MIG/Flux-Cored Setup

Power MTS 141Si Quick Adjustment and Setup Guide

NOTE TO USER: This guide is offered only as a basic starting point for settings. Additional adjustments may be required up to 15-20%. Joint design, technique and welding position will affect settings. Start with clean metal. Use the following gas flow rates as a guide: Steel: 20-25 CFH; Stainless Steel; 25-30 CFH; Aluminum: 30-40 CFH. Add more gas flow in drafty conditions. Use light amounts of nozzle spray regularly. For Hard wire, use a 10-15° push gun angle. For Flux-Cored wire, use a 10 to 15° pull angle.

					15A			20A		30A				
					22 ga .8mm	20 ga .9mm	18 ga 1.2mm	16 ga 1/16" 1.5mm	14 ga 5/64" 1.9mm	12 ga 7/64" 2.7mm	11 ga 1/8" 3 mm	10 ga 9/64" 3.4mm	7 ga 3/16" 4.5mm	
Wire Metal	Wire Diameter	Wire Type	Polarity	Shielding Gas										
STEEL	.023"/.6mm	ER70S-6	DCEP +	75/25 Ar/CO_2	15.5 / 140	15.6 / 175	16.0 / 245	17.0 / 315	17.3 / 365	17.5 / 375	VOLT / IPM			
STEEL	.030"/.8mm	ER70S-6	DCEP +	75/25 Ar/CO_2	15.5 / 95	15.7 / 125	16.4 / 165	17.2 / 235	17.5 / 255	18.0 / 275	18.5 / 295	18.7 / 325	18.8 / 375	VOLT / IPM
STAINLESS	.035"/.9mm	ER308-L	DCEP +	TRIMIX			19.0 / 125	19.5 / 185	20.0 / 245	20.4 / 315	20.7 / 345	20.9 / 365	21.0 / 375	VOLT / IPM
ALUMINUM	.035"/.9mm	4043	DCEP +	100% Ar					20.0 / 245	20.4 / 315	20.7 / 345	20.9 / 365	21.0 / 3	VOLT / IPM

Use the optional Power Spool SM200N-MTS Spool Gun for welding Aluminum or, as an alternative, use the main gun with an optional polymer liner. Due to the maximum wire speed, .035" wire is recommended for axial spray, the best method for welding Aluminum, though capacity is limited with only 140A @ 21V. Use ER 4043 for best results. Lower settings than recommended and use with .030" wire will result in short circuit transfer mode, and inadequate fusion and/or weld defects beneath the weld.

FLUX-CORED	.035"/.9mm	E71T-11	DCEP +	NO GAS						15.5 / 135	15.5 / 155	16.3 / 175	16.8 / 195	VOLT / IPM

For installation and polarity information, follow the illustrations and information on the following pages.

Stick Setup

Rod Type	Diameter	Polarity	14 ga 1.9mm	5/64" 2.7mm	12 ga 3 mm	7/64" 3.4mm	11ga 4.5mm	1/8" 6.3 mm	10 ga	9/64"	7ga	3/16"
E7018	3/32"	DCEP +	55-70A		70-75A		70-75A		75-80A		80A	
E7014	3/32"	DCEP +	70-80A		75-80A		80A		80A			
E6011	3/32"	DCEP +					55-65A		60-65A		65-70A	70-80A
E6011	1/8"	DCEP +					70-75A		75-80A		80A	

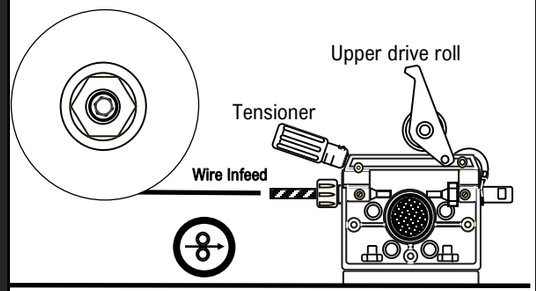
NOTE: Some electrode manufacturer's Amperage suggestions may vary. 1/8" 6011 performance may not perform as well. Use 1/8" diameter only when 3/32 is not available.

⚠ **GENERATOR INFORMATION:** This welder requires at least 4,500 Watts (surge) and must be rated as clean-power (<5%THD) by the generator manufacturer. Using with generators that are not clean-power rated will damage the welder and void warranty.

⚠ **EXTENSION CORD INFORMATION:** If needed, use with a minimum of 12 gauge extension cord, no more than 25 feet long.

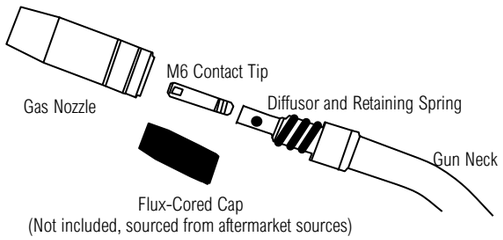
⚠ **IMPORTANT:** Stay safe. Weld safe. Always follow safe welding practices. Start by reading the manual. If you do not have a manual, download one for free from our website. If you need further assistance on setup and welding information, call 1-877-755-9353 ext 204.

1) Install MIG Wire



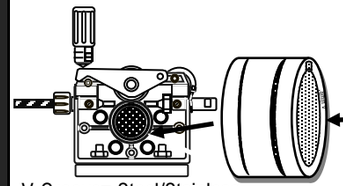
Lower tensioner arm and remove Contact Tip/Nozzle to feed.

2) Remove Nozzle and Contact Tip



Remove and install the gas nozzle by twisting clockwise.

3) Install MIG Wire

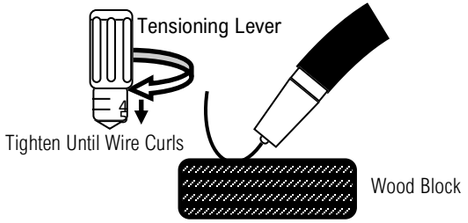


V-Groove= Steel/Stainless
U-Groove =Aluminum
Serrated Groove = F.Core

.6mm =.023"/.025"
.8mm.= .030"
.9mm= .035"

The size and type is stamped on same side as the corresponding groove. Stamped size will be followed by type: U, V, X (Serrated)

4) Test Wire Feed



Pre-set wire feeder tension to 3. Adjust as necessary.

TIG Setup

Tungsten	Diameter	Polarity	24 ga .6mm	22 ga .8mm	18 ga 1.2mm	16 ga 1.6mm	11 ga 1/8" 3.2mm	3/16" 4.8mm
LAN. 2%	1/16"	DCEN -	20-25A	35-40A	45-50A	65-70A		
LAN. 2%	3/32"	DCEN -		35-40A	45-50-A	65-70A	90-120A	140A

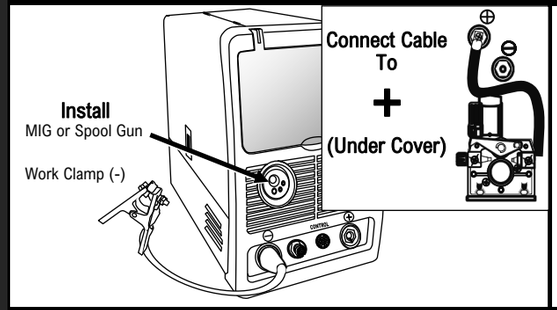
If using with the optional foot pedal, set max amperage 20 to 30% higher for better control. Amp range may vary depending upon position and skill. This TIG function is not designed to weld aluminum. It is DC output only.

⚠ **WARNING:** Always remove the MIG/Flux-cored/ Spool Gun while welding in TIG or Stick Mode. Do not leave the Electrode holder or TIG torch connected while welding in MIG/F. Core mode. The connections will remain live and can cause accidental arc flashing, burns or injury. It will also cause severe damage to the welder which is not covered by the warranty.

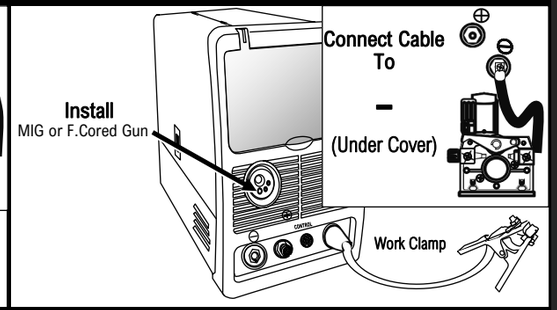
NOTICE: Use a 30A delayed trip breaker or 30A rated slow blow fuse for use at maximum output. The maximum inrush of this unit is 37A, and the effective rated (running) amperage is 19A at maximum output.

Need help? Need Consumables? Call us toll-free (U.S.) @ 1-877-755-9353.
Download the manual, register your unit, get warranty info and order consumables/accessories by visiting www.everlastwelders.com.

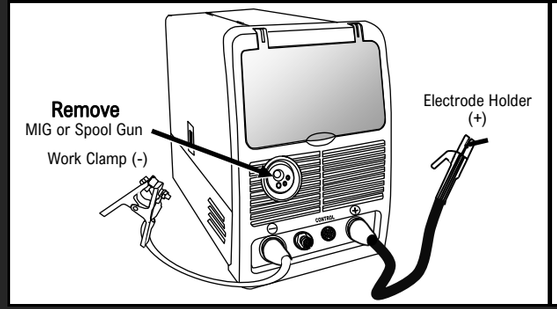
MIG Polarity, DCEP (+)



Flux-Cored Polarity, DCEN (-)



Stick Polarity, DCEP (+)



TIG Polarity, DCEN (-)