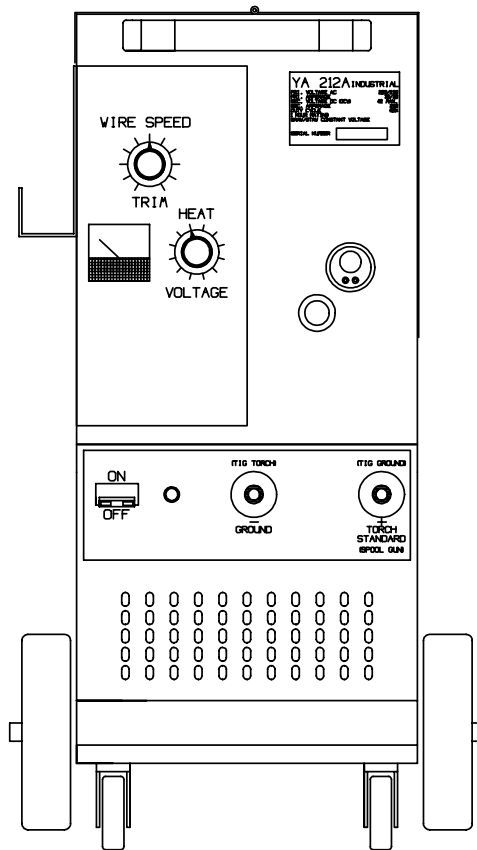


# Snap-on®

## YA212A IND.



# SERVICE MANUAL

FOR  
SERIAL NUMBERS 812I-15581 AND LATER

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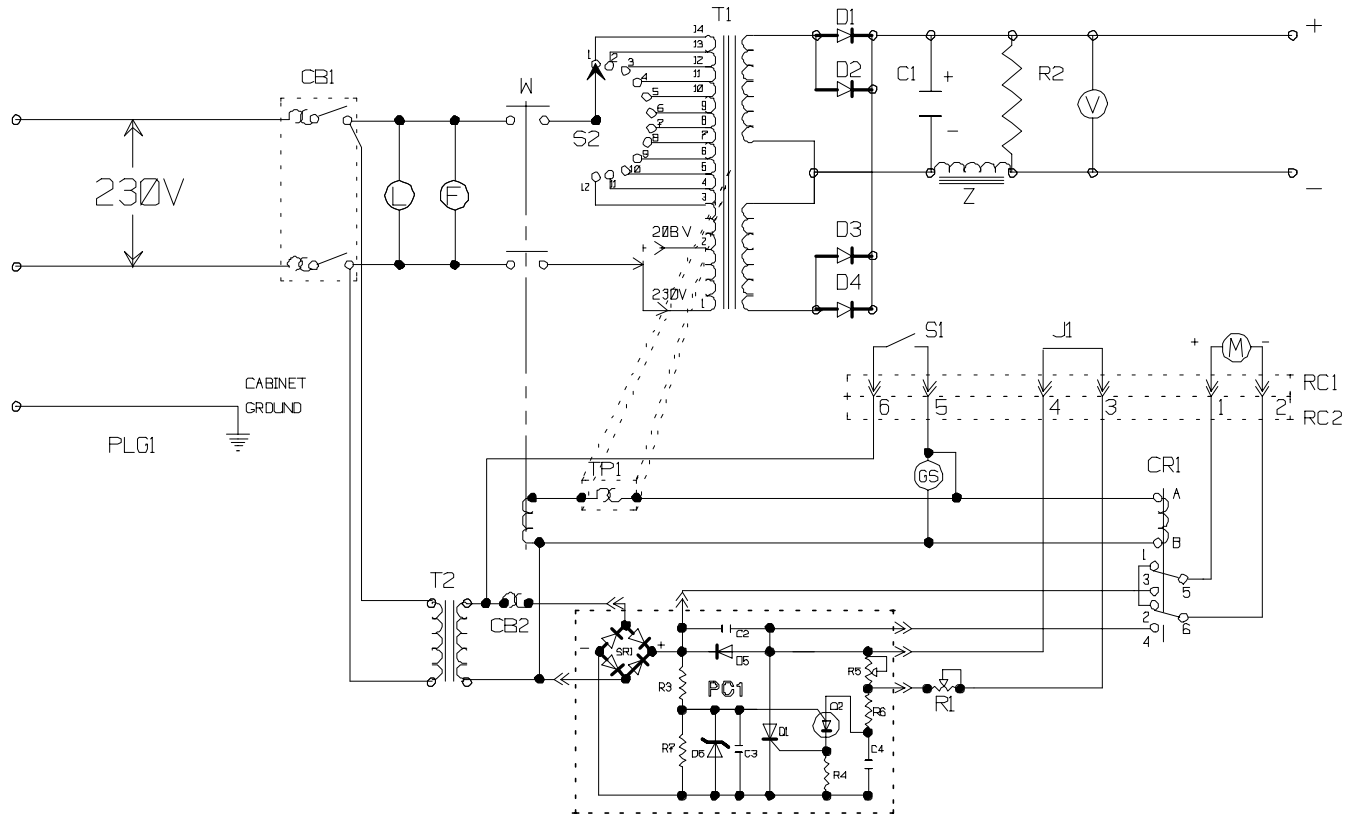


FIGURE 1 - SCHEMATIC DIAGRAM

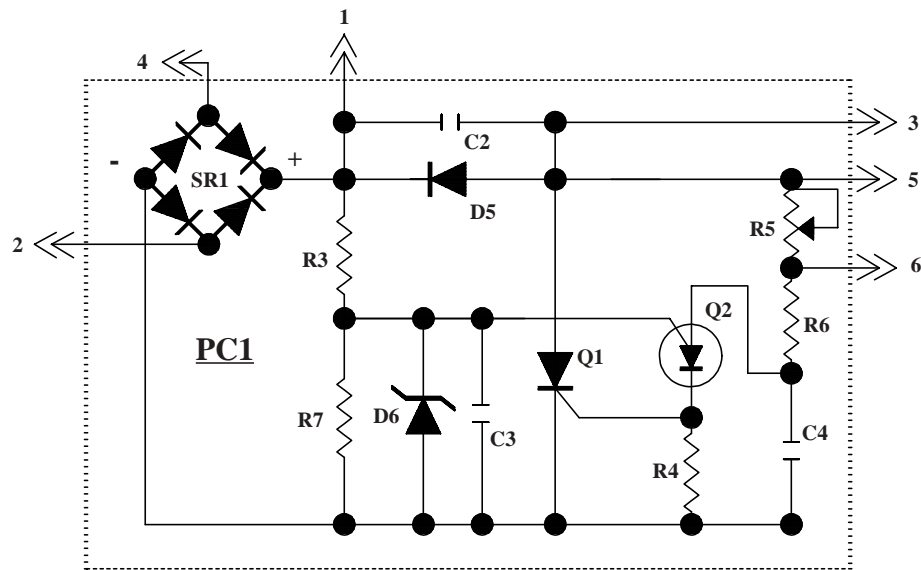


FIGURE 1A - SCHEMATIC, WIRE FEED CIRCUIT BOARD

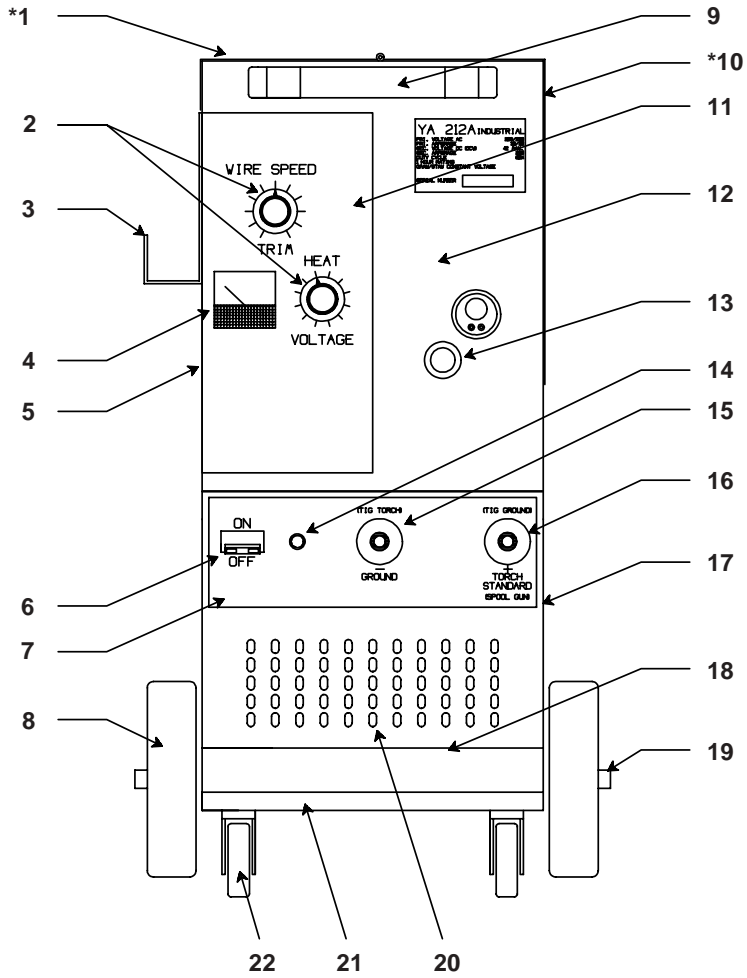


FIGURE A - FRONT ASSEMBLY

**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        |            | SN-330A  | KNOB, HEAT & TRIM .....   | 2    |
| 3        |            | SN-319   | HANGER, CABLE .....   | 2    |
| 4        | V          | SN-115   | VOLTMETER (ROUND CORNERS) .....                                 | 1    |
|          |            | SN-115A  | VOLTMETER (SQUARE CORNERS) (SERIAL# 812I-19333 AND LATER) ..... | 1    |
|          |            | SN-115L  | LENS, VOLTMETER (ROUND CORNERS) .....                           | 1    |
|          |            | SN-115AL | LENS, VOLTMETER (SQUARE CORNERS) .....                          | 1    |
| 5        |            | SN-306   | SIDE, LEFT .....  | 1    |
|          |            | SN-1003  | LABEL, SIDE .....   | 2    |
| 6        | CB1        | SN-482   | CIRCUIT BREAKER, 35 AMP .....                                   | 1    |
|          |            | SN-955   | BREAKER BRACKET .....   | 1    |
| 7        |            | SN-1101  | 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       |            | SN-1053  | LABEL, CONTROL .....  | 1    |
| 12       |            | SN-308U  | FRONT, UPPER .....  | 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-178   | GROUND CABLE ASSEMBLY, 15' (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-308L  | FRONT, LOWER .....  | 1    |
| 21       |            | SN-213   | CASTER BRACKET .....  | 1    |
| 22       |            | SN-121-3 | CASTER, FRONT 3" .....  | 2    |

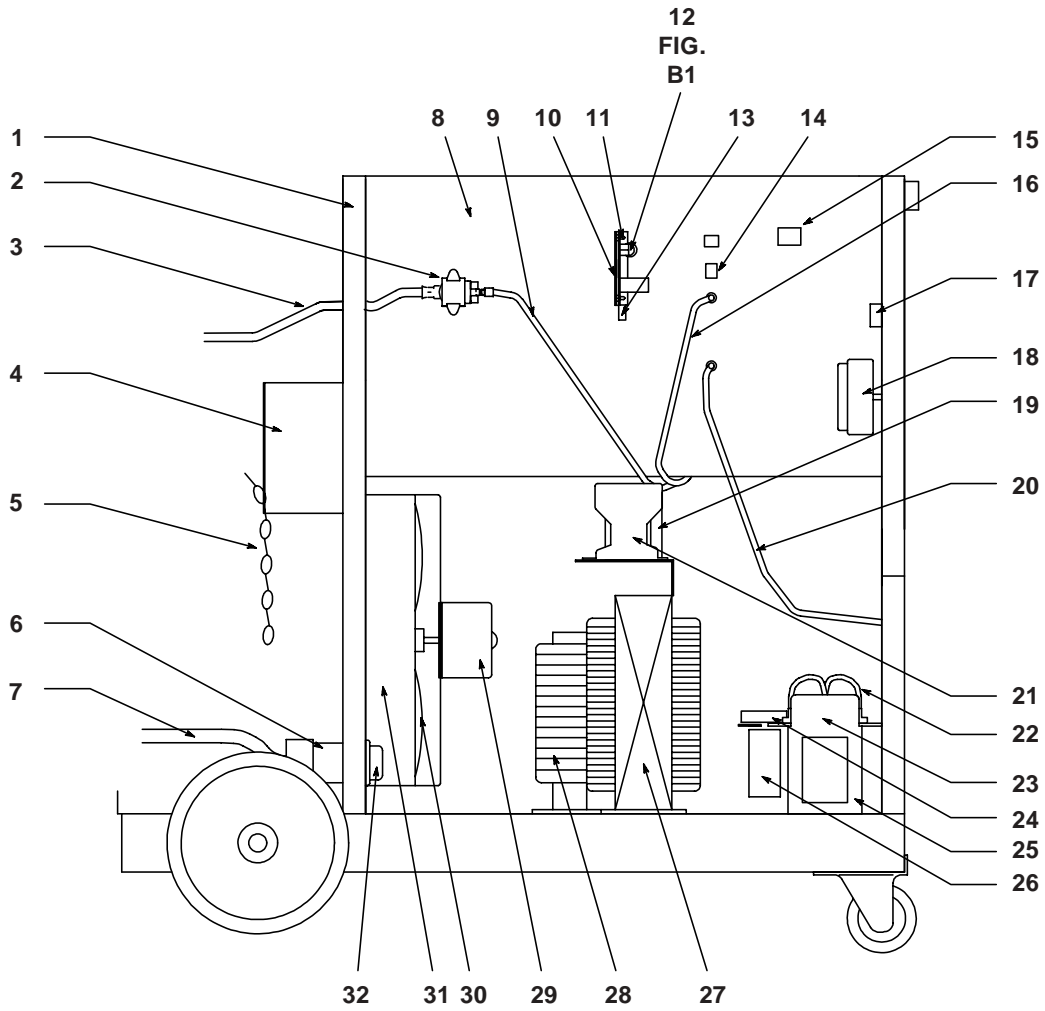


FIGURE B - LEFT SIDE VIEW & INTERNAL COMPONENTS

**FIGURE B**

| ITEM NO. | DIA. MKGS. | PART NO.  | DESCRIPTION   | QTY. |
|----------|------------|-----------|---|------|
| 1        |            | SN-303A   | BACK (SERIAL# 812I-15581 TO 812I-18155) .....                   | 1    |
|          |            | SN-303F   | " REVISED (SERIAL# 812I-18156 AND LATER) .....                  | 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    |
| 6        | RC1        | SN-173    | PLUG, MOTOR BASE (SERIAL# 812I-15581 TO 812I-18155) .....       | 1    |
| 7        | PLG1       | 20CP-1    | POWER INPUT CABLE, 20' (SERIAL# 812I-15581 TO 812I-18155) ..... | 1    |
|          | "          | 20CP-0    | " (SERIAL# 812I-18156 AND LATER) .....                          | 1    |
|          |            | SN-220    | STRAIN RELIEF (SERIAL# 812I-18156 AND LATER) .....              | 1    |
|          |            | SN-220N   | NUT, STRAIN RELIEF (SERIAL# 812I-18156 AND LATER) .....         | 1    |
| 8        |            | SN-305A   | BAFFLE (REVISED) .....  | 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, (MHG5-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-286C   | 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-318    | FAN BLADE .....   | 1    |
| 31       |            | SN-310A   | FAN BRACKET W/SHROUD .....                                      | 1    |
| 32       | RC2        | SN-172    | MOTOR BASE (230V-20A) (SERIAL# 812I-15581 TO 812I-18155) .....  | 1    |

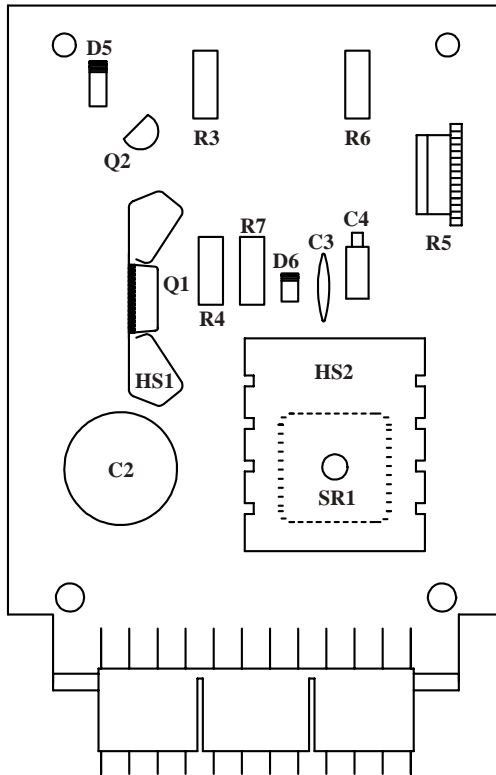


FIGURE B1 - PRINTED CIRCUIT BOARD (SN-774U)



**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    |

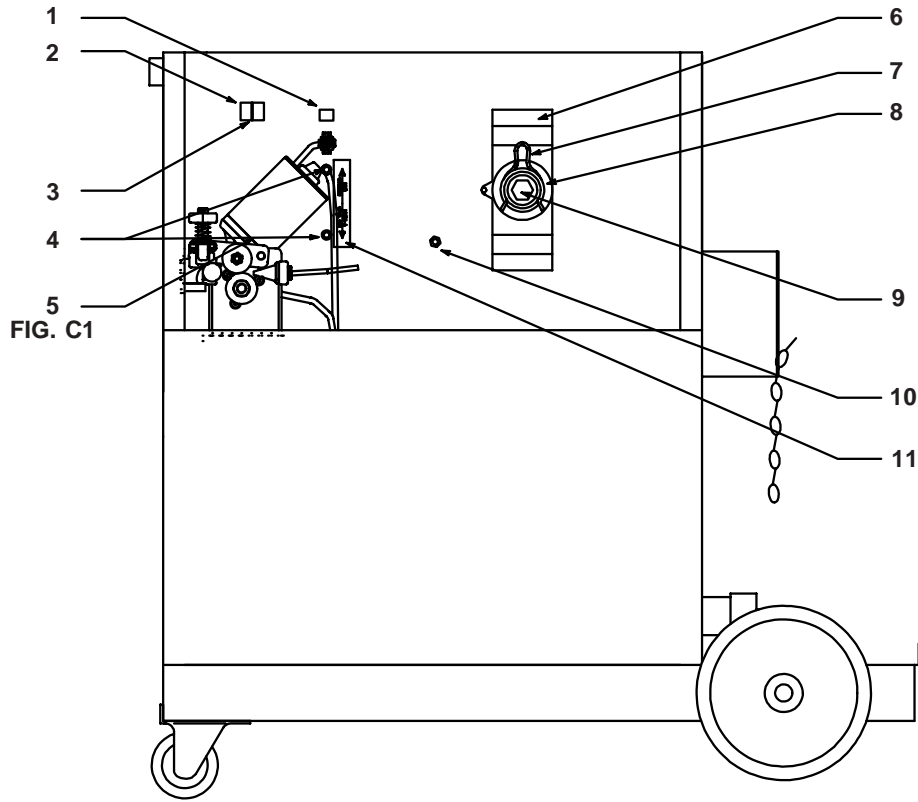


FIGURE C - WIRE FEED COMPARTMENT

**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-138C24A | 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 .....                | 1    |
| 11       |            | SN-1055    | LABEL, SELECTION .....                | 1    |

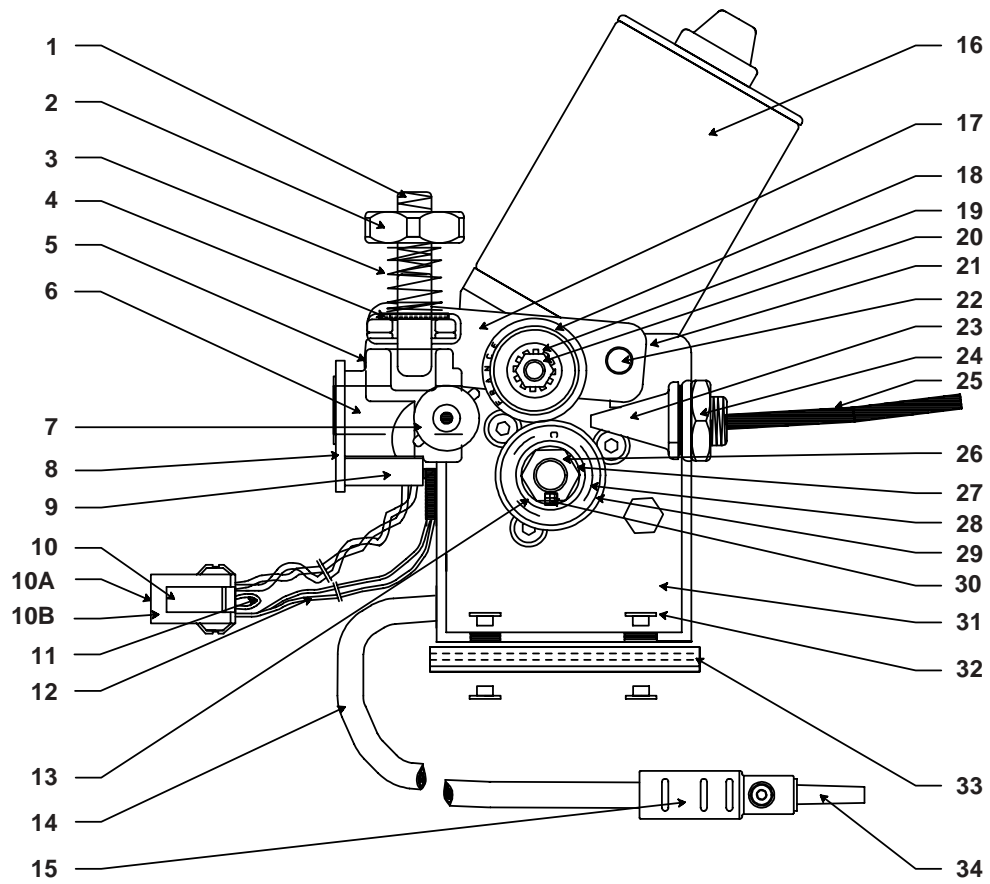


FIGURE C1 - WIRE DRIVE ASSEMBLY (SN-138C24A)

**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 (HG-525) .....        | 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       |            | SN-63     | DRIVE ROLL (1 3/8" DIA.) .....          | 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    |



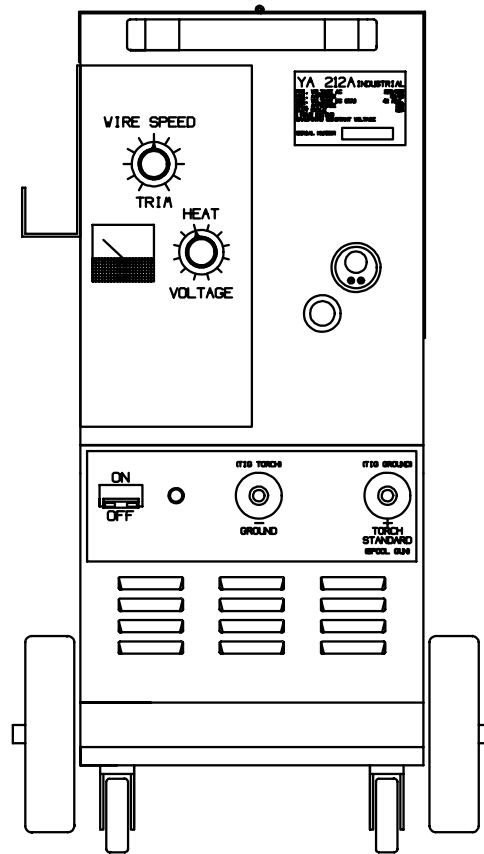






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## SUPPLEMENT

FOR  
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