (N/CLOSED)	1	1	1	1
49	401-4149-1	FLAME SWITCH BRACKET	1	1	1	1
50	007-1747-0	PIPE PLUG 1/4	1	-	1	-
51	038-1194-0	FLAME SWITCH WIRING ASSEMBLY 32"	1	1	1	1
52	048-1002-4	IGNITOR PLUG	1	1	1	1
53	038-1014-0	IGNITOR WIRE ASSEMBLY 30"	1	1	1	1
A	090-1304-6	CBLT 3/8-16 x 1 5	8	8	8	8
B	092-1028-7	WASHER SPLIT LOCK 3/8	12	12	12	12
C	091-1040-4	HEX NUT 3/8-16	20	20	20	20

D	090-1294-9	CBLT 5/16 18 x 1 1/2 5	8	8	8	8
E	092-1027-9	WASHER SPLIT LOCK 5/16	16	12	16	12
F	091-1037-0	HEX NUT 5/16-18	16	12	16	12
G	406-1253-3	U-BOLT 3/8-16	1	1	1	1
H	092-1011-3	WASHER FLAT 3/8	12	14	12	14
I	090-1208-9	PHST #10 x 1/2 A	2	2	2	2
J	090-1194-1	HHST #8 x 1/2	2	2	2	2
K	090-1163-6	PHMS #8-32 x 3/8	2	2	2	2
L	090-1106-5	HHCS 1/2-13 x 1-3/4 5	4	4	4	4
M	092-1015-4	WASHER FLAT 1/2	20	20	20	20
N	092-1030-3	WASHER SPLIT LOCK 1/2	12	12	12	12
O	091-1042-0	HEX NUT 1/2-13	12	12	12	12
P	090-1072-9	HHCS 5/16-18 x 1 5	10	8	10	8
Q	092-1008-9	WASHER FLAT 5/16	20	20	20	20
R	091-1051-1	ESNA 5/16-18	12	16	12	16
S	062-1015-7	RUBBER WASHER	8	8	8	8
T	090-1086-9	HHCS 3/8-16 x 1 5	4	4	4	4
U	090-1105-7	HHCS 1/2-13 x 1-1/2 5	8	8	8	8
V	090-1292-3	CBLT 5/16-18 x 1 5	4	4	4	4
W	326-1047-9	U-BOLT	2	2	2	2
X	090-1291-5	CBLT 5/16 18 x 3/4 5	6	6	6	6
Y	090-1595-9	CBLT 3/8-16 x 3/4 5	2	2	2	2
Z	090-1088-5	HHCS 3/8-16 x 1-1/4 FT5	2	2	2	2
AA	091-1055-2	ESNA 3/8-16	2	2	2	2
BB	090-1261-8	RHMS 1/4-20 x 1/2 SS	2	2	2	2
CC	091-1035-4	HEX NUT 1/4-20 SS	2	2	2	2
DD	092-1025-3	WASHER SPLIT LOCK 1/4	2	2	2	2

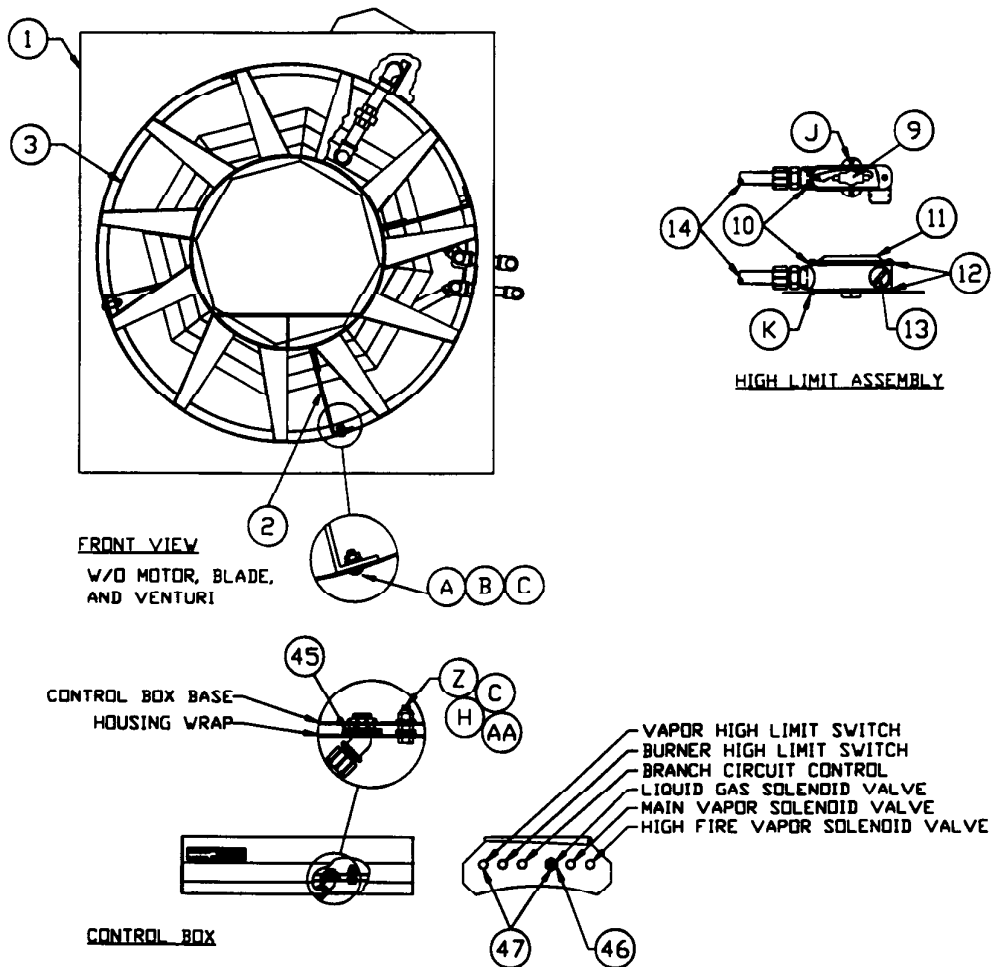


Fig. 9 CF/AB-320 Fan-Heater Assembly, p. 1 of 2

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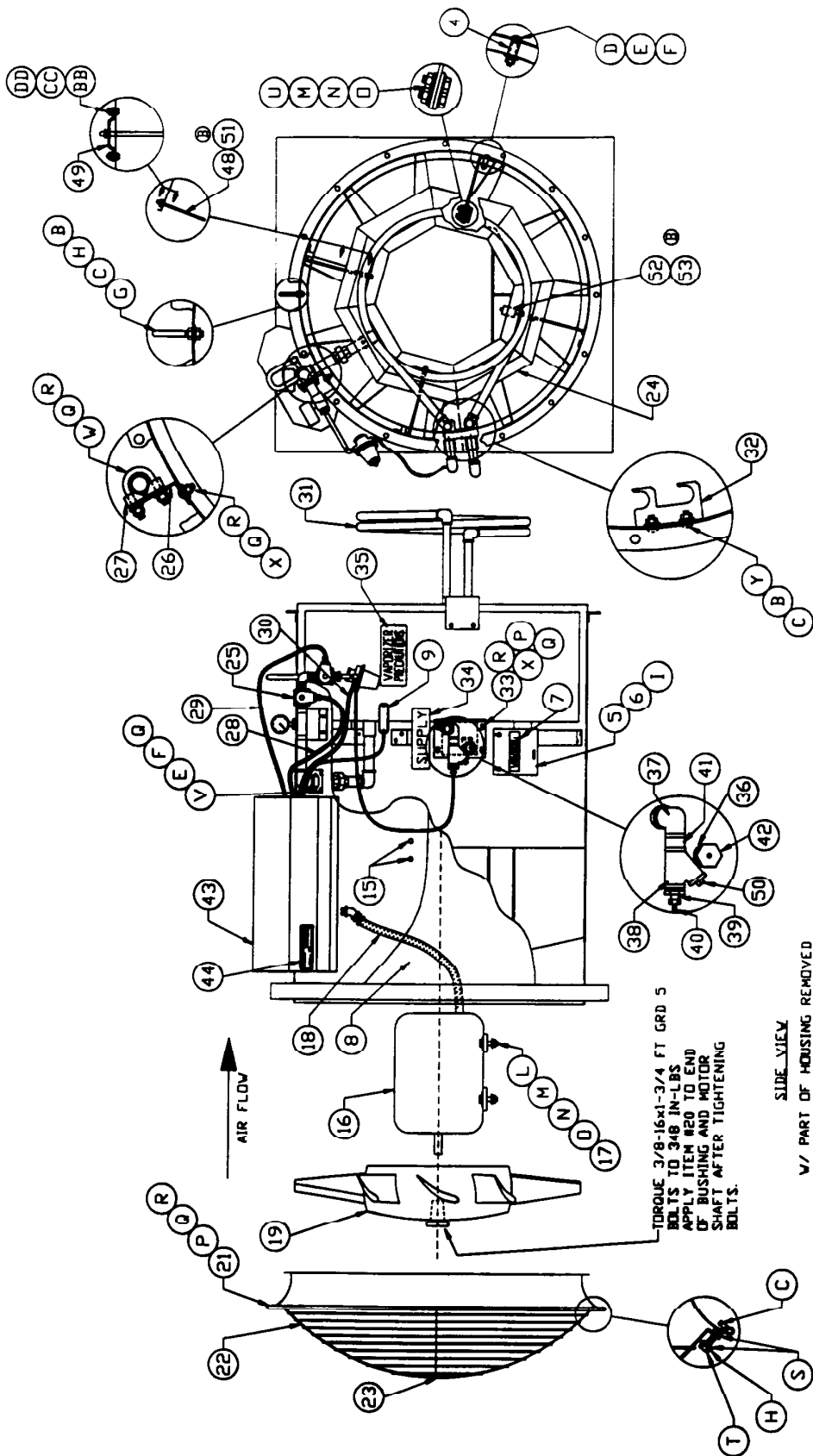


Fig. 9 CF/AB-320 Fan-Heater Assembly, p. 2 of 2

3D-0187

Fig. 10 CF/AB-320 FAN-HEATER CONTROL BOX

415-2160-0	CF/AB-320 FAN-HEATER CTRL. BOX ASSY. - 230V 3-PH . X	-
415-2163-4	CF/AB-320 FAN-HEATER CTRL. BOX ASSY. - 460V 3-PH . -	X

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Qty</u>
1	043-1007-4	TRANSFORMER - 460V/220V	1	1
2	043-1006-6	TRANSFORMER - 220V/6000V .18 KVA	1	1
3	037-1030-8	NEOPRENE SPACER 1x1x1/4	1	1
4	047-1001-8	FUSE HOLDER 250V 2P F (1/4 x 1-1/4)	1	1
5	050-1001-2	FUSE 5A 230V FERRULE (1/4 x 1-1/4)	2	2
6	006-1188-9	TERMINAL LUG	1	1
7	045-1015-2	TERMINAL STRIP ASSY. - 50A 3-POS	1	1
8	420-2563-5	BURNER CONTROL BOARD ASSY. (w/o Control Relay)	1	1
10	044-1014-8	CONTROL RELAY	1	1
12	069-1126-7	SILICON CAULK	AR	AR
13	048-1049-5	NYLON BUSHING 3/7/64	2	2
14	048-1032-1	HOLE PLUG - 7/8 DOMED CAP	2	2
15	410-1696-5	CONTROL BOX WELDMENT	1	1
16	401-1055-3	CONTROL BOX LID	1	1
17	023-1028-2	SPRING LATCH	1	1
18	017-1039-1	O RING - 9/16 x 3/4	1	1
19	406-1673-2	GASKET 1/4 x 1/2 x 10-1/16	2	2
20	406-1810-0	GASKET 1/4 x 1/2 x 22-7/8	2	2
21	420-1151-0	DECAL - BURNER CONTROL WIRING	2	2
22	029-1087-5	DECAL - POWER DISCONNECT WARNING	1	1
23	016-1002-1	GROMMET 5/8 x 7/8	1	1
A	090-1359-0	HHCS 1/4-20x5/8 GR#5	2	2
B	091-1049-5	ESNA 1/4-20	2	2
C	092-1006-3	Flat washer 1/4	2	2
D	092-1024-6	Lock washer 1/4 int teeth	1	1
E	090-1193-3	PHST #8x3/8 Type B	4	4
F	090-1482-0	PHST #6x1/2 Type A	2	2
G	090-1405-1	PHST #6-32x7/8 Type F	2	2
H	090-1362-4	RHST #12x1/2 Type A	3	5

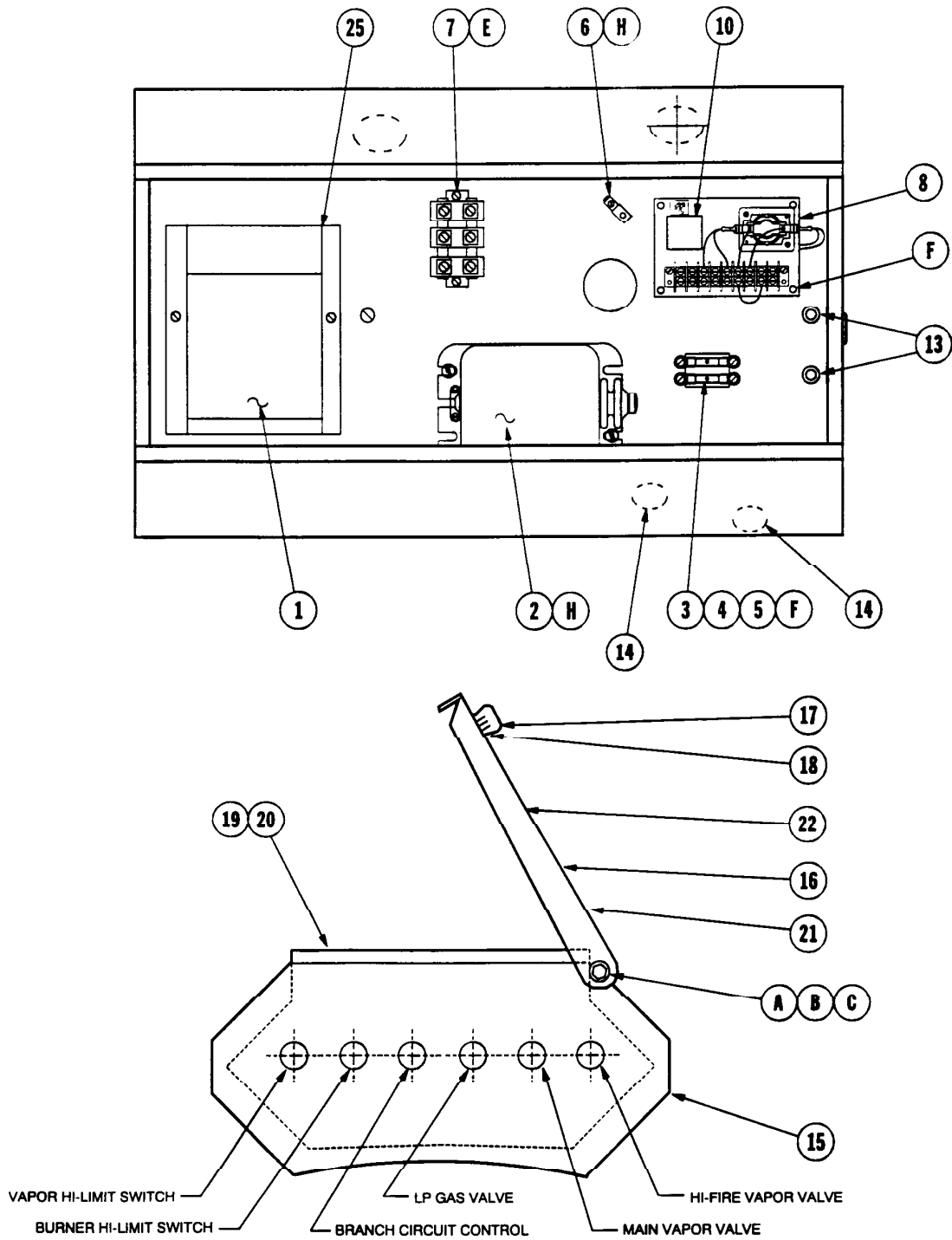


Fig. 10 CF/AB-320 Fan-Heater Control Box 3D-0050

Fig. 11 CF/AB-320 FAN-HEATER PLUMBING

Item	Part No.	Description	Qty	Qty
	415-3528-7	PLUMBING ASSY. - U2039-N, NAT. GAS MODELS	X	-
	415-3527-9	PLUMBING ASSY. - U2039-LP, LP MODELS	-	X
1	007-1270-3	ELBOW, 1" NPT x 90°	2	2
2	007-1104-4	CLOSE NIPPLE, 1" NPT, SCH 40	1	1
3	007-1294-3	NIPPLE, 1" NPT x 5.5", SCH 40	1	1
4	007-1242-2	NIPPLE, 1" NPT x 2", SCH 40	2	2
5	041-1007-8	PRESSURE GAGE 0-15 PSI, .25NPT-ML	1	1
6	007-1293-5	BUSHING, 1" NPT TO .25 NPT	1	1
7	007-1067-3	BUSHING, 1" NPT TO .50 NPT	2	3
8	007-1285-1	TEE - SIDE OUT, 1", NPT, SCH 40	1	1
9	007-1249-7	NIPPLE, .50", NPT x 1.5, SCH 40	1	2
10	007-1160-6	ELBOW, .50", NPT x 90°, SCH 40	2	2
11	007-1174-7	NIPPLE, .50", NPT x 3, SCH 40	2	2
12	007-1226-5	BALL VALVE, .50" NPT	1	1
13	007-1187-9	ADAPTOR - ST .5 SAE FLARE .5" NPT	2	2
14	410-1244-4	COPPER TUBE ASSY. 0.5"	1	1
15	031-1017-8	SOLENOID GAS VALVE, 1" NPT	2	2
16	042-1002-7	PRESSURE REGULATOR - 1-50 PSI, .5" NPT	-	1
17	007-1261-2	EL - SIDE OUT, .50" NPT, SCH 40	-	1
18	007-1172-1	NIPPLE, .50" NPT x 2, SCH 40	-	1
19	056-1529-9	THERMISTAT ASSY	-	1
20	007-1770-2	NIPPLE, 1" NPT x 4, SCH 40	1	1
21	007-1253-9	ADPTR - 90°, .5 SAE FL, .50" NP	-	1
22	007-1283-6	ELBOW - SIDE OUT, 1" NPT, SCH 40	1	1
23	007-1105-1	UNION FEM, 1" NPT, SCH 40	1	1
24	007-1215-8	NIPPLE, 1" NPT x 3, SCH 40	1	1
25	406-2001-5	ORIFICE PIPE, 5.5" LG	1	1
26	406-2079-1	ORIFICE - 9/16"	1	-
26	406-2078-3	ORIFICE - 7/16"	-	1
27	401-4091-5	PLUMBING COVER PLATE	1	1

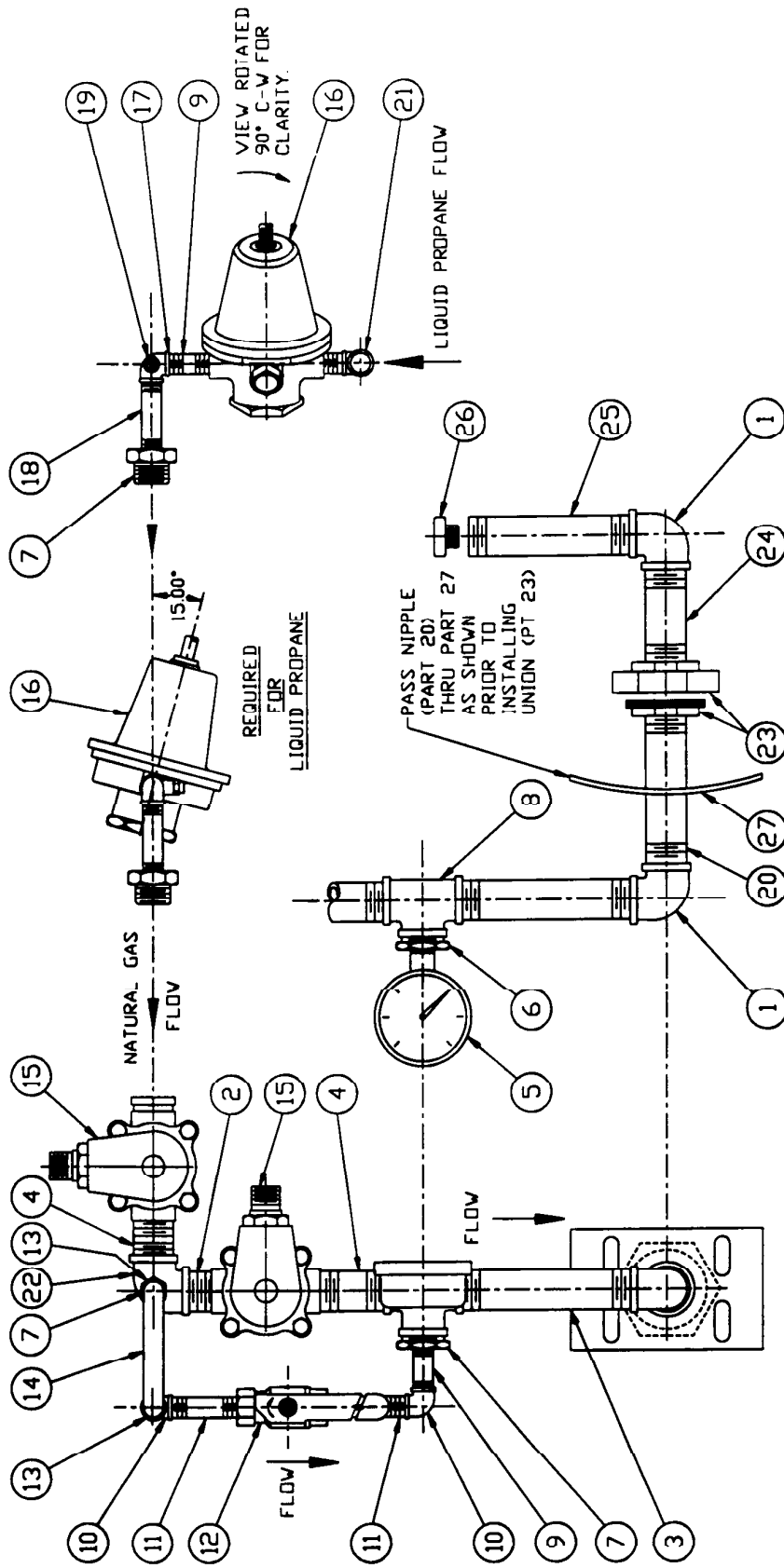


Fig. 11 CF/AB-320 Fan-Heater Plumbing

3C-0393

HARDWARE ABBREVIATION CODES

BBLT	Bin bolt	RHMS	Round head machine screw
CBLT	Carriage head bolt	RHST	Round head self tap
ESNA	Locknut	SFBP	Socket flat head screw
FHMS	Flat head machine screw	SHBP	Square head set screw, beveled point
HFST	Hex flange self tap	SHCN	Square head set screw, cone point
HFWL	Hex flange whiz lock	SHCP	Square head set screw, cup point
HHCS	Hex head cap screw	SKCS	Socket head cap screw
HHST	Hex head self tap	SKCP	Socket head set screw, cup point
HWST	Hex washer self tap	STAP	Self tap
KCSS	Knurl cup set screw	THMB	Thumb screw
PHMS	Pan head machine screw	THWL	Truss head whiz lock
PHST	Pan head self tap	TRSS	Truss head machine screw



FARM FANS

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