

Invision™ 354MP/456MP

Issued October 2001 • Index No. DC/23

**MIG Welding
Power Source** 

Quick Specs

Industrial Applications

Metal Fabrication
Heavy Manufacturing
Construction
Light Manufacturing

Processes

MIG (GMAW)
Pulsed MIG (GMAW-P)
Stick (SMAW)
Flux Cored (FCAW)
Air Carbon Arc (CAC-A)
Cutting and Gouging

Input Power 354MP: 3-Phase or 1-Phase Power
456MP: 3-Phase Power

Rated Output 354MP: 300 A at 32 V, 60% Duty Cycle (3-Phase)
225 A at 29 V, 60% Duty Cycle (1-Phase)
456MP: 450 A at 38 V, 100% Duty Cycle (3-Phase)

Weight 354MP: 76 lb (34.5 kg) 456MP: 118 lb (53.5 kg)

The Power of Blue.®

New!

Invision 354MP MIGRunner™ industrial package comes complete in one box. See page 7 for details.

Wind Tunnel Technology™

protects electrical components and PC boards from contamination, significantly improving reliability.

Fan-On-Demand™

operates only when needed reducing both noise and power consumption.

Remote control of arc trim allows wire feeder complete control of arc parameters.

International-style weld disconnects provide high-quality weld cable connections. (Two connectors supplied with each unit.)



Invision 354MP

Invision 456MP

Dual digital meters for quick and easy viewing and **large setup screen** to choose pulse welding mode.

Built-in pulsed MIG capability which eliminates pendants and cables that could potentially get damaged or lost.

Pulsed spray transfer helps reduce spatter and fume levels.

Lightweight, **aerospace-grade aluminum case** offers protection with the benefit of reduced weight.

Invision 354MP only

Auto-Link® circuit automatically links the power source to primary voltage being applied (208-230/460 VAC, single- or three-phase).

Protective cover for front control panel protects controls from damage in rough conditions.

Optional 10 amp, 115 VAC auxiliary power available.

Microprocessor-based technology allows process parameter storage to be retained between power down and power up and also between program changes.

Inverter arc control technology provides greater puddle control demanded especially by the pipe welding industry.

Invision 456MP only

IntelliSelect 14-pin remote control allows "plug and play" convenience. Makes set-up time quicker.

Primary voltage display shows what primary voltage the power source is set for without removing the side panels. Saves time and assures you that the power source has been correctly set for available input voltage.

Standard 10 amp, 115 VAC auxiliary power receptacle.

TRUE BLUE
3 YR. WARRANTY

Welder/generator is warranted for 3 years, parts and labor.
Original main power rectified parts are warranted for 5 years.

MADE IN **USA**
APPLETON, WI **USA**



Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

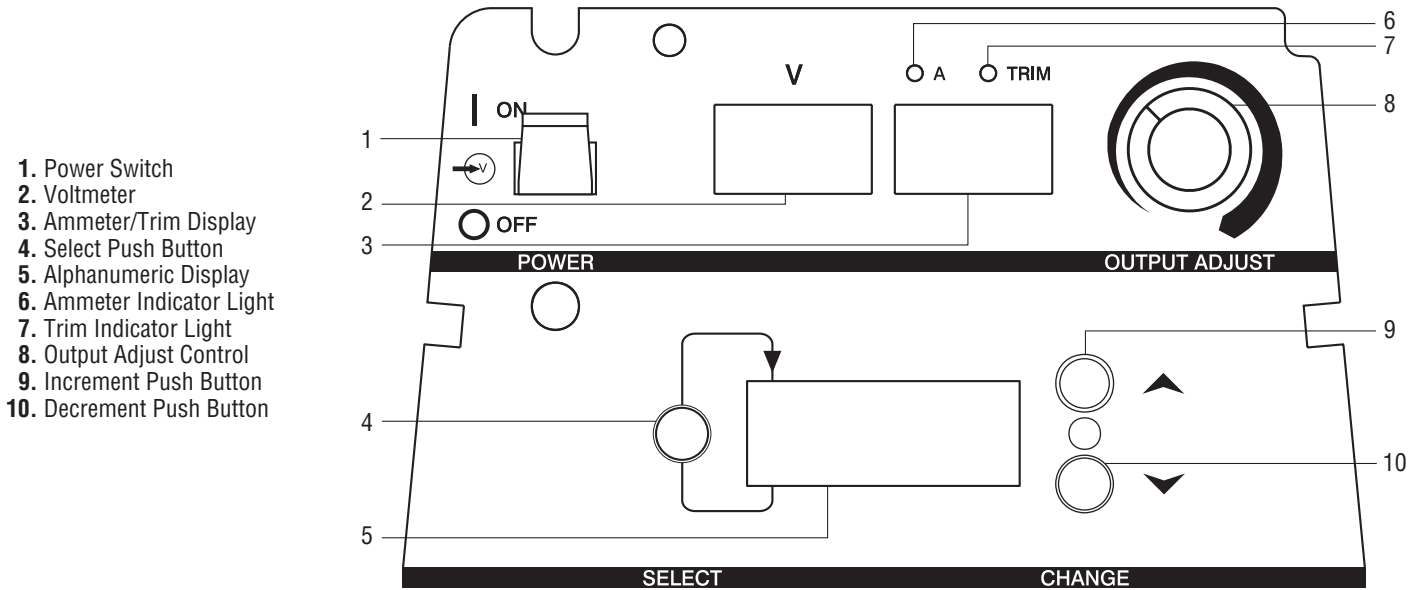


Invision™ 354MP Specifications (Subject to change without notice.)



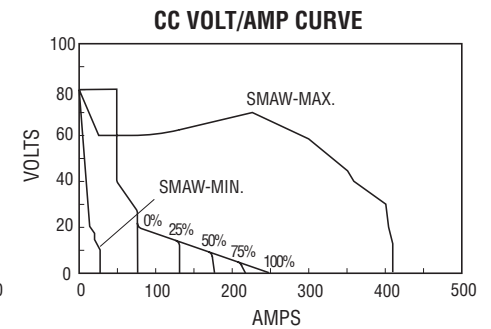
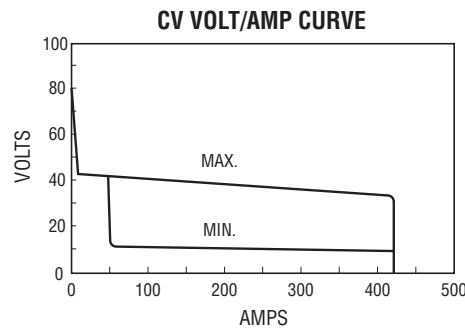
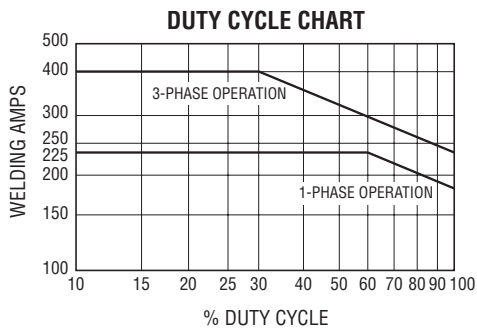
Rated Output	Rated Output at 60% Duty Cycle	Voltage Range in CV Mode	Amperage Range in CC Mode	Max. Open-Circuit Voltage	RMS Amps Input at Rated Load Output, 60 Hz 3-Phase at NEMA Load Voltages and Class I Rating						Dimensions	Weight
					230 V	400 V	460 V	575 V	KVA	KW		
Three-Phase	300 A at 32 VDC	10–35 V	5–400 A	90 VDC	30.5	17	18.9	15.2	12.2	11.6	H: 17 in (432 mm) W: 12-1/2 in (318 mm) D: 24 in (610 mm)	Net: 76 lb (34.5 kg) Ship: 85 lb (38.6 kg)
Single-Phase	225 A at 29 VDC (Non-pulse applications)				47.4	—	24.5	—	11.3	7.6		

Control Panel



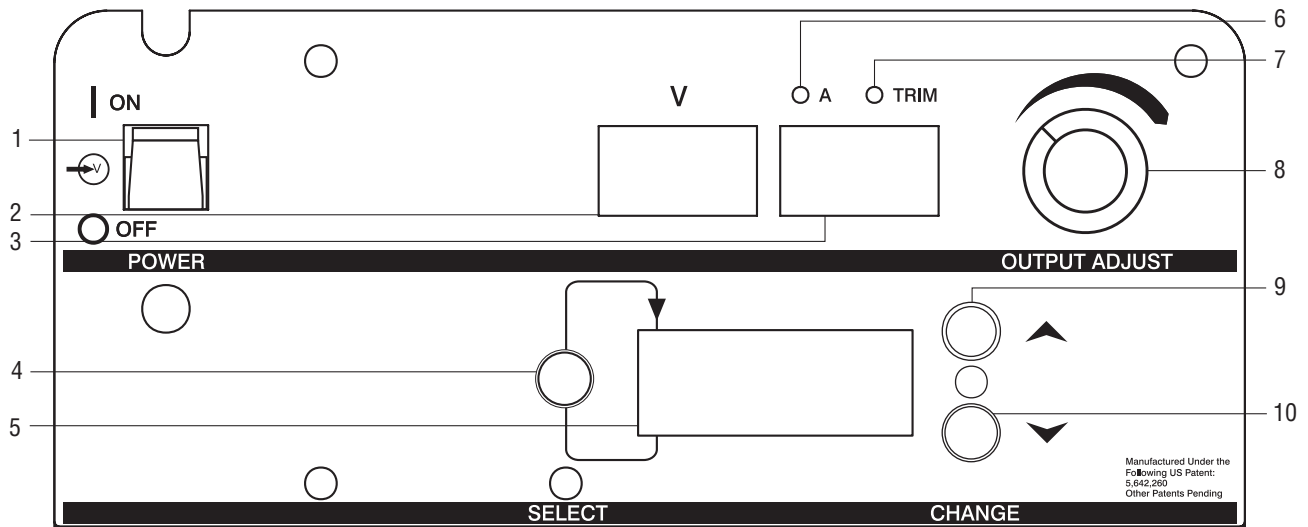
1. Power Switch
2. Voltmeter
3. Ammeter/Trim Display
4. Select Push Button
5. Alphanumeric Display
6. Ammeter Indicator Light
7. Trim Indicator Light
8. Output Adjust Control
9. Increment Push Button
10. Decrement Push Button

Performance Data



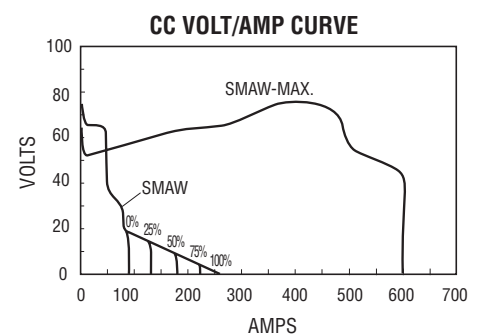
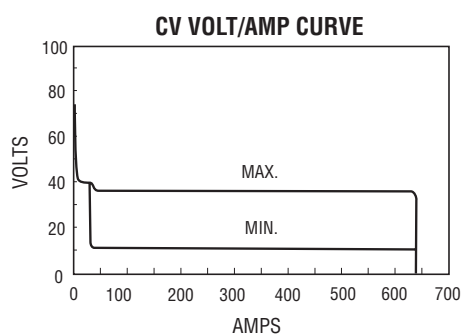
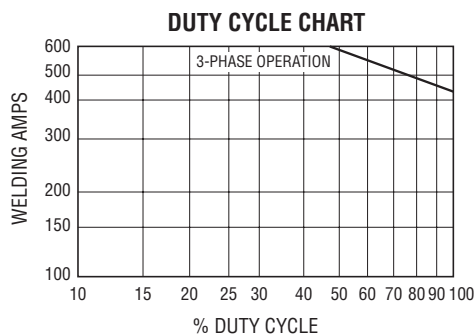
Rated Output	Rated Output at 100% Duty Cycle	Voltage Range in CV Mode	Amperage Range in CC Mode	Max. Open-Circuit Voltage	RMS Amps Input at Rated Load Output, 60 Hz 3-Phase at NEMA Load Voltages and Class I Rating						Dimensions	Weight
					230 V	400 V	460 V	575 V	KVA	KW		
Three-Phase	450 A at 38 VDC	10–38 V	5–600 A Stick	95 VDC	50.8	31	27.8	24.4	21.2	19.2	H: 17 in (432 mm) W: 14-1/2 in (368 mm) D: 26 in (660 mm)	Net: 118 lb (53.5 kg) Ship: 129 lb (58.5 kg)

Control Panel



- | | |
|-------------------------|----------------------------|
| 1. Power Switch | 6. Ammeter Indicator Light |
| 2. Voltmeter | 7. Trim Indicator Light |
| 3. Ammeter/Trim Display | 8. Output Adjust Control |
| 4. Select Push Button | 9. Increment Push Button |
| 5. Alphanumeric Display | 10. Decrement Push Button |

Performance Data



Genuine Miller Accessories



MIGRunner™ Cart #195 445

Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles. Durable, heavy-duty ergonomic handles are designed for comfort.



Invision™ Cylinder Cart #042 537

Has adjustable handles and is slanted for convenient access to power source front panel controls. Carries two 160 lb (72.6 kg) gas cylinders, or one gas cylinder and one coolant system for TIG (GTAW) welding. Feeder mounted to tray above power source.



Universal Carrying Cart and Cylinder Rack #042 934

Accommodates any Invision™ power source, plus gas cylinder up to 56 in (142.2 cm) high measuring 6 to 9 in (15.2 to 22.8 cm) in diameter. Also provides storage for auxiliary items such as electrodes, helmets, gloves, etc. Can also be used with Econotig™, Maxstar® Series, Millermatic® 130XP and Millermatic® 150 power sources.



Water Coolant Systems

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

Coolmate™ 3

#043 007 115 VAC

#043 008 230 VAC

For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate™ V3

#043 009 115 VAC

For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

Coolmate™ 4

#042 288 115 VAC

For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Low Conductivity Coolant #043 810

Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37°F (-38°C) or boiling to 227°F (108°C). Also contains a compound that resists algae growth.

Wire Feeders



S-22P12 Wire Feeder #125 616

Compact, lightweight 24 VAC constant-speed semi-automatic wire feeder provides portability in outdoor environments. Primarily designed for gas-shielded wires. Accommodates up to a 30 lb (13.6 kg), 12 in (304 mm) diameter spool. See Lit. Index No. M/6.3.



700 Series

714S #194 823

714D #194 824

Wire feeder features Posifeed™ wire drive assembly and handles a variety of wires up to 1/8 in. See Lit. Index No. M/3.0.



XR Control #181 538

Push-pull wire feed system offers unparalleled performance for aluminum MIG welding. See Lit. Index No. M/1.7.



22A Wire Feeder #193 006

Simple, Reliable, 24 VAC constant-speed semiautomatic wire feeder, best suited for small diameter wires. Accommodates up to a 60 lb (27.2 kg) spool of welding wire when using optional wire reel assembly. See Lit. Index No. M/11.0.

Extension Cables for 14-Pin Plugs to 14-Pin Sockets

#122 973 25 ft (7.6 m)

#122 974 50 ft (15.2 m)

#122 975 75 ft (22.8 m)

International-Style Connectors (Will accept Dinse™ or other International connectors.)

Note: All Invision power sources are equipped with International-style connectors for secondary connections. (Power source is shipped with two 50-mm male International-style plugs for use with #1 or #2 AWG size cable.)

International-Style Connector Kit

#042 418 50 mm

Accepts #1 or #2 AWG cable size. Required if male plugs shipped with power source must be replaced, if additional plugs are needed.

#042 533 70 mm

Accepts #1/0 or #2/0 AWG cable size. Required if #1/0 or #2/0 AWG size cable is to be used.

Kit includes one International-style male plug which attaches to the work and/or weld cables and plugs into the International-style receptacles on the power source.

Extension Kit for International-Style Cable Connectors

#042 419 50 mm

Accepts #1 or #2 AWG size cable.

#042 534 70 mm

Accepts #1/0 or #2/0 AWG size cable.

Used to adapt or extend weld and/or work cables. Kit includes one male International-style plug and one in-line female International-style receptacle.



International/Tweco® Adapter #042 465

A one-piece adapter which has an International-style male plug (to power source) on one end and a female Tweco receptacle (for weld cable connection) on other end.



International/Cam-Lok Adapter #042 466

A one-piece adapter which has an International-style male plug (to power source) on one end and a Cam-Lok receptacle (for weld cable connection) on other end.

Typical Systems for Invision™ 354MP



Aluminum System

Invision 354MP #903 593
XR-Control Wire Feeder #181 538
XR-A Edge 30 ft Gun #181 535
XR-W Edge 30 ft Gun #181 532

Note: Guns are available in other lengths.



Steel and Stainless Steel System

Invision 354MP #903 593
S-22P12 Wire Feeder #125 616

Typical Systems for Invision™ 456MP



Aluminum System

Invision 456MP #903 725
XR-Control Wire Feeder #181 538
XR-W Edge 30 ft Gun #181 532

Note: Guns are available in other lengths.



Steel and Stainless Steel System

Invision 456MP #903 725
714D Wire Feeder #194 824

Package Components

New!

Invision™ 354MP MIGRunner™ #907 051

Comes Complete With:

- Invision 354MP power source
- 714D wire feeder
- Roughneck™ C-4015 gun
- Consumable kit
- .035 and .045 in drive roll kit
- Regulator/flow gauge with gas hose
- Work cable and power cord
- **NEW!** MIGRunner Cart with cylinder rack



Optional Package #950 705

Comes complete with Invision 354MP (#903 593), XR™-Control Feeder, XR-A Edge 30 ft Gun, and .035 and .047 Drive Roll Kit.



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Power Source				
Invision™ 354MP	#903 593	208-230/460 VAC with Auto-Link®		
	#903 593-01-1	208-230/460 VAC with Auto-Link® and Aux. Power		
	#903 756	400 VAC with Aux. Power and CE		
	#907 057	575 VAC		
Invision™ 354MP Package	#950 705	Includes model #903 593 plus XR-Control and XR-Edge Gun		
Invision™ 354MP MIGRunner	#907 051	208-230/460 VAC with Auto-Link®. See page 7 for components		
Invision™ 456MP	#903 725	230/460 VAC		
	#903 545	400 VAC with CE		
	#907 056	575 VAC		
Accessories				
MIGRunner™ Cart	#195 445			
Invision™ Cylinder Cart	#042 537			
Universal Cart and Cylinder Rack	#042 934			
Coolmate™ 3	#043 007	115 VAC		
	#043 008	230 VAC		
Coolmate™ V3	#043 009	115 VAC		
Coolmate™ 4	#042 288	115 VAC		
Coolant	#043 810			
Wire Feeders				
S-22P12	#125 616	See Lit. Index No. M/6.3		
700 Series	#194 823	714S. See Lit. Index No. M/3.0		
	#194 824	714D. See Lit. Index No. M/3.0		
22A	#193 066	See Lit. Index No. M/11.0		
XR™-Control	#181 538	See Lit. Index No. M/1.7		
XR-Edge™ Gun		See Lit. Index No. M/1.7		
XR-Pistol Gun		See Lit. Index No. M/1.7		
Extension Cords (For 24 VAC wire feeders and remote controls)	#122 973	25 ft (7.6 m)		
	#122 974	50 ft (15.2 m)		
	#122 975	75 ft (22.8m)		
International-Style Connectors				
International-Style Connector Kit	#042 418	50 mm		
	#042 533	70 mm		
Extension Kit for International-Style Cable Connectors	#042 419	50 mm		
	#042 534	70 mm		
International/Tweco® Adapter	#042 465	A one-piece adapter with International-style male plug		
International/Cam-Lok Adapter	#042 466	A one-piece adapter with International-style male plug		

Date:

Total Quoted Price:

Note: Invision 354MP will operate from 200/208 VAC, but will not compensate for low line fluctuations at this level. Meets NEMA rated output standards using 230/460 VAC primary only.



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