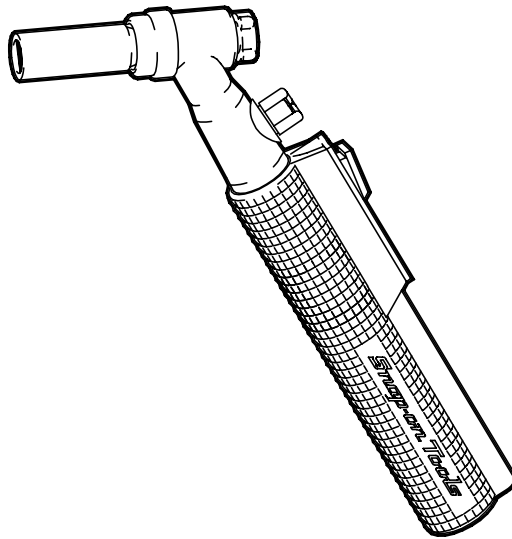


TIG PAK 200(A)

(TIG PAK 2112, 2112A, 2125, 2125A)

OWNERS MANUAL



**THE TIG PAK 200(A)
ENABLES THE OPERATOR TO PERFORM HIGH
QUALITY TUNGSTEN-INERT GAS (T.I.G.) WELDING
ON STEEL, STAINLESS STEEL, CHROME-MOLY, COP-
PER AND CAST IRON.**

THIS T.I.G. WELDING PACKAGE WILL NOT WELD ALUMINUM.

FOR TECH. SERVICE, CALL 1-800-222-9353

INSTALLATION
OPERATION
REPLACEMENT PARTS

MANUFACTURER'S LIMITED WARRANTY

This equipment is warranted against defects in materials and workmanship for a period of **90 DAYS** from the date of purchase.

Should it become defective for such reason, the Manufacturer will repair it without charge, if it is returned to the Manufacturer's factory, freight prepaid. This warranty does not cover: (1) failure due to normal wear and tear; (2) consumable parts, such as, but not limited to, collets, collet bodies, gas cups and heat shields; (3) damage by accident, force majeure, improper use, neglect, unauthorized repair or alteration; (4) anyone other than the original purchaser.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY INJURY TO PERSONS, INCLUDING DEATH; OR LOSS OR DAMAGE TO ANY PROPERTY, DIRECT OR CONSEQUENTIAL, INCLUDING, BUT NOT LIMITED TO, LOSS OF USE, ARISING OUT OF THE USE, OR THE INABILITY TO USE, THE PRODUCT. THE USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION WITH THE USE OF THE PRODUCT, AND BEFORE DOING SO, SHALL DETERMINE ITS SUITABILITY FOR HIS INTENDED USE, AND SHALL ASCERTAIN THE PROPER METHOD OF USING IT.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

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INTRODUCTION

The TIG Welding process is used to produce the highest quality, porosity-free welds. The **TIG PAK 200(A)** adds this capability to your MIG Welder. The **TIG PAK 200(A)** enables the operator to perform high quality Tungsten-Inert Gas (T.I.G.) welding on steel, stainless steel, chrome-moly, copper and cast iron.

With Direct Current-Straight polarity (DCSP), the **TIG PAK 200(A)** will perform on the VOLTAGE settings 1 thru 4 (see welder output chart and warning on page 4). The settings are for use on materials ranging in thickness from **12 Ga. Min. (.105") thru 1/4" Max.**

The **TIG PAK 200(A)** consists of a 200 amp gas cooled torch with built-in gas control valve, remote On/Off switch, 12 1/2 or 25 foot cable assembly and the required consumable parts.

NOTE: THIS T.I.G. WELDING PACKAGE

WILL NOT WELD ALUMINUM.

CONTENTS

- 1- TIG Torch with built-in valve
- 1- Locking Electric Switch with 14 foot cord
(installed on torch)
- 1- 12-1/2 foot Power Cable with Connector
(installed on torch)
- 1- 15 foot Gas Hose with fitting
(installed on torch)
- 3- 3C332 Collet - for 3/32" tungsten
- 3- 3C418 Collet - for 1/8" tungsten
- 2- 3CB332 Collet Body - for 3/32" tungsten
- 2- 3CB418 Collet Body - for 1/8" tungsten
- 2- 3C6 Gas Cup - 3/8" orifice
- 6- 3C7 Gas Cup - 7/16" orifice
- 2- 3C8 Gas Cup - 1/2" orifice
- 1- 300L Long Backcap
- 3- 3/32" X 3" Tungsten Electrode
- 3- 1/8" X 3" Tungsten Electrode

SPECIFICATIONS

PART NUMBER: TIG PAK 2112, 2125,
TIG PAK 2112A, 2125A

TORCH RATING: 200 Amps, DCSP

DUTY CYCLE: 100%
(reduce duty cycle when operating
over 200 amps.)

COOLING METHOD: Gas (100% Argon)

SHIELDING GAS CONTROL METHOD:
Gas Valve on Torch

WELD CURRENT ON-OFF CONTROL:
Locking Switch on Torch

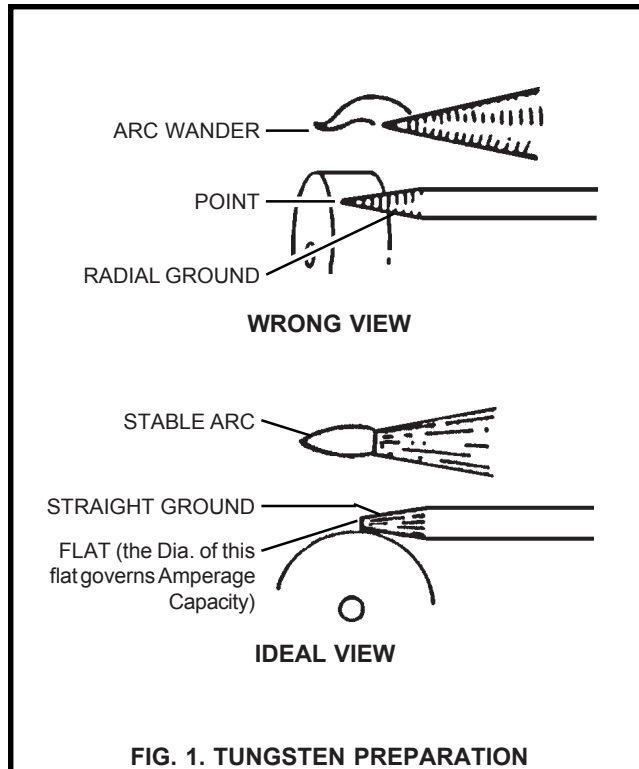
INSTALLATION

TUNGSTEN PREPARATION

NOTE

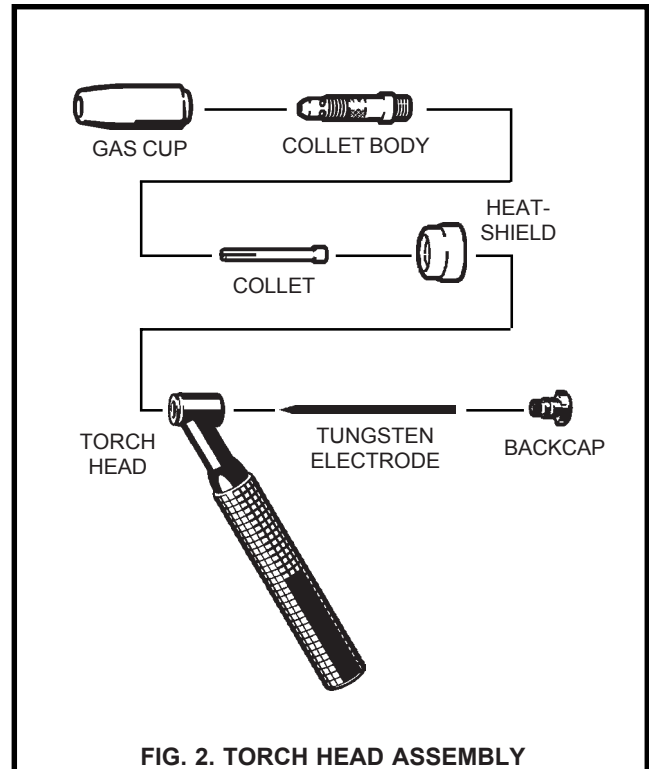
Before using the **TIG PAK 200(A)** the tungsten electrode must be prepped.

1. Referring to Figure 1, grind the electrode following the **IDEAL VIEW**.



TORCH HEAD ASSEMBLY

1. Select the size tungsten electrode to be used.
2. Make sure teflon heatshield is in place.
3. Locate the matching size Collet and Collet body.
4. Drop the Collet, slit-end down, into the Collet body.
5. Screw assembly into torch head, Heatshield side, and tighten firmly.
6. Install a Gas cup, screw into place seating cup against teflon heatshield.
7. Insert tungsten electrode, prepped end first, thru torch head, Collet and center hole of Collet body.
8. Allow tungsten electrode to extend pass the cup 1/8".
9. Screw Backcap into torch head, tighten firmly.

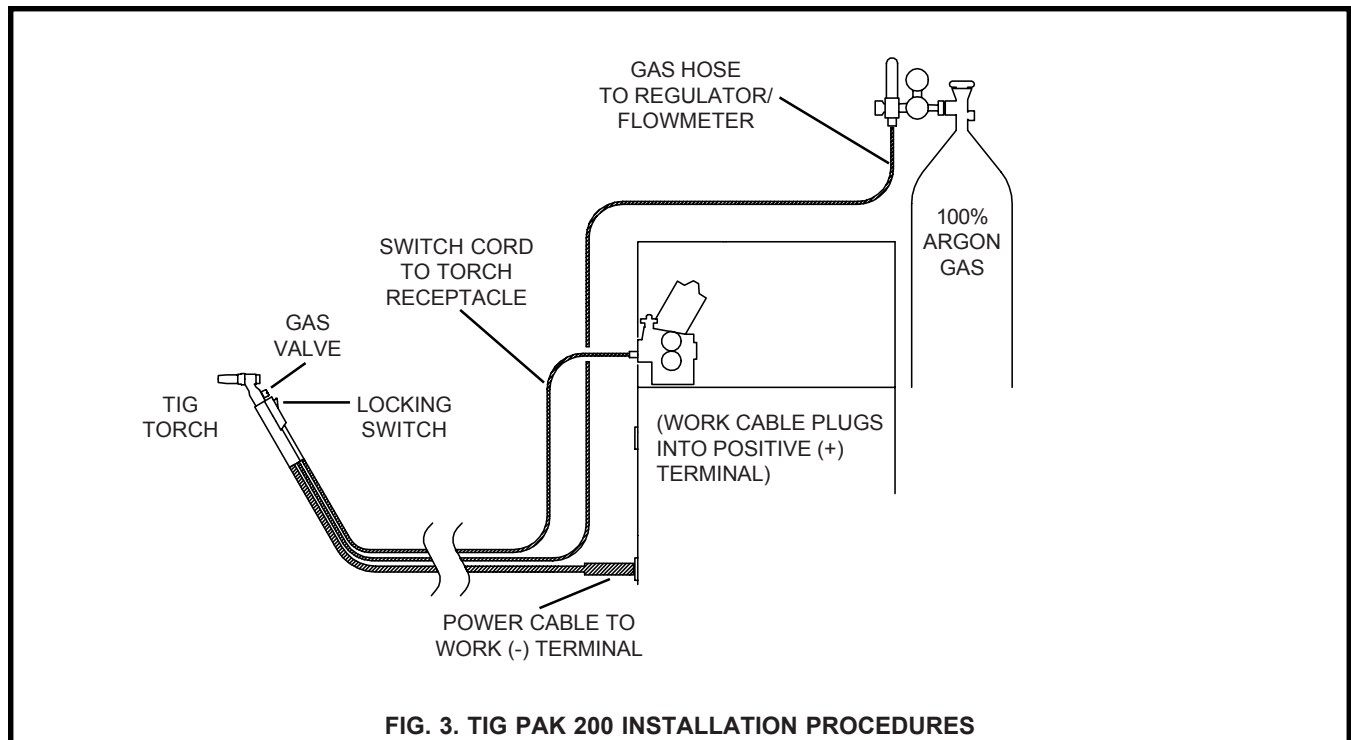


INSTALLATION (Cont.)

TIG PAK 200(2112) INSTALLATION

1. Remove the MIG torch assembly from the machine.
2. Unplug the Torch selector cable and the Work cable from the MIG welders front panel.
3. Plug the TIG torch power cable into "WORK" (-) terminal.
4. Plug the Work cable into "TORCH" (+) terminal. With the TIG torch and Work cable connected in this manner, straight polarity(DCSP) current is available as required for TIG welding.
5. Plug the TIG torch switch cord pins into the two (2) brass sockets found in the torch receptacle.
6. Attach the gas regulator/flow-meter to a cylinder of 100% pure Argon gas.
7. Attach the TIG torch gas hose directly to the gas regulator/flowmeter.
8. Turn on the gas cylinder and open the TIG torch gas valve to purge the system of impurities in the gas line. Purge for one minute to ensure porosity free welds.

YOU ARE NOW READY TO TIG WELD!

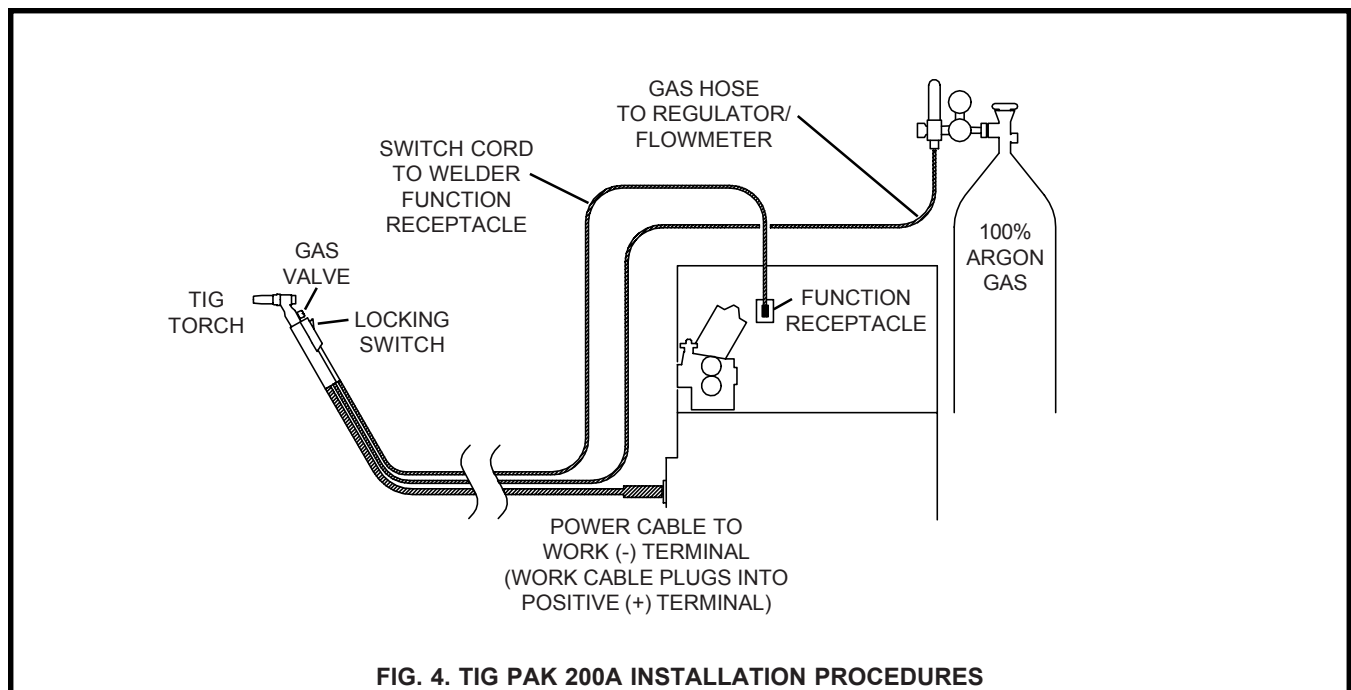


INSTALLATION (Cont.)

TIG PAK 200A(2112A) INSTALLATION

1. Unplug the wire feed motor plug from the Function receptacle.
2. Unplug the Torch selector cable and the Work cable from the MIG welders front panel.
3. Plug the TIG torch power cable into "WORK" (-) terminal.
4. Plug the Work cable into "TORCH" (+) terminal. With the TIG torch and Work cable connected in this manner, straight polarity(DCSP) current is available as required for TIG welding.
5. Plug the TIG torch switch cord into function plug receptacle.
6. Attach the gas regulator/flow-meter to a cylinder of 100% pure Argon gas.
7. Attach the TIG torch gas hose directly to the gas regulator/flowmeter.
8. Turn on the gas cylinder and open the TIG torch gas valve to purge the system of impurities in the gas line. Purge for one minute to ensure porosity free welds.

YOU ARE NOW READY TO TIG WELD!



OPERATION

1. Open the TIG torch gas valve.
2. Set the flowmeter @ a 20 CFH flow rate.
3. Turn "On" the MIG welding machine.
4. Set the welder Voltage control switch to the desire setting. See "Welder Output Chart" and Warning that follows.

WELDER OUTPUT CHART - FOR TIG WELDING

HEAT SETTING	OUTPUT (Approx.)
1	155 AMPS
2	190 AMPS
3	200 AMPS
4	210 AMPS
5	230 AMPS

WARNING

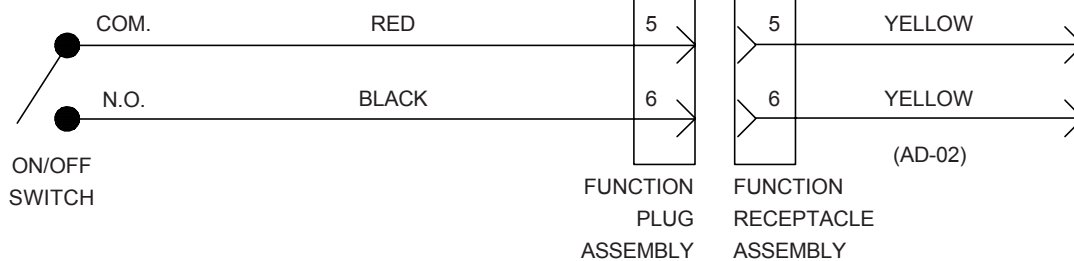
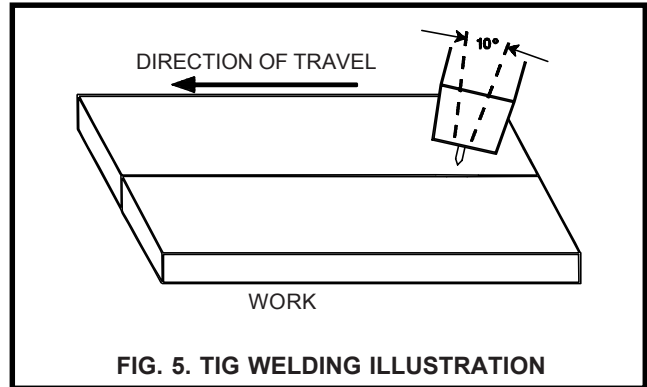
THE TIG PACKAGE IS RATED UP TO 200 AMPS, @ A 100 % DUTY CYCLE. OPERATION ABOVE VOLTAGE SETTING #4 COULD RESULT IN PERMANENT DAMAGE TO THE TORCH HEAD AND CABLES.

5. Depress the TIG torch switch and lock "On", scratch or touch tungsten to the work and draw back to establish an arc.

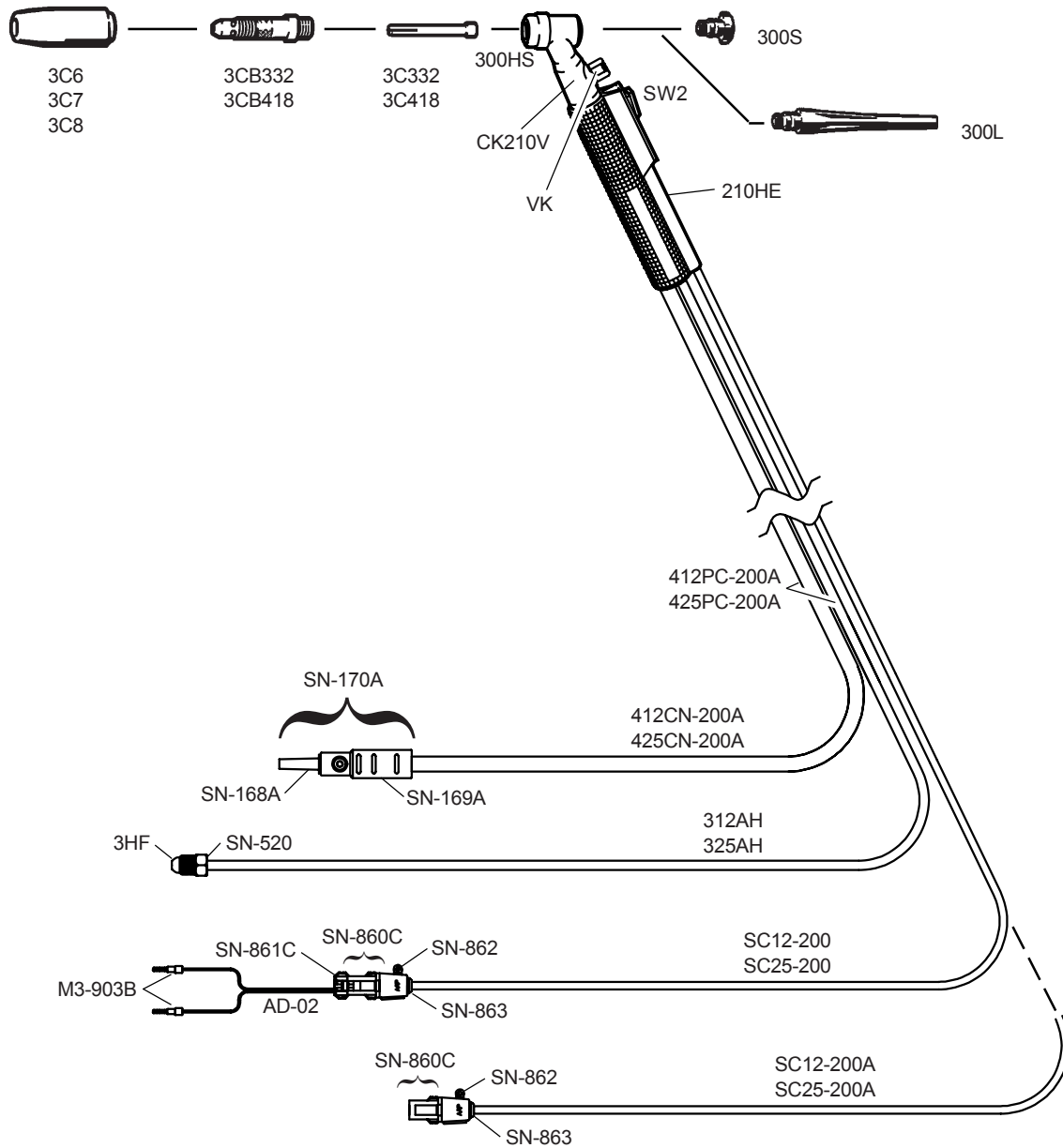
CAUTION

Continual sticking of the tungsten electrode to the work surface can cause severe damage to the MIG welding machine.

6. Once arc is established, hold and maintain a steady arc until base material becomes fluid. Then continue welding while maintaining a consistent arc length and travel speed.



REPLACEMENT PARTS - TIG TORCH ASSEMBLY



REPLACEMENT PARTS - TIG TORCH ASSEMBLY (Cont.)

PART NO.	MODEL NO.	DESCRIPTION
210HE	ALL	HANDLE (only)
300HS	"	HEATSHIELD
300L	"	LONG BACKCAP (with "o" ring)
300S	"	SHORT BACKCAP (with "o" ring)
312AH	TP2112, 2112A	GAS HOSE (only) - with fittings, 12 1/2'
325AH	TP2125, 2125A	GAS HOSE (only) - with fittings, 25'
3C332	ALL	COLLET, 3/32"
3C418	"	COLLET, 1/8"
3C6	"	CUP, 3/8" ORIFICE
3C7	"	CUP, 7/16" ORIFICE
3C8	"	CUP, 1/2" ORIFICE
3CB332	"	COLLET BODY, 3/32"
3CB418	"	COLLET BODY, 1/8"
3HF	"	FITTING, GAS HOSE
412CN-200A	TP2112, 2112A	POWER CABLE (only) - with fittings, 12 1/2'
425CN-200A	TP2125, 2125A	POWER CABLE (only) - with fittings, 25'
412PC-200A	TP2112, 2112A	POWER CABLE AND HOSE ASSEMBLY, 12 1/2'
425PC-200A	TP2125, 2125A	POWER CABLE AND HOSE ASSEMBLY, 25'
AD-02	TP2112, 2125	ADAPTER, CONTROL WIRE (only)
CK210V	ALL	TORCH BODY (only) - with valve assembly & heatshield
M3-903B	TP2112, 2125	TERMINALS, ROUND
SC12-200	TP2112	CONTROL WIRE (only) - with fittings, 12 1/2'
SC25-200	TP2125	CONTROL WIRE (only) - with fittings, 25'
SC12-200A	TP2112A	CONTROL WIRE (only) - with fittings, 12 1/2'
SC25-200A	TP2125A	CONTROL WIRE (only) - with fittings, 25'
SN-168A	ALL	CABLE TERMINAL (only)
SN-169A	"	TERMINAL INSULATOR (only)
SN-170A	"	CABLE TERMINAL ASSEMBLY (only)
SN-520	"	HOSE NUT
SN-860C	"	FUNCTION PLUG ASSEMBLY (only)
SN-861C	2112, 2125	FUNCTION RECEPTACLE ASSEMBLY (only)
SN-862	ALL	STRAIN RELIEF AND SCREW
SN-863	"	GROMMET
SW2	"	LOCKING ELECTRIC SWITCH (only)
VK	"	VALVE (with "o" rings)

NOTES:

NOTES: