

Sabre-arc 100 & PT-100/PTM-100 Parts List

OPTIONAL EXTRAS

PT-100 Torch 75° Head 15m	Pt.No. 1414275
PTM-100 Mechanised Torch 7.6m	1414276
PTM-100 Remote Control Switch 7.6m	1414277
PT-100/PTM-100 Torch Consumables Kit	1414256

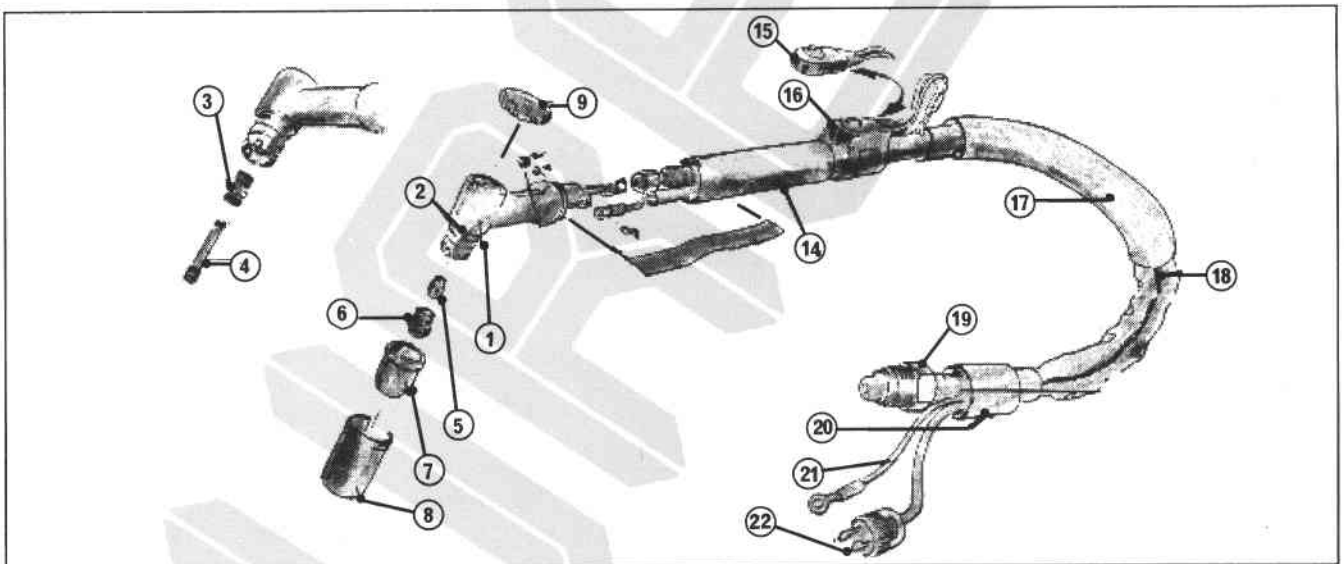


Fig. A PT-100 Torch Assembly

Item	Part No.	Description
1	1414278	Torch head 75°
2	1414288	Gasket
3	1414264	Electrode adaptor
4	1414265	Baffle tube
5	1414263	Electrode
6	1414260	Cutting tip 1.32mm (60A)
-	1414261	1.45mm (85A)
-	1414262	1.70mm (105A)
-	1414271	Gouging tip 2.69mm (100A)
-	1414270	2.26mm (70A)
7	1414257	Heat shield
8	1414267	Shroud
9	1414266	Shroud cap

Item	Part No.	Description
14	1414279	Handle
15	1414219	Switch
16	1414280	Switch holder
17	1414281	Flex support
18	1414282	Sheath 7.6m
-	1414285	Sheath 15m
19	1414283	Power cable assy 7.6m
-	1414286	Power cable assy 15m
20	1414224	Boot
21	1414284	Pilot arc cable 7.6m
-	1414287	Pilot arc cable 15m
22	1414225	Plug
-	1414269	Pilot arc adaptor

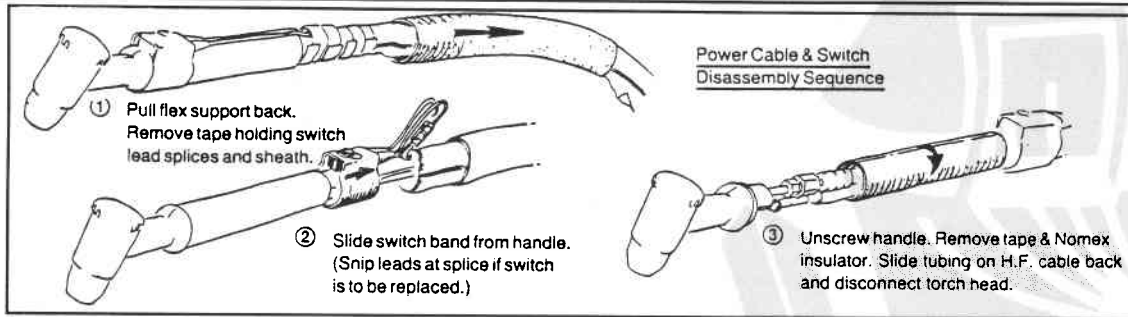


Fig. B

By following steps 1, 2 and 3, in Fig. B the service line can be removed from the torch. To disassemble the cable lay it out straight, remove the tape from around the switch lead splices, and free the switch by cutting the leads close to the splices. (Replacement switches have extra long leads to make up for any loss due to cutting.) Remove the rubber boot from the inlet end of the cable and remove the tape that secures the sheath at each end. Pull the sheath off the cable (over small fitting at torch end). Note that the switch leads wrapped around the power cable are secured with tape several places along the cable. The leads, switch cord plug, and strain can now be removed. DO NOT remove the white

tape that forms a band around the power cable at each end. The sheath is taped to the cable in front of the band which acts as a shoulder to prevent the sheath from sliding back on the cable. (Replacement cables have this tape in place). Reassemble in reverse order. Make sure the end of the Nomex insulator and insulator tubing of the high frequency are butted against the end of the torch body before taping them in position.

To reposition the switch on the torch, slide the flex support back, remove the tape securing the spliced leads to the power cable, reposition switch, retape the leads, and pull the flex support back in place.

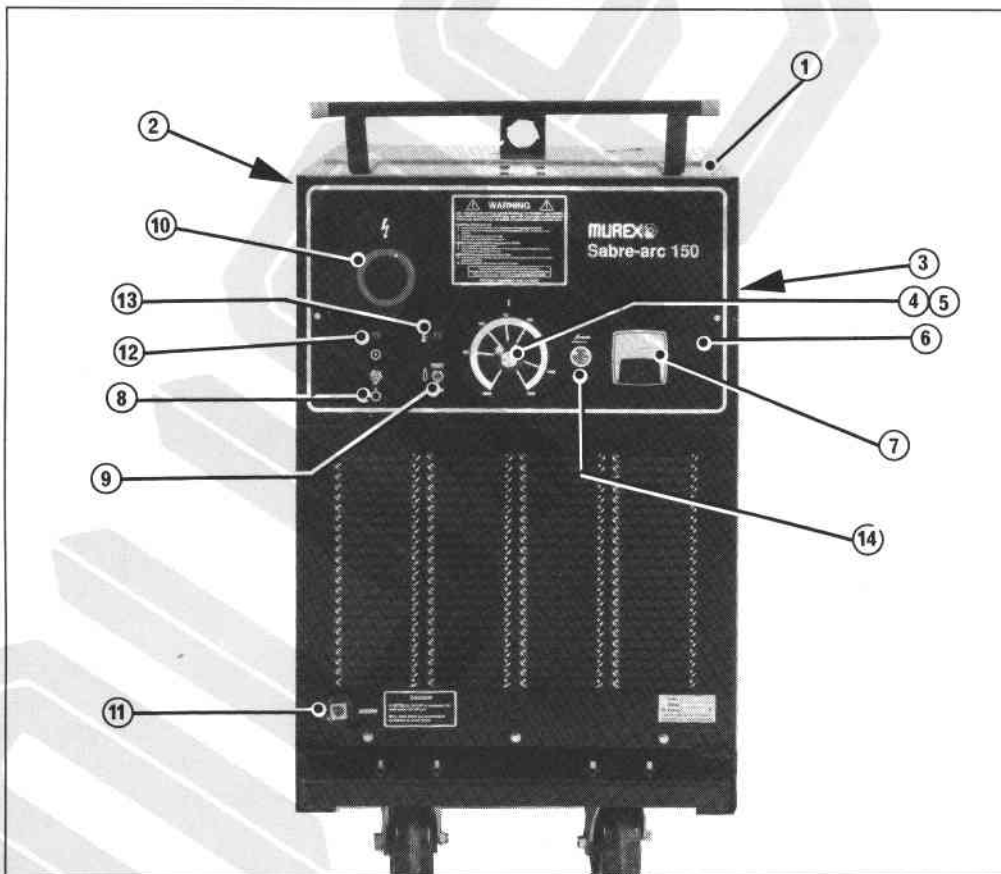


Fig. C

Item No.	Pt.No.	Cct Ref.	Description	Item No.	Pt.No.	Cct Ref.	Description
1	-	-	Top panel	8	1414600	ROS	Ready-Off switch
2	-	-	Left side panel	9	1414601	OSS	Purge switch
3	-	-	Right side panel	10	1414607	-	Grommet
4	1414602	CCP	Potentiometer	11	1414606	-	Output terminal
5	1414603	-	Knob	12	-	ROL	Power ON lamp
6	-	-	Front panel	13	-	OHL	Overtemperature lamp
7	1414605	AM	Ammeter	14	1414604	OPL	Torch live lamp

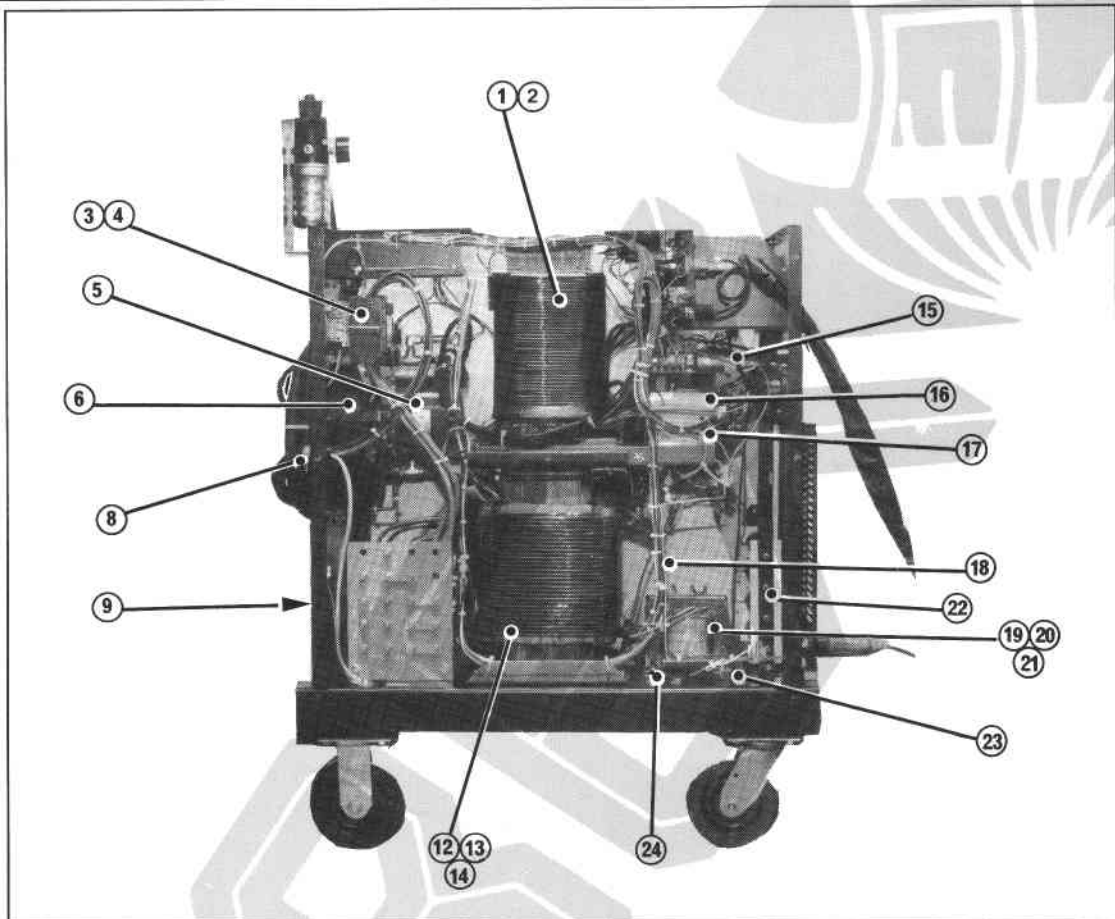


Fig. D

Item No.	Pt.No.	Cct Ref.	Description
1	1414617	IND	Inductor (includes Item 2)
2	1414610	INDTS1	Thermal switch (Inductor)
3	1414615	MC	Contactor
4	1414616	R25	Resistor (Across MC coil)
5	1414614	FM	Fan motor
6	1414613	-	Fan blade
8	1414612	-	Strain relief
9	-	-	Rear panel
12	1414608	MTR	Main transformer (includes Items 13 & 14)
13	1414610	MTR-TS1 TS2, TS3	Thermal switch (3 reqd.)
14	1414611	MTR-F1, F2	Fuse (2 reqd.)
15	1414619	-	Bridge filter network (See Fig. H)
16	1414620	BR	Bridge assy. (See Fig. G)
17	1414621	FBD1	Filter board assy.
18	1414622	SH	Shunt assy.
19	1414623	CTR	Control transformer
20	1414624	C29, C30	Capacitor
21	1414625	C26	Capacitor
22	1414626	R20, 21, 30, 31	Resistor
23	1414625	C23	Capacitor
24	1414624	C22	Capacitor

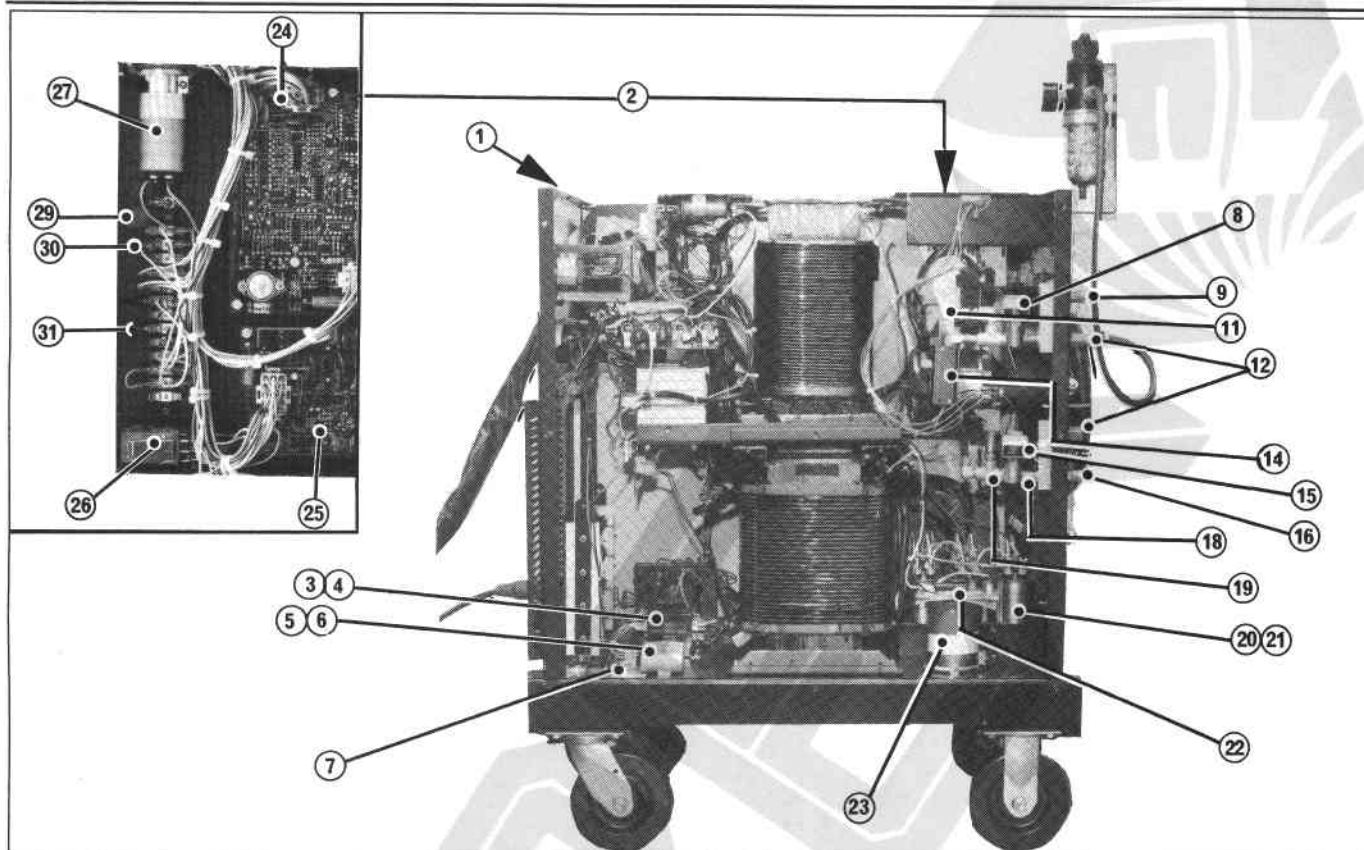


Fig. E

Item No.	Pt.No.	Cct Ref.	Description
1	-	-	High Frequency box assembly (See Fig. F)
2	-	-	P.C. Board box assembly (See inset above)
3	1414639	PAC	Pilot arc contactor
4	1414616	R26	Resistor (across PAC coil)
5	1414637	C17,C19	Capacitor
6	1414638	R22	Resistor
7	1414625	C27,C28	Capacitor
8	1414641	PGSV	Plasma gas solenoid valve
9	1414642	-	Fuel gas connection
11	1414643	PGPS	Plasma gas pressure switch
12	1414644	-	Inert gas connection
14	1414645	FS	Flow switch
15	1414616	R27	Resistor
16	1414647	-	Oxygen connection
18	1414648	CGSV	Cooling gas solenoid valve
19	1414649	CGPS	Cooling gas pressure switch
20	1414650	C1-C9	Capacitor
21	1414651	R1-R9	Resistor
22	1414652	D/R	Diode/Resistor board assembly
23	1414653	C24	Capacitor
24	1414634	CBD	Control P.C. board assembly
25	1414635	LBD	Logic P.C. board assembly
26	1414629	FSR	Flow switch relay
27	1414633	C25	Capacitor
29	1414632	C13	Capacitor (Bet. TI-1 & Gnd.)
30	1414631	D5/D6	Diode assembly
31	1414630	R28	Resistor

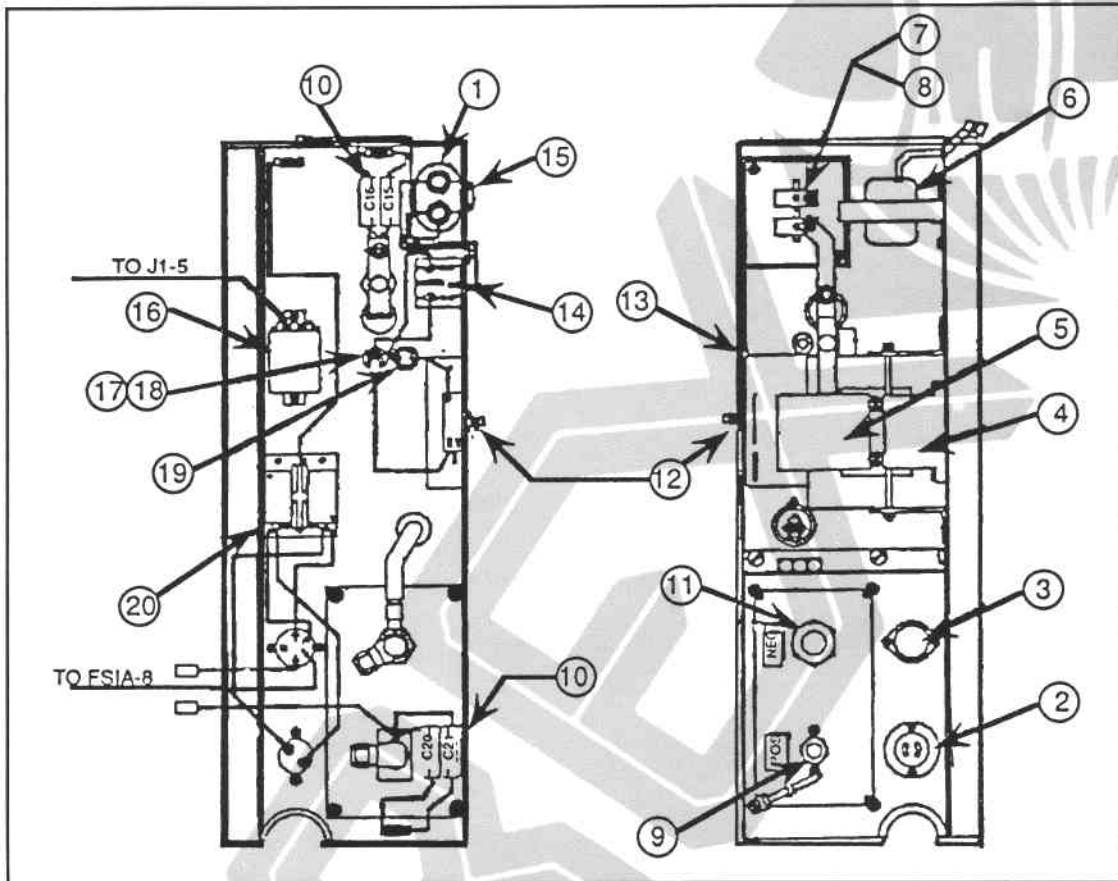


Fig. F High Frequency Assembly

Item No.	Pt.No.	Cct Ref.	Description
1	1414637	C34	Capacitor
2	1414672	J2	Receptacle
3	1414671	J1	Receptacle
4	1414670	C18	Capacitor
5	1414669	HFATR	Hi-Frequency Auto transformer
6	1414668	HFTR	Hi-Frequency transformer
7	1414666	SG	Spark gap assembly (Includes Item 8)
8	1414667	-	Spark gap electrodes (2 reqd.)
9	1414664	POS	Connection (positive)
10	1414659	C15, 16 & C20, 21	Capacitor
11	1414665	NEG	Connection (Negative)
12	1414663	ISW	Interlock switch
14	1414662	GFIR	Gnd. fault interrupter relay
15	1414638	R23	Resistor (Across Item 1 coil)
16	1414658	FSIR	Flow switch interlock relay
17	1414656	F3	Fuse 1Amp.
18	1414657	F3	Fuse holder (for item 17)
19	1414655	CB	Circuit breaker - 5 Amp.
20	1414654	FBD1	Filter board assembly

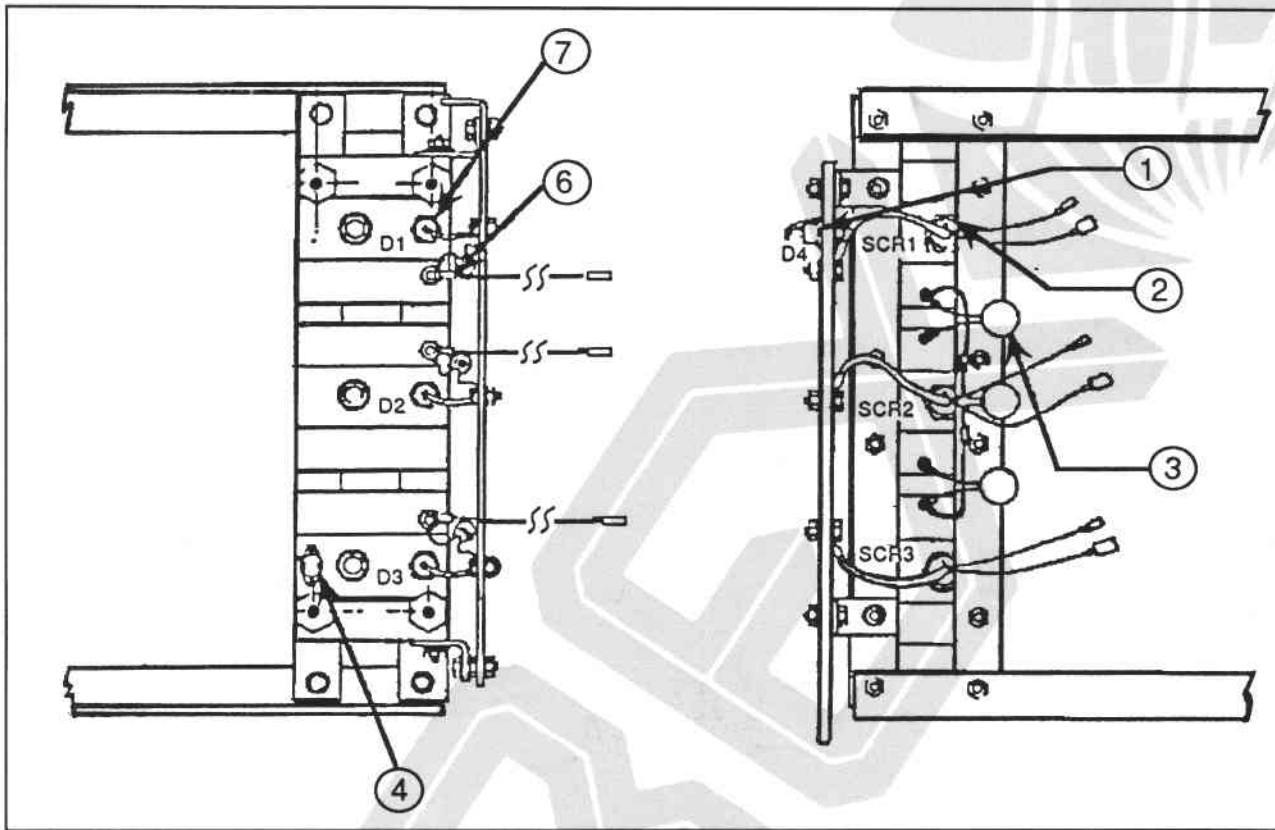


Fig. G Bridge Assembly

Item No.	Pt.No.	Cct Ref.	Description
1	1414675	D1,D2,D3,D4	Forward rect. diode (85A)
2	1414676	SCR 2, 3	Silicon controlled rectifier
3	1414677	MOV 2, 3	Metal oxide varistor
4	1414673	BRTS1	Thermal switch
6	1414674	C31, C32, C33	Capacitor

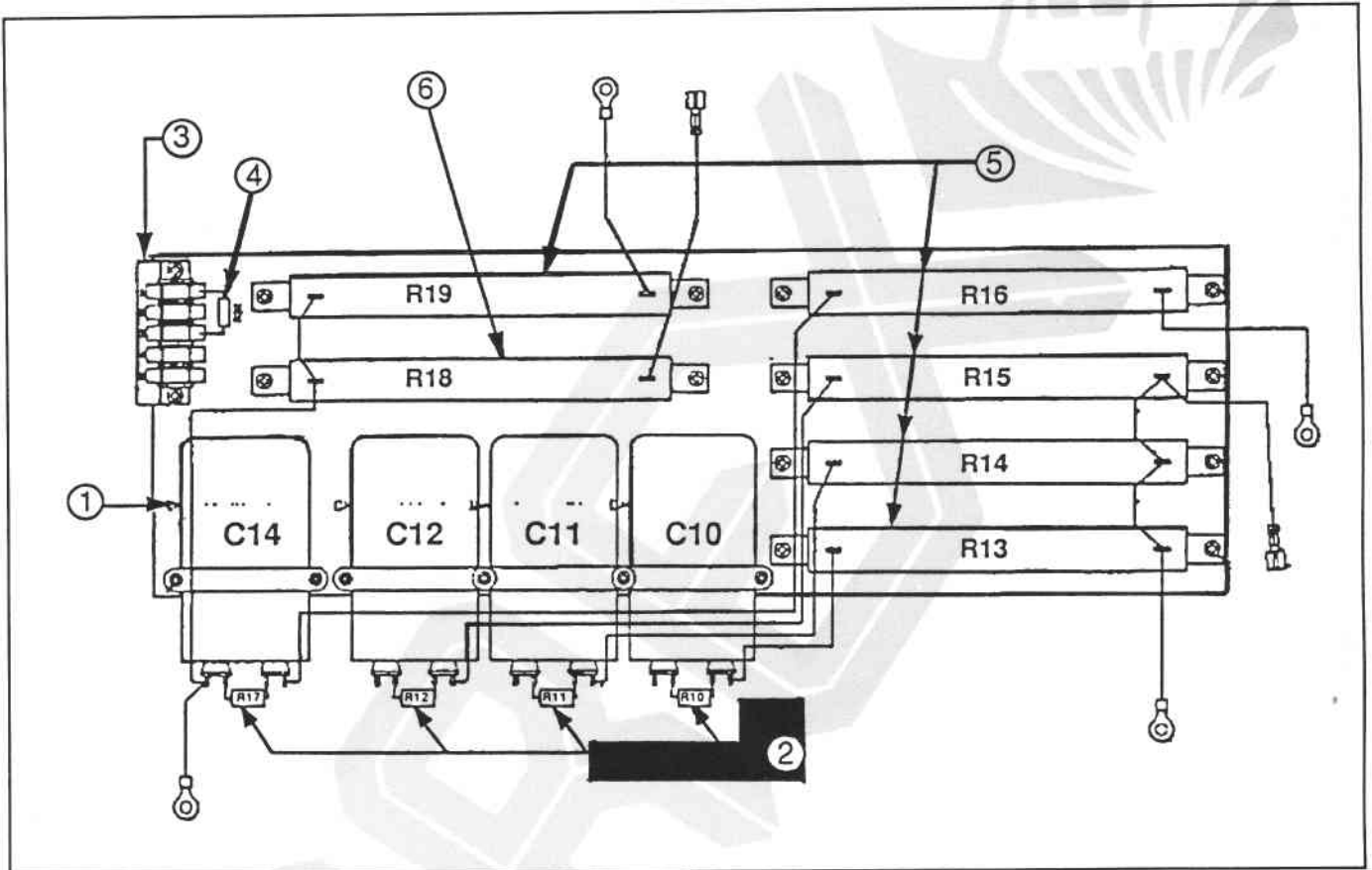


Fig. H Bridge Filter Network

Item No.	Pt.No.	Cct Ref.	Description
1.	1414681	C10, 11, 12	Capacitor & 14
2	1414682	R10, 11, 12	Resistor & 17
4	1414678	R32	Resistor (Bet- T2-1 & T2-3)
5	1414679	R13, 14, 15,	Resistor 16 & 19
6	1414680	R18	Resistor

MUREX 



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