

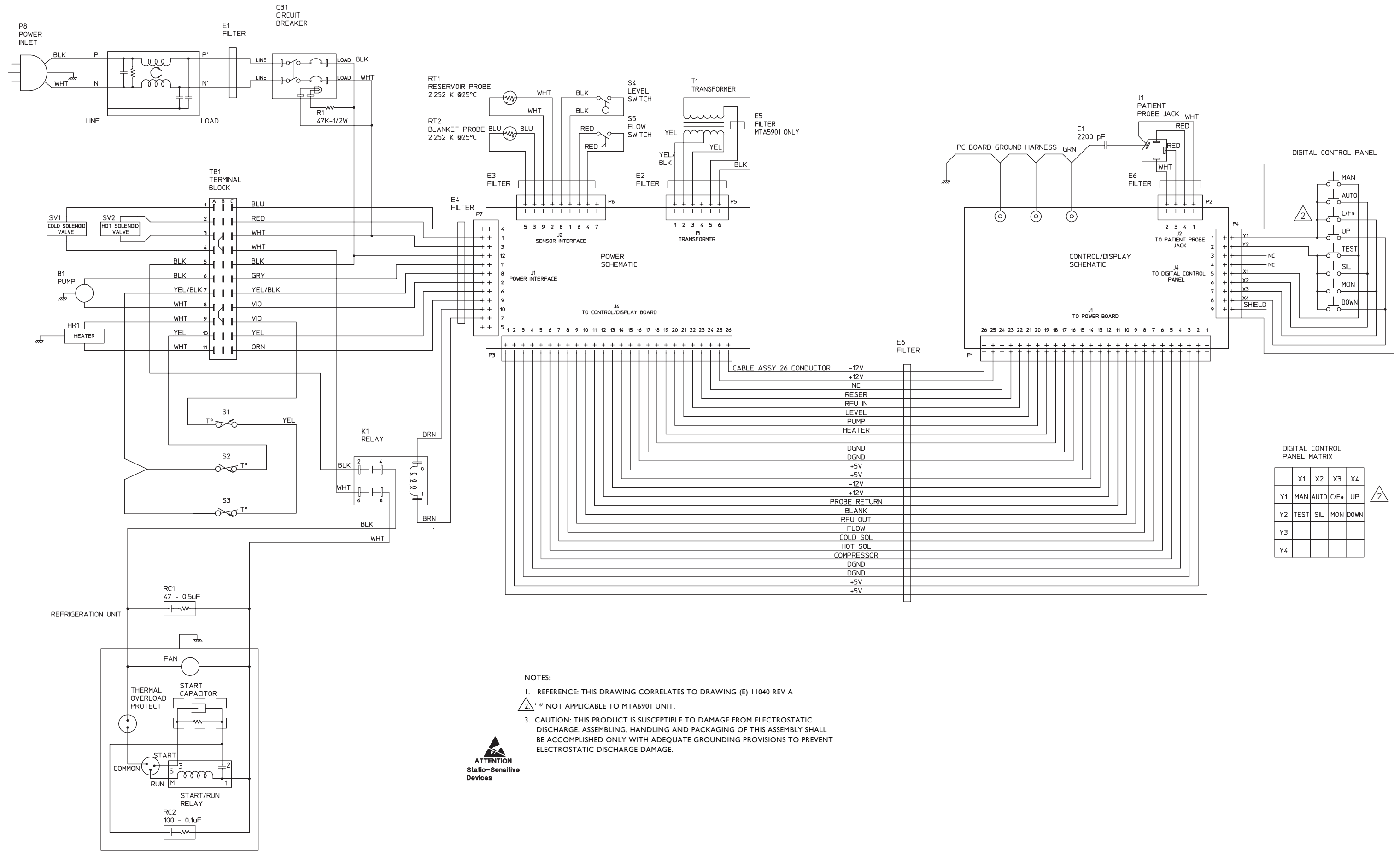


Figure 18—System wiring diagram

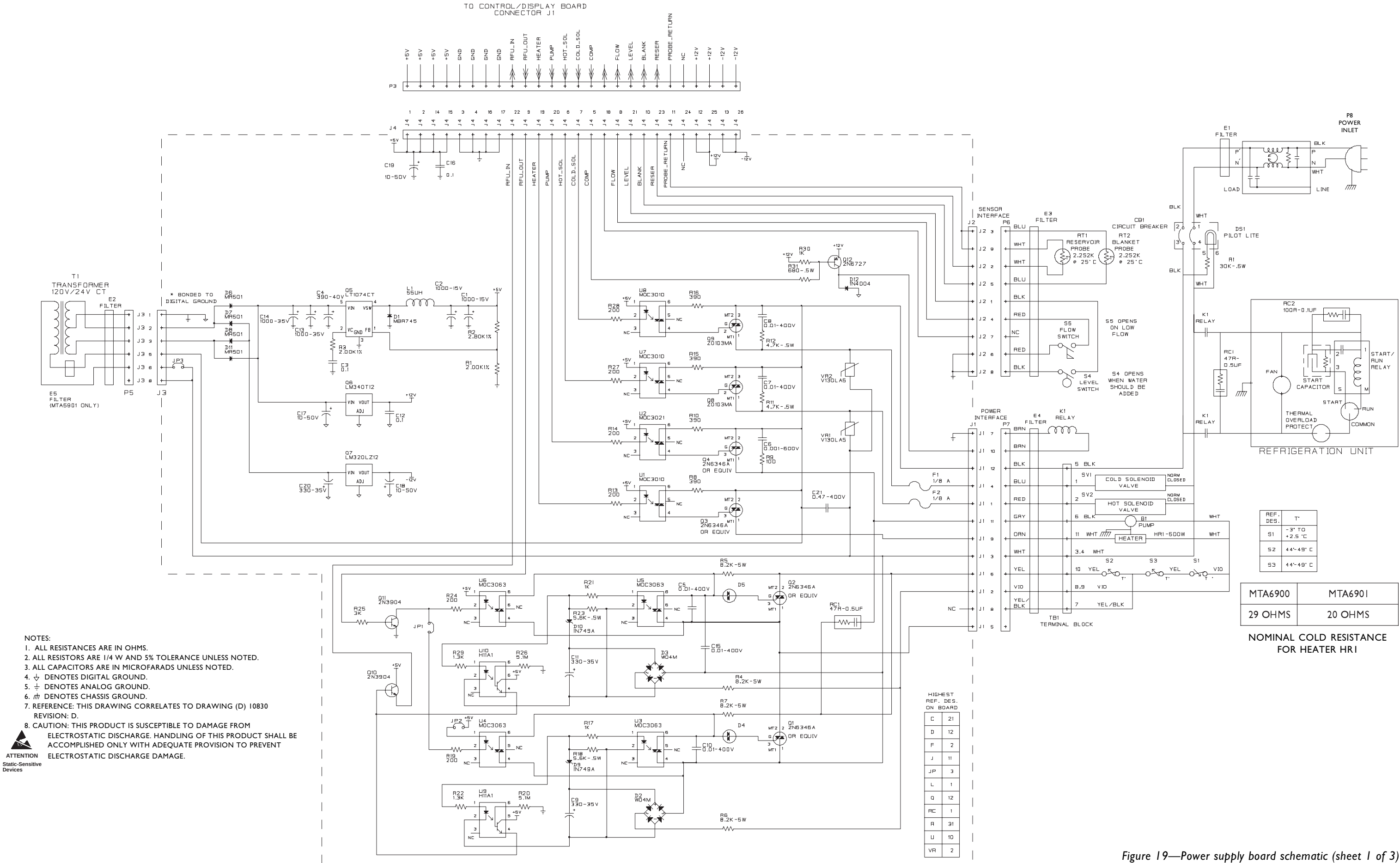


Figure 19—Power supply board schematic (sheet 1 of 3)

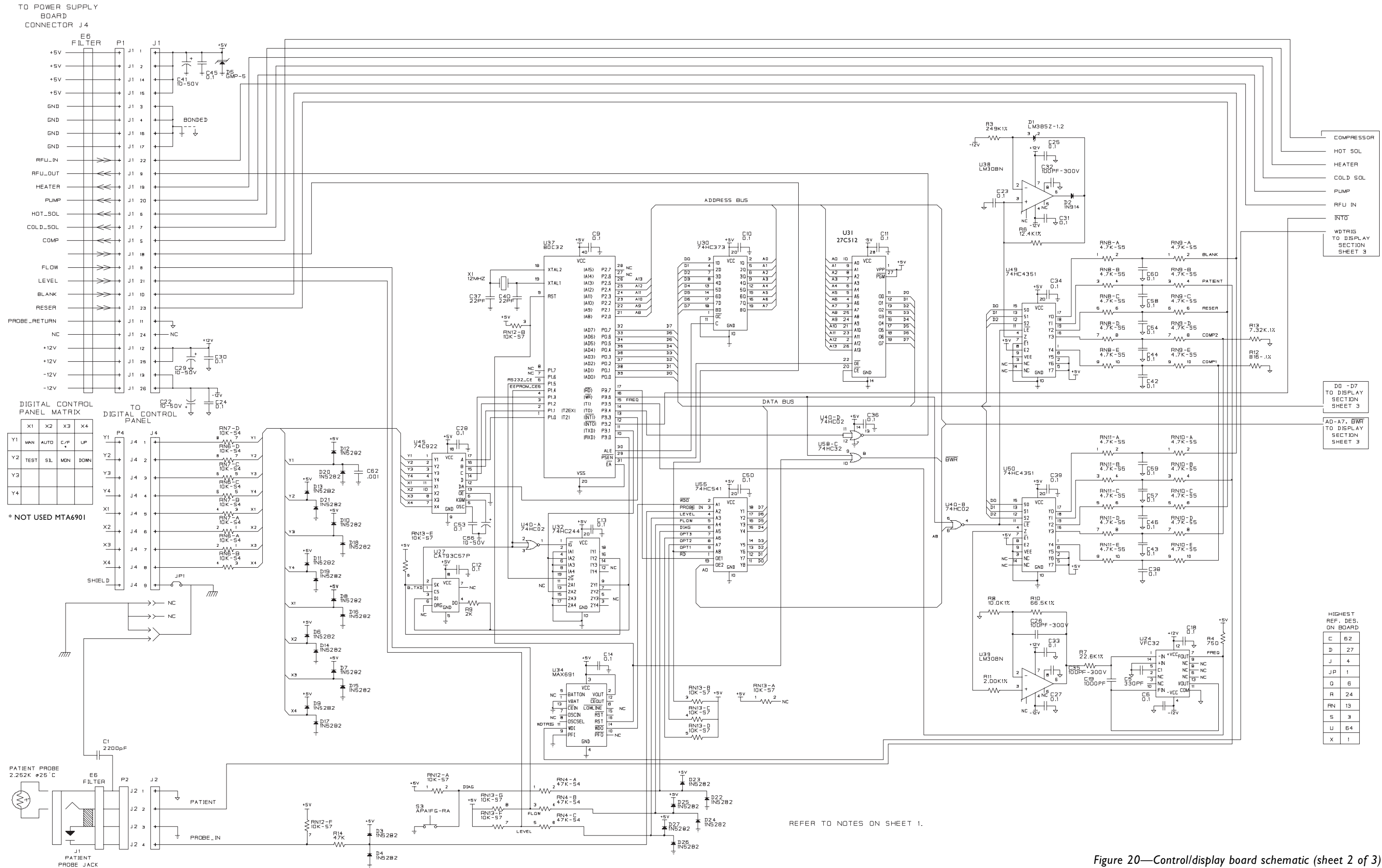
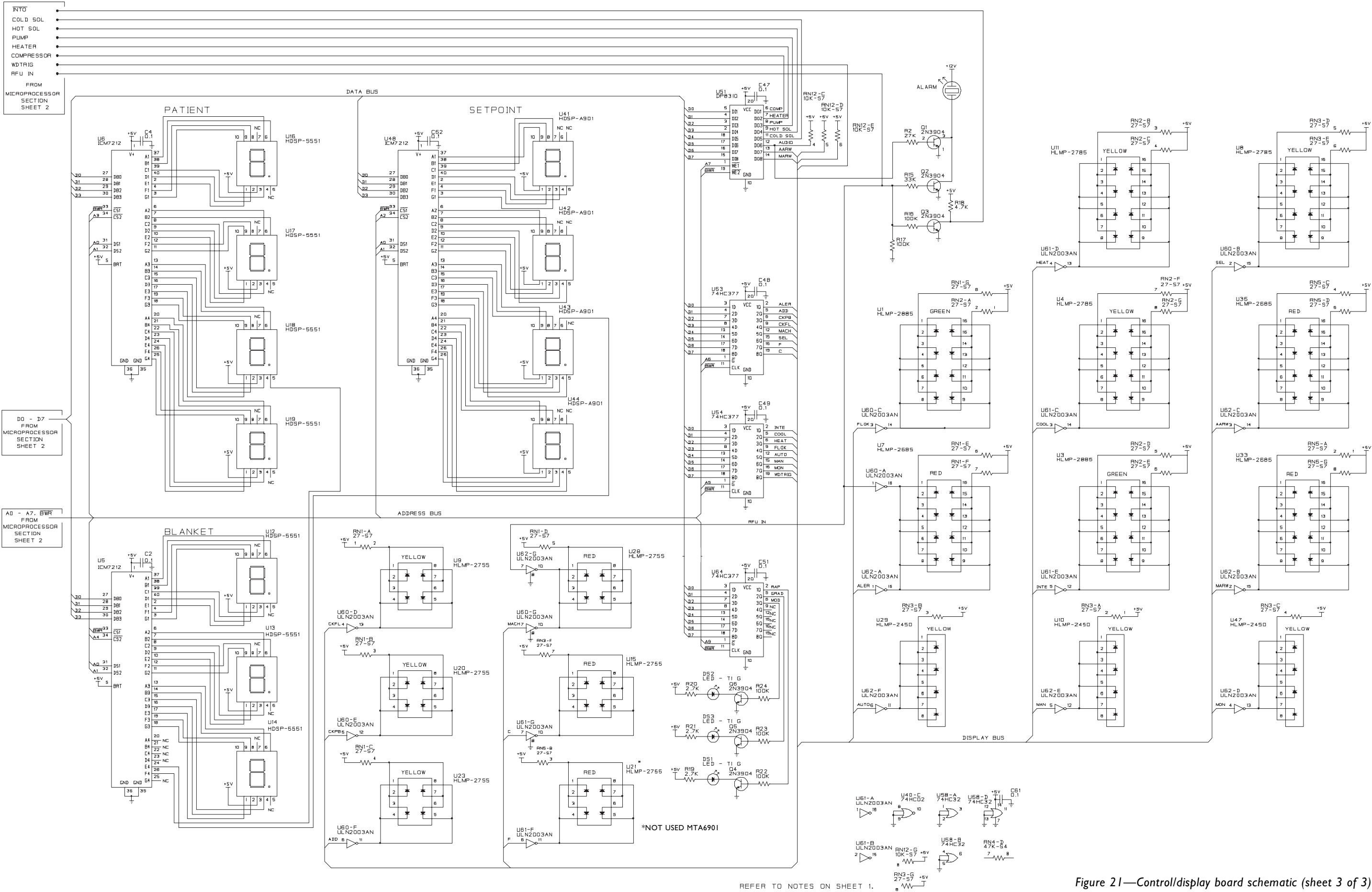


Figure 20—Control/display board schematic (sheet 2 of 3)



REFER TO NOTES ON SHEET 1.

The control/display board may not be fully populated.

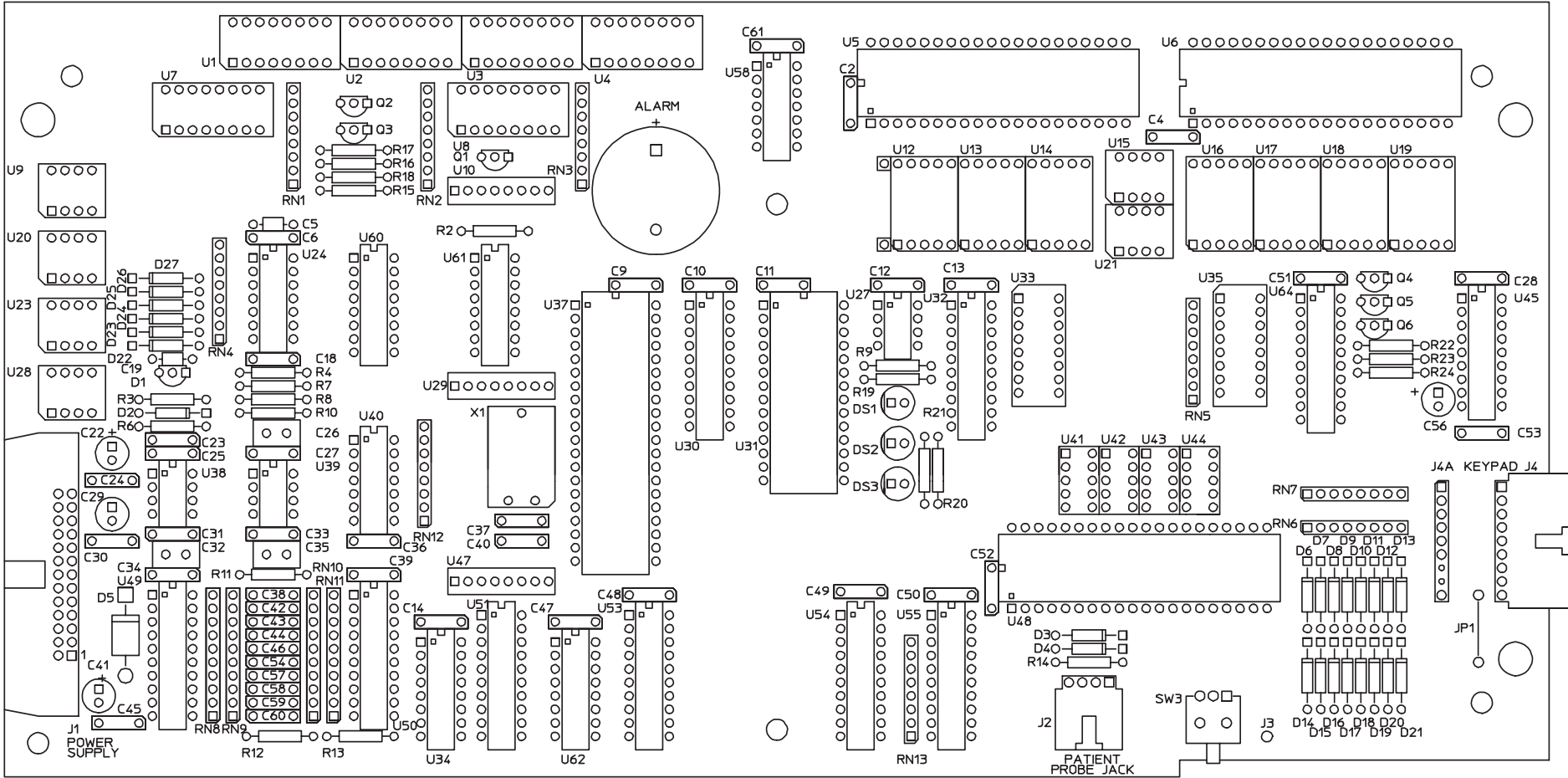


Figure 22—Control/display board

Designator	Description	GAYMAR P/N	Designator	Description	GAYMAR P/N	Designator	Description	GAYMAR P/N
U1, U3	LED Lt. Bar, HLMP-2885	90761-026	U53, U54, U64	IC, 74HC377	90886-088	R4	Resistor, 750 ohms, 5%, 1/4W	90092-046
U2, U4, U8	LED Lt. Bar, HLMP-2785	90761-003	U55	IC, 74HC541	90886-089	R6	Resistor, 12.4K, 1%, 1/8W	90092-343
U7, U33, U35	LED Lt. Bar, HLMP-2685	90761-002	U58	IC, 74HC32	90886-039	R7	Resistor, 22.6K, 1%, 1/8W	90092-344
U9, U20, U23	LED Lt. Bar, HLMP-2755	90761-005	U60-U62	IC, ULN2003A	90886-054	R8	Resistor, 10.0K, 1%, 1/8W	90092-368
U10, U29, U47	LED Lt. Bar, HLMP-2450	90761-027	ALARM	Alarm, MCP320B2	90919-001	R9	Resistor, 2K, 5%, 1/4W	90092-056
U12-U14, U16-U19	LED Digit, HDSP-5551	90761-000	C2, C4, C6, C9-C14, C18, C23-C25, C27, C28, C30, C31, C33, C34, C36, C38, C39, C42-C54, C57-C61	Capacitor, 0.1 µF	90701-169	R10	Resistor, 66.5K, 1%, 1/8W	90092-345
U15, U21, U28	LED Lt. Bar, HLMP-2655	90761-001	C5	Capacitor, 330 pF	90701-167	R11	Resistor, 2.00K, 1%, 1/8W	90092-364
U41-U44	LED Digit, HDSP-7511	90761-006	C19	Capacitor, 1000 pF	90701-166	R12	Resistor, 816 ohms, 0.1%, 1/8W	90092-421
U5, U6, U48	IC, ICM7212	90886-072	C22, C29, C41, C56	Capacitor, 10 µf-100V	90701-071	R13	Resistor, 7.32K, 0.1%, 1/8W	90092-422
U24	IC, VFC32	90886-037	C26, C32, C35	Capacitor, 100 pF	90701-111	R14	Resistor, 47K, 5%, 1/4W	90092-089
U27	IC, CAT93C57P	90886-021	C37, C40	Capacitor, 22 pF	90701-168	R15	Resistor, 33K, 5%, 1/4W	90092-085
U30	IC, 74HC373	90886-086	D1	Diode, LM-385Z-1.2	90717-058	R16, R17, R22, R23, R24	Resistor, 100K, 5%, 1/4W	90092-097
U31	EPROM PROGRAMMED	*	D2	Diode, 1N914	90717-002	R18	Resistor, 4.7K, 5%, 1/4W	90092-065
U32	IC, 74HC244	90886-085	D3, D4, D6-D27	Diode, 1N5282	90717-006	R19, R20, R21	Resistor, 2.7K, 5%, 1/4W	90092-059
U34	IC, MAX691	90886-052	D5	TransZorb, Transient Suppressor	91269-001	RN1-RN3, RN5	Resistor Net., 27 ohm bussed	91248-001
U37	IC, 80C32	90886-071	DS1-DS3	LED, Lamp Green	90761-017	RN4	Resistor Net., 47K isolated	91248-018
U38, U39	IC, LM308AN	90886-016	JP1	Jumper	90879-007	RN6, RN7	Resistor Net., 10K isolated	91248-017
U40	IC, 74HC02	90886-036	Q1-Q6	Transistor, 2N3904	90868-015	RN8-RN11	Resistor Net., 4.7K isolated	91248-016
U45	IC, 74C922	90886-058	R2	Resistor, 27K, 5%, 1/4W	90092-083	RN12-RN13	Resistor Net., 10K bussed	91248-002
U49, U50	IC, 74HC4351	90886-087	R3	Resistor, 249K, 1%, 1/8W	90092-346	SW3	Switch, Push Button	91247-027
U51	IC, DP8310	90886-090				X1	Crystal, 12MHz	91226-001

* Not a service part. Call Gaymar's Technical Service Department.

Table 9—Control/display board parts list

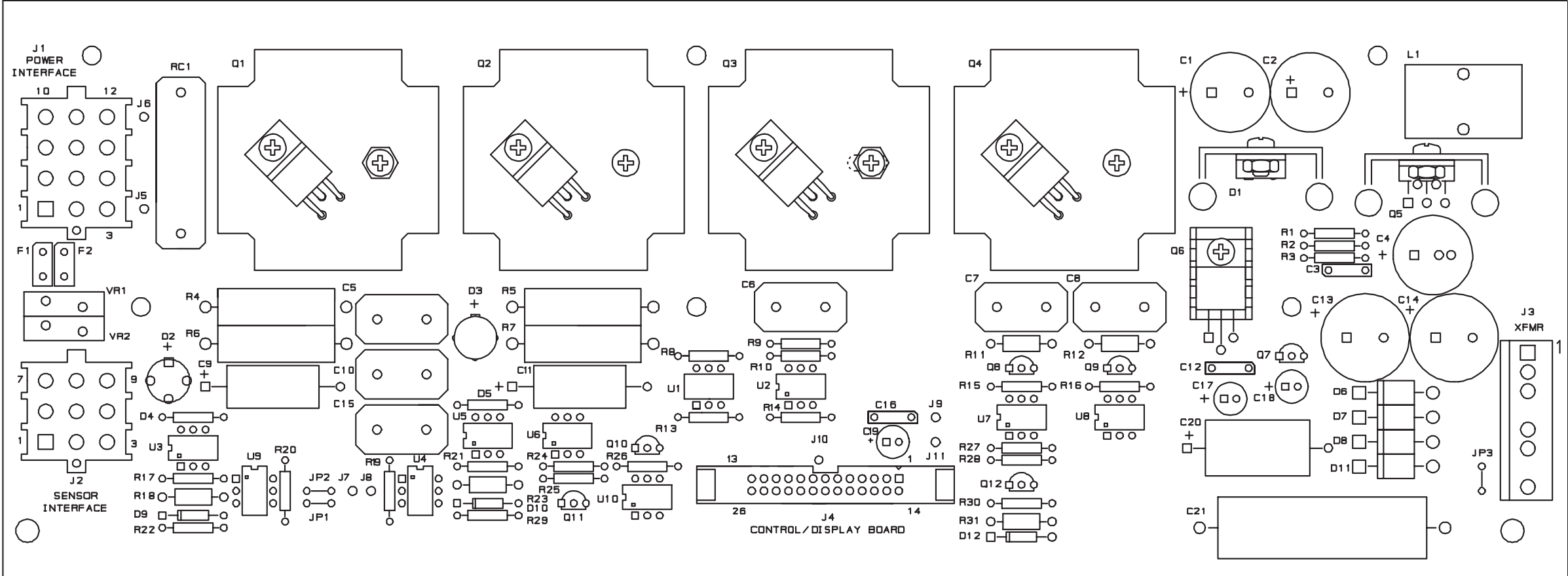
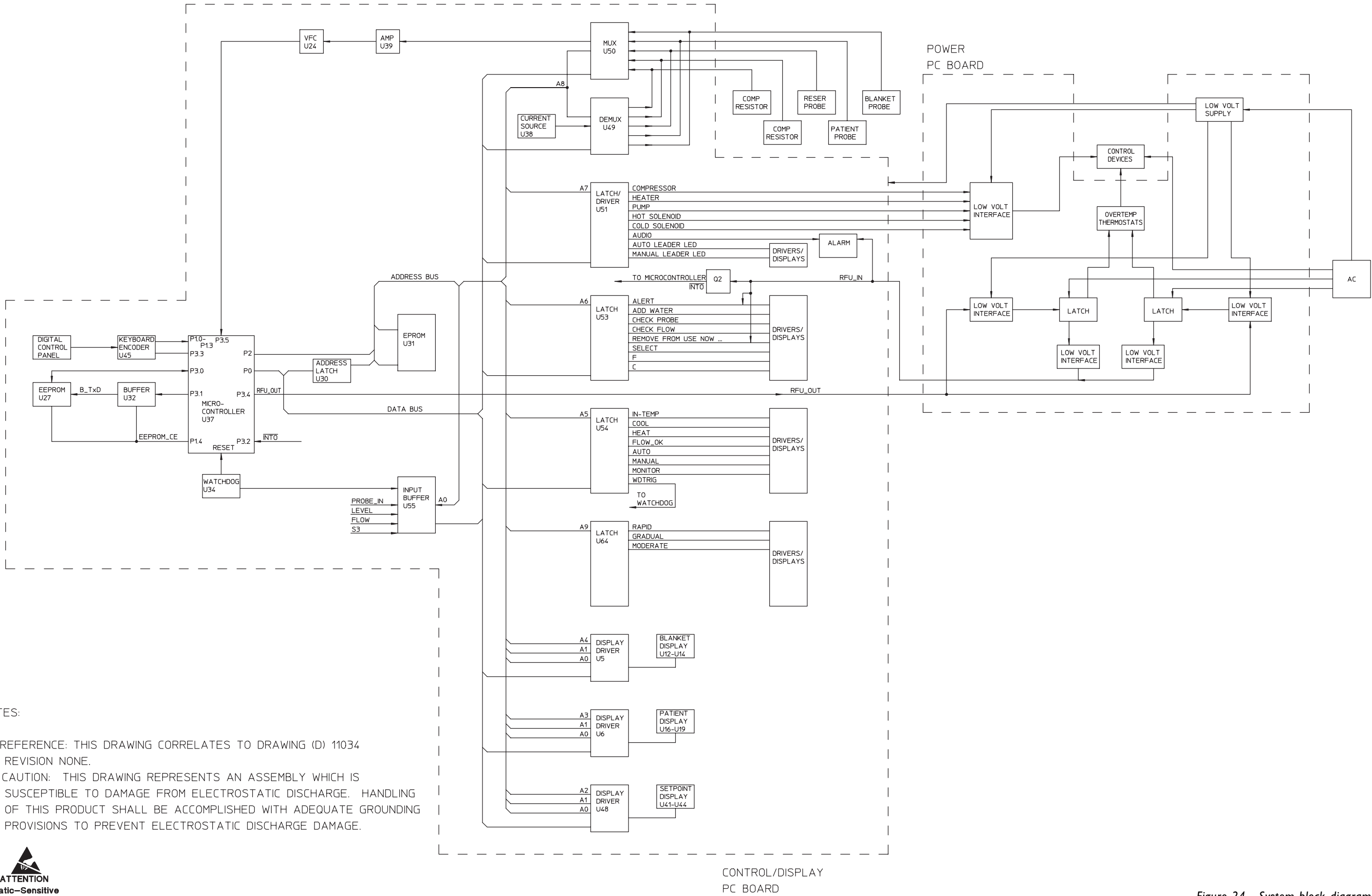


Figure 23—Power supply board

Designator	Description	GAYMAR P/N	Designator	Description	GAYMAR P/N	Designator	Description	GAYMAR P/N
C1, C2	Capacitor, 1000µF-35V, low ESR	90701-080	F1, F2	Fuse	90695-041	R11, R12	Resistor, 4.7K, 5%, 1/2W	90092-225
C3, C12, C16	Capacitor, 0.1µF	90701-169	JP1-JP3	Jumper	90878-002	R13, R14, R19, R24, R27, R28	Resistor, 200 ohm, 5%, 1/4W	90092-032
C4	Capacitor, 390µF-40V, low ESR	90701-079	L1	Inductor, 55µH	91265-001	R17, R21, R30	Resistor, 1K, 5%, 1/4W	90092-049
C5, C7, C8, C10, C15	Capacitor, 0.01µF-400V	90701-096	Q1, Q2, Q3, Q4	Triac, 2N6347A, 2N6348A, 2N6349A	90709-000	R18, R23	Resistor, 5.6K, 5%, 1/2W	90092-227
C6	Capacitor, 0.001µF-600V	90701-097	Q5	Voltage Regulator, LT1074	90712-043	R20, R26	Resistor, 5.1M, 5%, 1/4W	90092-138
C9, C11, C20	Capacitor, 330µF-35V	90701-064	Q6	Voltage Regulator, LM340T-12	90712-015	R22, R29	Resistor, 1.3K, 5%, 1/4W	90092-052
C13, C14	Capacitor, 1000µF-35V	90701-081	Q7	Voltage Regulator, LM320LZ-12	90712-001	R25	Resistor, 3K, 5%, 1/4W	90092-060
C17, C18, C19	Capacitor, 10µF-100V	90701-071	Q8, Q9	Triac, Z0103MA	77894-000	R31	Resistor, 680 ohm, 5%, 1/2W	90092-205
C21	Capacitor, 0.47µF-400V	90701-180	Q10, Q11	Transistor, 2N3904	90868-015	RC1	RC Network, 47ohm, 0.5 µF	91069-001
D1	Diode, MBR745	90717-098	Q12	Transistor, 2N6727	90868-030	U1, U7, U8	Integrated Circuit, MOC3010	90886-001
D2, D3	Diode, Bridge, W04G	90717-042	R1, R3	Resistor, 2.00K, 1%, 1/8W	90092-364	U2	Integrated Circuit, MOC3021	90886-000
* D4, D5	Diode	90717-028	R2	Resistor, 2.80K, 1%, 1/8W	90092-348	U3, U4, U5, U6	Integrated Circuit, MOC3063	90886-003
D6, D7, D8, D11	Diode, MR501	90717-084	R4, R5, R6, R7	Resistor, 8.2K, 5%, 5W	90092-440	U9, U10	Integrated Circuit, H11A1	90886-002
D9, D10	Diode, Zener, 1N749A	90717-014	R8, R10, R15, R16	Resistor, 390 ohm, 5%, 1/4W	90092-039	VR1, VR2	Varistor, V130LA5	91266-000
D12	Diode, 1N4004	90717-001	R9	Resistor, 100 ohm, 5%, 1/4W	90092-025			

* Critical part. Purchase only from Gaymar Industries, Inc. ESR = equivalent series resistance

Table 10—Power supply board parts list

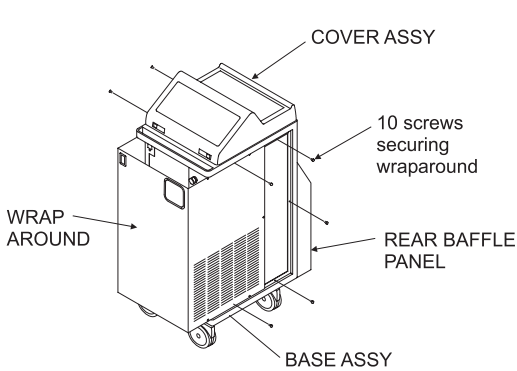


NOTES:

1. REFERENCE: THIS DRAWING CORRELATES TO DRAWING (D) 11034 REVISION NONE.
2. CAUTION: THIS DRAWING REPRESENTS AN ASSEMBLY WHICH IS SUSCEPTIBLE TO DAMAGE FROM ELECTROSTATIC DISCHARGE. HANDLING OF THIS PRODUCT SHALL BE ACCOMPLISHED WITH ADEQUATE GROUNDING PROVISIONS TO PREVENT ELECTROSTATIC DISCHARGE DAMAGE.



Figure 24—System block diagram



MEDI-THERM UNIT
Figure A

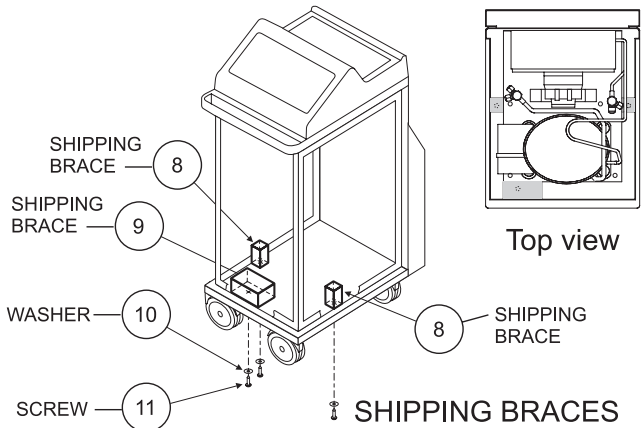


Figure B

CAUTION

Failure to install the compressor shipping braces (see Figure B) before shipment can result in extensive damage to the refrigeration section.

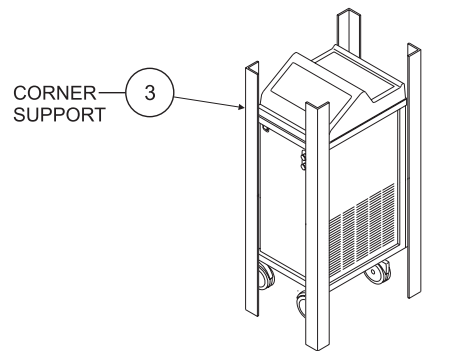


Figure D

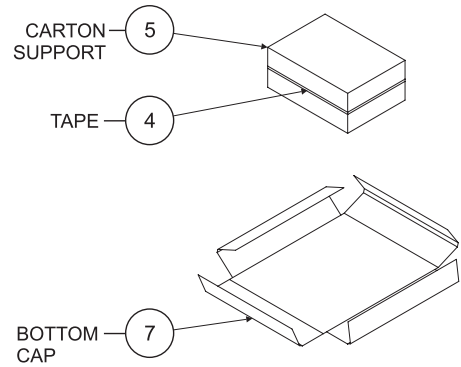


Figure E

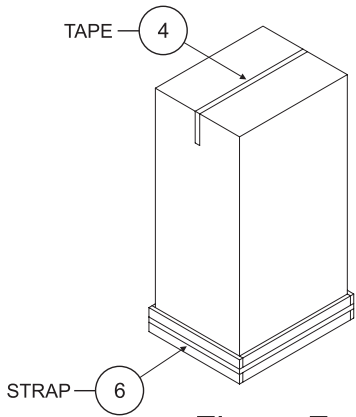
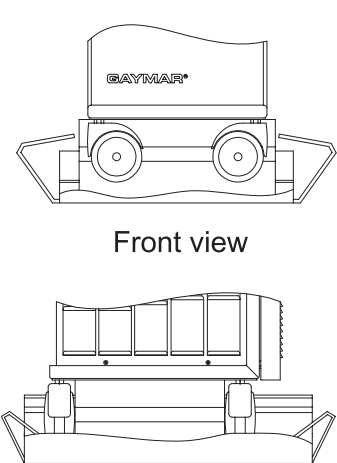
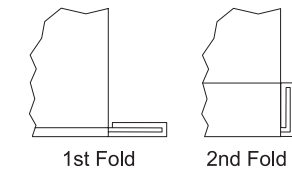
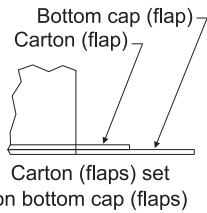


Figure F



Side view
Figure C



Bottom cap folding detail

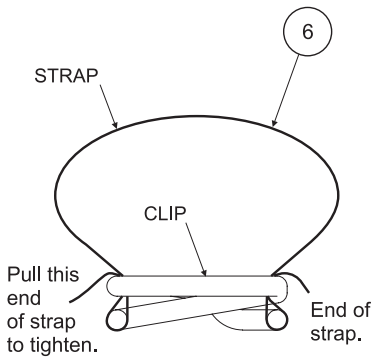


Figure G

INSTRUCTIONS

Before physically repacking the Medi-Therm III machine, perform Steps 1 & 2:

Step 1. Fill unit with distilled water to proper fill line. Close the DBK hose assembly clamps (refer to manual) and attach hose connectors to the supply quick disconnect fittings on the unit. Direct the DBK hose assembly Klik-Tite connectors to a drain or container having a minimum capacity of three (3) gallons, open the DBK hose assembly clamps. Plug unit into proper voltage receptacle, turn unit on, select *MANUAL MODE* and set temperature to 30°C. Drain approximately one (1) gallon of water from unit. Turn unit off, close the DBK hose assembly clamps, fasten the Klik-Tite connectors together and reopen the clamps. Add eight (8) ounces of isopropyl alcohol to unit. Turn unit on, select *MANUAL MODE*, set temperature to 30°C and run unit for approximately three (3) minutes. Turn power off.

Step 2. Direct the DBK hose assembly Klik-Tite connectors to a drain or container. Unfasten the connectors. Turn unit on, select *MANUAL MODE*, set temperature to 4°C, drain unit until no water comes out. Continue draining by tilting the unit forward and keep it in that position until the unit is completely empty. Turn unit off and unplug the power cord. Connect Klik-Tite connectors together and disconnect the DBK assembly from unit.

Step 3. Refer to figure A. Coil power cord and place on strap assembly located on back of rear baffle panel. Hang plug below chassis. Remove lower wraparound by removing ten (10) screws.

Step 4. Refer to figure B. Insert three (3) shipping braces. Use a screw and washer through the housing frame and into shipping brace as shown.

Step 5. Refer to figure A. Replace lower wraparound and ten (10) screws.

Step 6. Refer to figure E. Place bottom cap (item 7) on floor.

NOTE: Steps 7 through 15 will require two (2) people.

Step 7. Refer to figure D. Tape up carton support (item 5) as shown using nylon tape (item 4) and place on top of bottom cap.

Step 8. Refer to figure C. Place the unit on top of carton support with the wheels oriented as shown.

Step 9. Refer to figure D. The Return Carton Kit provides six (6) corner supports (item 3). For units with a rear baffle panel, only four (4) corner supports are used. Position the four (4) corner supports (item 3) on the corners of the unit as shown in the exploded view.

NOTE: The hole in the left rear corner support must be positioned directly over the power cord bushing in unit base. No special positioning is required on the other three corner posts.

Step 10. Position power cord plug so it lays in the space between the chassis bottom and the bottom of carton.

Step 11. Refer to figure E. Push handle protector (item 2) down behind the two (2) front corner supports so it rests on top of the handle. Slide master carton (item 1) over corner supports.

Step 12. Refer to figure F. Tape the top of the box closed using nylon filament tape (item 4) supplied with kit.

Step 13. Refer to figures F & G for folding bottom cap and securing plastic strap and clip (item 6).

CONTENTS OF RETURN KIT (P/N 78261-000)		
ITEM	DESCRIPTION	QTY
1	CARTON	1
2	HANDLE PROTECTOR	1
3	CARDBOARD CORNER SUPPORT	6
4	NYLON FILAMENT TAPE (3/4" WIDE)	1
5	CARDBOARD CARTON SUPPORT	1
6	PLASTIC STRAP w/ ATTACHMENT CLIP	1
7	CARDBOARD BOTTOM CAP	1
8	WOOD SHIPPING BRACE	2
9	WOOD SHIPPING BRACE	1
10	SCREW	3
11	WASHER	3
12	RETURN KIT INSTRUCTIONS	1

Questions or problems? Please call Gaymar's Technical Service Department at (716) 662-2551 or 1 800 828-7341.

Classify machine return as follows:

- Description.....Power pump No. 12800
- Class.....85
- Shipping Weight.....136 pounds (61.7 kg)

Figure 25—Shipping/Repackaging Instructions