



ITEM# 323

MIG QUICK START GUIDE

190 MP WELDER

Forney®

Manual MIG

1.



Read user manual

2.



Select Manual MIG process

3.

Set polarity for MIG (solid wire) or Flux-Cored



Solid wire



Flux-cored



4.

Connect MIG gun and ground clamp



5.

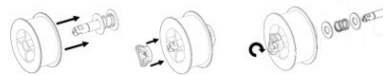
Install wire spool

0.023" (0.6mm) - 0.035" (0.9mm) diameter

8" (200mm) wire spool

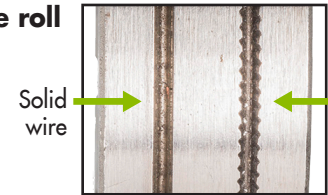


4" (100mm) wire spool



6.

Set drive roll



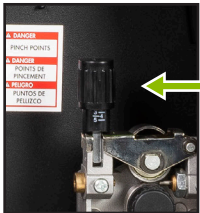
Solid wire

Flux-Cored

* Face the appropriate groove towards the inside of machine

7.

Feed wire and set pressure

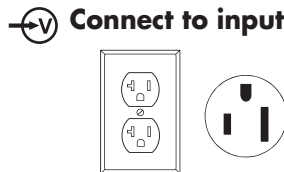


Pressure knob

Knob set ~2-3 marks

8.

Connect to input power



- Generator OK with continuous output \geq 4,000 W (120V) or 10,500 W (240V)
- Extension cord: #12 AWG or larger. 25' (8m) or shorter extension cords recommended

NOTE: If using gas:



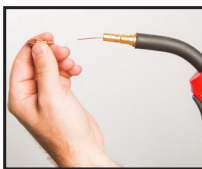
1. Attach gas hose to machine



2. Attach hose to regulator and regulator to gas bottle

9.

Remove consumables and depress trigger until wire comes out. Replace consumables



10.

Adjust wire-feed speed (->) and voltage (v)

See chart on welder for settings. Note: Spool gun WFS adjustment must be made on the machine.



11.

With contact tip 3/8" from metal, depress trigger completely to initiate arc

For flux-cored welding, keep contact tip closer (ideally under 1/4").



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
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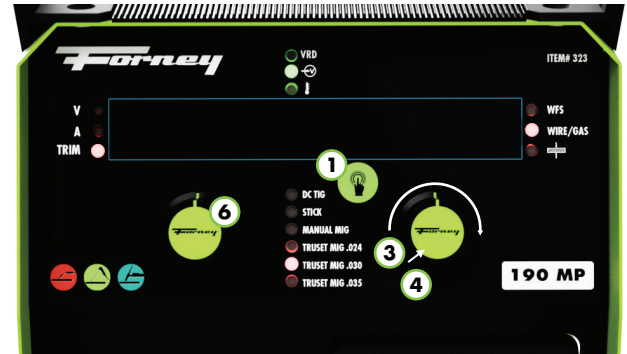
MIG QUICK START GUIDE

190 MP WELDER



TruSet™ MIG

1. Select process according to diameter of wire being used (TruSet MIG .024", .030", or .035").
2. Follow steps 3-9 of Manual MIG setup.
3. Push the right knob to light up the Wire/Gas LED then turn the knob to select the wire and shielding gas combination being used.
4. Push the right knob again to light up the  LED then turn the knob to select the workpiece thickness.
5. The machine will set optimal voltage and WFS. Continue with step 11 of the Manual MIG setup.
6. The automatic settings can be trimmed up or down with the left knob if you want to refine the weld settings.



Expert-Tech Tips:

- Best performance is at a trim setting between -5 and +5.
- Step up to the next material thickness to get more penetration.



MIG TROUBLESHOOTING TIPS

Workpiece Grounding






Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Frequently tripping circuit breaker or exceeding duty-cycle

-  Use wire with a diameter between 0.023" (0.6mm) and 0.035" (0.9mm). Larger diameters draw too much amperage.
-  Trying to weld single pass on material larger than 3/8" (9.5mm) thick is not possible with this machine. Multi-pass recommended for thicker materials.
-  Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 4,000W (120V) or 10,500W (240V) continuous output with no low-idle function (or low-idle off), 5% THD Max.

No arc start on contact



Trigger must be pulled to initiate the arc. This will initiate the arc and begin feeding the wire.

DEPRESS THE TRIGGER COMPLETELY

Mismatched drive roll, liner, or contact tip size

- Can cause feed and weld issues and arc instability.
- Each component must be sized for wire diameter used.



Improper wire spool installation

- Can cause feed issues and inconsistent weld quality.
- Verify all parts are in the proper place. Refer to manual.



8" (200mm) wire spool



4" (100mm) wire spool

Incorrect drive roll pressure

- Too little pressure = roll can slip and feed can be erratic.
- Too much pressure = can crush wire, causing wire feeding problems and welder damage.



Knob set ~2-3 marks



ITEM# 323

TIG QUICK START GUIDE

190 MP WELDER (NOT RECOMMENDED FOR ALUMINUM)



1.



Read user manual

2.



Select DC TIG process



3.

Connect TIG torch and ground clamp



4.

Connect TIG torch lead to gas (100% Argon)



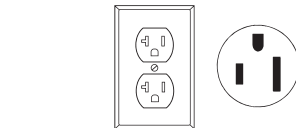
5.

Adjust amperage per material thickness



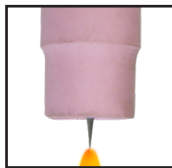
6.

Connect to input power



- Generator OK with continuous output \geq 4,000 W (120V) or 10,500 W (240V)
- Extension cord: #12 AWG or larger. 25' (8m) or shorter extension cords recommended

7.



Use lift arc technique to initiate a welding arc

ELECTRODE IS ALWAYS ELECTRICALLY HOT WHILE IN TIG MODE

FIND MORE INFORMATION AT FORNEYIND.COM



TIG TROUBLESHOOTING TIPS

Workpiece Grounding



Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Aluminum welding



- Not recommended for this machine.
- Output is DC only which is not recommended for TIG welding aluminum.

Frequently tripping circuit breaker or exceeding duty-cycle



Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

120V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 4,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

Low weld output or poor fusion

240V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords: If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 10,500W continuous output with no low-idle function (or low-idle off), 5% THD Max.

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ITEM# 323

STICK QUICK START GUIDE

190 MP WELDER



1.



Read user manual

2.



Select Stick process



Electrode Holder

Ground Clamp

3.

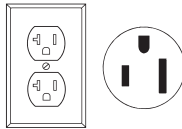
Connect electrode holder and ground clamp according to desired polarity



Usually DCEP - Electrode Positive

4.

Connect to input power



- Generator OK with continuous output \geq 4,000 W (120V) or 10,500 W (240V)
- Extension cord: #12 AWG or larger. 25' (8m) or shorter extension cords recommended

5.

Adjust amperage per chart on the inside of the welder



6.

Recommended electrodes

Electrode	Electrode Amperage		
	3/32"	1/8"	5/32"
E6010	30-75	75-125	110-165
E6011	40-85	75-125	110-165
E6013	40-90	70-110	115-140
E7014	70-90	90-140	140-190
E7018	65-100	110-165	150-190
E308L	40-70	75-115	105-160
Ni55	50-65	80-95	110-135

*Performance may vary by brand

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STICK TROUBLESHOOTING TIPS

Workpiece Grounding



Connect ground clamp to clean, bare metal. No rust, paint or other coatings. Attach the ground clamp directly to the workpiece if you are experiencing issues.

Workpiece Preparation



To ensure maximum quality, always clean and prepare welding surfaces.

Frequently tripping circuit breaker or exceeding duty-cycle



Use 3/16" diameter electrodes or smaller. Some 3/16" will draw too much amperage.



Trying to weld single pass on material larger than 3/8" thick is not possible with this machine. Multi-pass recommended for thicker materials.



Welder should be the only thing plugged into the circuit.

Low weld output or poor fusion

110-120V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords. If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 4,000W continuous output with no low-idle function (or low-idle off), 5% THD Max.

Low weld output or poor fusion

208-240V

- Usually due to low input power.
- Welder should be only thing plugged into circuit.
- Avoid using extension cords: If one must be used, it must be 3 conductor #12 AWG or larger up to 25 feet.
- Generators must be a minimum 10,500W continuous output with no low-idle function (or low-idle off), 5% THD Max.

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