



MODEL YS (STYLE E) SCREW LIQUID CHILLERS

RENEWAL PARTS

Supersedes: 160.80-RP3 (105)

Form 160.80-RP3 (307)

OPTIVIEW™ CONTROL CENTER

371-02459-101

371-02579-101

371-02578-101

371-02459-102

371-02579-102

371-02578-102

**MODEL YS
(STYLE E)**

See Literature
Supplements
pages 13 and 14



ITEM	DESCRIPTION	FIG. NO.	QTY.	PART NO.
1	TERMINAL BLOCK (NEMA 1, 4, 12) (CE)	2 2	1	025-33290-000 025-34121-000
2	INPUT/OUTPUT BOARD	2	1	031-01743-001
3	MICROBOARD The Control Center could be equipped with one of the following microboards, depending upon the vintage of the Control Center. Regardless of which board is present, order part number 331-02430-603 (replacement microboards cannot be ordered by the basic board part number of 031-02430-000). 031-1730-000 - supplied in new production chillers until March 2004. Uses BIOS Eeprom (item 14), BRAM (item 28), and Flash Memory Card (item 20). Part number 331-02430-603 is supplied as service replacement for this board. 031-02430-000 - supplied in new production chillers and as replacement part 331-02430-603 after March 2004. The board is supplied pre-programmed with the latest version of the YS chiller "Controls" Software and it comes equipped with a BRAM (U38) (item 55) and BIOS Eeprom (U37) (item 54). It is shipped with a label on the outside of the shipping box that lists the part number of the pre-programmed Microboard (331-02430-603), the basic Microboard part number (031-02430-000) and the version of the "Controls" software (for example, C.OPT.03.04.301) that the board has been programmed with. This board is provided as service replacement for microboards 031-01730-000 and 031-02430-000.	2	1	331-02430-603
4	POWER SUPPLY	2	1	025-34111-000
5	NOT USED			
6	KEYPAD (NEMA 1) (NEMA 4/12 & CE)	1 1	1	024-30993-000 024-30994-000
7	FUSE, 5A (1FU)	2	1	025-14019-000
8	FASTENER, PAWL, ADJUSTABLE (NEMA 1)	1	1	021-17252-000
9	SWITCH ROCKER (NEMA 1)	1	1	024-23143-000
10	DISPLAY KIT (Note 1)	9	1	331-01771-000
11	COVER, DISPLAY	9	1	071-02264-346
12	CABLE, RIBBON (NEMA 1) (NEMA 4/12 & CE)	2,8 2,8	1	031-01772-000 031-02015-000
13	CABLE, RIBBON	2	1	031-01779-000
14	EPROM, BIOS (U45) (Used on Microboard 031-01730-000 only. Not compatible with Microboard 031-02430-000) *IMPORTANT! Flash Memory Card version C.MLM.03.00 CANNOT be used with this Eeprom. The chiller will not run with this combination. The Flash Memory Card must be upgraded to version C.MLM.03.01 or later (ie; .02, .03, etc.). (Refer to Item 20)	2	1	031-01796-002
15	FUSEHOLDER (For Item 16)	2	1	025-13991-000
16	FUSE, 15A (2FU)	2	1	025-14384-000
17	FUSEHOLDER (For Items 7 and 19)	2	1	025-13991-000
18	CABLE, RIBBON [EM START & S.S.S. (MOD. A) ONLY]	3	1	031-01799-000
19	FUSE, 2A (3FU)	2	1	025-33116-000

ITEM	DESCRIPTION	FIG. NO.	QTY.	PART NO.
20	FLASH MEMORY CARD, PROGRAMMED (U46) (Used on Microboard 031-01730-000 only. Not compatible with Microboard 031-02430-000.) Refer to Note 5 for version analysis. VERSION C.MLM.nn.nn.nnn Allows Display Screens to be displayed in English, Chinese Traditional, Chinese Simplified, French, Spanish, or Portuguese language. Supplied in new NEMA 1-4 OptiView Control Centers. VERSION C.MLM.nn.nn.nnn Allows Display Screens to be displayed in English, French, Italian, German or Hungarian language. Supplied in new CE OptiView Control centers.	2	1	031-02005-001 031-02005-002
21	SWITCH, KNOB SELECTOR (NEMA 4/12, CE)	5	1	024-30931-000
22	CONTACT BLOCK (NEMA 4/12, CE)	5	2	024-30932-000
23	BUSS BAR (GROUND) (NEMA 4/12, CE)	8	1	025-34122-000
24	SUPPRESSOR (See Note 3)		6	031-00808-000
25	CONTROL, CURRENT MOD. CM-2 (Electro-Mech. Starter App. Only)	3	1	031-00947-000
26	DIODE BRIDGE (Electro-Mechanical Starter App. Only)	3	1	031-00210-000
27	RESISTOR (Electro-Mechanical Starter App. Only)	3	2	025-20789-000
27A	RESISTOR, ASSEMBLY (Includes both resistors configured for installation)	3	1	575-00364-001
28	IC, BRAM-U52 (Used on Microboard 031-01730-000 only. Not compatible with Microboard 031-02430-000)	2	1	031-02028-000
29	TRANSDUCERS			
29A	CONDENSER, OIL, FILTER OIL, SEAL OIL			025-28678-006
29B	EVAPORATOR – R134a, WATER & BRINE			025-28678-112
29C	– R22 WATER			025-28678-113
29D	– R22 BRINE (ALL TRANSDUCERS SUPPLIED WITH O-RINGS)			025-28678-114
29E	SEAL, O-RING, FOR ITEMS 29A thru 29D			028-12961-002
30	THERMISTORS			
30A	ENTERING CHILLED WATER TEMPERATURE			025-29964-000
30B	LEAVING CHILLED WATER TEMPERATURE			025-29964-000
30C	SENSOR WELL WITH THREADED TOP			026-32328-000
30D	ENTERING CONDENSER WATER TEMPERATURE			025-28935-000
30E	LEAVING CONDENSER WATER TEMPERATURE			025-28935-000
30F	OIL TEMPERATURE (Straight threads with O-Ring)			025-31301-000
30G	DISCHARGE TEMP. (Straight threads with O-Ring)			025-31301-000
30H	SEAL, O-RING (FOR ITEMS 30F & 30G)			028-12961-004
31	CIRCUIT BREAKER, POLE, 6A (CE)	8	1	024-30935-000
32	SWITCH, DISCONNECT (CE)	8	1	024-34171-000

ITEM	DESCRIPTION	FIG. NO.	QTY.	PART NO.
33	CIRCUIT BREAKER, 25A (CE)	8	1	024-30956-000
34	CIRCUIT BREAKER 16A (CE)	8	1	024-30947-000
35	CIRCUIT BREAKER (CE)	8	1	024-30936-000
36	MOUNT, ANTI-VIBRATION	2	4	021-19191-000
37	BACKLIGHT BULB	9	1	See Note 4
38	BACKLIGHT INVERTER BOARD	9	1	See Note 4
39	BACKLIGHT INVERTER BOARD RIBBON CABLE	9	1	See Note 4
40	DISPLAY INTERFACE BOARD	9	1	See Note 4
41	DISPLAY INTERFACE BOARD RIBBON CABLE	9	1	031-01769-000
42	STRIP, NEOPRENE	9	2.8 FT	028-07533-000
43	MICROGATEWAY (OPTIONAL)	2	1	(See YORK Control Systems Web Page)
44	WIRING HARNESS, 8 inch, Power Supply to Microboard J1 12 inch	2 2	1 1	571-02264-272 571-03774-272
45	EVAPORATOR REFRIGERANT TEMPERATURE SENSOR		1	025-34159-000
46	FUSE, F1 & F2, 5 AMP (Rev "E" and later 031-01730-000 Microboards and all 031-02430-000 Microboards)			025-34592-000
47	FUSE, 5A (4FU, 6FU)	2	2	025-15759-000
48	FUSE, 4A (5FU)	2	1	025-34566-000
49	FUSEHOLDER, (For Items 47 & 48)	2	1	025-34565-000
50	RS-485 DRIVER IC, U53, U54, U91 on 031-01730-000 Microboard U45, U46, U47 on 031-02430-000 Microboard (supplied in packages of 4 each)	2	3	031-02074-000
51	HOUSING, CONNECTOR P8, 22 position	2	1	025-34117-000
52	HOUSING, CONNECTOR P9, 20 position	2	1	024-34116-000
53	CONTACTS, SOCKETS P8, P9	2	42	025-28386-000
54	EPROM, BIOS(U37) Used on Microboard 031-02430-000 only. Not compatible with Microboard 031-01730-000. (Refer to Note 6 for version analysis)	2	1	031-02429-001
55	BRAM (U38) Used on Microboard 031-02430-000 only. Not compatible with Microboard 031-01730-000.	2	1	031-02431-000
56	PROGRAM CARD Used to download YS chiller operating program into 031-02430-000 Microboards. Contains the YS chiller operating program. (Refer to Note 7 for version analysis)	6	1	031-02488-001
57	CONTROL LOGIC - 7LK (MOD A Solid State Starter Retrofit App. only)	10	1	031-00936-002
58	CONTROL LOGIC - 14LK (MOD A Solid State Starter Retrofit App. only)	10	1	031-00936-003
59	CONTROL LOGIC - 26LK (MOD A Solid State Starter Retrofit App. only)	10	1	031-00936-004
60	CONTROL LOGIC - 33LK (MOD A Solid State Starter Retrofit App. only)	10	1	031-00936-005

NOTES:

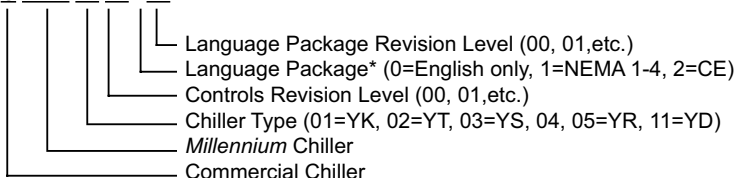
- The replacement Liquid Crystal Display supplied by YORK might not be by the same manufacturer as the original Display. Each Display requires a specific Display Interface Board (Item 40), Backlight Inverter Board (Item 38), and Backlight Inverter Board ribbon cable (Item 39). Therefore, the Liquid Crystal Display is not available separately. **Service replacement Displays or supporting components must not be arbitrarily selected! Non-compatibility of components will result in incorrect operation!** To assure compatible supporting components, the Display is supplied as a kit (331-01771-000), which contains a replacement Display and all compatible supporting components on a mounting plate. For future reference, a label attached to the side of the mounting plate (Fig. 9) lists the YORK part numbers of these compatible components and the required configuration of the Microboard Program Jumpers. These Program Jumpers must be configured for this Display by a qualified Service Technician following instructions in YORK Service manual 160.80-M1. The contents of the kit are as follows:
 - Liquid Crystal Display
 - Backlight Bulb (Item 37)
 - Appropriate Display Interface Board (Item 41) for Display
 - Appropriate Display Interface Board ribbon cable (Item 41) for Item 40.
 - Appropriate Backlight Inverter Board (Item 38) for Display.
 - Appropriate Backlight Inverter Board ribbon cable (Item 39) for Item 40.
 - All mounting hardware.
 - Installation instructions.

2. **IMPORTANT!** Revision "E" (and later) boards require BIOS Eprom 031-01796-002 (supplied with revision "E" and later boards). If Flash Memory Card 031-02005-001 is used, it **MUST** be version C.MLM.03.01 or later (ie; .02, .03, etc.). The latest version of this Memory Card is supplied with the replacement board. The chiller will not run with C.MLM.03.00 in a revision "E" board.

Return all unused Flash Memory Cards with Warranty return boards.

3. Extra Suppressors are shipped in cloth bag. They are applied at solenoids and relays located on chiller.
4. Refer to label (Fig. 9) on Display mounting plate for YORK part number of applicable replacement part. **Service replacement Display supporting components must not be arbitrarily selected! Non-compatibility of components will result in incorrect operation!**
5. Flash Memory Card (item 20) version analysis:

C.MLM.nn.nn.nnn

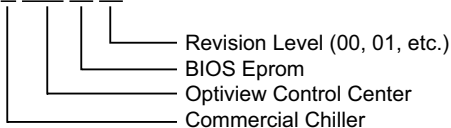


*1 = Supplied in new NEMA 1-4 OptiView Control Center.

2 = Supplied in new CE (European Community) OptiView Control Centers.

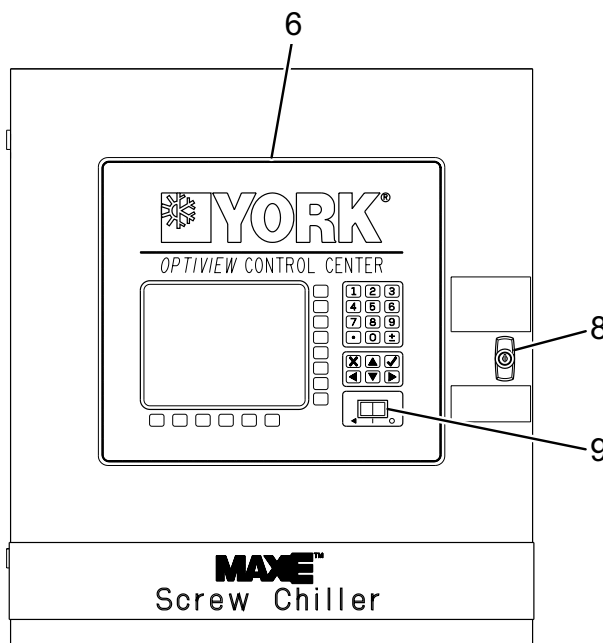
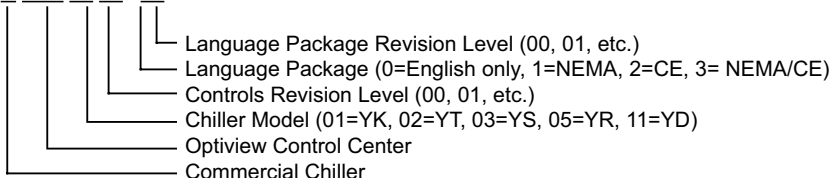
6. BIOS Eprom (item 54) version analysis:

C.OPT.00.nn



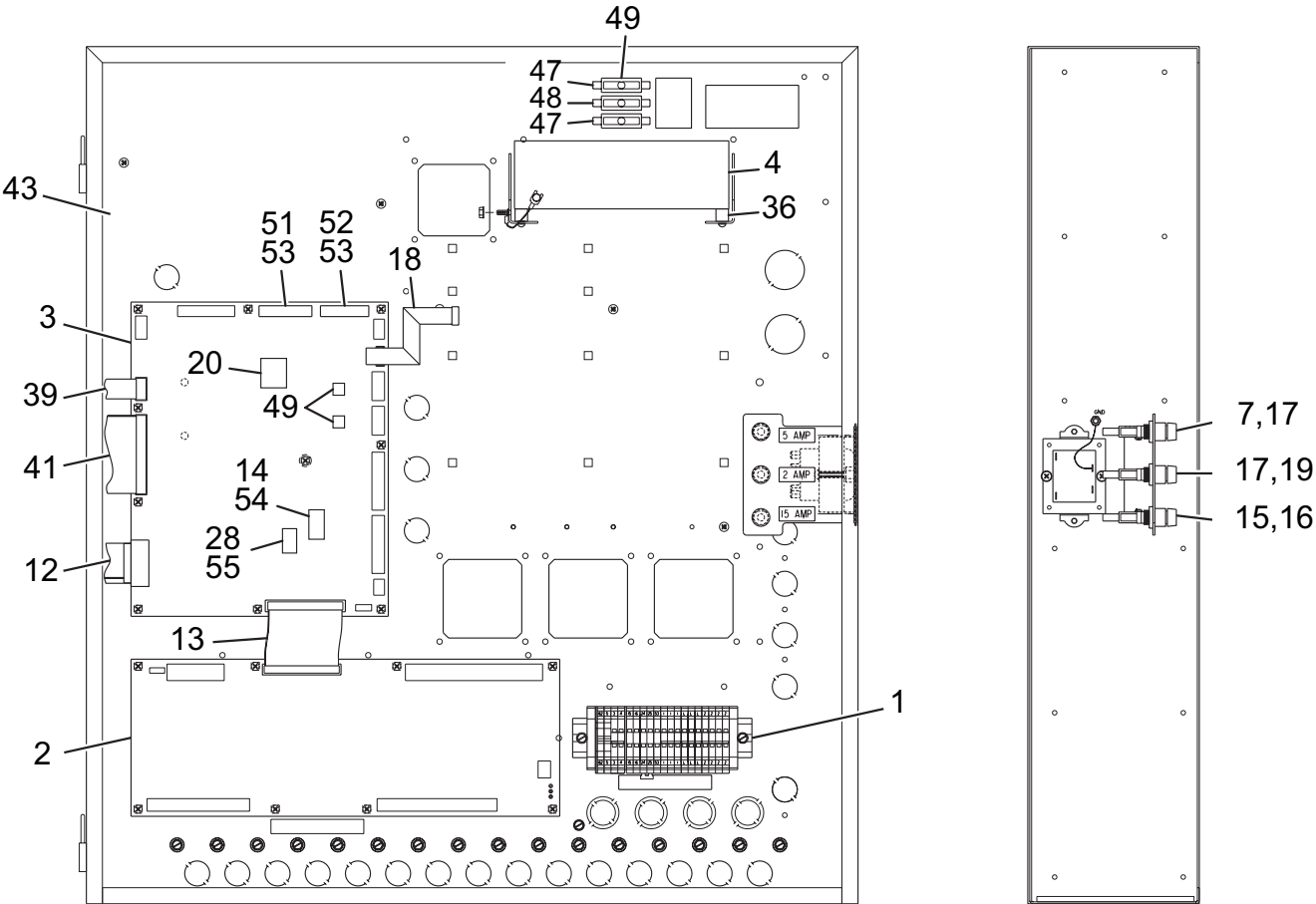
7. Program Card (item 56) version analysis:

C.OPT.nn.nn.nnn



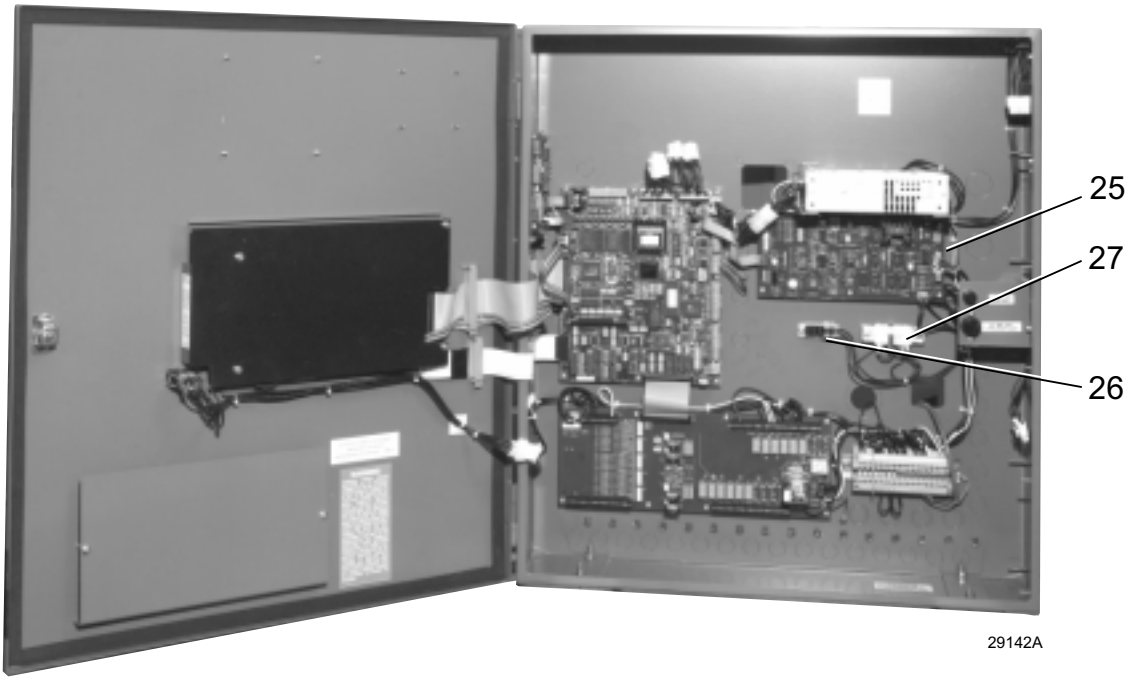
LD10420

FIG. 1 – FRONT OF OPTIVIEW CONTROL CENTER



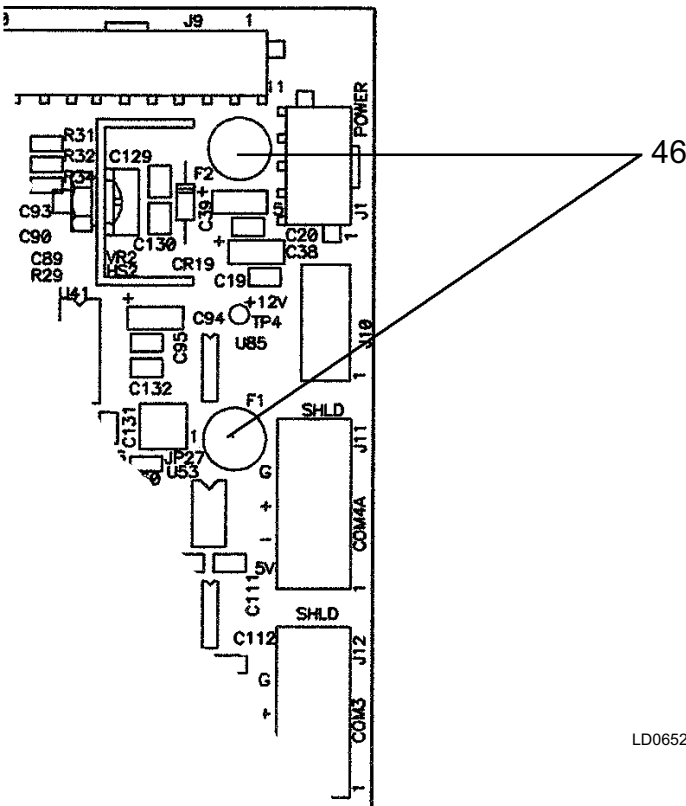
LD10421

FIG. 2 – INSIDE OF CONTROL CENTER



29142A

FIG. 3 – EM STARTER



LD06521

FIG. 4 – MICROBOARD FUSES

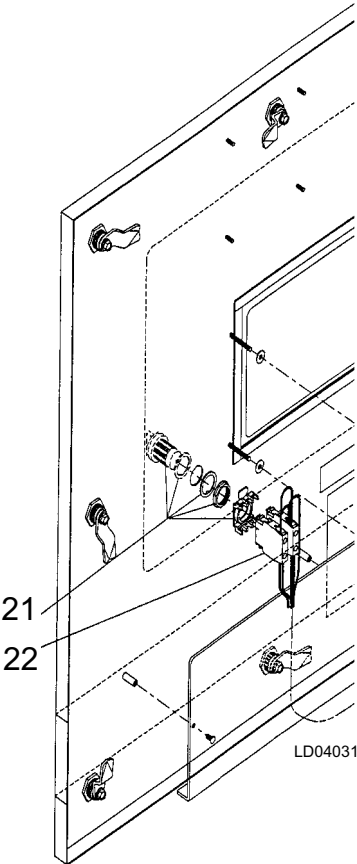
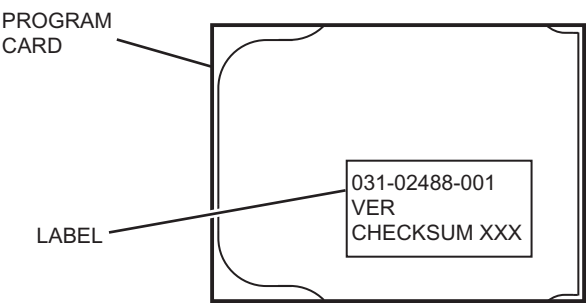
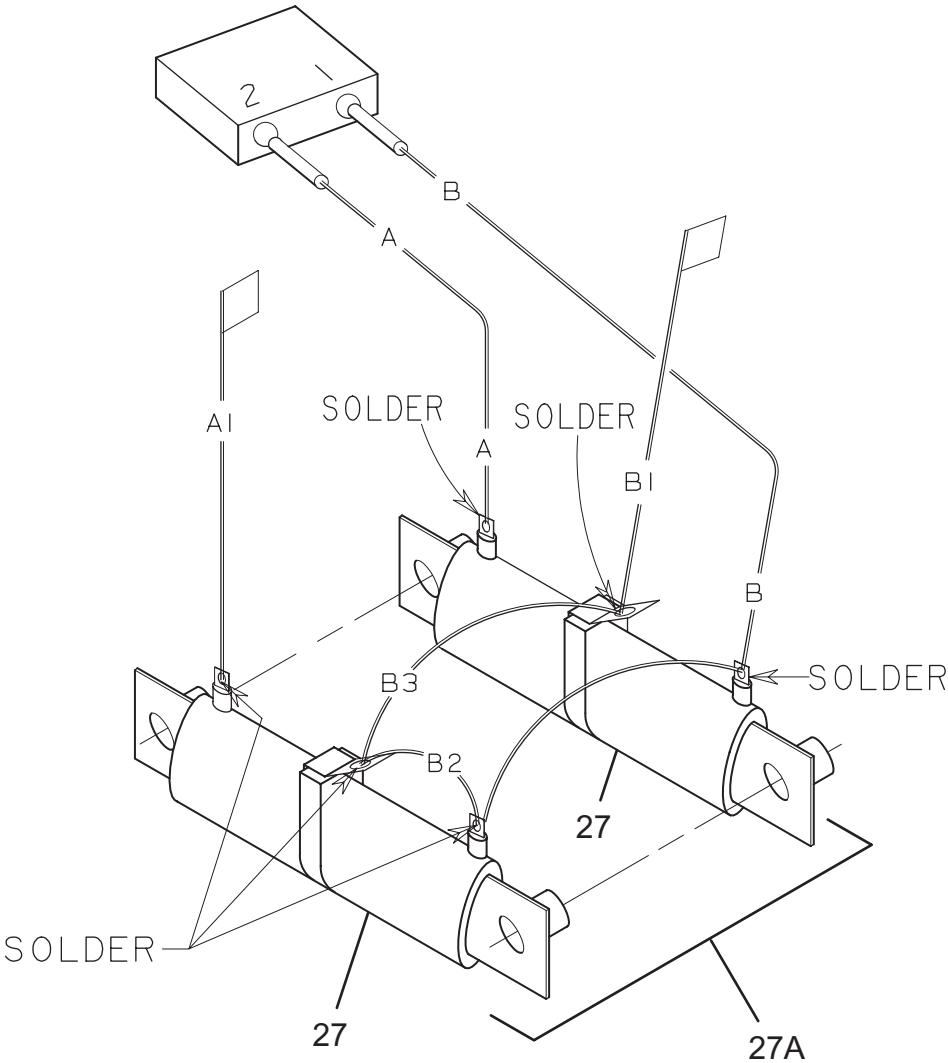


FIG. 5 – INSIDE OF DOOR - NEMA 4/12, CE



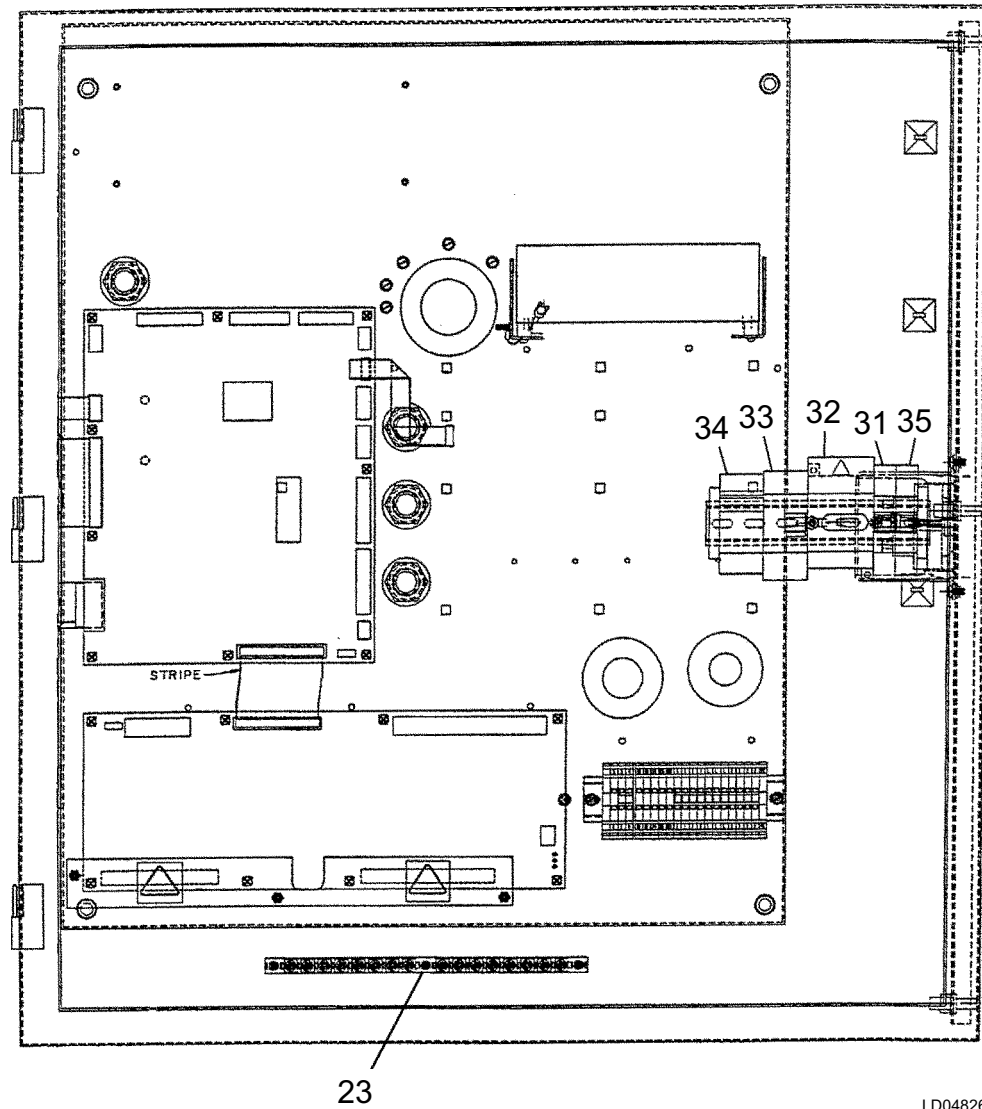
LD10403

FIG. 6 – PROGRAM CARD (ITEM 56)



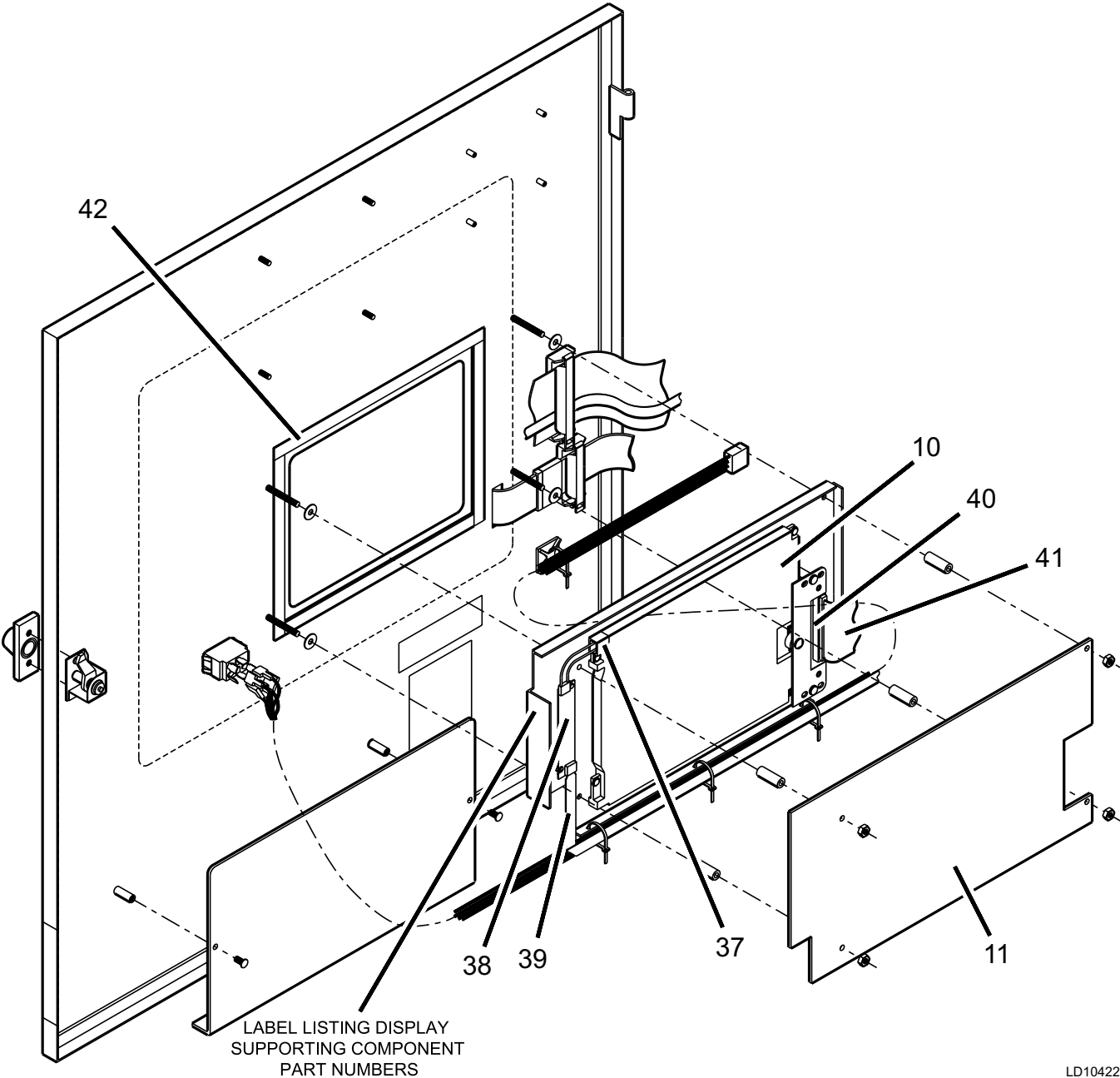
LD10329

FIG. 7 – RESISTOR ASSEMBLY



LD04826

FIG. 8 – INSIDE OF CONTROL CENTER - NEMA 4/12, CE



LD10422

FIG. 9 – DISPLAY COMPONENTS (See Notes 1 & 4, Pages 3 & 4)

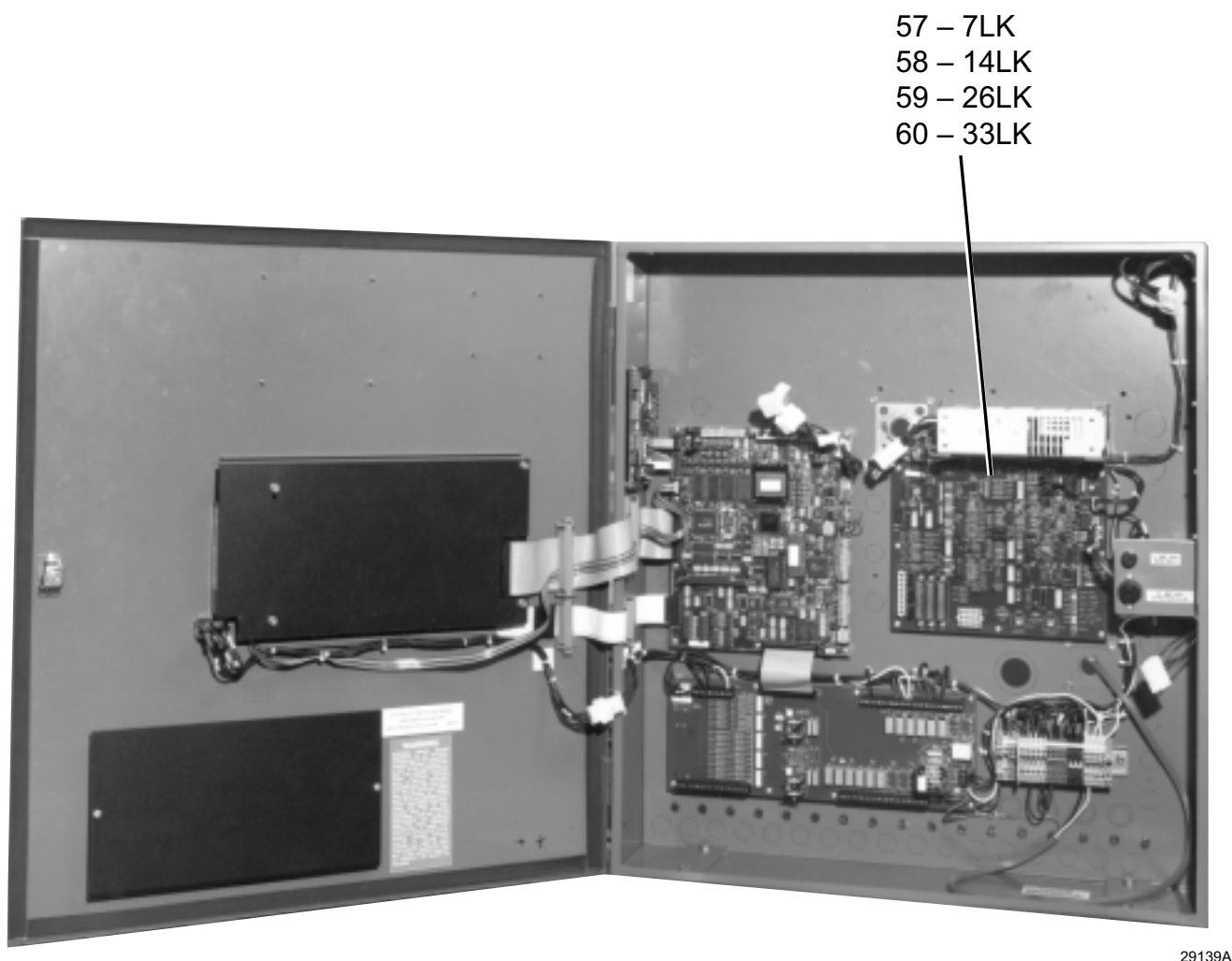



FIG. 10 – MOD A SOLID STATE STARTER (RETROFIT APPLICATION ONLY)



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Supersedes: 160.80-RP3 (105)

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	Form No.: 160.80-RP3 (LS2) (600)
	Supersedes: Nothing
LITERATURE SUPPLEMENT	File with: 160.80-RP3
Subject: YS Chiller (with OptiView Graphic Control Center) – Renewal Parts Update	

Update/add the following:

<u>Item</u>	<u>Description</u>	<u>Figure Number</u>	<u>Quantity</u>	<u>Part Number</u>
3	MICROPROCESSOR BOARD (Note 2)	2	1	331-01730-603 (Includes Microprocessor Board 031-01730-000 and latest version of Flash Memory Card 031-02005-001)
14	EPROM, BIOS (U45) Revision “D” and earlier Micro Boards	2	1	031-01796-001
	Any revision Micro Board	2	1	031-01796-002 [IMPORTANT! Flash Memory Card version C.MLM.03.00 CANNOT be used with this Eprom. The chiller will not run with this combination. The Flash Memory Card must be upgraded to version C.MLM.03.01 or later (i.e., .02, .03, etc.). Refer to Item 20.]
49	FUSE-F1, F2; 5Amp (Micro Boards revision “E” and later)	-	2	025-34592-000

Revise Note 2 to read as follows:

- Replacement Micro Boards that are revision “A” through “D” are supplied without BIOS Eprom (U45) or BRAM (U52). Remove these devices from the defective board and use in the replacement board. Use Flash Memory Card 031-02005-001 supplied with replacement board or 031-02005-002 (any version; available after October 2000).
- Replacement Micro Boards that are revision “E” and later are supplied with BIOS Eprom (U45) but without BRAM (U52). Remove the BRAM from the defective board and use in the replacement board. Use Flash Memory Card 031-02005-001 supplied with replacement board or 031-02005-002 (any version; available after October 2000). **IMPORTANT!** Revision “E” and later boards require BIOS Eprom 031-01796-002 (supplied with revision “E” and later boards). If Flash Memory Card 031-02005-001 is used, it **MUST** be version C.MLM.03.01 or later (i.e., .02, .03, etc.). The latest version of this Memory Card is supplied with the replacement board. The chiller will not run with earlier version C.MLM.03.00 in revision “E” and later board.
- Return all unused Flash Memory Cards with Warranty return boards.

	Form Number: 160.80-RP3 (LS03)	1206
	Supersedes: None	
LITERATURE SUPPLEMENT	File with: 160.80-RP3 (105), 160.80-M1 (604)	
Subject: Replacement MicroBoards - OptiView Control Center		

Previously, replacement Microboards for Optiview Control Centers have been supplied as a kit under part number 331-02430-60X that included the Microboard along with the latest version of the applicable Program Card. After installing the Microboard, the Service Technician was required to download the chiller operating software into the Microboard from the Program Card.

Beginning December 2006, replacement Microboards for the below listed Optiview Control Centers will be supplied **pre-programmed** with the latest software version. Therefore, it will NOT be necessary to download the chiller operating software from a Program Card as was the case previously. Since it is no longer required, the Program Card is not provided with the replacement Microboard.

The pre-programmed boards will be supplied with a label on the outside of the shipping box that lists the part number of the programmed Microboard (for example, 331-02430-601), the basic Microboard part number (for example, 031-02430-001) and the version of the pre-programmed software (for example, C.OPT.01.14.306). The presence of this label indicates the box contains a pre-programmed board.

To order a replacement Microboard, order the applicable 331-02430-60X number from the “Order this part number” column for the chiller in which it will be installed. You’ll receive a microboard programmed with software applicable to the chiller for which it was ordered. Microboards cannot be ordered by the 031-02430-XXX part number, as they will not be loaded with software.

IMPORTANT! If an incorrect Microboard is ordered and installed, the chiller will not operate. For example, a board programmed for a YT chiller will not operate a YR chiller.

<u>Chiller</u>	<u>Order P/N:</u>	<u>You will receive:</u>
YK	331-02430-601	Microboard 031-02430-001 programmed with latest YK software
YT	331-02430-602	Microboard 031-02430-000 programmed with latest YT software
YS	331-02430-603	Microboard 031-02430-000 programmed with latest YS software
YR	331-02430-605	Microboard 031-02430-000 programmed with latest YR software
YD	331-02430-606	Microboard 031-02430-000 programmed with latest YD software

Due to inventory rollout, you might receive an un-programmed replacement Microboard as previously packaged with the Program Card. If this is the case, download the software from the Program Card as done previously.

As in the past, the Microboard software can still be updated by downloading a program from a Program Card. Program cards will still be available for this purpose.

