

# XR™ Controls

## Push-Pull Control Feeders

Push-Pull Wire Feeders  
for Aluminum Welding 

### Quick Specs

#### Heavy Industrial Applications

Emergency Vehicles	Shipbuilding
Recreational Vehicles	Tool Boxes
Trucks and Trailers	Railcars
Heat Exchangers	Fabrication
Sign Manufacturers	

#### Processes

MIG (GMAW)  
Pulsed MIG (GMAW-P)  
with pulsing power source

#### Input Power

24 VAC, 50/60 or 100 Hz

#### Dimensions

H: 16 in. (406 mm)  
W: 9.5 in. (241 mm)  
D: 21.25 in. (540 mm)

#### Wire Speed

50–900 IPM (1.3–23 m/min.)  
(Dependent on gun used)

#### Net Weight

42.5 lb. (19.2 kg)

The XR-S or XR-D Control and XR push-pull guns combine to form an aluminum wire feeding system.

**True torque feed motor push-pull design** provides continuous push force to the wire while the gun motor controls the speed at the gun. The motors work together to provide accurate and positive wire feed speed without wire shaving or deformation.

**Adjustable wire run-in control** allows arc start fine tuning. Reduces wire stubbing or arc flaring which can result in contact tip burnback.

**Wire jog control** allows wire to be threaded through gun cable without energizing weld output.



A complete system consists of the following:

- XR-Control
- XR push-pull gun
- Recommended 14-pin Miller power source

Order separately, see page 4.

**Trigger hold** reduces fatigue by allowing operator to make long welds without holding trigger.

**Feeders include .035- and 3/64-inch (0.9 and 1.2 mm) drive rolls.**

*Note: All XR-Controls come set up out of the box to run 3/64-in. (1.2 mm) 5356 wire. If running 1/16-inch wire, order drive rolls separately.*

#### XR-S

Simple, cost-effective push-pull feeder has **wire feed speed display, jog/purge, run-in control, and trigger hold**. Excellent choice for those who want a basic push-pull feeder, or have basic CV power sources.

Unit is **factory set with preflow on (0.2 seconds) and postflow off**. Preflow can be turned off and postflow turned on (3.5 seconds) via internal dip switch setting.

#### XR-D

Provides advanced digital and programming capabilities. Unit has the same features as the XR-S model, but adds a **digital weld voltage display and remote voltage control**.

Unit has improved **programmable interface for preflow/postflow, and start and crater settings** for more critical welding applications.



Wire feeder is warranted for 3 years, parts and labor.  
Guns are warranted for 1 year.



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**MillerWelds.com**  



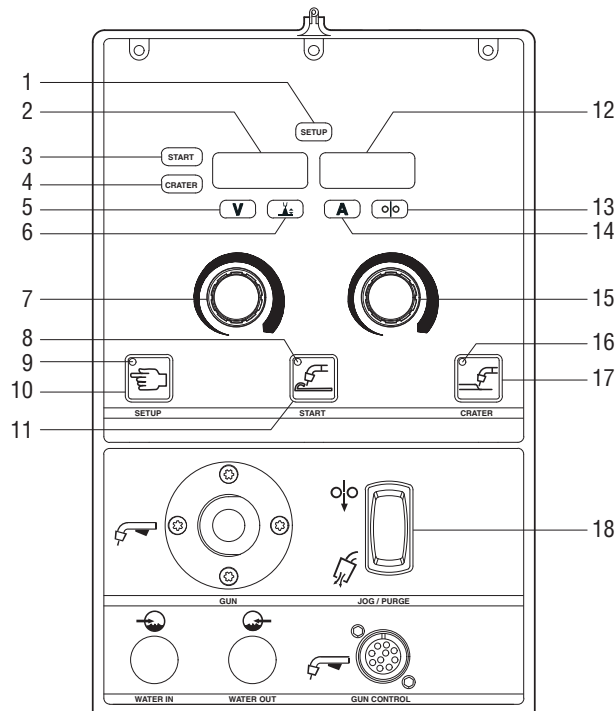

# Specifications (Subject to change without notice.)

**CC CV** **DC** (Use with CC/CV, DC Power Sources.)

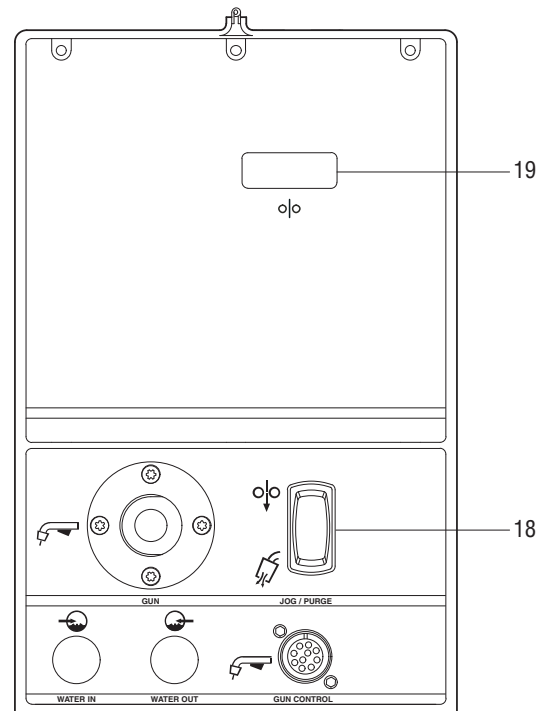
Input Power	Input Welding Circuit Rating	Wire Feed Speed	Wire Type and Diameter Capacity	Maximum Spool Size Capacity	Dimensions	Net Weight
24 VAC, 5 A, 50/60 Hz	400 A at 100% duty cycle System duty cycle is limited to gun rating	50–900 IPM (1.3–22.9 m/min.)	<b>Aluminum:</b> .035–.062 in. (0.9–1.6 mm) <b>Solid Wire:</b> .035–.045 in. (0.9–1.2 mm) Drive roll kit #195 591 required to run 1/16-in. (1.6 mm) wire	12 in. (305 mm)	H: 16 in. (406 mm) W: 9.5 in. (241 mm) D: 21.25 in. (540 mm)	42.5 lb. (19.2 kg)

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

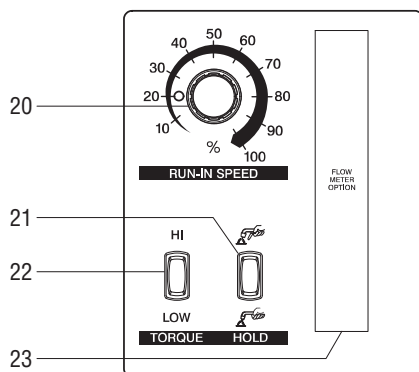
## Control Panels



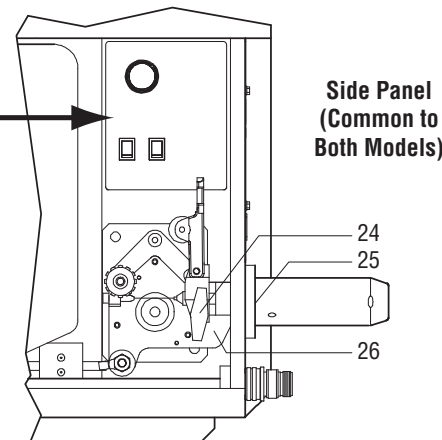
**XR-D Front Panel**



**XR-S Front Panel**



**Side Panel Detail  
(Common to Both Models)**



**Side Panel  
(Common to Both Models)**

- |                          |                          |                          |                                 |
|--------------------------|--------------------------|--------------------------|---------------------------------|
| 1. Setup Menu Indicator  | 8. Start On Indicator    | 15. Right Adjust Knob    | 22. Motor Torque Switch         |
| 2. Left Display          | 9. Setup Indicator       | 16. Crater On Indicator  | 23. Gas Flowmeter<br>(Optional) |
| 3. Start Menu Indicator  | 10. Setup Button         | 17. Crater Button        | 24. Gun Securing Knob           |
| 4. Crater Menu Indicator | 11. Start Button         | 18. Jog/Purge Switch     | 25. Gun Bushing                 |
| 5. Volts Indicator       | 12. Right Display        | 19. Wire Speed Display   | 26. Drive Casting               |
| 6. Arc Length Indicator  | 13. Wire Speed Indicator | 20. Run-In Speed Control |                                 |
| 7. Left Adjust Knob      | 14. Amps Indicator       | 21. Trigger Hold Switch  |                                 |

# Genuine Miller® Options and Accessories



**Gas Flowmeter Kit #246 127** Field Monitors and adjusts gas flow at the feeder.

*Note: Gas pressure must be controlled at the primary gas supply with the use of a regulator.*



**Optima™ MIG Pulse Control #043 389** For XMT CC/CV models. A multipurpose, microprocessor-based pulse control for synergic MIG (wire welding or GMAW), manual MIG pulsing or standard MIG

welding. Use this control with above power sources and any Miller wire feeder. Includes 25-foot (7.6 m) cord with 14-pin plug.



**PSA-2 Control #141 604** Required when using the XR Control with power sources having only 115 VAC available. Mounts at power source and

includes a 10-foot (3 m) 115 VAC cord and contactor cord with Hubbell connectors. A simple modification in the PSA-2 control also allows it to be used with competitive constant voltage power sources requiring a contact closure for contactor control. Control includes a 14-pin receptacle for direct connection of the standard interconnecting cord and optional extension cords. Bracket included for side mounting to the power source.

*Note: When using the PSA-2 control, the optional Remote Voltage Control is not functional.*

**Extension Cords**  
**#242 208 025** 25 ft. (7.6 m)  
**#242 208 050** 50 ft. (15 m)  
**#242 208 080** 80 ft. (24.4 m)

Provides 14-pin, 24 VAC contactor and voltage control. Can be added to the standard 10-foot (3 m) feeder cord to extend feeder farther from power source.

## Coolant Systems

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



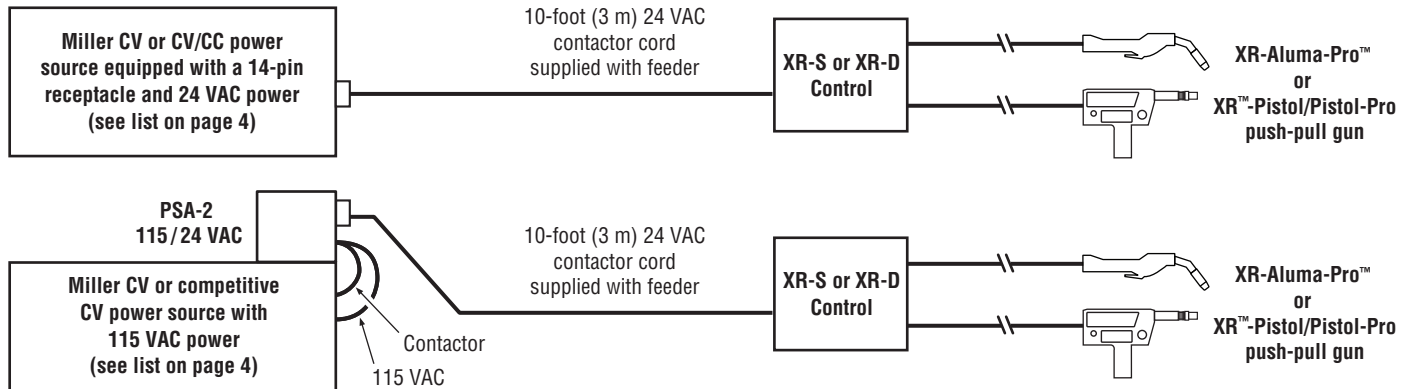
**Coolmate™ 3**  
**#043 007** 115 VAC  
**#043 008** 230 VAC  
 For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.



**Coolmate™ 4**  
**#042 288** 115 VAC  
 For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

**Coolant #043 809**  
 Sold in cases of four one-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37 degrees Fahrenheit (-38° C) or boiling to 227 degrees Fahrenheit (108° C). Also contains a compound that resists algae growth.

## Typical Installations



# Ordering Information

**XR-S and XR-D Controls require the following to form a complete system:**

- **XR-push-pull gun** (See at right.)
- **Recommended Miller 14-pin power source** (See list below.)

**Important notes:**

*XR-Control must be serial #KK309906 or higher to be used with products and descriptions mentioned in this literature. To confirm a product's compatibility with older equipment, please contact the factory at 1-920-735-4505.*

## Recommended Power Sources

- AlumaPower™ MPa  
See literature no. DC/34
- Deltaweld® Series  
See literature no. DC/16.2
- XMT® 350/450  
See literature no. DC/18.83
- Invision™ MPa  
See literature no. DC/23.6
- Trailblazer® 275/325  
See literature no. ED/4.75
- Big Blue® 800 Series  
See literature no. ED/14.0

*Note: Other power sources may be used.*

Equipment	Stock No.	Description	Qty.	Price
<b>XR™-S Control</b>	<b>#300 601</b>	Standard model with wire feed speed digital display, jog/purge, run-in control, and trigger hold		
<b>XR™-D Control</b>	<b>#300 687</b>	Enhanced model has same features as XR-S model plus advanced digital and programming capabilities		
XR-Aluma-Pro™ Gun (Air-Cooled)	<b>#300 000</b>	15-ft. (4.6 m) cable		
	<b>#300 001</b>	25-ft. (7.6 m) cable See Lit. Index No. M/1.71		
	<b>#300 264</b>	35-ft. (10.6 m) cable		
XR-Aluma-Pro™ Gun (Water-Cooled)	<b>#300 003</b>	15-ft. (4.6 m) cable		
	<b>#300 004</b>	25-ft. (7.6 m) cable See Lit. Index No. M/1.71		
	<b>#300 265</b>	35-ft. (10.6 m) cable		
XR™-Pistol Gun (Air-Cooled)	<b>#198 127</b>	15-ft. (4.6 m) cable		
	<b>#198 128</b>	30-ft. (9 m) cable See Lit. Index No. M/1.73		
XR™-Pistol Gun (Water-Cooled)	<b>#198 129</b>	15-ft. (4.6 m) cable		
	<b>#198 130</b>	30-ft. (9 m) cable See Lit. Index No. M/1.73		
XR™-Pistol-Pro Gun (Air-Cooled)	<b>#300 782</b>	15-ft. (4.6 m) cable		
	<b>#300 783</b>	25-ft. (7.6 m) cable See Lit. Index No. M/1.74		
	<b>#300 784</b>	35-ft. (10.6 m) cable		
XR™-Pistol-Pro Gun (Water-Cooled)	<b>#300 786</b>	15-ft. (4.6 m) cable		
	<b>#300 787</b>	25-ft. (7.6 m) cable See Lit. Index No. M/1.74		
	<b>#300 788</b>	35-ft. (10.6 m) cable		
XR-Control Drive Rolls (Control box includes .035- and 3/64-in. drive rolls. Order 1/16-in. drive rolls separately)	<b>#194 118</b>	.030 in. (0.8 mm) <i>Order from Miller Service Parts</i>		
	<b>#194 118</b>	.035 in. (0.9 mm) <i>Order from Miller Service Parts</i>		
	<b>#196 301</b>	.040 in. (1.0 mm) <i>Order from Miller Service Parts</i>		
	<b>#194 119</b>	.047 in. (1.2 mm) <i>Order from Miller Service Parts</i>		
	<b>#195 591</b>	1/16 in. (1.6 mm) <i>Order from Miller Service Parts</i>		
<b>Options</b>				
Gas Flowmeter Kit	<b>#246 127</b>	Field		
<b>Accessories</b>				
Optima™ MIG Pulse Control	<b>#043 389</b>			
PSA-2 Control	<b>#141 604</b>	For older power sources with 115 V feeder power		
Extension Cords		See page 3		
Coolant Systems		See page 3. See Lit. Index No. AY/7.2		

**Date:**

**Total Quoted Price:**

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