



TM-238 119K

2012-01

Processes



MIG (GMAW) Welding



Flux Cored (FCAW) Welding

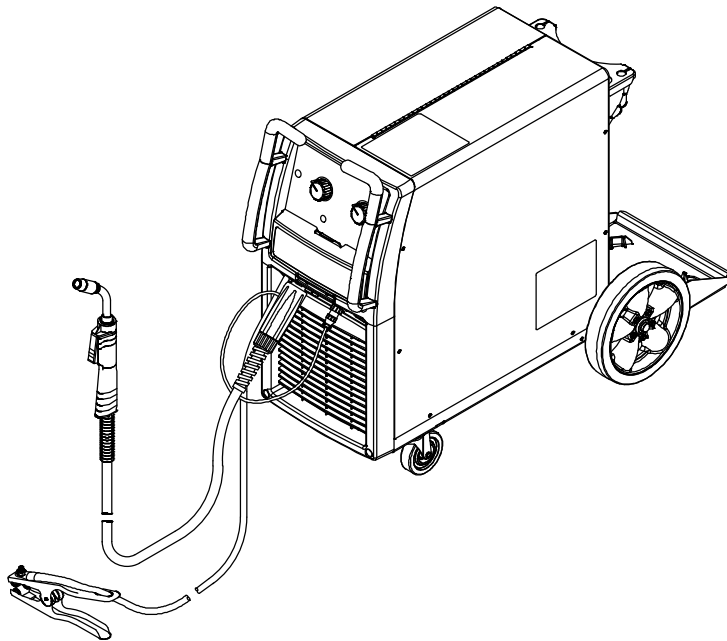
Description



Arc Welding Power Source
and Wire Feeder

Millermatic[®] 212 Auto-Set[™]

Eff w/LJ180755B And Following
For OM-238 118 Revision A And Following




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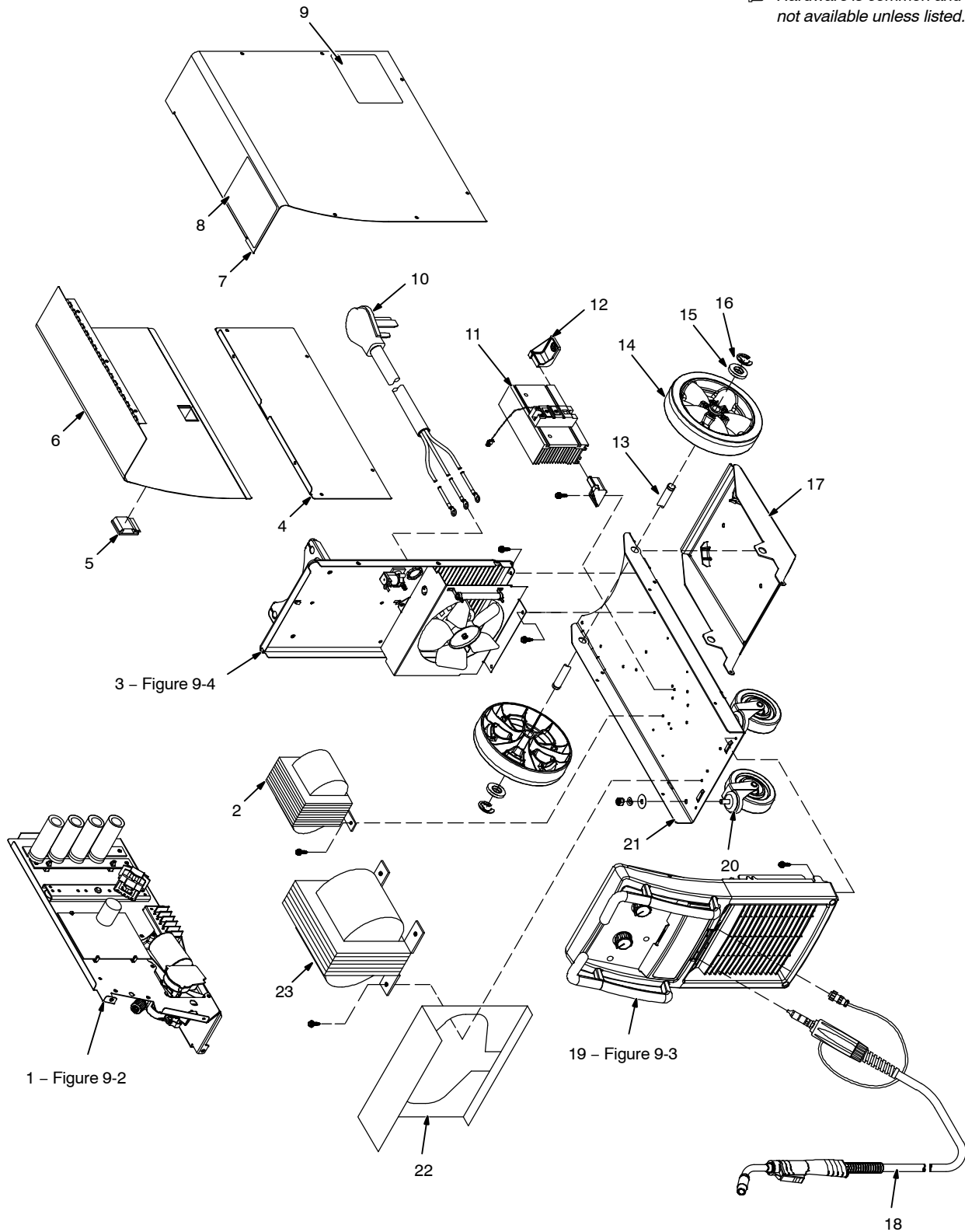
PARTS LIST

File: MIG (GMAW)



SECTION 1 – PARTS LIST

 Hardware is common and not available unless listed.



805 245-A

Figure 9-1. Main Assembly

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 9-1. Main Assembly				
1		Figure 9-2	BAFFLE,CENTER W/COMPONENTS	1
2	Z1	254111	STABILIZER,	1
3		Figure 9-4	PANEL,REAR W/COMPONENTS,	1
4		229621	PANEL,SIDE LH LOWER	1
5		230363	LATCH,SLIDE FLUSH MTG HOLE 1.750 WIDEX 1.500 LG	1
6		229620	DOOR,HINGED	1
7		+229619	WRAPPER,	1
8		231983	LABEL,WARNING GENERAL PRECAUTIONARY (EN/SP)	1
9		231984	LABEL,WARNING ELECTRIC SHOCK/INCORR INPUT (EN/SP)	1
10		199192	CORD SET,250V 6-50P 12GA 3/C 9FT ST JKT)	1
11		238084	RECTIFIER ASSY,SCR MAIN (INCLUDING)	1
12		205946	FOOT,MTG RECTIFIER	2
		238082	RECTIFIER,SCR MAIN (INCLUDING)	1
	SR1	238085	THYRISTOR,SCR MODULE 150A 400V COMMON ANODE	1
		232261	HEAT SINK,RECTIFIER	1
	C3,4	219460	CAPACITOR,CER DISC .01 UF 1000 VDC W/TERMS	2
	RT1	199798	THERMISTOR,NTC 30K OHM @ 25 DEG C 18.00IN2500V	1
13		230798	AXLE,RUNNING GEAR .750 DIA X 18.000	1
14		230799	WHEEL,POLYPROPYLENE 10 IN X 2.25 WIDE	2
15		602250	WASHER,FLAT .812IDX1.469ODX.134T STL PLD ANSI.750	2
16		121614	RING,RTNG EXT .750 SHAFT X .085 THK E STYLE PLD	2
17		229625	TRAY,CYLINDER LOW	1
18		169598	M-25 GUN 15 FT .030-.035 WIRE (SEE GUN OWMER'S MANUAL)	1
19		Figure 9-3	PANEL,FRONT W/COMPONENTS,	1
20		235875	CASTER,SWVL 4.00 IN POLYOLEFIN X 1.250 IN WIDE	2
21		229624	BASE,	1
22		230364	BAFFLE,AIR XFMR (Prior to MA200338N)	1
22		248427	BAFFLE,AIR XFMR (Eff w/MA200338N)	1
		248426	BLANK,SNAP-IN	2
23	T1	237521	XFMR,POWER MAIN 203/230	1
	PLG8	110759	HOUSING RCPT+SKTS,(SERVICE KIT)	1
		234263	REGULATOR/FLOWMETER, 0-50 CFH AR/CO2/MIX W/FILTER	1
		196328	CABLE,WORK 10 FT NO 3 W/CLAMP & BOOT (INCLUDING)	1
		233452	CLAMP,WORK 300 AMP	1
		600318	CABLE,WELD COP STRD NO 3 EPDM JKT (ORDER BY FT)	1
		196318	COVER,CABLE BTRY POST BLK .75 ID	1
		144108	HOSE,GAS 5FT	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

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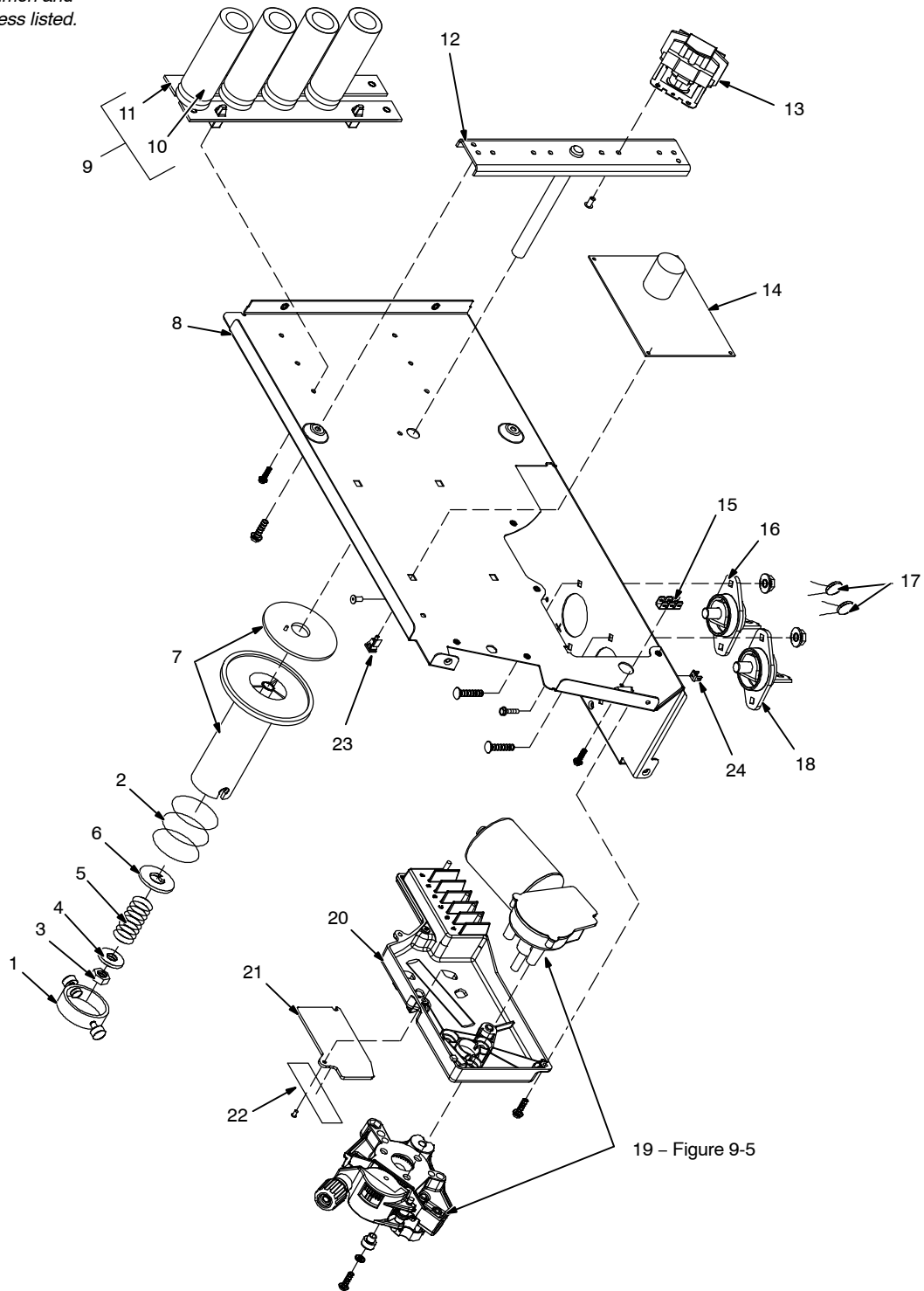


Figure 9-2. Baffle, Center w/Components

805 246-A


Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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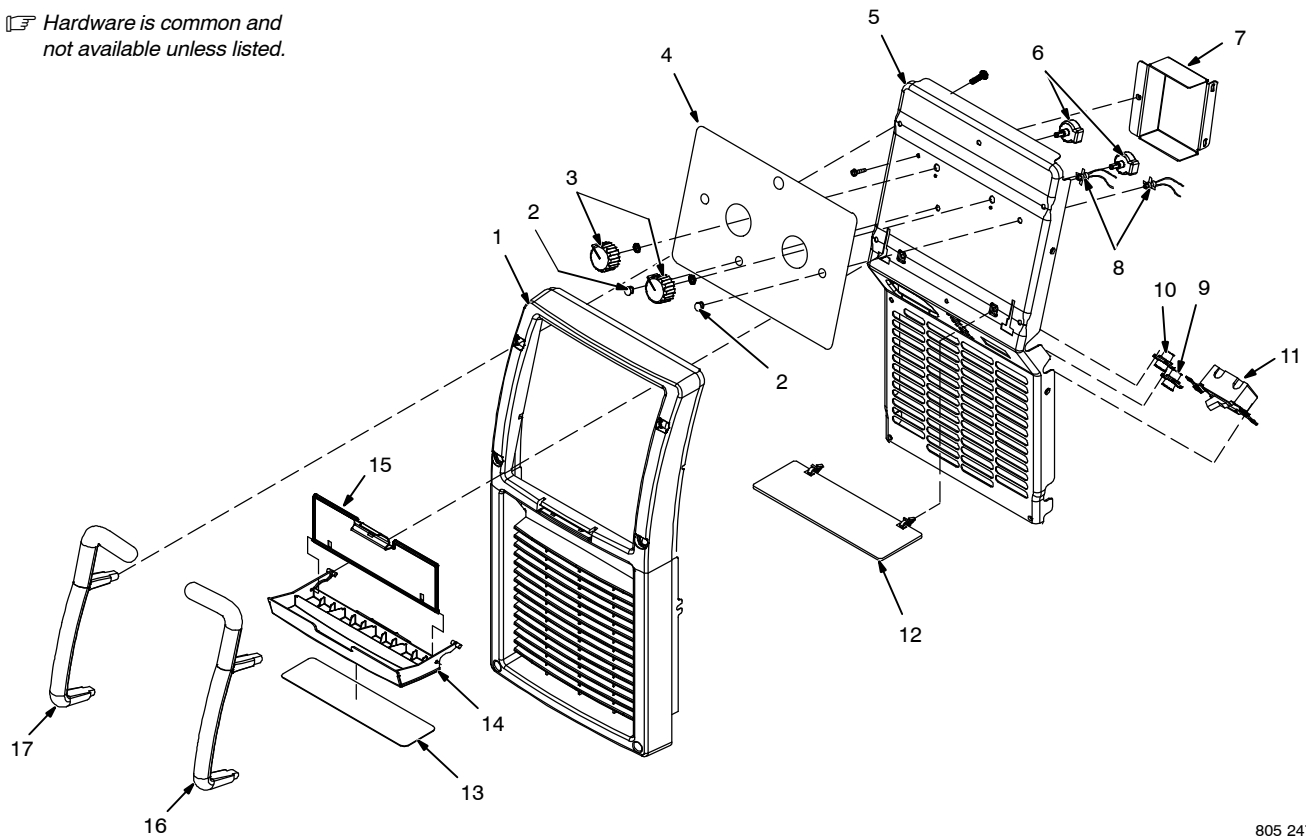
Figure 9-2. Baffle, Center w/Components

.....		196001	.. SPOOL HUB ASSEMBLY (INCLUDING)	1
1		058427	.. RING,RETAINING SPOOL	1
2		057745	.. SPRING,CPRSN 2.305 OD X .090 WIRE X 2.500 PLD	1
3		085980	.. NUT, 625-11 .94HEX .54H STL PLD	1
4		605941	.. WASHER,FLAT .640IDX1.000ODX.075T STL PLD	1
5		186437	.. SPRING,CPRSN .845 OD X .110 WIRE X 1.500 PLD	1
6		057971	.. WASHER,FLAT .632IDX1.500ODX.125T STL PLD .175KEY	1
7		238377	.. KIT,SPOOL HUB W/BRAKE WASHER	1
8		229623	.. BAFFLE,CENTER	1
		231985	.. LABEL,WARNING ELECTRIC SHOCK AND PINCH (EN/SP)	1
		226658	.. LABEL,POLARITY/DRIVE ROLLS	1
9	C5	208812	.. CAPACITOR ASSY,	1
10		191374	.. CAPACITOR,ELCTLT 30000 UF 45 VDC CAN 1.75 DIA	4
		083147	.. GROMMET,SCR NO 8/10 PANEL HOLE .312 SQ .500 HIGH	4
11		208218	.. BUSS BAR,CAPACITOR	2
12		235827	.. REEL SUPPORT	1
13	W	229685	.. CONTACTOR,DEF PRP 25A 1P 36VDC COIL	1
14	PC1	249757	.. CIRCUIT CARD ASSY,CONTROL W/PROGRAM (Prior to MA290011N) ...	1
14	PC1	245564	.. CIRCUIT CARD ASSY,CONTROL W/PROGRAM (Eff w/MA290011N)	1
	PLG1	241168	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
	PLG2	241172	.. HOUSING RCPT+SKTS,(SERVICE KIT)	1
	PLG3	241171	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
	PLG6	241169	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
	PLG7	202592	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
	PLG8	110759	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
	PLG9	241167	.. HOUSING RCPT+SKTS,(SERVICE KIT)	1
	PLG10	241170	.. HOUSING PLUG+SKTS,(SERVICE KIT)	1
15		129524	.. TERM,FRICT 250X032 UNINSUL MALE .130 STUD MTG 3PR	1
16	POS	097421	.. TERMINAL,PWR OUTPUT RED	1
17	C1,C2	128750	.. CAPACITOR,CER DISC .1 UF 500 VDC W/TERMS	2
18	NEG	097416	.. TERMINAL,PWR OUTPUT BLACK	1
		230795	.. DRIVE ASSY,WIRE W/PRI LINK 2V (INCLUDING)	1
19	Figure 9-5		.. MOTOR AND WIRE DRIVE ASSY	1
		153980	.. LABEL,LINK ARR PRI V 200/230	1
20		229630	.. HOUSING,DRIVE ASSY/PRI TERM LINK 2 VOLTAGE (INCLUDING ...	1
21		+229634	.. DOOR,ACCESS CHANGEOVER	1
22		231987	.. LABEL,WARNING HIGH VOLTAGE (EN/SP)	1
23		134201	.. STAND-OFF SUPPORT,PC CARD .312/.375W/POST&LOCK .43	4
24		600760	.. TERM,FRICT 250X032 UNINSUL MALE .130 STUD MTG 1PR	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

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805 247-A

Figure 9-3. Panel, Front w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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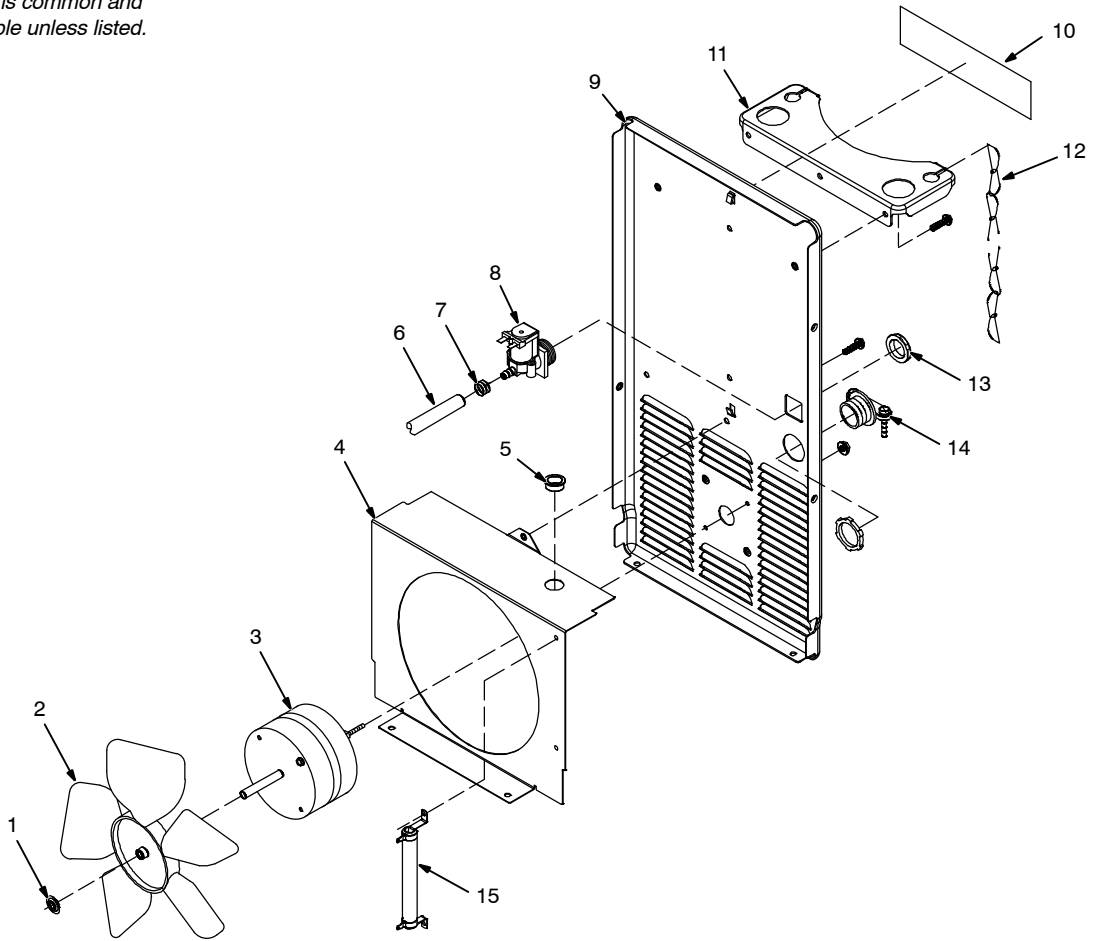
Figure 9-3. Panel, Front w/Components

...	1	230304	.. BEZEL,FRONT W/CONSUMABLE TRAY	1
.....		226660	.. LABEL,POWER/MIG GUN/SPOOLGUN	1
...	2	159036	.. LENS,LED CLEAR PANEL MTG	2
...	3	238122	.. KNOB,POINTER 1.625 DIA	2
...	4	248456	.. LABEL,CONTROLS (Eff w/MA440832N)	1
...	4	237436	.. LABEL,CONTROLS (Prior to MA440832N)	1
...	5	248495	.. PANEL,FRONT (Eff w/MA440832N)	1
...	5	238078	.. PANEL,FRONT (Prior to MA440832N)	1
...	6	R1,R2 . 238100	.. POT ASSY,W/LEADS &CONNECTOR CP FLAT 1T 2. W (Prior to MA290011N)	2
...	6	R1,R2 . 246617	.. POT ASSY,W/LEADS &CONNECTOR CP FLAT 1T 2. W 1K OHM LINEAR (DUAL) (Eff w/MA290011N)	2
...	7	238079	.. ENCLOSURE,PC BOARD/POTS	1
...	8	LED1,2,3 248259	.. LED ASSY,W/LEADS (Eff w/MA440832N)	1
...	8	LED1,2 238101	.. LED ASSY,W/LEADS (Prior to MA440832N)	1
...	9	RC1 .. 048282	.. RCPT W/SKTS,(SERVICE KIT) (MIG GUN)	1
...	10	RC2 .. 190363	.. RCPT W/SKTS,(SERVICE KIT) (SPOOL GUN)	1
...	11	S1 .. 124511	.. SWITCH,TGL DPST 40A 600VAC SCR TERM	1
...	12	238124	.. FLIP CHART	1
.....		230365	.. CLIP,SNAP IN .250ID X .250 MT HOLE X .030-.125 PNL	2
...	13	238114	.. LABEL,NAMEPLATE	1
...	14	229617	.. TRAY,CONSUMABLES	1
...	15	229618	.. COVER,TRAY CONSUMABLES	1
.....		226653	.. LABEL,CONSUMABLES M25	1
...	16	231553	.. HANDLE,RH	1
...	17	231554	.. HANDLE,LH	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

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805 248-A

Figure 9-4. Panel, Rear w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 9-4. Panel, Rear w/Components

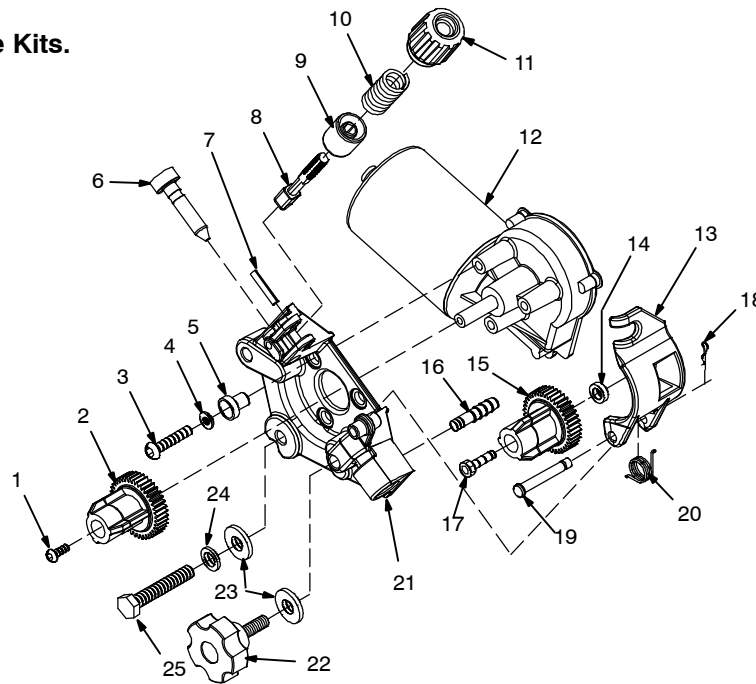
...	1	049399	.. NUT, 312-18 PUSH ON .63D .07H STL	1
...	2	148809	.. BLADE,FAN 9.000 5WG 34DEG .312 BORE CCW PLSTC	1
...	3	FM 188706	.. MOTOR,FAN 230V 50/60HZ 1550 RPM .312 DIA SHAFT	1
...	4	225669	.. WINDTUNNEL,	1
...	5	010493	.. BUSHING,SNAP-IN NYL .625 ID X .875 MTG HOLE	1
...	6	146524	.. HOSE,SAE .187 ID X .410 OD X 27.000	1
...	7	149332	.. CLAMP,HOSE .405 - .485 CLP DIA SLFTTNG OLIVE DRA	2
...	8	GS1 228035	.. VALVE, 34VDC 1WAY .750-14 THD 2MM ORF 100PSI	1
...	9	+225282	.. PANEL,REAR	1
...	10	231986	.. LABEL,WARNING CYL MAY EXPLODE IF DAMAGED (EN/SP)	1
...	11	229628	.. BRACKET,SUPPORT CYLINDER	1
...	12	188441	.. CHAIN,WELDLESS 2/0 X 31. BRIGHT ZINC PLD	1
...	13	220805	.. NUT, 750-14 NPS 1.48HEX .41H NYL	1
...	14	604102	.. CONN,CLAMP CABLE 1.000	1
...	15	R1 091685	.. RESISTOR,WW FXD 50 W 25 OHM FASTON TE	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

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**See Section 1-1
Drive Roll & Wire Guide Kits.**

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804 919-B

Figure 9-5. Wire Drive And Gears

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
...	...	209079	.. SCREW,M 4- .7X 16 PAN HD-PHL PLD DIN 7985	1
...	...	173619	.. CARRIER,DRIVE ROLL W/COMPONENTS 24 PITCH 10MM SHAF	1
...	...	174610	.. SCREW,M 6-1.0X 20 SOC HD BUTTON CAP BLK	3
...	...	192029	.. WASHER,FLAT .250IDX0.437ODX.015T STL PLN	3
...	...	173620	.. BUSHING,MTG MOTOR	3
...	...	221912	.. GUIDE,WIRE INLET NYLON .023 - .052	1
...	...	010224	.. PIN,SPRING CS .187 X 1.000	1
...	...	221976	.. KNOB,TENSION ADJUST ASSY (INCLUDING)	1
...	...	225718	.. FASTENER,PINNED	1
...	...	196896	.. CUP,SPRING	1
...	...	196897	.. SPRING,CPRSN .695 OD X .095 WIRE X 1.500	1
...	...	196895	.. KNOB,TENSION	1
...	M	233009	.. MOTOR,GEAR 24VDC 150RPM 37:5 RATIO	1
...	...	228828	.. LEVER,MTG PRESSURE GEAR	1
...	...	230801	.. SPRING,TORSION	1
...	...	166072	.. SPACER,GEAR	1
...	...	172075	.. CARRIER,DRIVE ROLL W/COMPONENTS 24 PITCH	1
...	...	079633	.. FTG,HOSE BRS BARBED NIPPLE 3/16 TBG	1
...	...	602009	.. SCREW,250-20X1.25 SOC HD-HEX GR8 PLN	1
...	...	151828	.. PIN,COTTER HAIR .042 X .750	1
...	...	234784	.. PIN,CLEVIS .250 OD X 1.751 LG W/GROOVE	1
...	...	230801	.. SPRING,TORSION	1
...	...	228826	.. HOUSING,ADAPTER DRIVE MOTOR	1
...	...	204585	.. KNOB,FLUTED 1.75 IN W/ .312-18 STUD 1.00 LG	1
...	...	604538	.. WASHER,FLAT .344IDX0.688ODX.065T STL PLD ANSI.312	2
...	...	602211	.. WASHER,LOCK .318IDX0.586ODX.078T STL PLD SPLIT.312	2
...	...	604534	.. SCREW,312-18X1.25 HEX HD-PLN GR5 PLD	1
...	...	203526	.. ROLL,DRIVE V GROOVE .030-.035 WIRE	2

*Recommended Spare Parts.

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1-1. Drive Roll And Wire Guide Kits

☞ Base selection of drive rolls upon the following recommended usages:

- 1 V-Grooved rolls for hard wire (olid steel and metal cored).
- 2 U-Grooved rolls for soft and soft shelled cored wires (aluminum).
- 3 U-Cogged rolls for extremely soft shelled wires (usually hard surfacing types).
- 4 V-Knurled rolls for hard shelled cored wires (flux cored).
- 5 Drive roll types may be mixed to suit particular requirements (example: V-Knurled roll in combination with U-Grooved).

Wire Diameter			Kit No.	Drive Roll		Inlet Wire Guide
Fraction	Decimal	Metric		Part No.	Type	
.023/.025 in.	.023/.025 in.	0.6 mm	087 131	087 130	V-Grooved	056 192
.030/.035 in.	.030/.035 in.	0.8/0.9 mm	204 579	203 526	V-Grooved	056 192
.030 in.	.030 in.	0.8 mm	079 594	053 695	V-Grooved	056 192
.035 in.	.035 in.	0.9 mm	079 595	053 700	V-Grooved	056 192
.045 in.	.045 in.	1.2 mm	079 596	053 697	V-Grooved	056 193

Ref. S-0026-B/7-91

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