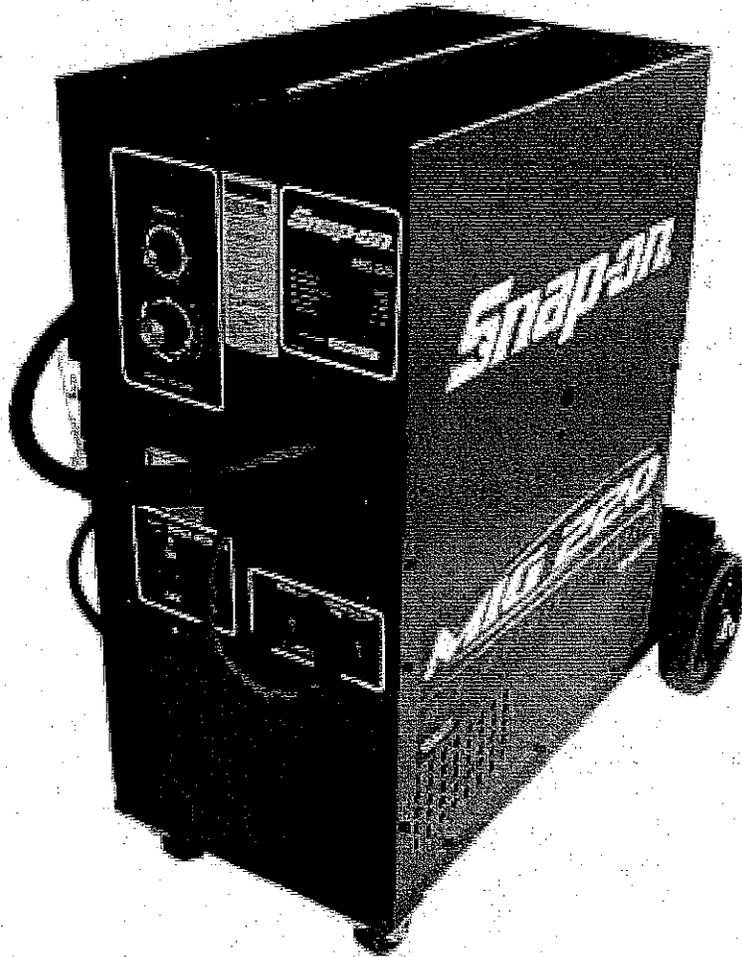


Snap-on.

MIG220



SERVICE MANUAL

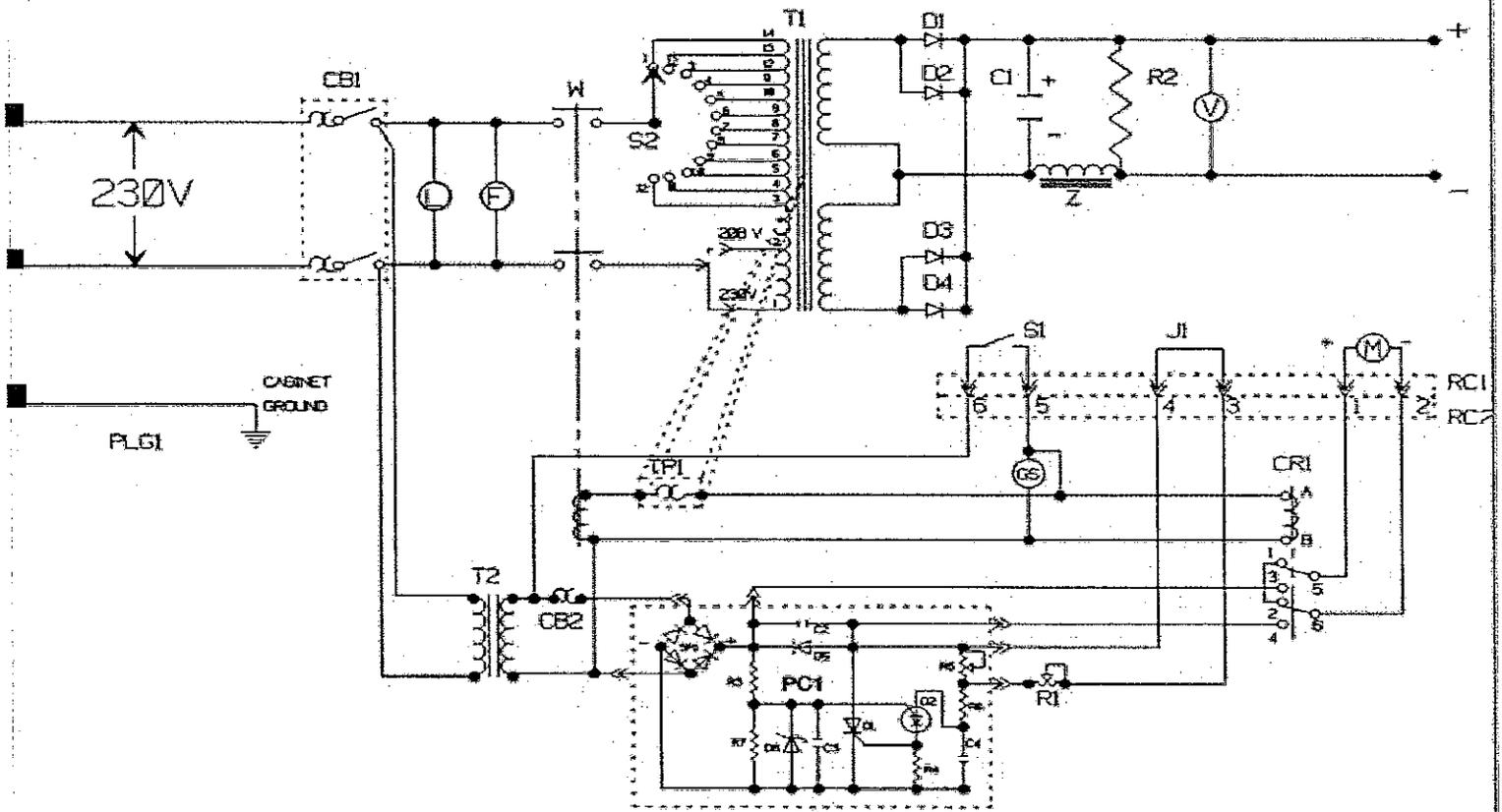


FIGURE 1 - SCHEMATIC DIAGRAM

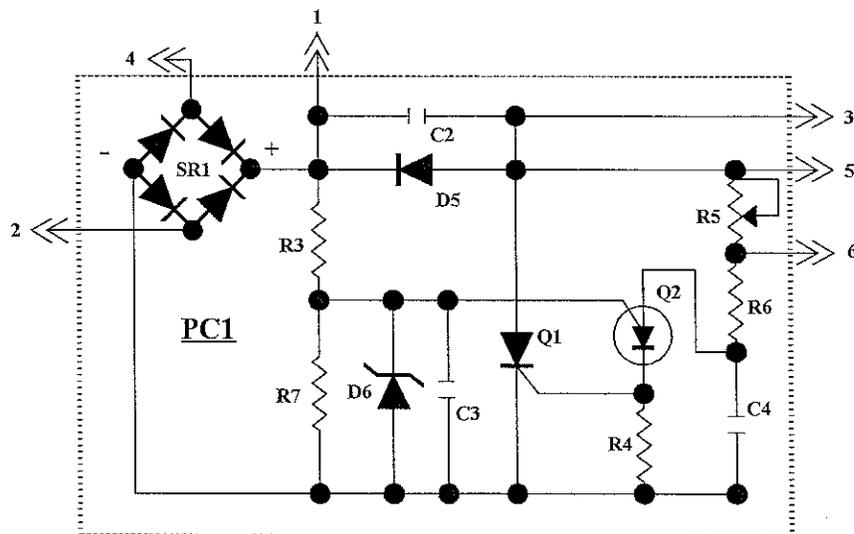


FIGURE 1A - SCHEMATIC, WIRE FEED CIRCUIT BOARD

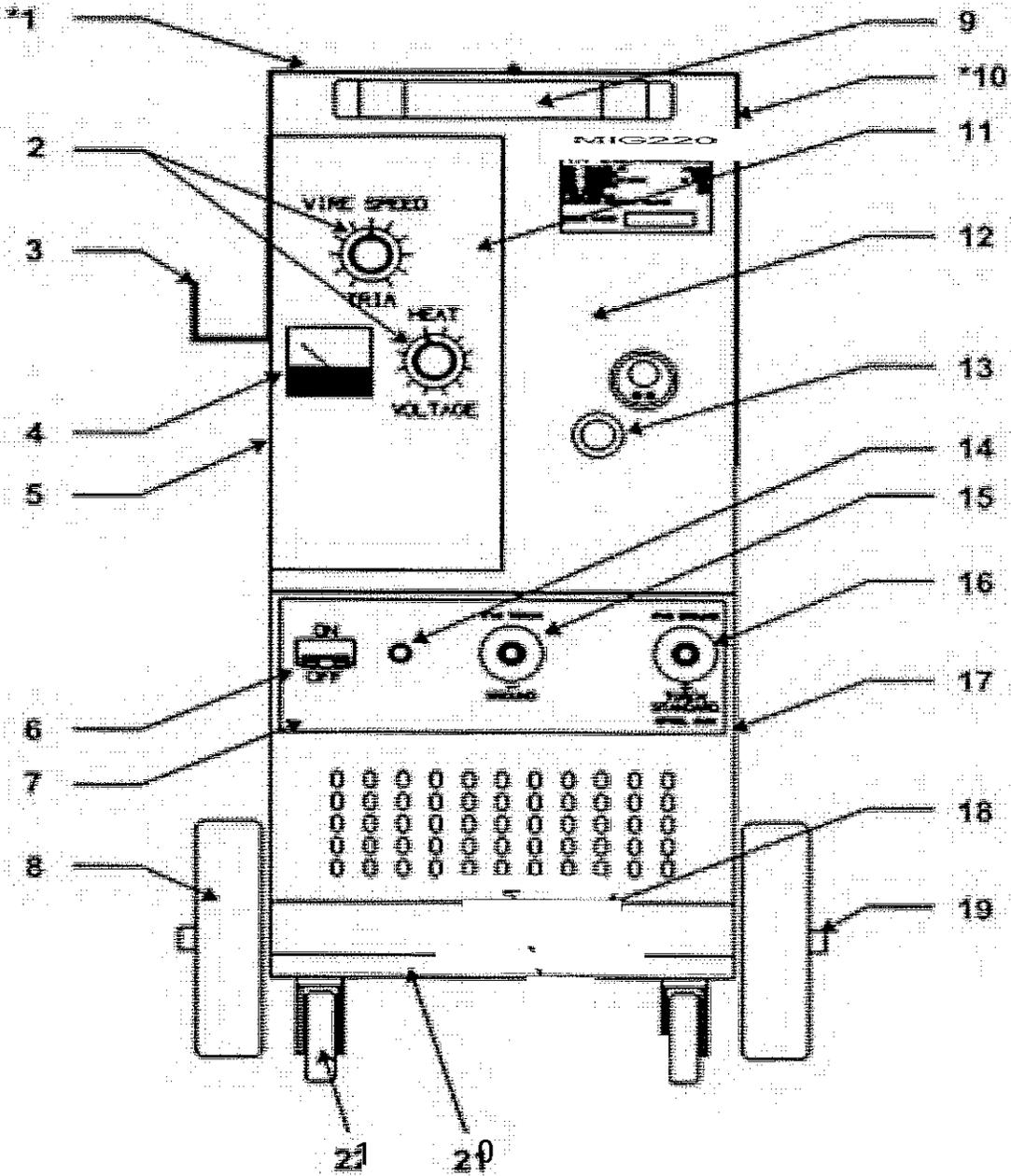


FIGURE A - FRONT ASSEMBLY

FIGURE A

ITEM NO.	DIA. MKGS.	PART NO.	DESCRIPTION	QTY.
*1		SN-407L	COVER, LEFT *(MUST BE PURCHASED AS A COMPLETE ASSY)	1
*		SN-427	COVER & ACCESS DOOR ASSEMBLY, COMPLETE	1
2		SN67	
3		SN-330A	KNOB, HEAT & TRIM	1
4		SN-319	HANGER, CABLE	2
	V	SN-115	VOLTMETER	1
5		SN-306	SIDE, LEFT	1
6	CB1	SN-482	CIRCUIT BREAKER, 35 AMP	1
		SN-955	BREAKER BRACKET	1
7		LB-1121	LABEL, WELD CONNECTOR	1
8		SN-124-8	REAR WHEEL, 8"	2
9		SN-05	HANDLE	1
*10		SN-407R	ACCESS DOOR *(MUST BE PURCHASED AS COMPLETE ASSY)	1
11		LB-2201	LABEL, CONTROL	1
12		SN2208	FRONT	1
13		SN-71	BUSHING	1
14	L	SN-184	INDICATOR LAMP	1
15	-	SN-146	WELD CONNECTOR	1
		SN-72	NUT, WELD CONNECTOR	2
		SN-17810	GROUND CABLE ASSEMBLY, 10' (NOT SHOWN)	1
		SN-165	CLAMP, GROUND (NOT SHOWN)	1
16	+	SN-146C	WELD CONNECTOR W/GAS HOLE	1
17		SN-304	SIDE, RIGHT	1
18		SN-302	BASE	1
19		SN-171	AXLE	1
		SN-171C	AXLE, CAPS	2
		SN-217W	AXLE, WASHER	4
20		SN-213	CASTER BRACKET	1
21		SN-121-3	CASTER, FRONT 3"	2

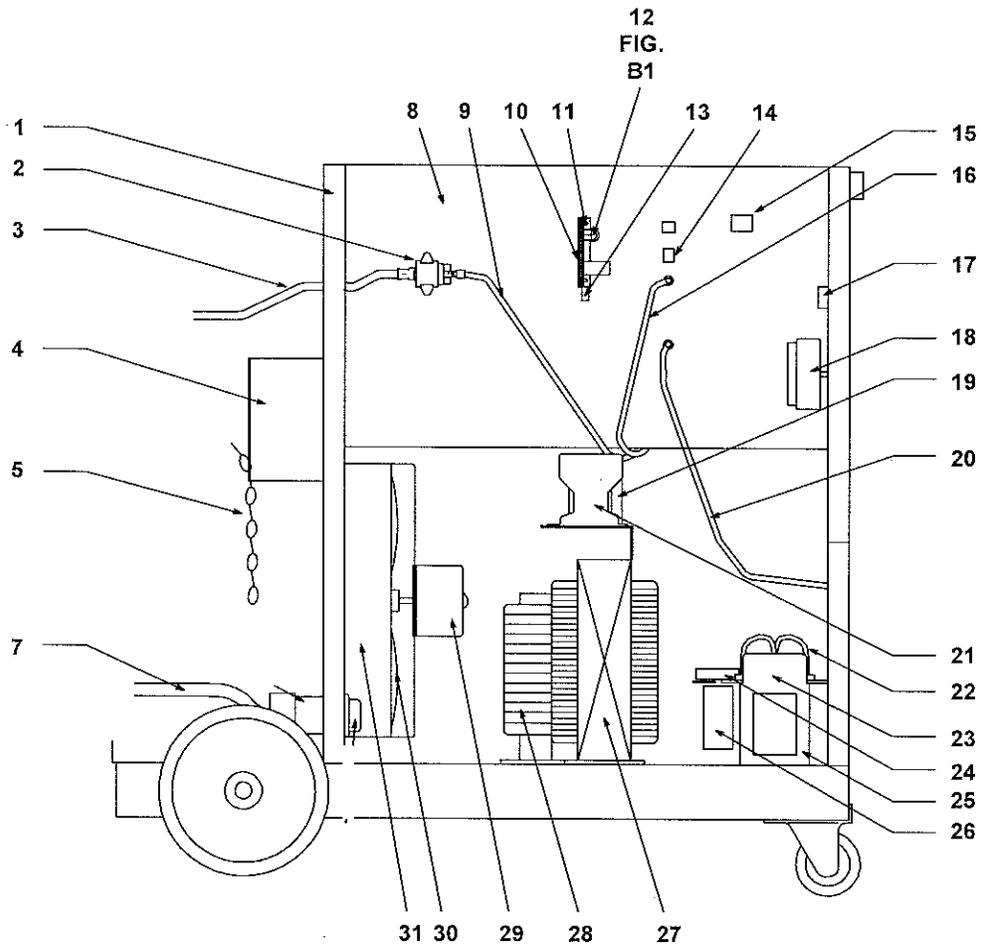


FIGURE B - LEFT SIDE VIEW & INTERNAL COMPONENTS

FIGURE B

ITEM NO.	DIA. MKGS.	PART NO.	DESCRIPTION	QTY.
1		SN-303F	BACK	1
2	GS	SN-126B	SOLENOID ASSEMBLY, 24VAC	1
3		SN-253A	GAS HOSE, PRIMARY	1
4		SN-211	CYLINDER BRACKET	1
5		SN-211C	CYLINDER CHAIN	1
7		20CP-0	POWER INPUT CABLE, 20'	1
	"	SN-220	STRAIN RELIEF	1
		SN-220N	NUT, STRAIN RELIEF	1
8		SN-305A	BAFFLE	1
9		SN-353S	GAS HOSE, SELECTOR	1
10		SN-6421U	BRACKET, CONTROL (U-BOARD)	1
11		SN-601	STAND OFF, NYLON BOARD	4
12	PC1	SN-774U	WIRE FEED CONTROL BOARD (FIGURE B1)	1
13		SN-685	TERMINAL HOUSING, HARNESS	1
		SN-685P	PIN, EDGE CONNECTOR	6
14	RC4	SN-861C	RECEPTACLE, FUNCTION	1
15		SN-236	SOCKET, RELAY 8 PIN	1
16		SN-353D	HOSE, BULKHEAD, (MIG FITTING)	1
17	R1	SN-35U	POTENTIOMETER, 75K OHM	1
18	S2	SN-163-12	HEAT SWITCH, 12 POSITION	1
19	T2	SN-287M	CONTROL TRANSFORMER, 230V-28V	1
20		SN-353E	HOSE, BULKHEAD, (MIG5-A FITTING)	1
21	W	SN-153	CONTACTOR, 24VAC	1
22	D1,2,3,4	SN-260	DIODE	4
23		SN-360	HEAT SINK ASSEMBLY, COMPLETE	1
24	R2	SN-162	RESISTOR, 100 OHM 25W	1
25		SN-255M	LEG, HEAT SINK	2
26	C1	SN-125S	CAPACITOR, 12,000UF 50V	6
27	T1	SN-886	TRANSFORMER, POWER	1
	TP1	SN-654	THERMAL SWITCH (N.C.)	1
28	Z	SN-188C	CHOKE	1
29	F	SN-117	FAN MOTOR, SMALL	1
30		SN-318R	FAN BLADE	1
31		SN-310A	FAN BRACKET W/SHROUD	1

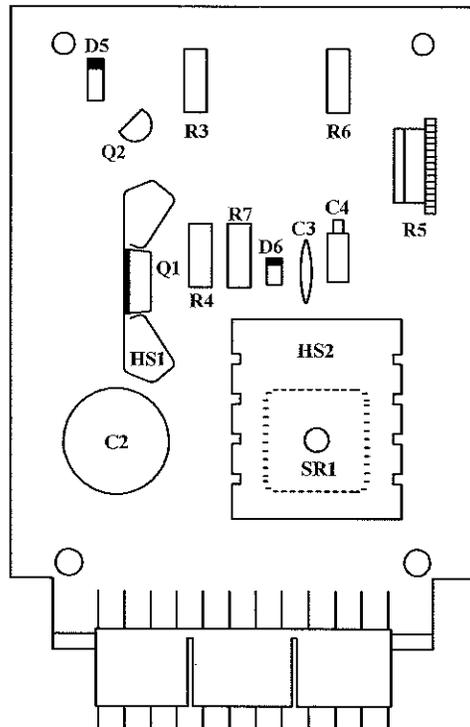


FIGURE B1 - PRINTED CIRCUIT BOARD (SN-774U)

FIGURE B1

ITEM NO.	DIA. MKGS.	PART NO.	DESCRIPTION	QTY.
C2	MI-623	CAPACITOR, 1000UF 50V	1	
C3	HG-578	CAPACITOR, .02UF 100V	1	
C4	MI-626	CAPACITOR, .68UF 50DC	1	
D5	HG-579	DIODE, 2A	1	
D6	HG-196	DIODE, ZENER 7.5V	1	
HS1	CB-251	HEAT SINK, SCR	1	
HS2	CB-250	HEAT SINK, BRIDGE RECTIFIER	1	
Q1	HG-194A	SCR, 10A	1	
Q2	MI-627	TRANSISTOR, PUT	1	
R3,6	CB-043	RESISTOR, 1K OHM 1/2W	2	
R4	MI-127	RESISTOR, 100 OHM 1/2W	1	
R5	MI-135A	RESISTOR, TRIM 1 MEG OHM	1	
R7	MI-159	RESISTOR, 330 OHM 1/2W	1	
SR1	CB-048	RECTIFIER, BRIDGE	1	

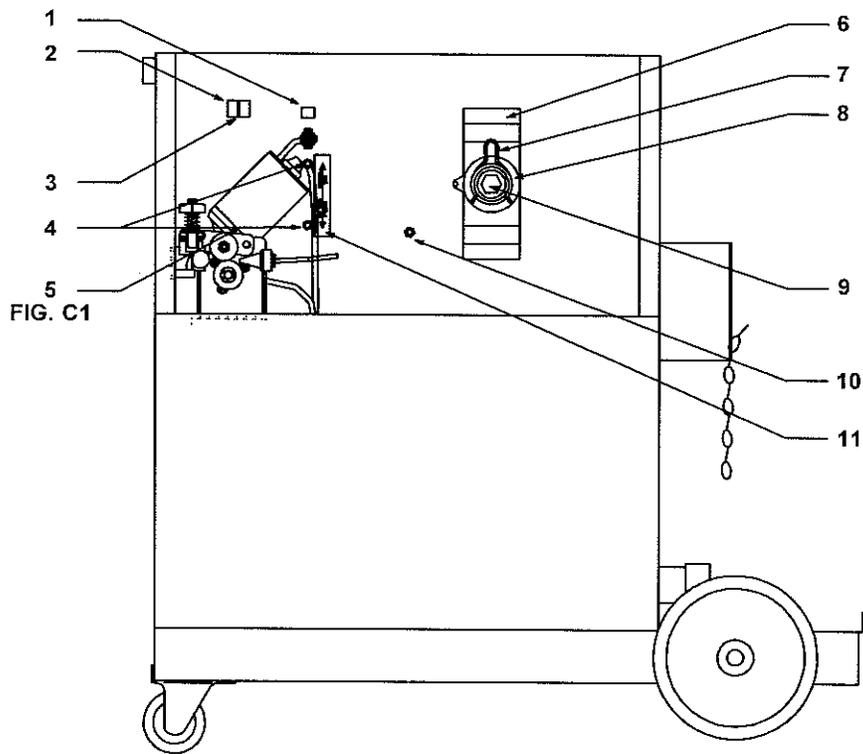


FIGURE C - WIRE FEED COMPARTMENT

FIGURE C

ITEM NO.	DIA. MKGS.	PART NO.	DESCRIPTION	QTY.
1	CB2	SN-519	BREAKER, MINI 5A	1
2	CR1	SN-276S	RELAY, 8 PIN 24VAC	1
3		SN-276CL	RELAY CLIP, 8 PIN	1
4		SN-500A	BULKHEAD ASSEMBLY, FEMALE	2
		SN-501	BULKHEAD, MALE	2
		SN-501K	BULKHEAD KIT, COMPLETE	2
		SN-880	COVER, THREAD	1
5		SN-138C24B	WIRE DRIVE ASSEMBLY (FIGURE C1)	1
6		SN-323	SPOOL BRACKET	1
7		SN-22	SPOOL CLIP	1
8		SN-122	SPOOL HUB ASSEMBLY	1
		SN-15	SHAFT	1
		SN-16	BUSHING	2
		SN-18	TENSION SPRING	1
		SN-19	WASHER, SPOOL HUB	3
9		SN-20B	BOLT, TENSION	1
10		SN-120	BASE, 4" ADAPTER (OPTIONAL).....	1
11		SN-1055	LABEL, SELECTION	1

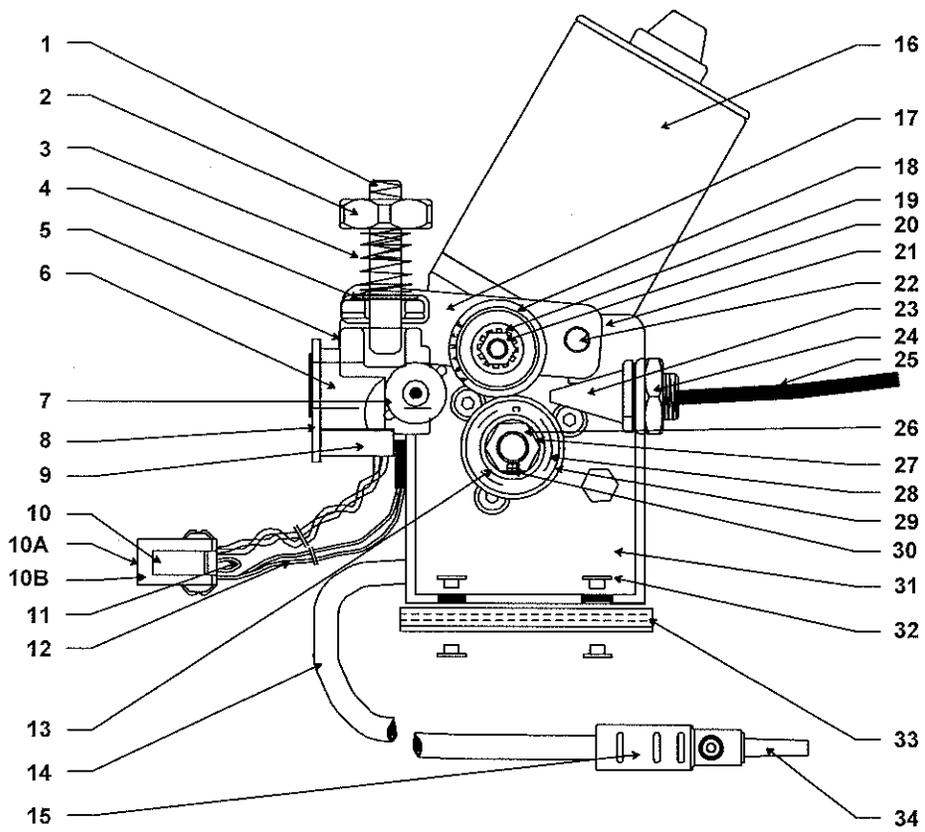


FIGURE C1 - WIRE DRIVE ASSEMBLY (SN-138C24B)

FIGURE C1

ITEM NO.	DIA. MKGS.	PART NO.	DESCRIPTION	QTY.
1		SN-48	PRESSURE ROLL TENSION BOLT	1
2		SN-51	TENSION NUT	1
3		SN-50F	PRESSURE SPRING	1
4		SN-49	TENSION BOLT WASHER	1
5		SN-47	TENSION BOLT PIN	1
6		SN-24	GAS FITTING, BRASS	1
7		M3-906	THUMB SCREW	1
8		M3-900C	TORCH PANEL MOUNT	1
9		SN-604	WIRE CONNECTOR, 90 DEG.	2
10	RC3	SN-860C	FUNCTION PLUG ASSEMBLY	1
10A		SN-860	PIN HOUSING	1
10B		SN-860M	MALE PIN CONNECTOR	6
11	J1	AD-10	BLUE JUMPER	1
12		SN-237	CONTROL WIRE ASSEMBLY	2
13		SN-62	DRIVE ROLL WASHER	1
14		SN-278C	TORCH SELECTOR CABLE ASSEMBLY	1
15		SN-169A	TERMINAL INSULATOR	1
16	M	SN-138C24	24VDC MOTOR	1
17		SN-53F	ROCKER ARM	1
18		SN-158	PRESSURE ROLL	1
19		SN-55F	BEARING SPACER	1
20			1/4-20 KEP NUT	1
21		SN-89	SPRING WASHER	1
22		SN-52	SHOULDER BOLT	1
23		SN-33F	INLET GUIDE	1
24		SN-34	NUT, INLET GUIDE	1
		HW-58ILW	LOCK WASHER, INTERNAL	1
25		SN-136C	INLET GUIDE TUBE	1
26		SN-64	DRIVE ROLL NUT	1
27		SN-65	DRIVE ROLL LOCK WASHER	1
28		SN-603	ADJUSTING COLLAR (BEHIND)	1
29		3045DR	DRIVE ROLL	1
30		SN-61C	1/2 WOODRUFF DRIVE KEY	1
31		SN-131E	MOTOR BRACKET, ADJUSTABLE	1
32		SN-40	INSULATING WASHER	4
33		SN-139	MOTOR BASE INSULATOR	1
34		SN-168A	CABLE TERMINAL	1
		SN-170A	CABLE TERMINAL ASSEMBLY, COMPLETE	1

