





Date: 1-31-92 SOURCE S/N: 153  
 Customer: MIT 3cm RF GRID S/N: 398  
 Order #: 92-225

Grid Type: Nickel STD  
 Technician: Klassta  
 Gas: O<sub>2</sub> Ar

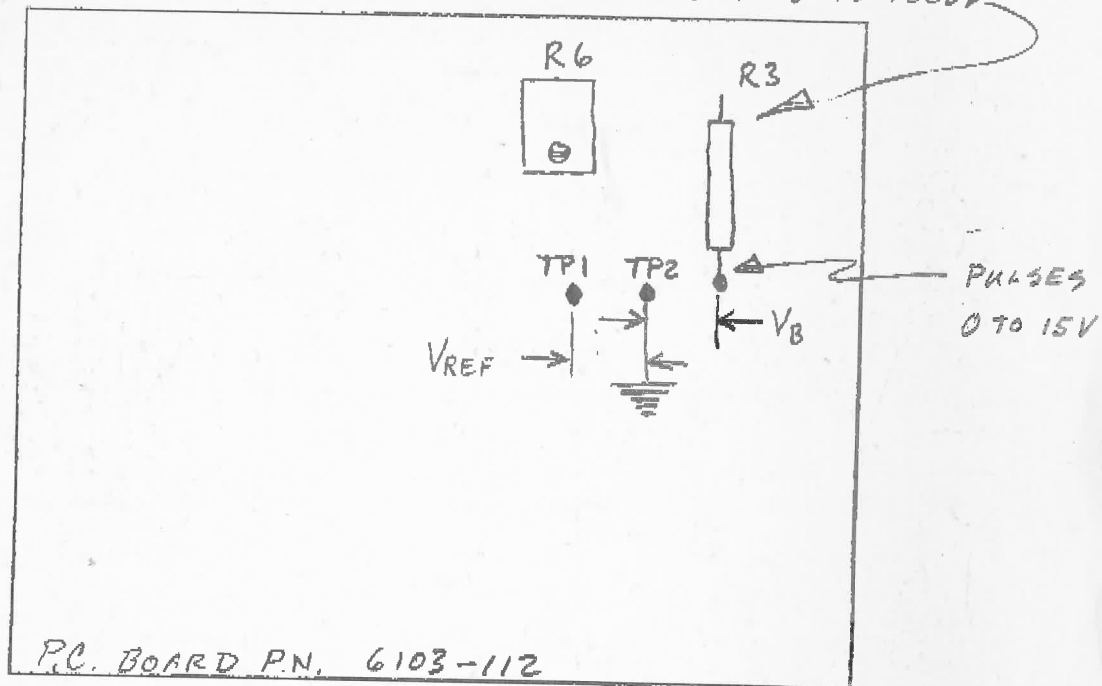
TIME	RF		POWER		BEAM		ACCELERATOR		NEUTRALIZER			CURRENT DENSITY mA/cm <sup>2</sup>	PRESSURE TORR.	FLOW		COMMENTS
	FWD. W	REF. W	CURRENT mA	VOLTAGE VOLT	CURRENT mA	VOLTAGE VOLT	HEATER AMP	BODY VOLT	EMISSION mA	SCM	NEUT. SCM			MV	MV	
4:00	77	0	10	75	2	300	4.8	20	20	17		6.4 <sup>-5</sup>	6.0	2.5		2021 1822
4:03	102	3	20	75	5	450	4.8	20	20	31		"	"	"		2274 1743
4:05	71	0	10	150	0	250	4.8	20	20	16		"	"	"		2158 1795
4:06	90	1	20	150	1	400	4.8	22	22	30		"	"	"		2175 1874
4:07	139	2	40	150	4	600	4.8	22	22	60		"	"	"		2226 1955
4:09	159	2	50	150	7	750	4.8	21	21	77		6.4 <sup>-5</sup>	6.0	2.5		2030 1901
4:11	87	0	20	500	0	100	4.8	20	20	31		"	"	"		2187 1830
4:12	128	1	40	500	2	300	4.8	20	20	60		"	"	"		2203 1983
4:15	156	2	60	500	4	500	4.8	20	20	90		"	"	"		2293 1985
4:16	181	2	70	500	3	700	4.8	20	20	106		"	"	"		2339 1745
4:17	75	0	20	1000	0	100	4.8	21	21	31		"	"	"		2219 1823
4:18	114	1	40	1000	1	100	4.8	21	21	60		"	"	"		2186 1944
4:19	162	2	60	1000	2	200	4.8	21	21	91		6.4 <sup>-5</sup>	6.0	2.5		2187 2002
4:20	187	4	75	1000	3	200	4.8	21	21	112		"	"	"		2376 1732
4:21	76	0	20	1200	1	100	4.8	20	20	30		"	"	"		2239 1812
4:22	110	0	40	1200	1	150	4.8	21	21	60		"	"	"		2104 1927
4:23	152	3	60	1200	2	175	4.8	21	21	90		"	"	"		2219 1974
4:24	179	3	75	1200	2	200	4.8	21	21	113		"	"	"		



4-21-92  
DES

DISCHARGE SENSE VOLTAGE ADJUSTMENT FOR RFB 1200

CAUTION: THIS SIDE OF R3 PULSES 0 TO 1000V



1. CONNECT DVM BETWEEN TP2 AND R3 ON LOW VOLTAGE SIDE AS SHOWN ( $V_B$ ).
2. CONNECT 2ND DVM BETWEEN TP1 & TP2. ( $V_{REF}$ ).
3. TURN ON RFB 1200, RFSS, AND AM5 AND START "SOURCE" DISCHARGE.
4. MEASURE  $V_B$  AND  $V_{REF}$ .  $V_{REF}$  SHOULD BE +1.5V.  $V_B$  SHOULD BE GREATER THAN  $V_{REF}$  (+2 TO 3 VOLTS) WHEN DISCHARGE IS ON. IF  $V_{BEAM} \leq V_{REF}$ , THEN DECREASE  $V_{REF}$  BY ADJUSTING R6.

CAUTION: RFB 1200 HAS LETHAL VOLTAGES EXPOSED WHEN CHASSIS COVER IS REMOVED.



**D. SOFTWARE UPDATING PROCEDURE FOR RFB-1200**

To update software on the RFB-1200, a single PROM needs to be changed. Updated PROM versions are sent in static-protected bags.

**CAUTION**

Handling of the PROM should be performed at a static station to insure damage is not incurred.

**WARNING**

MAKE SURE THAT THE POWER SWITCH AND CIRCUIT BREAKER (CB1) ARE IN THE OFF POSITION (0) AND THAT THE POWER CORD HAS BEEN REMOVED FROM ITS POWER RECEPTACLE. FAILURE TO DO ALL THE ABOVE COULD RESULT IN INJURY OR DEATH TO PERSONNEL.

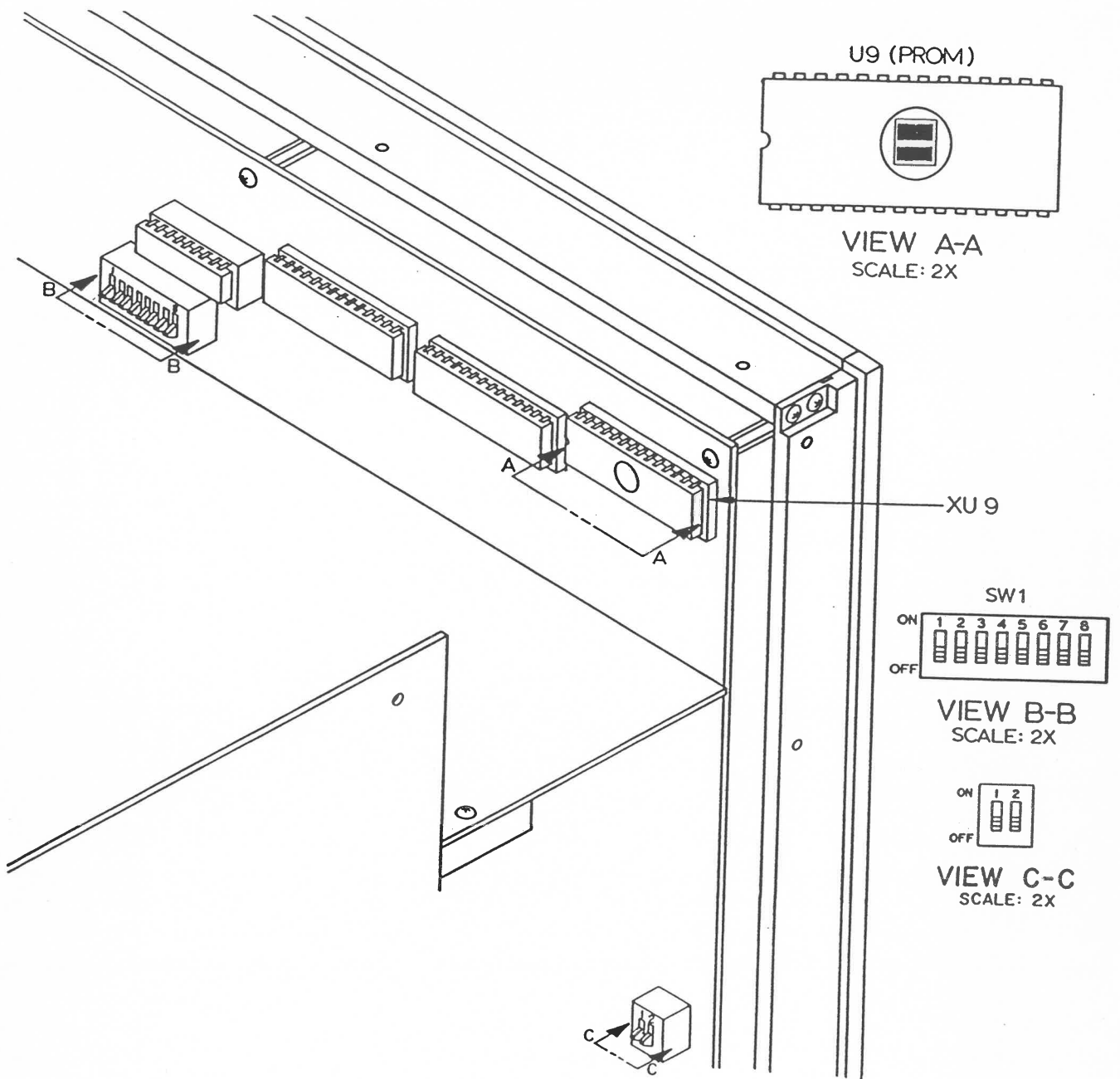
1. Remove the 26 screws holding the top cover and mounting ears to the chassis, and then remove the top cover.
2. Locate XU9 on Figure 5-3 from the RFB-1200 manual. The





3. Use a small screwdriver to pry the PROM upwards carefully until it is loosened.
4. Remove the old PROM from the socket.
5. Orient the new PROM with the notched end toward the inside of the CONTROLLER board (note position of the notched end in Figure 5-3), and insert it into the socket.
6. Apply equal pressure across the PROM, insuring that all the legs continue to enter straight into the socket. (The legs may have to be formed before inserting the PROM.) Continue applying pressure until the PROM is firmly and evenly seated.
7. Inspect to insure that the PROM is fully seated and that all pins are in the socket. Also verify that the notch on the PROM is in the same direction as shown in Figure 5-3.
8. Replace the top cover, the mounting ears (if applicable), and the screws.
9. Reconnect to power, and verify that the RFB-1200 operates correctly. If the RFB-1200 does not complete the self-test sequence, recheck the seating and the orientation of the PROM. If problems persist, contact Ion Tech, Inc. at (303) 221-1807.





**PROM and SWITCHES LOCATION  
FIG. 5-3**

