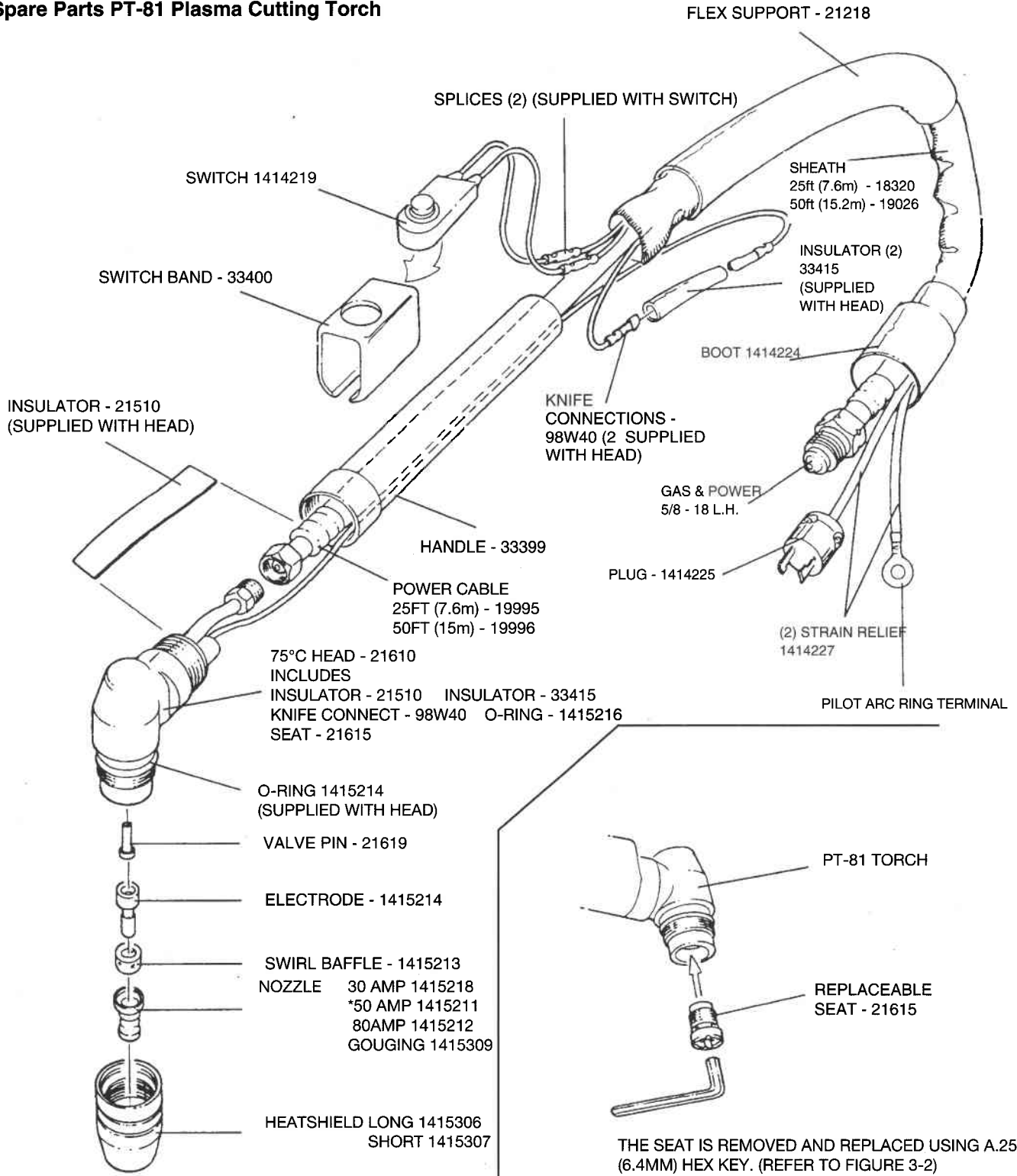


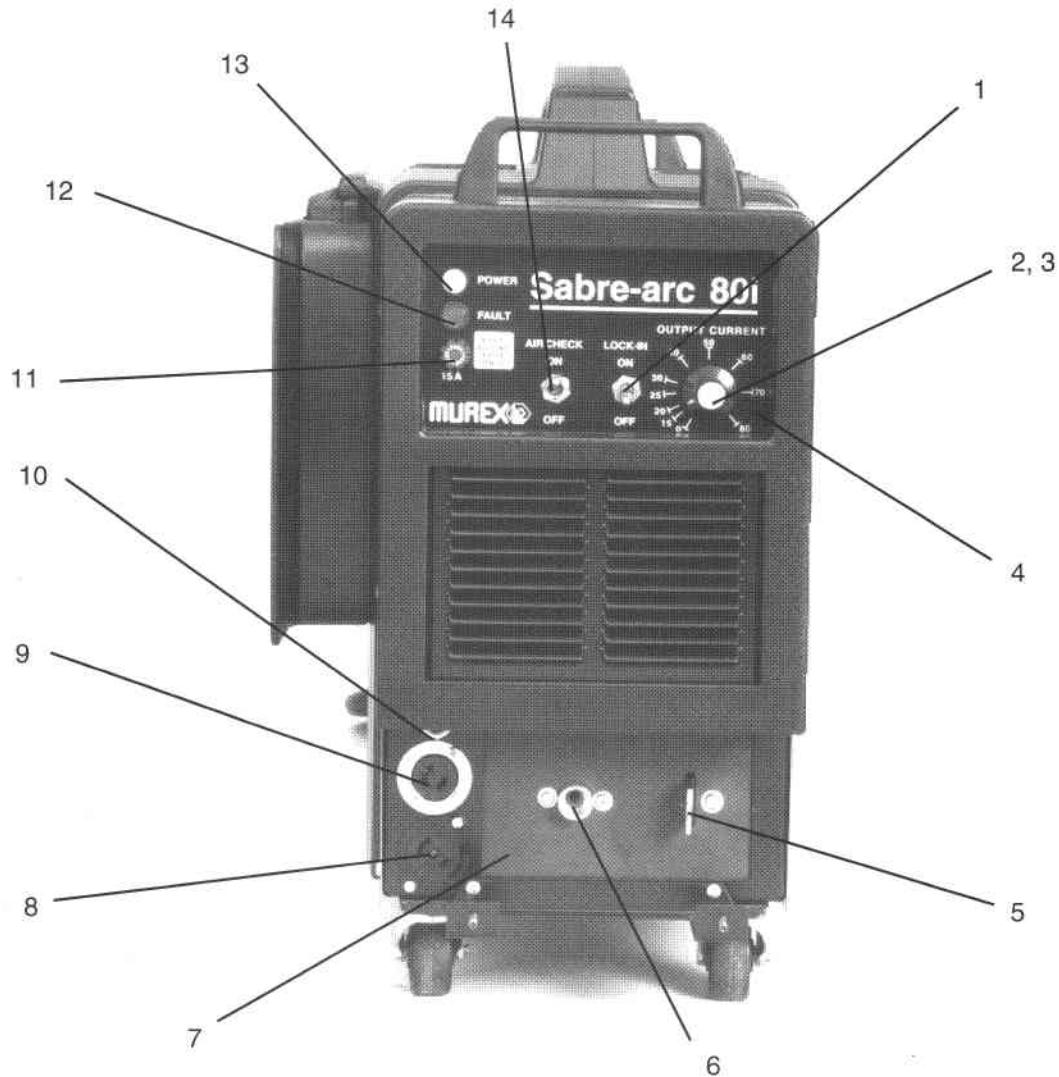
## Spare Parts PT-81 Plasma Cutting Torch



THE SEAT IS REMOVED AND REPLACED USING A .250 INCH (6.4MM) HEX KEY. (REFER TO FIGURE 3-2)

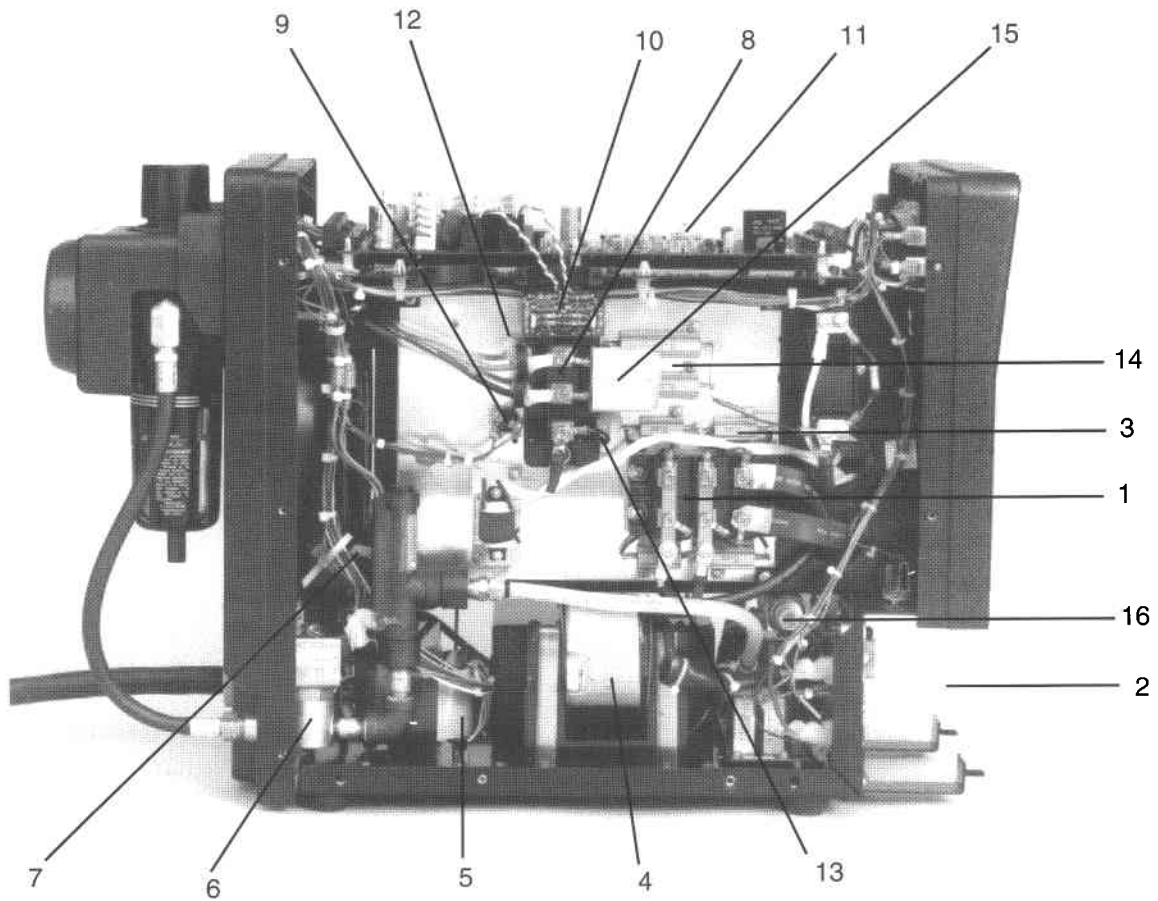
ALL TORCH ASSEMBLIES AND REPLACEMENT HEADS ARE SUPPLIED WITH THE SEAT INSTALLED.

\*REPLACEMENT TORCHES ARE SUPPLIED WITH 50AMP NOZZLES



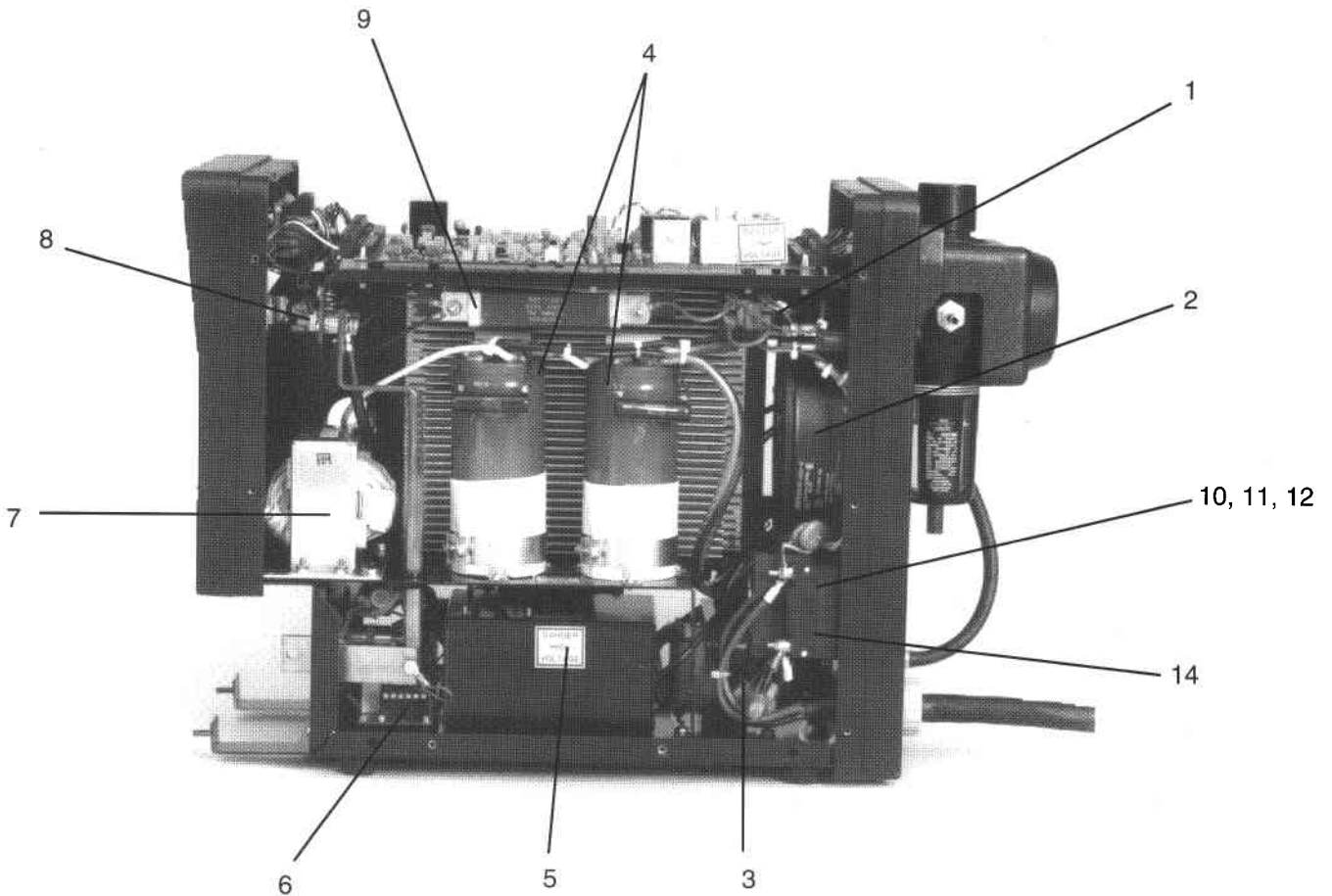
**FRONT VIEW**

ITEM NO	PART NO		DESCRIPTION	CIRCUIT REFERENCE
	Sabre-arc 50i	Sabre-arc 80i		
1	673213	673213	Switch SPST 2.POS	SW2
2	2062018	2062018	Potentiometer 10k 2W	R1
3	13730611	13730611	Knob	
4	-	34172	Front Panel	
5	32947	32947	Terminal, Output	
6	679581	58V75	Adaptor, Bulkhead	
7	32925	32925	Output Terminal Board	
8	-	-	Pilot Connection	J2
9	1414672	1414672	Torch Switch Socket	J1
10	98W66	98W66	Safety Interlock Switch	ISI
11	951780	951780	Fuse 15A 250V	F1
12	951032	951032	LED red 12V	PL2
13	951526	951526	Lamp white 125V	PL1
14	634518	634518	Switch DPDT	SW1



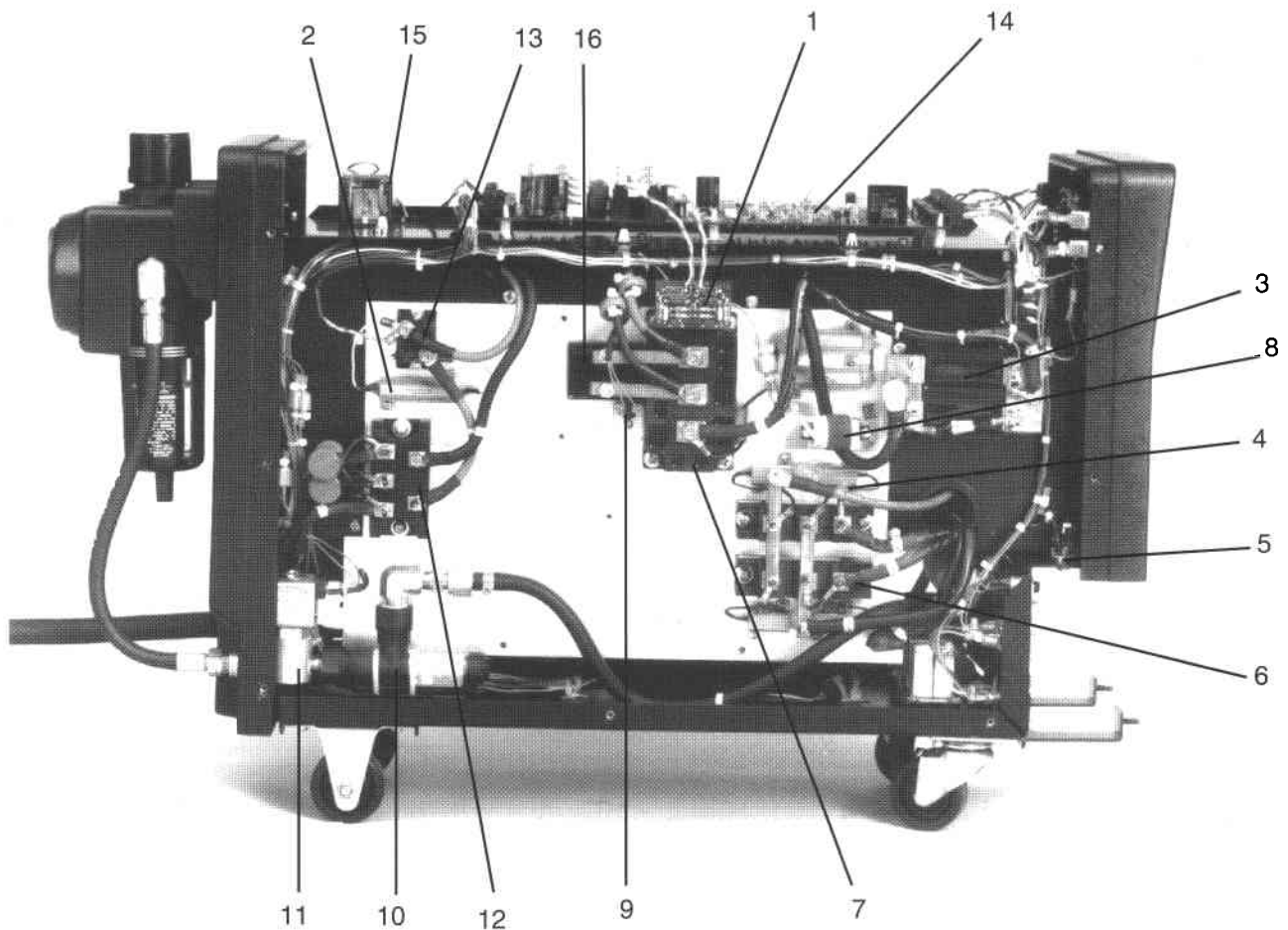
**Sabre-arc 50i (Left side view)**

ITEM NO	PART NO	DESCRIPTION	CIRCUIT REFERENCE
1	951185	Diode Module	D1-D2
2	33954BK	Safety Panel	-
3	17721020	Resistor 20Ω 25W	R3,4,5,6
Not shown	-	Capacitor .01uf 1Kv	C5,6,7,8
4	32909	Inductor	L1
5	32958	Current Transformer	T4
6	950249	Solenoid Valve	SOL1
7	951202	Flow Switch	FS
8	951206	IGBT	Q1
9	950711	Thermal Switch	TS1
10	31456	PCB IGBT Driver	PCB2
11	38002	Control PCB	PCB1
12	95119	Saturable Core	-
13	951314	Capacitor .022UF1Kv	C10
14	17750020	Resistor 20Ω 50W	R7,8
15	951917	Capacitor 0.5 μf 1200Vdc	C22
16	32969	HF Reactor Assy	



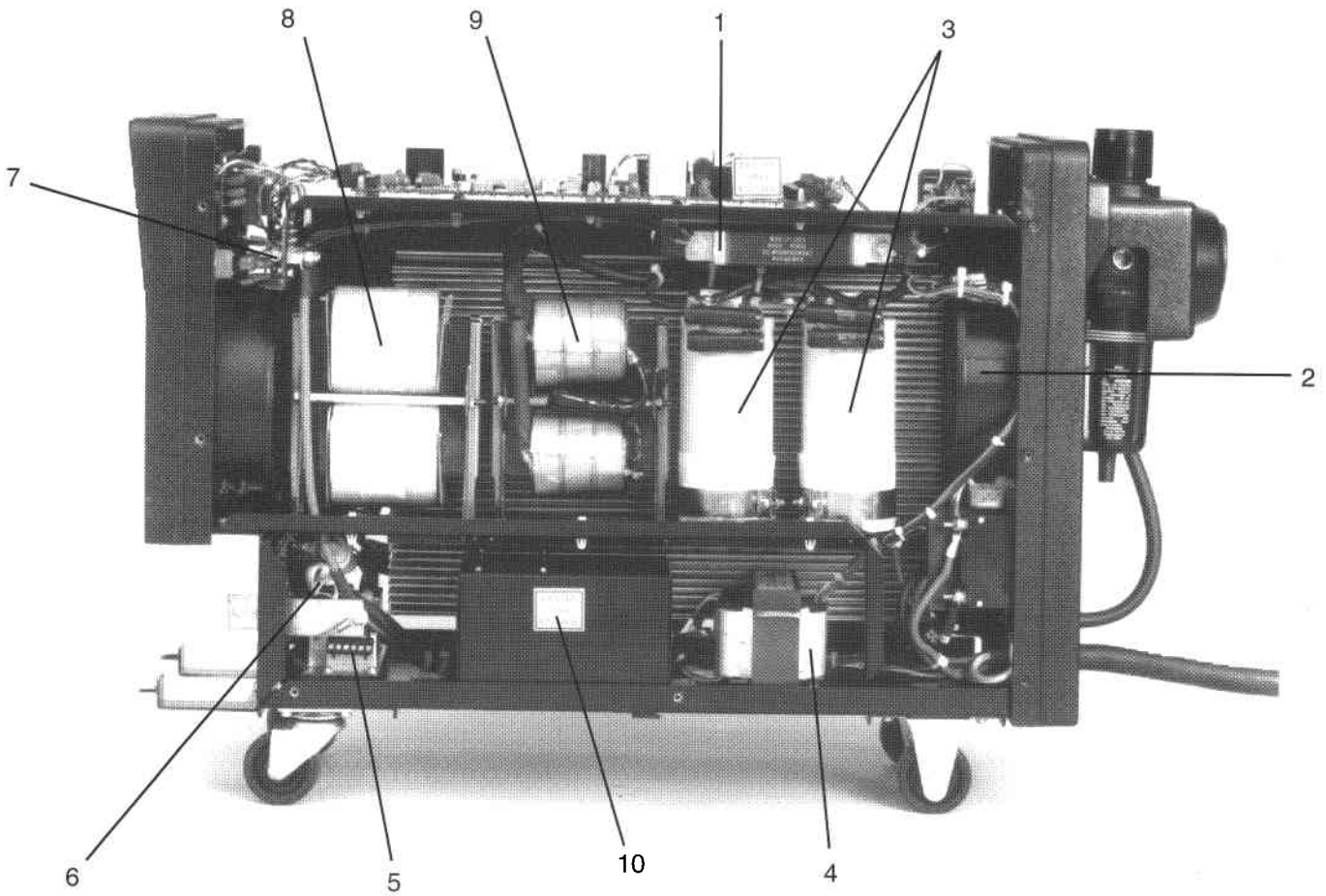
**Sabre-arc 50i (Right side view)**

ITEM NO	PART NO	DESCRIPTION	CIRCUIT REFERENCE
1	13735308	Relay	K1
2	951182	Fan Motor	M1
3	32914	Control Transformer	T2
4	951312	Capacitor 1300uf 450v	C1,2
5	31490	H.F. Assembly	HV1
6	31494	PCB Start up	PCB5
7	32962	Main Transformer	T1
8	31488	PCB Shunt	PCB4
9	17255018	Resistor 18Ω 60W	R11,12,16
10	951023	Thyristor	SCR1
11	951915	Input Rectifier Bridge	BR1
12	17750010	Resistor 10Ω 50W	R10
14	951181	Circuit Breaker 30A	CB1



**Sabre-arc 80i (Left side view)**

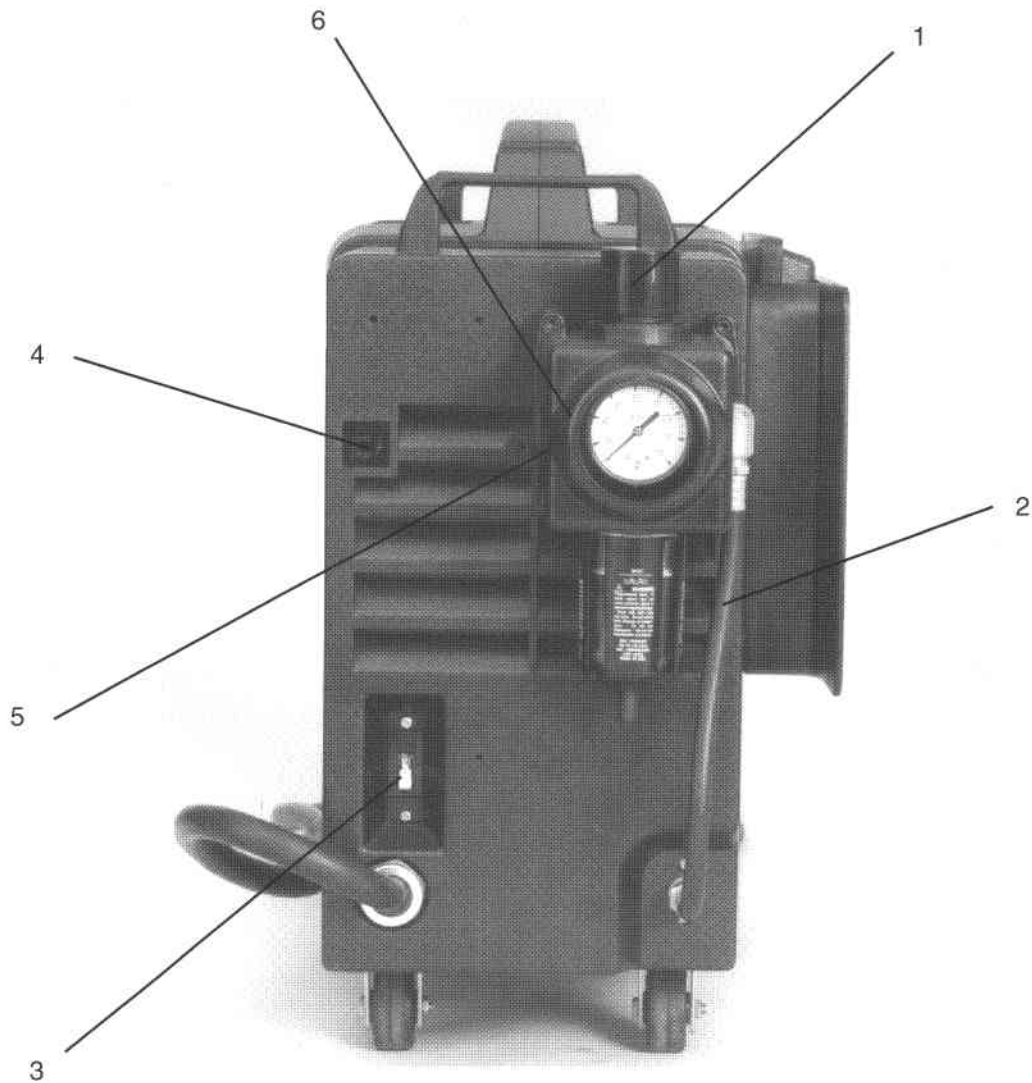
ITEM NO	PART NO	DESCRIPTION	CIRCUIT REFERENCE
1	38017	PCB IGBT Driver	PCB3
2	17750020	Resistor 20Ω 50W	R7,8,10
3	951161	Capacitor 20uf 120V	C4,14
4	17721020	Resistor 20Ω 25W	R3,4,5,6
5	951483	Jack Socket	J3
6	951185	Diode Module	D1,D2
7	951831	IGBT	Q1, Q2
8	32958	Current Transformer	T4
9	951085	Thermal Switch	TS1
10	951202	Flow Switch	FS
11	950249	Solenoid Valve	SOL1
12	951890	Input Rectifier Bridge	BR1
13	951023	Thyristor	SCR1
14	38010	PCB Main Control	PCB1
15	13735308	Relay	K1
16	951892	Capacitor 0.68μf1200V	C22



**Sabre-arc 80i (Right side view)**

ITEM NO	PART NO	DESCRIPTION	CIRCUIT REFERENCE
1	17255018	Resistor 18Ω 60W	R11,12,16
2	951182	Fan Motor	M1, M2
3	951802	Capacitor 2900uf 450V	C1, C2
4	32914	Control Transformer	T2
5	31494	PCB Start up	PCB5
6	32969	HF Transformer	T3
7	31488	PCB Shunt	PCB4
8	35259	Inductor Assembly	L1
9	34935	Main Transformer	T1
10	31490	H.F. Assembly	HV1





**Rear Panel View**

ITEM NO	PART No		DESCRIPTION	CIRCUIT REFERENCE
	Sabre-arc 50i	Sabre-arc 80i		
1	950923	950923	Air Regulator/Filter	-
2	34741	34741	Hose Assembly	-
3	951181	951832	Circuit Breaker	CB1
4	950829	950829	Circuit Breaker	CB2
5	08030354	08030354	Air inlet nipple	-
6	33955 BK	33955 BK	Regulator Housing Black	-