

Syncrowave® 210 Series

TIG/Stick/MIG
Welding Power Source 

Quick Specs

Light Industrial Applications

Light Metal Fabrication
Maintenance/Repair Operations
Light Manufacturing
Automotive Repair
Vocational Training
Hobbyist

Processes

AC/DC TIG (GTAW)
DC Stick (SMAW)
Pulsed TIG (GTAW-P)
MIG (GMAW)
Flux-Cored (FCAW)

Input Power 120–240 V, 1-Phase

Amperage Range 5–210 A

Rated Output 125 A at 15 V, 60% Duty Cycle

Net Weight Runner package: 133.5 lb. (61 kg)
Runner TIG/MIG Complete package: 139.5 lb. (63 kg)



Easy to use.

1. Turn power on.
 2. Select Process: AC TIG, DC TIG, DC Stick or MIG Spool Gun.
 3. Set amperage or voltage based on material thickness.
- Then weld! It's easy as 1,2,3.**

Pro-Set™ (TIG) eliminates the guesswork when setting weld parameters. Use Pro-Set when you want the speed, convenience and confidence of preset controls. Simply select the feature and adjust until Pro-Set appears on the display.

AC balance (TIG) control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds.

Pulse (TIG). Pulsing can increase puddle agitation, arc stability and travel speeds while reducing heat input and distortion. Expandable feature.

Auto-Set™ (MIG) automatically sets your welder to the proper parameters. Simply set the wire size, material thickness, and shielding gas, and you're ready to weld.

DIG (Stick) control allows the arc characteristics to be changed for specific applications and electrodes. Lower the DIG setting for smooth running electrodes like E7018 and increase the DIG setting for stiffer, more penetrating electrodes like E6010.



New!



Comes complete with:

- Power source with 10-ft. (3 m) power cord and MVP™ plugs for 120 V and 240 V
- Weldcraft™ A-150 (WP-17) 12.5-ft. (3.8 m) TIG torch with Dinse-style connector
- RFCS-14 foot control with 20-ft. (6 m) cord (#043 554)
- Electrode holder with Dinse-style connector
- Work clamp with 12-ft. (3.7 m) cable and Dinse-style connector
- Flow gauge regulator and hose
- Factory-installed running gear with EZ-Change™ low cylinder rack

MIG Complete package adds:

- Spoolmate™ 100 spool gun (#300 371)
- 4-14 pin connector
- Flow-thru Dinse-style connector
- Memory card



Allows for any input voltage hookup (120–240 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Update and expand. Front panel memory card data port provides the ability to easily update software and expand product features. Visit MillerWelds.com/TIGSoftware for the latest software updates and expansions.

Low power draw. Inverter-based power source provides full welding output from 240 volts while drawing less than 30 amps.

Multi-Voltage Plug (MVP™) allows for connection to 120 or 240-volt receptacles without tools by choosing the plug that fits the receptacle and connecting it to the power cord.



Fan-On-Demand™ power source cooling system operates only when needed, reducing noise, energy use and the amount of contaminants pulled through the machine.



Power source is warranted for 3 years, parts and labor.
Original main power rectifier parts are warranted for 5 years.



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Specifications (Subject to change without notice.)



Input Power	Welding Process	Welding Amperage Range	Rated Output (R.M.S.)	Amps Input at Rated Output	Max. Open-Circuit Voltage	Dimensions	Net Weight
115 V	DC TIG	5–125 A	95 A at 13.8 V, 60% duty cycle	17.4 (.58)*	47 VDC	H: 31.5 in. (800 mm) W: 18.5 in. (470 mm) D: 43 in. (1092 mm)	Runner package: 133.5 lb. (61 kg) Runner TIG/MIG Complete package: 139.5 lb. (63 kg)
	AC TIG	5–125 A	90 A at 13.6 V, 60% duty cycle	12.4 (.58)*			
	DC Stick	20–90 A	70 A at 22.8 V, 60% duty cycle	20.5 (.58)*			
230 V	DC TIG	5–210 A	125 A at 15 V, 60% duty cycle	11.9 (.35)*			
	AC TIG	5–210 A	114 A at 14.6 V, 60% duty cycle	8.62 (.35)*			
	DC Stick	20–150 A	90 A at 23.6 V, 60% duty cycle	11.9 (.35)*			

*While idling.

IP23S rating — This equipment is designed for outdoor use. It may be stored, but is not intended to be used outside during precipitation unless sheltered.

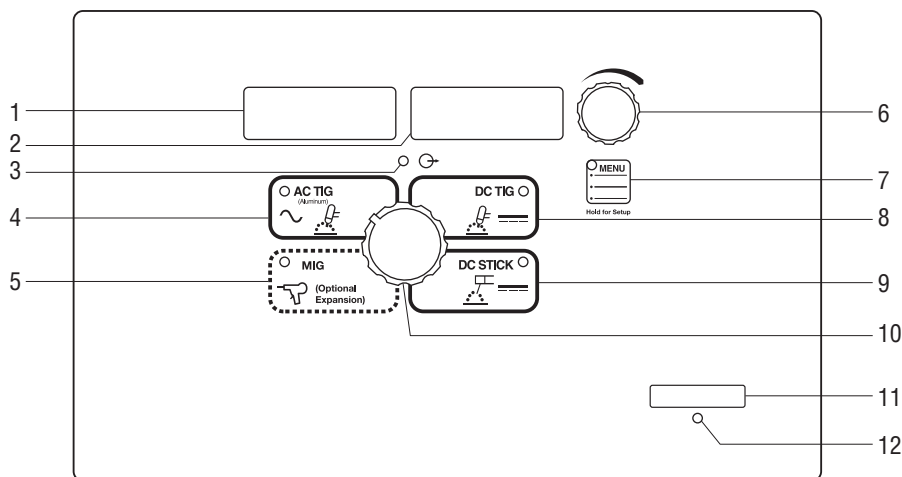
Operating temperature range is 14 to 104°F (-10 to 40°C). Storage temperature range is -22 to 149°F (-30 to 65°C). Portions of the preceding text are contained in EN 60974-10: "Electromagnetic Compatibility (EMC) product standard for arc welding equipment."

Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

Performance Data

Input Power	TIG (GTAW) Duty Cycle	AC/DC TIG Material Thickness Range	Stick (SMAW) Duty Cycle	Stick Electrode Maximum Diameter	Spool Gun (GMAW) Duty Cycle	Spool Gun Material Thickness Range
1-phase	210 A, 20% 125 A, 60% 95 A, 100%	.020–1/4 in.	150 A, 20% 90 A, 60% 60 A, 100%	6010: 5/32 in. 6013: 1/8 in. 7018: 1/8 in. 7024: 3/32 in.	170 A, 20% 100 A, 60% 75 A, 100%	24 ga.–3/8 in.

Control Panel



1. Voltmeter Display

2. Ammeter Display

3. Output Contactor "On" Indicator

4. AC TIG Process Menu Parameters

Amperage	5–210 A
Balance*	60–80%
Frequency	100 Hz (Expandable)
Pulse	Off–50 PPS
Postflow	Auto/Off–50 seconds

5. MIG Process Menu Parameters (optional expansion)

Voltage	14.0–22.5 V
WFS	0–10
Wire Size**	.024/.030/.035 in.
Material Thickness**	24 ga.–3/8 in.
Process**	Flux/Trigas/C25/ C100/Aluminum

6. Encoder Control

7. Menu Ranges

8. DC TIG Process Menu Parameters

Amperage	5–210 A
Pulse	Off–50 PPS (Expandable)
Postflow	Auto/Off–50 seconds

9. DC Stick Process Menu Parameters

Amperage	20–150 A
DIG*	Off–100%

10. Process Selector

11. Memory Card Port

12. Activity Indicator

*Pro-Set parameter selectable.

**Auto-Set input.

Additional Features



EZ-Change™ Low Cylinder Rack

- Operators no longer need to lift cylinders. Cylinders now easily roll on and off our EZ-Change™ Low Cylinder Rack.



Dual Front Handles

- Split handle with rubber grips designed to move machine easily and provide quick accessibility to work lead and TIG torch.
- Handles provide protection for front panel.



Integrated Storage Compartment and Parameter Chart

- Convenient compartment allows for easy storage of cables, foot controls and power cord adapters in the machine.



EZ-Access™ Consumable Compartment

- Convenient flip-down compartment contains storage for consumables (sold separately).

Genuine Miller® Accessories



Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack #300 337

Dual cylinder rack allows operators to easily roll cylinders on and off the rack with no lifting. Gun and cable rack keeps cables off the floor and tangle free.

Elevated Gun and Cable Rack #300 335
For use with single cylinder rack. (Included with Dual EZ-Change Low Cylinder Rack.)



Protective Cover #195 142

Features side pocket. (Not for use with Dual Cylinder Rack or Elevated Gun and Cable Rack.)



#AK-150MFC Accessory Kit

Allows welding operators to customize their standard Weldcraft™ A-150 (WP-17) TIG torch

for their specific application. Kit converts into 28 different torch styles while using the existing cable. Features nozzles, collets, collet bodies, torch heads, handle and more.



Performance TIG Gloves

- #263 345 X-Sm (Women's)
 - #263 346 Small (Women's)
 - #263 347 Medium
 - #263 348 Large
 - #263 349 X-Large
- Completely unlined, goat grain leather with triple-padded palm.



Performance MIG Gloves (Unlined)

- #263 335 Medium
 - #263 336 Large
 - #263 337 X-Large
- Unlined, dual-padded cow grain palm with goat grain fingers and double-layer insulated back.

TIG Memory Cards

Memory Card (Blank) #301 080

Used for transferring software updates and expandable features from your computer to the machine.

Memory Card Expansion

- #301 128 DC Pulse Expansion
Expands the DC pulse frequency to 150 PPS max.
- #301 127 AC Frequency Expansion
Provides the ability to adjust AC frequency from 60 to 150 Hz.

Spoolmate™ 100 Consumables



Contact Tips (5 per package)

- #199 730 For .024-inch (0.6 mm) wire.
- #186 419 For .030-inch (0.8 mm) wire.
- #186 406 For .035-inch (0.9 mm) wire.



Nozzle #186 405

Genuine Miller® Accessories (Continued)

Remote Controls



Wireless Remote Foot Control #300 429

For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.



RFCS-14 HD Foot Control #194 744

Maximum flexibility is accomplished with a reconfigurable cord that

can exit the front, back or either side of the pedal. Foot pedal provides remote current and contactor control. Includes 20-foot (6 m) cord and 14-pin plug.



RCC-14 Remote Contactor and Current Control #151 086

East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) control cord and 14-pin plug.



RCCS-14 Remote Contactor and Current Control #043 688

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) control cord and 14-pin plug.



RHC-14 Hand Control #242 211 020

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 83 mm). Includes 20-foot (6 m) cord and 14-pin plug.

Educational Materials

To order, please call Miller Literature at 866-931-9732 or visit MillerWelds.com/resources/tools.

Gas Tungsten Arc (TIG) Welding Publication #250 833

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Syncrowave® 210 Runner	#907 596	Auto-Line™ 120–240 VAC, 50/60 Hz		
Syncrowave® 210 Runner TIG/MIG Complete	#951 616	Auto-Line™ 120–240 VAC, 50/60 Hz		
Accessories				
Dual EZ-Change Low Cylinder Rack	#300 337	Includes Elevated Gun and Cable Rack		
Elevated Gun and Cable Rack	#300 335	For use with single cylinder rack		
Protective Cover	#195 142			
Weldcraft™ A-150 (WP-17) TIG Torch	#WP-17-12-MF #WP-17-25-MF	12.5-ft. (3.8 m) cable (included with Runner package) 25-ft. (7.6 m) cable		
Air-Cooled TIG Torch Connector	#194 722	Connects the A-125, A-150 and A-80 Weldcraft™ torches to 50-mm gas thru Dinse-style connector		
Accessory Kit	#AK-150MFC			
TIG Gloves		See page 3		
TIG Memory Cards				
Memory Card (Blank)	#301 080			
Memory Card Expansion	#301 128 #301 127	DC pulse expansion AC frequency expansion		
Spool Gun and Consumables				
Spoolmate™ 100 Spool Gun	#300 371	Includes 12-ft. (3.7 m) cable and custom carrying case		
Contact Tips		See page 3		
Nozzle	#186 405			
Remote Controls				
Wireless Remote Foot Control	#300 429	Foot control with wireless 90-ft. (27.4 m) operating range		
RFCS-14 HD	#194 744	Heavy-duty foot control		
RFCS-14	#043 554	Foot control (included with Runner package)		
RCC-14	#151 086	Side-to-side (east/west) fingertip control		
RCCS-14	#043 688	North/south fingertip control		
RHC-14	#242 211 020	Hand control		
Educational Resources				
Gas Tungsten Arc Welding (TIG) Publication	#250 833			

Date:

Total Quoted Price:

Distributed by:

