

# Trailblazer® 325

Gas or LP Engine-Driven  
Welder/AC Generator 

## Quick Specs

### Industrial Applications

Fabrication  
Maintenance  
Repair  
Structural steel work  
Sheet metal  
Pipe

### Processes (X-ray Quality)

Stick (SMAW)  
MIG (GMAW)  
Flux-cored (FCAW)  
RMD®\*  
Pulsed MIG (GMAW-P)\*  
DC TIG (GTAW)  
Air carbon arc (CAC-A) cutting and gouging  
Rated: 3/16-inch carbons,  
Capable: 1/4-inch carbons  
Air plasma cutting and gouging with  
optional Spectrum® models  
Rated: 5/8-inch mild steel

**Output Range** DC stick 30–325 A  
MIG/flux-cored 10–35 V  
DC TIG 10–325 A

### Generator Power Output Rated at 104°F (40°C)

12,000 watts peak, 10,500 watts continuous

### Electronic Fuel Injection (EFI) (option)

Uses up to 42 percent less fuel

### Excel™ Power (EFI only option)

2,400 watts (120 V, 20 A) 60 Hz pure sine power at all speeds

### Battery Charge/Crank Assist (EFI gas only option)

Battery charge: 12/24 V, 75 A

Crank assist: 12/24 V, 350 A

\*ArcReach models only with ArcReach Smart Feeder.

**Trailblazer welder/generators deliver unbeatable arc performance providing the smoothest, most stable arc in the industry.**

The Trailblazer exclusive technologies — Auto-Speed™ and optional Excel™ power — deliver superior runtimes, increased fuel efficiency, and improved welder/generator performance.

No other compact machine in the 300-amp class delivers more welding power or more auxiliary power with better fuel efficiency and less noise — for productive, profitable, quieter jobsites.

## ArcReach®

Remote control of the power source without a cord. See page 2.



Trailblazer 325 EFI with optional ArcReach and Excel power shown.



Welder/generator is warranted for three years, parts and labor.  
Engine is warranted separately by the engine manufacturer.



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An ITW Welding Company  
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**MillerWelds.com**



# Trailblazer® Technologies

## Unbeatable arc performance

**Wide amperage output with better welding deposition rates** means you can get jobs done faster, saving time and money. The Trailblazer also has precise arc control, which allows you to fine-tune the arc to match your

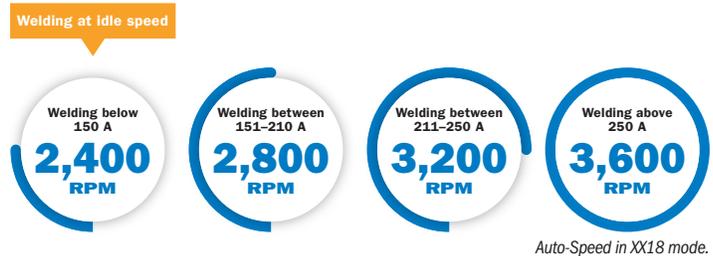
personal preferences and quickly dial in the perfect parameters to optimize weld quality and maximize productivity across a variety of applications and welding processes.

## Auto-Speed™ technology

**Matches engine speed to load — a Miller exclusive.** Get the welding power you need — plus reduced fuel consumption and lower noise levels for a more-profitable, safer jobsite.

Unlike competitive machines that operate at 3,600 rpm (max) under any load, Miller-exclusive Auto-Speed technology responds to weld requirements by automatically adjusting engine speed to one of four rpm levels so the engine never works harder than necessary.

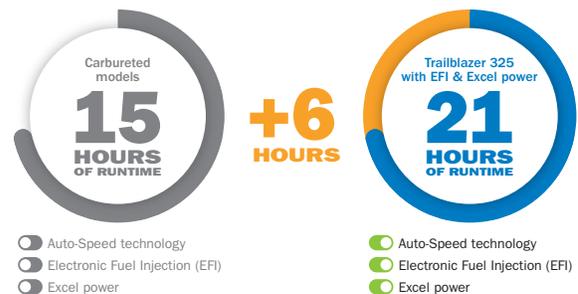
Refueling time and operating costs are reduced, which means more productivity and profitability. Plus everyone on the jobsite gets a better working environment because noise levels and exhaust emissions are lowered.



## Electronic fuel injection (EFI) (option)

**Improve fuel efficiency for maximum productivity and profitability.** Adding EFI to your Trailblazer welder/generator adds multiple benefits. With EFI, you'll get faster, more-reliable starts in any weather — no choke adjustments needed. EFI-equipped Trailblazer machines are also up to 42 percent more fuel efficient than standard carbureted models, improving profitability. Plus, refueling less frequently means you'll spend more of your time welding, improving productivity.

Add Excel power to your Trailblazer with EFI, and you'll have the most fuel-efficient compact welder/generator available.



Based on typical usage — 150 amps welding 40% of the time; 20 amps generator power 30% of the time; and idling without load 30% of the time.

## Excel™ power (option)

**Power at idle — a Miller exclusive.** Unlike competitive machines that provide auxiliary power only at 3,600 rpm (max), Excel power delivers a full 2,400 watts (20 A) of 120-volt inverter-based, pure sine wave power at all speeds, including idle. With Excel power you can operate jobsite tools like grinders at quiet, fuel-saving speeds.

Refueling time and operating costs are reduced with Excel power, which means more productivity and profitability. Plus everyone on the jobsite gets a better working environment because noise levels and exhaust emissions are lowered. Excel power — available only from Miller.



Based on generator-only use for total runtime.

## ArcReach® remote control technology (option)

**Remote control of the power source without a control cord.** An ArcReach system allows you to change weld settings from your ArcReach feeder or remote, saving a trip to the power supply. ArcReach technology uses the existing weld cable to communicate welding control information between

the feeder or remote and the power source. This technology eliminates the need for control cords, and their associated problems and costs.



## Battery charge/crank assist (option)

**Reduce downtime with battery charge/crank assist capability.** Designed and recommended for mechanics or anyone else responsible for a fleet of trucks or equipment. By using your Trailblazer to charge dead batteries or

jump a stubborn engine, you'll keep your crew working and the fleet up and running.

Note: Battery charge/jump cables (300422) must be ordered separately.

## Trailblazer® Benefits

### Fewer refueling trips

No other gas welder/generator in the 300-amp class lets your crews spend more time working and less time refueling — because only Trailblazer welder/generators provide Auto-Speed™ technology, plus Excel™ power and electronic fuel injection (EFI) options, to deliver maximum runtime.

### Maximum cost savings

Less money spent on fuel means more profit for you. Every Trailblazer welder/generator has fuel-saving Auto-Speed technology; add optional Excel power and EFI to save even more on fuel costs and enjoy a combination of advanced, profit-enhancing features that are only available on a Trailblazer welder/generator.

ADD EFI & EXCEL POWER  
**ANNUAL FUEL SAVINGS  
OVER LEADING COMPETITIVE MACHINE**  
**\$571**  
DELIVERS PAYBACK IN 2.5 YEARS

*Estimate based on fuel cost of \$2.00 per gallon with machine operating for 25 hours per week for 50 weeks per year under typical usage — 150 amps welding 40% of the time; 20 amps generator power 30% of the time; and idling without load 30% of the time.*

### Safer, more productive jobsites

Quieter jobsites are safer and more productive because work crews can communicate easier, and work can start earlier and end later — even in noise-sensitive areas. If your jobsite needs a welder/generator, it needs a Trailblazer welder/generator — because no other gas-fueled choice is as quiet.

Optional ArcReach® remote control technology eliminates the need to trace or move heavy secondary weld leads bundled with control cords on the jobsite. Complete remote control of welding processes and parameters improves safety by limiting jobsite movement and reducing slip, trip and fall hazards.



IT WOULD TAKE  
**7** TRAILBLAZERS  
  
TO EQUAL THE  
SOUND OUTPUT OF  
**1** COMPETITOR  
MACHINE.

### More portable, uses less truck and jobsite space

Trailblazer welder/generators are up to 17 percent smaller and 10 percent lighter than competitive machines — which means moving them is faster and easier, for maximum productivity. And because they take up less space, Trailblazer welder/generators let work trucks carry more equipment and gear — so your work crews can be ready for anything.



  
**17%**  
LESS CUBIC SPACE  
THAN THE COMPETITION

### Cleaner and stronger generator power

Combined with a 25-horsepower engine, Trailblazer welder/generators offer 12,000 watts of clean, truly usable generator power that is Accu-Rated™, not inflated: tested to deliver uninterrupted peak output for a minimum of 30 seconds for big loads, so you can get more jobs done.

An independent welder and generator power system ensures no interaction between jobsite tools and the welding arc, while advanced generator technology virtually eliminates power spikes and other electrical imperfections — so welds are cleaner and jobsite tools can run without interruption, maximizing quality, productivity and profit.

### Runs cooler while operating

Exclusive engine and generator packaging design operates cooler and more efficiently. The engine is rotated towards the front to create more efficient airflow. More efficient airflow and exclusive engine location are significant contributors to reduced sound level and size reduction. Hot air recirculation is eliminated when machine is mounted in tight spots, and internal parts are kept cool for optimal performance.



# Specifications (Subject to change without notice.)



Welding Mode	Process	Amp/Volt Ranges	Rated Weld Output at 104°F (40°C)*	Single-Phase Generator Power	Sound Levels at 7 m (23 ft.)	Dimensions	Net Weight**
CC/DC	Stick/TIG	10–325 A	325 A at 28 V, 100% duty cycle	<b>Peak</b> 12,000 watts 11,800 watts with LP	<b>Weld</b> 150 A load: 65 dB (90 Lwa), 325 A load: 73.5 dB (98.5 Lwa)  <b>Generator power</b> Excel power: 65 dB (90 Lwa), 12 kW standard power: 73.5 dB (98.5 Lwa)	H: 28 in. (711 mm) H: 32.75 in. (832 mm) (to top of exhaust) W: 20 in. (508 mm) D: 40.5 in. (1,029 mm)	<b>325 gas model</b> 460 lb. (209 kg)  <b>325 LP model</b> 475 lb. (215 kg)
CV/DC	MIG/FCAW	10–35 V	325 A at 28 V, 100% duty cycle	<b>Continuous</b> 10,500 watts <b>Excel™ power (optional)</b> 2,400 watts,			
Battery charge/crank assist (optional)		12/24 V	Charge: 75 A crank assist: 350 A	20 A at 120 V, 60 Hz pure generator power at idle speed and while welding			

\*Rated at sea level. \*\*Net weight without fuel.



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

## Engine Specifications (Engines warranted separately by the engine manufacturer.)

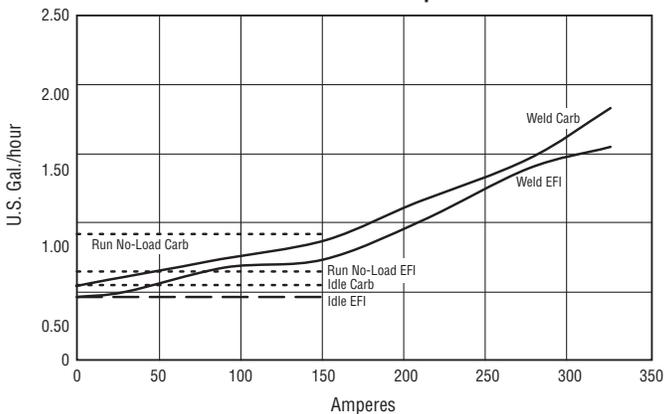
Model	Engine Brand and Warranty	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	Standard Shutdowns
Trailblazer 325	Kohler CH730, 3-year warranty	23.5 hp at 3,600 rpm	Twin-cylinder, four-cycle overhead valve, industrial air-cooled, gasoline* (carburetor or EFI) or LP (EFI)**	Auto-Speed™ 2,400, 2,800, 3,200 or 3,600 rpm	2,400 rpm	12 gal. (45 L)	1.5 qt. (1.4 L)	Low oil pressure
Trailblazer 325 EFI	Kohler ECH730, 3-year warranty	23 hp at 3,600 rpm						
Trailblazer 325 EFI LP (vapor withdrawal)	Kohler PCH740, 3-year warranty	25 hp at 3,600 rpm						

\*Fuel stabilizer is recommended for gas engines that are used infrequently.

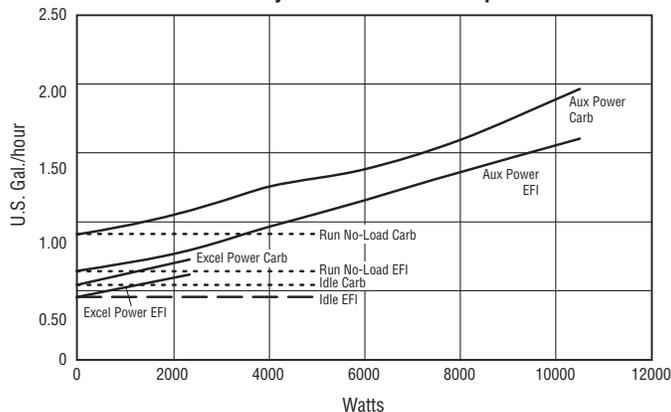
\*\*Vapor Withdrawal Hose and LP Tank Mounting Assembly and setup are required.

## Performance Data

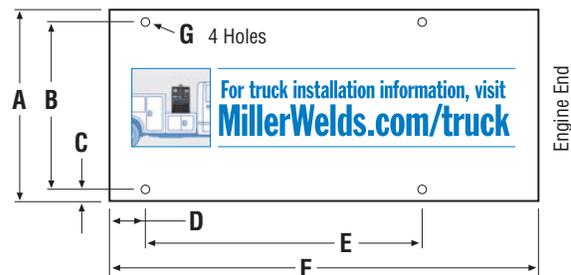
Weld Fuel Consumption



Auxiliary Power Fuel Consumption

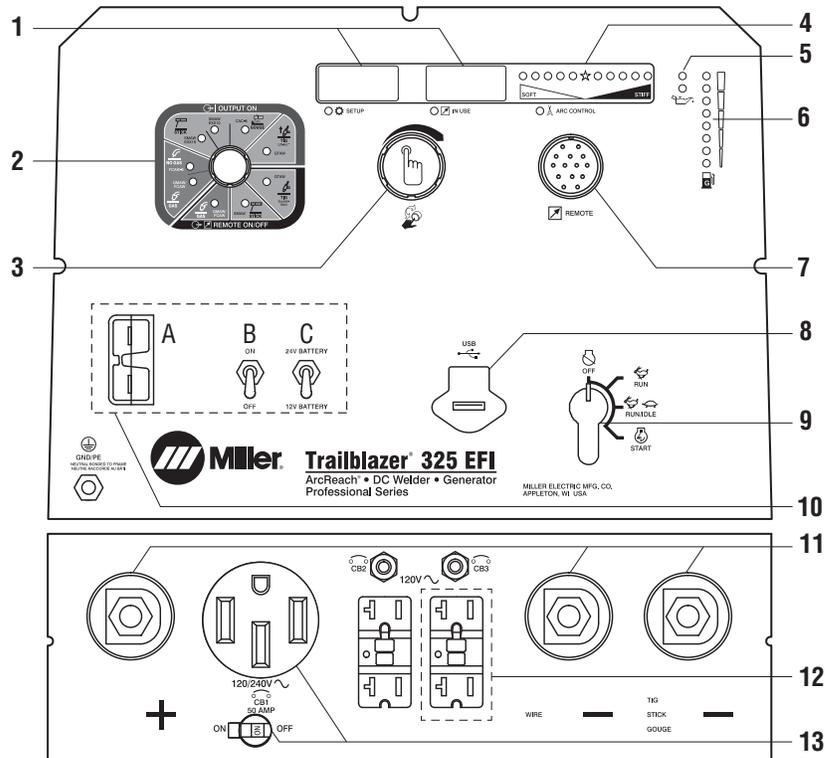


## Mounting Specifications



- A. 20 in. (508 mm)
- B. 16.5 in. (419 mm)
- C. 1.75 in. (44.5 mm)
- D. 5.12 in. (130 mm)
- E. 22.3 in. (566 mm)
- F. 40.32 in. (1,024 mm)
- G. .406 in. (10.3 mm) diameter

# Function and Benefit Guide



## 1. Self-calibrating digital meters with SunVision™

- Preset and actual amperage/voltage
- Process settings
- Maintenance functions: hour meter, oil change interval, rpm

## 2. Weld process selection switch

3. **Pushbutton main control knob** used for adjusting amperage/voltage, adjusting arc control, and accessing the service menu.

4. **Adjustable arc control** adjusts DIG when process control is in stick modes and adjusts inductance when process control is in FCAW or MIG modes. The amount of DIG determines how much amperage (heat) varies with stick arc length. Inductance determines the “wetness” of the weld puddle.

5. **Maintenance interval reminder.** Yellow and red indicator lights let an operator know when the machine is approaching, and finally in need of routine maintenance.

6. **Front panel fuel gauge** LEDs indicate fuel level. (Gas models only)

7. **Standard 14-pin receptacle** for simple connection of remote controls and wire feeders. Includes **Auto Remote Sense™** which automatically switches from panel to remote amperage/voltage (A/V) control with remote connected. Eliminates confusion of a panel/remote switch.

8. **USB port** allows software updates from a USB drive. A summary file of recorded data from the unit will be saved to a USB drive that is inserted.

9. **Engine control:** Run/idle position adjusts engine to run at lower speeds depending on total power needed for welding.

## 10. Optional battery charge/crank assist (factory option, see page 8)

- A. Receptacle: Provides connection to battery charge/crank assist (12 or 24 volt)
- B. On/off switch: Provides simple control of the battery
- C. Voltage switch: Provides simple selection of battery voltage

## 11. Weld output terminals

12. **Optional Excel™ power (factory option, see page 8)** provides pure generator power at idle speed and while welding.

*Note: If Trailblazer is ordered without Excel power option, unit is shipped with two 20 A, 120 V duplex receptacles with circuit breakers and ground fault.*

## 13. 50 A, 120/240 V receptacle with circuit breaker

*(For matching plug, order 119172.)*

## Genuine Miller® Options \*Available as factory option. See ordering information on back page.

### LP Gas\*

Vapor withdrawal with regulator. Does not include tanks, brackets or hose from tank to regulator.

*Note: Requires Vapor Withdrawal Hose and LP Tank Mounting Assembly 301458.*

**GFCI Receptacles\*** 300975 Field  
Kit contains two GFCI 120 V duplex receptacles.

**Electric Fuel Pump\*** 300976 Field  
Recommended for gas engine operations at altitudes above 5,000 feet. Improves engine starting and high-output performance.

**Spark Arrestor** 300924 Field  
Mandatory when operating on California grasslands, brush or forest-covered land, and all national forests. For other areas, check your state and local laws.



**Remote Oil Drain and Filter Kit** 300923 Field  
Front mount for Kohler. Makes servicing easy when engine drive is mounted in tight spots.



**Full KVA Adapter Cord** 300517 Field  
NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to common Millermatic® and Spectrum® 240 V plug.

Female Receptacle



**Full KVA Plug Kit** 119172 Field  
120/240 V, 50 A plug (NEMA 14-50P) to fit full KVA receptacle.

*Order the following from Miller Service Parts.*

### Engine Tune-Up Kits

**230015** Field. Kohler CH730 (gas)  
**246115** Field. Kohler ECH730 (EFI gas)  
**278028** Field. Kohler PCH740 (LP)  
Includes spark plugs and engine filters.

## Genuine Miller® Accessories



### Never Flat™ Tires

Available on Bobcat and Trailblazer running gear.

- Eliminate costly jobsite downtime
- Maintain constant tire pressure and will not develop flats
- Protect against punctures
- Preserve maneuverability, even when weighed down with heavy welding cable



### Multi-Terrain Running Gear

**300913** Gas/LP, with inner tubes  
**300914** Gas/LP, with Never Flat tires  
Includes two heavy-

duty 15-inch tires, two 8-inch rubber swivel casters and a heavy-duty handle. Recommended for all surfaces and applications, and is easy to move around the jobsite.



### Vapor Withdrawal Hose and LP Tank Mounting Assembly 301458 LP

Designed for use with multi-terrain running gear, protective cage, or by itself. Includes bracket and clamp to mount 33- and 43-pound tanks horizontally, and hose with fittings to converter. For use with Trailblazer 325 LP only.

*Note: Not for use with gas cylinder mounting assembly. Not recommended for use with protective cover.*



### Off-Road Running Gear

**300909** Gas/LP, with inner tubes  
**300910** Gas/LP, with Never Flat tires  
Includes four

heavy-duty 15-inch tires and a rugged handle to provide maximum maneuverability.



### Protective Cage with Cable Holders

**300921** Gas/LP  
Rugged cage with cable holders protects your investment. Can be

used with running gear, gas cylinder mounting assembly, LP tank mounting assembly, or with trailer.



### 25-foot Battery Charge/Jump Cables with Plug 300422



### Off-Road Running Gear with Protective Cage and Never Flat Tires

**300912** Gas/LP  
Running gear and rugged cage with

cable holders protects your investment and is easy to move around the jobsite.



### Gas Cylinder Mounting Assembly

**300918** Gas  
Designed for use with multi-terrain running gear, protective cage, or by itself. Includes base tray with bottle

bracket, vertical support rack and safety chain.

*Note: Not for use with LP tank mounting assembly. Not recommended for use with protective cover.*

### Protective Covers



**300919** For gas models **without** protective cage or running gear (shown)  
**300920** For gas models **with** protective cage and/or running gear

Heavy-duty, water-resistant and mildew-resistant covers protect and maintain the finish of the welder.

## MIG/Flux-cored Welding



**SuitCase® X-TREME™  
8VS Wire Feeder  
951582**

**SuitCase® X-TREME™  
12VS Wire Feeder  
951543**

Lightweight, voltage-sensing wire feeders include secondary contactor, gas valve, drive roll kit and Bernard™ BTB Gun 300 A. See literature M/6.42.



**SuitCase® 12RC  
Wire Feeder 951580**

Lightweight and flexible enough to run wires up to .062-inch diameter. Includes remote voltage control, drive roll kit and Bernard™ BTB Gun 300 A. See literature M/6.5.

See literature M/6.5.



**ArcReach® SuitCase® 8**

**951726** With Bernard™ BTB Gun 300 A

**951727** With Bernard™ S-Gun™

**951728** With Bernard™ Dura-Flux™ gun

**ArcReach® SuitCase® 12**

**951729** With Bernard™ BTB Gun 300 A

**951730** With Bernard™ S-Gun™

**951731** With Bernard™ Dura-Flux™ gun

Portable feeder designed to run off of arc voltage. When paired with an ArcReach power source, provides remote control of the power source without a control cord — saving time and money. See literature M/6.55.



**ArcReach® Smart  
Feeder 951733**

For use with ArcReach models only. Includes drive rolls and Bernard™ PipeWorx 300-15 MIG gun. For MIG, FCAW, and advanced RMD® and pulse processes. See literature M/6.55.



**Spoolmatic® 30A  
Spool Gun 130831**

Air-cooled, 200-amp, one-pound spool gun for aluminum MIG. See literature M/1.73. Requires WC-24 control (137549).

### XR™ Wire Feeders and Guns

Push-pull system designed to handle difficult-to-feed soft alloy wires such as aluminum. See literature M/1.7 through M/1.74.

## Stick (SMAW) Welding

### Weld Leads

**2/0 Stick Cable Set, 50 ft. (15 m) 173851**

Consists of 50-foot (15 m) 2/0 electrode cable with holder, and 50-foot (15 m) work cable with clamp. 350 A, 100% duty cycle.

**2/0 Stick Cable Set, 100/50 ft. (30.5/15 m) 043952**

Consists of 100-foot (30.5 m) 2/0 electrode cable with holder, and 50-foot (15 m) work cable with clamp. 300 A, 100% duty cycle.

## AC TIG (GTAW) Welding



**Dynasty®  
210 Series**

For portable AC/DC TIG. See literature AD/4.81.

## Plasma Cutting



*Spectrum 375 X-TREME and 625 X-TREME shown.*

**Spectrum® 375 X-TREME™ 907529**

See literature PC/9.2.

**Spectrum® 625 X-TREME™ 907579**

See literature PC/9.6.

**Spectrum® 875 907583**

See literature PC/9.8.

The Spectrum 375 X-TREME and 625 X-TREME come complete with protective X-CASE™ (not shown).

## Remote Controls



**ArcReach® Stick/TIG  
Remote 301325**

When paired with an ArcReach power source, provides remote control of the power source without a control cord — saving time and money. See literature AY/14.5.

See literature AY/14.5.



**Wireless Remote Hand  
Control 300430**

For remote current, voltage and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300-foot (91.4 m) operating range.



**RHC-14 Hand Control  
242211020**

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm). Includes 20-foot (6 m) cord and 14-pin plug.



**PRHC-14 Hand Control  
195511**

Complete current or voltage control brings 120 volts GFCI power to work area in a single cord. Housed in a durable, light aluminum case and includes 125-foot (38 m) cord with plugs.

## Extension Cables for 14-Pin Remote Controls

**242208025** 25 ft. (7.6 m)

**242208050** 50 ft. (15.2 m)

**242208080** 80 ft. (24.4 m)

## Trailers and Hitches



**HWY-Mid Frame Trailer 301438**

1,424-pound (646 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, fenders, lights, and dual hitch with 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye.

*Note: Trailer is shipped unassembled.*



**Cable Tree 043826**

Provides an area to conveniently wrap weld cables and extension cords.



**2-In-1 Document/  
Fire Extinguisher Holder  
301236**

Stores documents and holds a five-pound fire extinguisher.

*Note: Holder shown mounted on trailer. Fire extinguisher not included.*

# Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Trailblazer® 325	907753	Kohler engine, base model		
	907753001	Kohler engine with GFCI receptacles		
	907753002	Kohler engine with electric fuel pump		
Trailblazer® 325 EFI	907754	Kohler engine with electronic fuel injection		
	907754001	Kohler engine with electronic fuel injection and Excel™ power		
	907754002	Kohler engine with electronic fuel injection, Excel™ power, GFCI receptacles and ArcReach® remote control technology		
Trailblazer® 325 EFI LP	907754003	Kohler engine with electronic fuel injection, Excel™ power and battery charge/crank assist		
	907727	Kohler LP engine with electronic fuel injection and GFCI receptacles		
	907727001	Kohler LP engine with electronic fuel injection, Excel™ power and GFCI receptacles		
<b>Field Options</b> <i>Options listed below can be added to the above packages. Installation is required.</i>				
GFCI Receptacles	300975			
Electric Fuel Pump	300976	Recommended for gas engine operations at altitudes above 5,000 feet		
Spark Arrestor	300924			
Remote Oil Drain and Filter Kit	300923	Front mount for Kohler		
Full KVA Adapter Cord	300517			
Full KVA Plug	119172			
Engine Tune-Up Kits		See page 6. <i>Order from Miller Service Parts</i>		
<b>Accessories</b>				
Off-Road Running Gear	300909	Gas/LP models, with inner tubes		
	300910	Gas/LP models, with Never Flat™ tires		
Off-Road Running Gear with Protective Cage	300912	Gas/LP models, with Never Flat™ tires		
Multi-Terrain Running Gear	300913	Gas/LP models, with inner tubes		
	300914	Gas/LP models, with Never Flat™ tires		
Protective Cage with Cable Holders	300921	Gas/LP models		
Gas Cylinder Mounting Assembly	300918	Gas models. <i>Not for use with LP tank mounting assembly. Not recommended for use with protective cover</i>		
Vapor Withdrawal Hose and LP Tank Mounting Assembly	301458	LP models. <i>Not for use with gas cylinder mounting assembly. Not recommended for use with protective cover</i>		
25-foot Battery Charge/Jump Cables with Plug	300422			
Protective Covers		See page 6		
<b>MIG/Flux-cored Welding</b>				
SuitCase® Wire Feeders and ArcReach® Smart Feeder		See page 7		
Spoolmatic® 30A Spool Gun	130831	Requires WC-24 control. See literature M/1.73		
WC-24 Control	137549	See literature M/1.73		
XR™ Wire Feeder Control and Guns		See literature M/1.7 through M/1.74		
<b>Stick Welding</b>		See page 7		
<b>TIG Welding</b>		See page 7		
<b>Plasma Cutting</b>		See page 7		
<b>Remote Controls and Extension Cables</b>		See page 7		
<b>Trailers and Hitches</b>				
HWY-Mid Frame Trailer	301438	Trailer with lights, fenders and dual hitch. For highway use		
Cable Tree	043826	Trailer-mounted cable holder		
2-In-1 Document/Fire Extinguisher Holder	301236	Stores documents and holds a five-pound fire extinguisher		

Date:

Total Quoted Price:

Distributed by:

