APPLICATION		REVISIONS			
NEXT ASSY	USED ON	LTR	DESCRIPTION	DATE	APPROVED
LISTED ON		-	ORIGINATED	-	-
914061	PAVE PAWS	A	SEE WECO 48243 P.R.	21 MAR78	
953252	PAVE PAWS	B	SEE WECO 150951 M.H.	3NOV89	

NOTICE: THIS DRAWING IS IN ACCORDANCE WITH DOD-D-1000, LEVEL 1.

PART NUMBER: 584785-1

REV STATUS OF SHEETS															
	REV LTR	B	B	-											SPECIFICATION CONTROL DRAWING
	SHEET NO.	1	2	3											

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ± FRACTIONS ± 3 PLACE DECIMALS ± 2 PLACE DECIMALS ± .03 1 PLACE DECIMALS ±	CONTR NO. F19628-76-C-0146 DR B.M. Sloper 27 MAR 77 CHK E.K. Hall 30 MAR 77 APPD T.F. Carlson 7 APR 77 APPD F.P. Armstrong 12 Apr 77	RAYTHEON	RAYTHEON COMPANY LEXINGTON, MASS. 02173
MATERIAL:	APPROVED 321 BY DIRECTION OF	DRAWING TITLE POWER SUPPLY	
		SIZE A / CODE IDENT NO. 49956	DRAWING NO. 584785
		SCALE NONE	SHEET 1 OF 3

10-2735 (6-72) FILM PRINTED IN U.S.A.

3 SHEETS ATTACHED

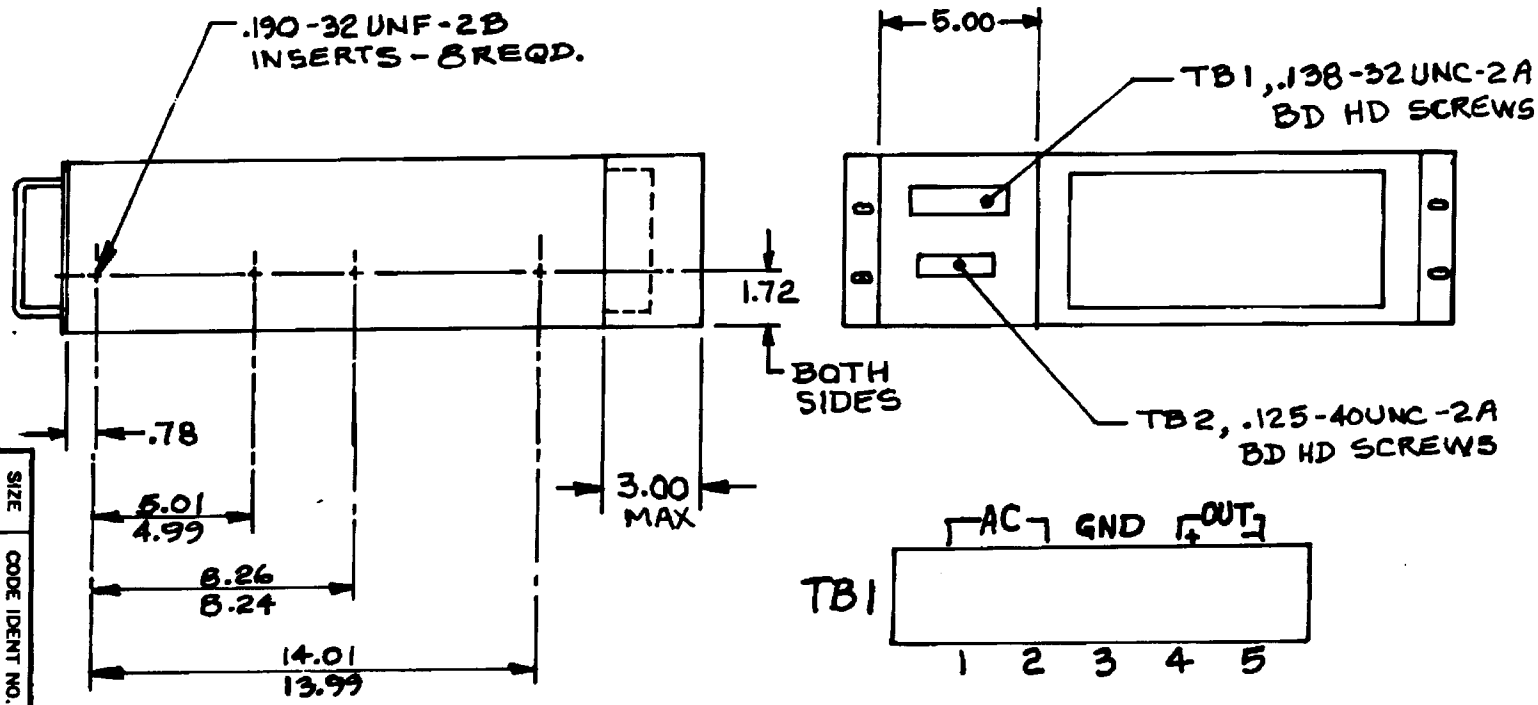


TABLE I. PIN ASSIGNMENTS

TB1	FUNCTION	TB2	FUNCTION
PIN 1	AC HI	PIN 1	N-C
PIN 2	AC LO	PIN 2	COMMON
PIN 3	GND	PIN 3	N-O
PIN 4	+31 VDC OUT	PIN 4	MONITOR
PIN 5	+31 VDC RTN	PIN 5	SPARE

(SEE ATTACHMENTS).

FIGURE 1. OUTLINE MODIFICATIONS

SIZE	CODE IDENT NO.	DRAWING NO.
A	49956	584785

SCALE 1/5 REV - SHEET 3

10-2705 (6-72) FILM PRINTED IN U.S.A.

NOTES:

1. DESCRIPTION: POWER SUPPLY, DC, 0-40 VDC, 8A AT 71°C.

2. REQUIREMENTS:

2.1 PIN ASSIGNMENT: SHALL BE PER FIGURE 1.

2.2 CONFIGURATION AND DIMENSIONS SHALL BE PER FIGURE 1.

2.3 POWER SUPPLY RESPONSE VERSUS CONDITION OF PRIMARY POWER: SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF MIL-E-4158E, PARAGRAPH 3.2.30.3.2.1.

2.4 THE PEAK INRUSH CURRENT, AT TURN-ON, SHALL NOT EXCEED 40 AMPERES WITH RATED LOAD CONNECTED TO POWER SUPPLY. INRUSH DURATION SHALL NOT EXCEED 25 MILLISECONDS FOR EACH TURN-ON.

2.5 THE MINIMUM EFFICIENCY WITH NOMINAL INPUT VOLTAGE AND RATED LOAD CONNECTED TO POWER SUPPLY SHALL BE 50 PERCENT.

2.6 BITE SHALL CONSIST OF AN UNDERVOLTAGE MONITOR. THE TRIP POINT SHALL BE ADJUSTABLE BETWEEN 29 V AND 33 V. FAULT REPORTING SHALL BE BY SINGLE-POLE DOUBLE-THROW CONTACTS. THE N-C CONTACT IS TO BE USED FOR A NO-FAULT CONDITION AND THE N-O CONTACT IS TO BE USED FOR A FAULT CONDITION.

2.7 COOLING IS BY FORCED AIR OF 140 CFM AT 78°F, AND SHALL BE PROVIDED BY RAYTHEON.

2.8 MARKING: SHALL BE IDENTIFIED PER MIL-STD-130 IN ADDITION TO MARKING AS INDICATED IN FIGURE 1.

2.9 THE FOLLOWING MODIFICATION SHALL BE MADE TO EACH POWER SUPPLY. THE WIRE FROM THE ANODE OF CR50 TO THE SUPPLY POSITIVE OUTPUT VOLTAGE TERMINAL SHALL BE REMOVED AND REPLACED WITH A 5.6 OHM 14 WATT RESISTOR PART NUMBER RW56V5R6 PER MIL-R-26. THIS MODIFICATION IS NECESSARY TO LIMIT THE PEAK CURRENT INTO CR50, DUE TO A CAPACITIVE LOAD OF 300,000 MICROFARADS, DURING OVER VOLTAGE CROW BAR

SUGGESTED SOURCE(S) OF SUPPLY:

SORENSEN CO. A DIV OF SWITCHCRAFT INC
SUB OF RAYTHEON CO
CAGE CODE 7H381
PAXTON, IL 60957
MFR PART NUMBER: SLR40-12-23

SIZE	CODE IDENT NO.	DRAWING NO.
A	49956	584785
SCALE NONE	REV B	SHEET 2

SRL: Electrical Specifications

SUPPLEMENT TO 584785 SH 1 of 3

RAYTHEON REFERENCE ONLY

- **Remote Sensing:** 1 volt per load lead (maximum allowable)
- **Series Operation:** Up to 200 Vdc output maximum
- **Parallel Operation:** 3 units maximum in parallel
- **Operating Temperature Range:** 0°C to 71°C
- **Storage Temperature:** −65°C to +85°C
- **Isolation voltage to Ground:** 1000 Vdc input; 200 Vdc output
- **RFI:** MIL-I-6181D
- **Output Voltage Turn-On/Turn-Off Overshoot:** None
- **Output Current Turn-On/Turn-Off Overshoot:** None
- **Overload/Short Circuit Protection:** Crossover to current mode or crossover to voltage mode
- **Overvoltage Protection:** 10 microsecond crowbar
- **Finish:** Case is finished in black semi-gloss baked enamel; front panel is finished in black semi-gloss enamel / white lettering.
- **Programming:** Adjustable resistance and voltage (gain) programming constants. Complete details are in Sorensen's Performance Note PAN-1.

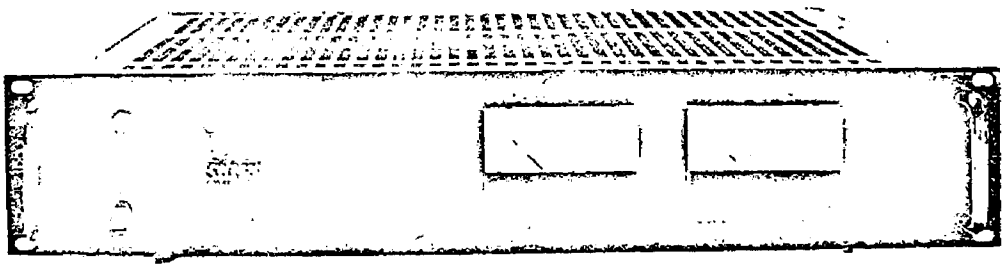
	Output Power				Constant Voltage Mode						Constant Current Mode		
						Ripple (PARD)						Ripple[5] (PARD)	
Model	Voltage (Vdc)	Current (Adc) 55°	60°	71°C	Regulation[1]	rms (10 Hz to 7 MHz)	p – p (7 Hz to 25 MHz)	Resolution (Typ.)	Transient Response Time (Typ.)[5]	Regulation[1]	rms (10 Hz to 7 MHz)	Resolution (Typ.)
SRL10-25	0-10	25	22	16.7	.01% or 2mV[2]	350μV	20mV	5mV	150μs	.02% + 4mA	10mA	3.75mA
SRL10-50	0-10	50	44	33.5	.01% or 2mV[2]	300μV	10mV	1mV	150μs	.02% + 4mA	20mA	7.5mA
SRL10-100	0-10	100	88	67	.01% or 2mV[2]	300μV	20mV	5mV	150μs	.02% + 6mA	30mA	15mA
SRL20-12	0-20	12	10.5	8	.01% or 2mV[2]	200μV	20mV	2mV	70μs	.02% + 4mA	3mA	1.8mA
SRL20-25	0-20	25	22	16.7	.01% or 2mV[2]	300μV	20mV	5mV	150μs	.02% + 4mA	10mA	3.75mA
SRL20-50	0-20	50	44	33.5	.01% or 2mV[2]	500μV	40mV	5mV	150μs	.02% + 4mA	10mA	7.5mA
SRL40-6	0-40	6	5.3	4	.01% or 2mV[2]	200μV	20mV	4mV	70μs	.02% + 1mA	0.5mA	0.9mA
SRL40-12	0-40	12	10.5	8	.01% or 2mV[2]	300μV	20mV	5mV	150μs	.02% + 4mA	1mA	1.8mA
SRL40-25	0-40	25	22	16.7	.01% or 2mV[2]	500μV	10mV	4mV	150μs	.02% + 4mA	10mA	3.75mA
SRL40-50	0-40	50	44	33.5	.01% or 2mV[2]	700μV	40mV	5mV	150μs	.02% + 4mA	10mA	7.5mA
SRL60-4	0-60	4	3.5	2.68	.01% or 2mV[2]	300μV	20mV	6mV	70μs	.02% + 1mA	0.5mA	0.6mA
SRL60-8	0-60	8	7	5.36	.01% or 2mV[2]	300μV	20mV	5mV	70μs	.02% + 1mA	1mA	1.2mA
SRL60-17	0-60	17	14.9	11.4	.01% or 2mV[2]	500μV	10mV	6mV	150μs	.02% + 4mA	3mA	2.5mA
SRL60-35	0-60	35	31	23.4	.01% or 2mV[2]	700μV	40mV	5mV	150μs	.02% + 4mA	10mA	6.25mA

NOTES:

1. With load change (NL to FL or FL to NL) and line voltage change (±10%) combined.
2. Whichever is greater.
3. At full compliance voltage.
4. For 8 hours (after 30 min. warmup) with constant line, load and ambient temperature.
5. To return to a bandwidth of ±10mV for a step load change of

SUPPLEMENT TO 584785 SH 2 OF 3

RAYTHEON REFERENCE ONLY



Panel Controls, Meters, and Protective Devices

- Power on/off switch or circuit breaker
- Input line fuse (rear)
- Power on indicator light
- Individual "coarse and fine" output voltage controls
- Individual "coarse and fine" output voltage controls
- Output voltmeter
- Output ammeter
- Overvoltage adjust (recessed)
- Overvoltage indicator light
- Overvoltage adjust meter switch
- Front and rear output terminals
- Thermal overload indicator light on fan-cooled units.

Temperature Coefficient		Drift[4] (Typ.)		Programming Constants				Meter (2% accuracy)		Input Power (single phase, 47-53/57-63 Hz)		Power Factor	
				Voltage Mode[8]		Current Mode							
Voltage (Δ/°C)	Current (Δ/°C)	Voltage (%)	Current	Ohms (±.5%)	Volts	Ohms (±10%)	Volts	Voltmeter	Ammeter	Voltage (Vac)	Current Max (Aac)	(Typ.)	Cooling
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	40Ω/Amp	20mV/Amp	0-12V	0-30A	105-125[6] 190-230 210-250	7.5 4.1 3.75	0.67	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	20Ω/Amp	8mV/Amp	0-12V	0-60A	105-125[6] 190-230 210-250	14.7 8.0 7.3	0.73	Fan
.01% +200μV	.01% +2mA	.025% +500μV	.03% +10mA	200Ω/volt	1 volt/volt	10Ω/Amp	2.5mV/Amp	0-12V	0-120A	105-125[6] 190-230 210-250	32.5 18.5 16.3	0.66	Fan
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	80Ω/Amp	80mV/Amp	0-25V	0-15A	105-125[6] 190-230 210-250	7.8 4.3 3.9	0.65	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	40Ω/Amp	20mV/Amp	0-25V	0-30A	105-125[6] 190-230 210-250	13.6 7.5 6.8	0.64	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	20Ω/Amp	8mV/Amp	0-25V	0-60A	105-125[6] 190-230 210-250	28.0 15.4 14.0	0.64	Fan
.01% +200μV	.01% +0.5mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	150Ω/Amp	150mV/Amp	0-50V	0-8A	105-125[6] 190-230 210-250	6.3 3.5 3.2	0.58	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	80Ω/Amp	80mV/Amp	0-50V	0-15A	105-125[6] 190-230 210-250	13.2 7.3 6.6	0.56	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	40Ω/Amp	20mV/Amp	0-50V	0-30A	105-125[6] 190-230 210-250	22.0 12.0 11.0	0.675	Fan
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	20Ω/Amp	8mV/Amp	0-50V	0-60A	190-230[7] 210-250	25.0 23.0	0.66	Fan
.01% +200μV	.01% +0.5mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	250Ω/Amp	250mV/Amp	0-80V	0-5A	105-125[6] 190-230 210-250	6.0 3.3 3.0	0.66	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	125Ω/Amp	125mV/Amp	0-80V	0-10A	105-125[6] 190-230 210-250	12.5 6.9 6.25	0.54	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	50Ω/Amp	40mV/Amp	0-80V	0-20A	105-125[6] 190-230 210-250	22.0 12.0 11.0	0.685	Fan
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	25Ω/Amp	15mV/Amp	0-80V	0-40A	190-230[7] 210-250	26.0 24.0	0.6	Fan

NL to FL or FL to NL.

6. Standard model has 105-125 Vac input. Models with M1 suffix (example SRL10-50 M1) have 190-230 Vac input. Models with M2 suffix (example SRL10-50 M2) have 210-250 Vac input.

7. Models SRL40-50 and SRL60-35 have 190-230 Vac input. Models SRL40-50 M1 and SRL60-35 M1 have 210-250 Vac input.

8. Voltage-mode constants are factory selected. They may be altered at rear terminal board.

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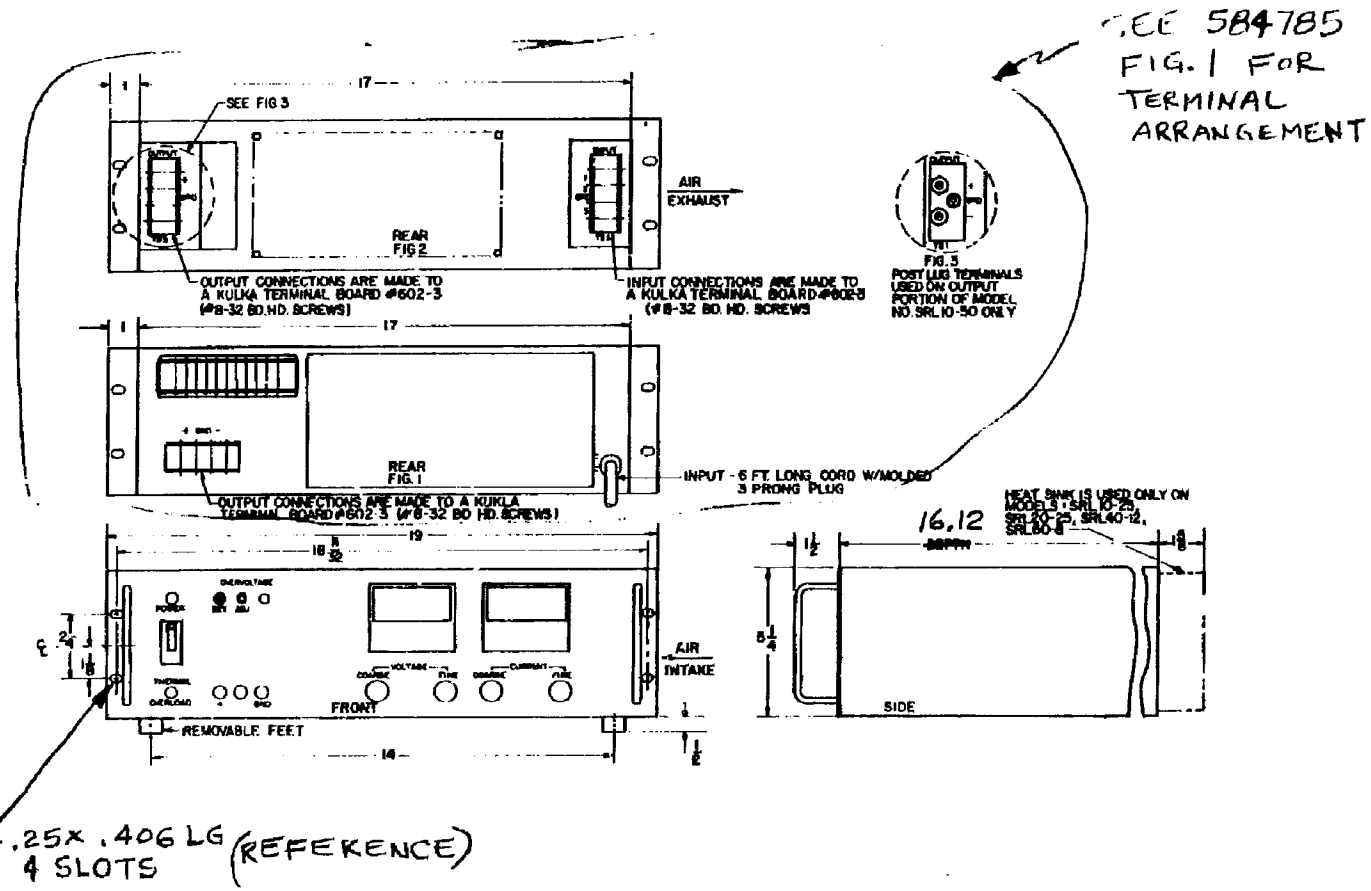

SEE 584785
FIG. 1 FOR
TERMINAL
ARRANGEMENT

FRACTION ±1/32
DECIMAL ±.03

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SUPPLEMENT TO 584785 SH 3 OF 3