**Syncrowave® 200**

**TIG/Stick Welding Power Source**

**Quick Specs**

<table>
<thead>
<tr>
<th>Light Industrial Applications</th>
<th>Processes</th>
<th>Input Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Metal Fabrication</td>
<td>TIG (GTAW)</td>
<td>Requires 1-Phase Power</td>
</tr>
<tr>
<td>Maintenance/Repair Operations</td>
<td>Stick (SMAW)</td>
<td></td>
</tr>
<tr>
<td>Light Manufacturing</td>
<td>Pulsed TIG (GTAW-P)</td>
<td></td>
</tr>
<tr>
<td>Automotive Repair</td>
<td>Air Carbon Arc (CAC-A)</td>
<td></td>
</tr>
<tr>
<td>Vocational Training</td>
<td>5/32-in. maximum</td>
<td></td>
</tr>
<tr>
<td>Hobbyist</td>
<td>5 – 200 A</td>
<td></td>
</tr>
</tbody>
</table>

**Rated Output**

150 A at 26 V, 40% Duty Cycle

**Weight**

Runner: 271 lb. (123 kg)

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**Squarewave output with AC balance control** features adjustable cleaning action while increasing arc stability on various aluminum alloys, and helps eliminate tungsten spitting and arc rectification.

**Cable management system** uses dual cable hangers and foot control storage conveniently attach to the power source side panels to allow all weld cables and the remote foot control to be neatly stored, preventing torch, cable or remote damage.

**Syncro Start™** allows the operator to choose from three different starting conditions to optimize the application (Soft/Standard/Hot).

**Runner** has low cylinder rack to eliminate the need for lifting when changing gas cylinders.

**Fan-On-Demand™** improves power efficiency and reduces noise and maintenance by lessening the amount of airborne contaminants pulled through the machine.

**Adaptive Hot Start™ for Stick arc starts** automatically increases the output amperage at the start of a weld should the start require it. Prevents the electrode from sticking and creating an inclusion.

**Weldcraft® WP1712MFDI50 TIG torch.** 150-amp, air-cooled torch features mono flex (MF) braided nylon power cable for maximum flexibility.

**Auto-Postflow** protects the weld end zone and electrode by optimizing postflow time based on welding amperage — for adequate shielding every time without waste and no need for adjustment.

**Dual digital meters** with alphanumeric displays allow for quick and easy viewing and preset values for voltage, amperage and other key variables. Allows for greater accuracy and repeatability in the welding procedure.

**Built-in pulse control** enhances weld bead and puddle control for improved appearance and quality — reduce burn through, coordinate the addition of filler material, and reduce the warping effects of distortion by reducing the average heat input.

**115-volt auxiliary power receptacle** is conveniently located on the front panel, allowing for operation of a Coolmate™ torch coolant system or other small tools.

**Arc hour/cycle counter** records actual welding time and number of arc starts.

**DIG 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.

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Power source is warranted for 3 years, parts and labor. Original main power rectified parts are warranted for 5 years.
Specifications (Subject to change without notice.)

<table>
<thead>
<tr>
<th>Input Power</th>
<th>Rated Output at 40% Duty Cycle</th>
<th>Welding Amperage Range</th>
<th>Max. Open-Circuit Voltage</th>
<th>Amps Input at Rated Output, 50/60 Hz</th>
<th>KVA</th>
<th>KW</th>
<th>Dimensions</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>208–230 V</td>
<td>150 A at 26 V</td>
<td>5–200 A</td>
<td>80</td>
<td>54</td>
<td>12.3</td>
<td>6.0</td>
<td>H: 32.75 in. (832 mm) W: 22 in. (569 mm) D: 35.75 in. (908 mm)</td>
<td>271 lb. (123 kg)</td>
</tr>
</tbody>
</table>

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

Control Panel

1. Balance/DIG Pushbutton Control
2. Process Pushbutton Control
3. Power Switch
4. Polarity Switch
5. Voltmeter and Parameter Adjust
6. Ammeter and Parameter Adjust
7. Encoder Adjustment Control
8. Main Amps Pushbutton
   (Amperage Control)
9. Pulse Pushbutton Control

Performance Data

DUTY CYCLE CHART

VOLT/AMP CURVES – AC MODE

VOLT/AMP CURVES – DC MODE

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

**Syncrowave® 200 Runner**

#907 308-00-1 208 – 230 V, 50/60 Hz
Includes Syncrowave 200, No. 39 running gear, 150-amp WP1712MFD150 Weldcraft torch with quick-connect, 12-foot (3.7 m) work cable with clamp and quick-connect, electrode holder with quick-connect, RFCS-14 remote foot control with 20-foot (6 m) cord, regulator/flow gauge, gas hose and 8-foot (2.4 m) primary cord.

**Protective Cover**

Protective Cover  #300 059
Heavy-duty, water- and mildew-resistant. Protects and maintains the finish of the welder.

**Remote Controls**

**RFCS-14 HD Foot Control**  #194 744
For all Miller solid-state power sources after serial number JK674521. This design increases stability with a larger base and durability with a heavier cord. 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.

**RCCS-14 Remote Contactor and Current Control**  #043 688
For all Miller solid-state power sources after serial number JK674521. North/south rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Great for applications that require a finer amperage control. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RCC-14 Remote Contactor and Current Control**  #151 086
For all Miller solid-state power sources after serial number JK674521. East/west rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Great for production or contractors that need quick ramp-up. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RMLS-14 Switch**  #129 337
For all Miller solid-state power sources after serial number JK674521. Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RMS-14 On/Off Control**  #187 208
For all Miller solid-state power sources after serial number JK674521. Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5-foot (8 m) 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.

**Coolant Systems**

For more information, see the Miller Coolant Systems literature sheet, Index No. AY/7.2.

**Coolmate™ 1**  #300 360 115 VAC
Light industrial, one-gallon cooler designed for water-cooled torches on power sources rated up to 200 amps.

When used with Syncrowave 200 requires:

- #40V83R-6 6-foot (1.8 m) Extension Hose
- #057 020 Water Coupler
- #195 380 Torch Adapter
- #WP2025RM Water-cooled Torch

**Low-Conductivity Coolant (Clear, Pre-Mixed)**  #043 810
For TIG and MIG applications. NOT for use in push-pull systems or systems where aluminum is in coolant path/circuit.

**Educational Materials**

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

**Gas Tungsten Arc Welding (TIG) Publication**  #250 833
A comprehensive, text on all aspects of the TIG process.
Package Components

Complete Package!

Syncrowave 200 Runner

No. 39 Running Gear
Regulator/Flow Gauge and Hose
Electrode Holder with Quick-Connect
150-amp WP1712MFDI50 TIG Torch with Quick-Connect

Power Source with 8-foot (2.4 m) Primary Cord
RFCS-14 Foot Control with 20-foot (6 m) Cord
12-foot (3.7 m) Work Cable with Clamp and Quick-Connect

Ordering Information

<table>
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<th>Equipment and Options</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
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<tbody>
<tr>
<td>Syncrowave® 200 Runner</td>
<td>#907 308-00-1</td>
<td>208-230 V, 50/60 Hz</td>
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<tr>
<td><strong>Remote Controls</strong></td>
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<tr>
<td>RFCS-14 HD</td>
<td>#194 744</td>
<td>Heavy-duty foot control</td>
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<tr>
<td>RCCS-14</td>
<td>#043 688</td>
<td>North/south fingertip control</td>
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<td>RCC-14</td>
<td>#151 086</td>
<td>East/west fingertip control</td>
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<tr>
<td>RMLS-14</td>
<td>#129 337</td>
<td>Momentary/maintained rocker control</td>
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<tr>
<td>RMS-14</td>
<td>#187 288</td>
<td>Momentary rubber dome switch</td>
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<tr>
<td>RHC-14</td>
<td>#242 211 020</td>
<td>Miniature hand control</td>
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<tr>
<td><strong>Accessories</strong></td>
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<td>Protective Cover</td>
<td>#300 059</td>
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<td>Coolmate™ 1</td>
<td>#300 360</td>
<td>115 VAC water cooler</td>
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<tr>
<td>Low-Conductivity Coolant</td>
<td>#043 810</td>
<td>Sold in multiples of four in one-gallon plastic bottles</td>
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<td>Water Extension Hose, 6-ft. (1.8 m)</td>
<td>#40V83R-6</td>
<td>5/8-18 left hand threads</td>
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<tr>
<td>Water Coupler</td>
<td>#057 020</td>
<td>5/8-18 left hand female</td>
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<td>Water-Cooled TIG Torch Adapter</td>
<td>#195 380</td>
<td>50-mm flow thru adapter</td>
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<tr>
<td>Water-Cooled TIG Torch</td>
<td>#WP2025RM</td>
<td>25-ft. (7.6 m) torch. Requires adapter #195 380</td>
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<td>Air-Cooled TIG Torch</td>
<td>#WP1712MFDI50</td>
<td>12-ft. (3.7 m) torch</td>
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<td></td>
<td>#WP1725MFDI50</td>
<td>25-ft. (7.6 m) torch</td>
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<td>Flow-Thru Air-Cooled TIG Torch Adapter</td>
<td>#194 722</td>
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<td><strong>Educational Resources</strong></td>
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<td>To order, call Miller Literature at 866-931-9732 or visit MillerWelds.com/resources/tools</td>
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<tr>
<td>TIG Calculator</td>
<td>#171 086</td>
<td>To order, call Miller Literature at 866-931-9732 or visit MillerWelds.com/resources/tools</td>
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Date: Total Quoted Price:  

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