Issued Dec. 2012 • Index No. DC/23.6

# Invision™ MPa Plus System
## with Alumination™ Technology

**MIG Welding Power Source**

## Quick Specs

**Heavy Industrial Applications**
Railroad
Truck/Trailer Manufacturing
Light Gauge and Tube
Lawn and Garden Equipment
Recreational Vehicles

**Processes**
**MIG (GMAW)**
**Pulsed MIG (GMAW-P)**
Flux-Cored (FCAW)
Air Carbon Arc Cutting and Gouging (CAC-A)
**352:** 1/4-in. carbons max.
**450:** 5/16-in. carbons max.

**Input Power**
**352:** Requires Three- or Single-Phase Power, 208–575 VAC, 50/60 Hz
**450:** Requires Three-Phase Power, 230/460 or 575 VAC, 60 Hz

**Rated Output**
**352:** 10–38 V, 5–425 A
**450:** 10–38 V, 15–600 A

**Net Weight**
**352:** 80 lb. (36.3 kg)
**450:** 122 lb. (55.3 kg)

# The Power of Blue®

**Easy to set up.** Select wire diameter, wire type and gas being used, set your wire speed and strike an arc.

**Alumination™** technology allows use of extended reach push-pull gun for consistent, versatile and dependable aluminum wire feeding.

**Synergic Pulsed MIG** "one-knob" control makes Pulsed MIG adjustments easy. Set the wire feed speed control and the system handles the rest (when optimized with an MPa Plus feeder).

**MPa: M (MIG), P (Pulse), a (Advanced Arc Control).** Advanced arc control enables an improved pulse welding arc. In addition, the units provide a more robust and stable arc at very low arc length, reducing heat input, and providing the ability to weld on a wider range of material thickness.

**Invision 352 MPa** **Invision 450 MPa**

**Invision 352 MPa Model Only**

**Auto-Line™ power management technology** allows for any input voltage hook-up (208–575 V) with no manual linking required, providing convenience in any job setting. Ideal solution for dirty or unreliable input power. (450 model is 230/460 V or 575 V manual link.)

**Dinse-style weld disconnects** provide high-quality weld cable connections. (450 model utilizes studs.)

EQUIP to WELD™

Build your own system at **MillerWelds.com/equiptoweld** or see the **Stationary and MIGRunner Packages** (see page 8).

**Standard Miller inverter features** (see page 2).
- Wind Tunnel Technology™
- Fan-On-Demand™

**Standard built-in Pulsed MIG programs with synergic capability for the following metals** (see page 3).
- Steel
- Metal Core
- Aluminum
- Stainless Steel
- Nickel
- Silicon Bronze
- Copper Nickel

TRUE BLUE® 3YR. WARRANTY

Power source and wire feeder are warranted for 3 years, parts and labor.
Original main power rectified parts are warranted for 5 years.
Gun warranted for 90 days, parts and labor.

Miller®

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

**Equipment Sales US and Canada**
Phone: 866-931-9730
FAX: 800-637-2315
International Phone: 920-735-4554
International FAX: 920-735-4125

**Website**
MillerWelds.com

ISO 9001 REGISTERED QUALITY SYSTEM

# Invision™ 352/450 MPa

## Additional Features

**Wind Tunnel Technology**™ protects electrical components and PC boards from contamination.

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

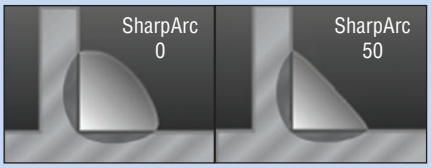
**Invision 352 provides 350 amps of welding output at 60 percent duty cycle with superior low-end performance. Invision 450 provides 450 amps at 100 percent duty cycle.**

**Dual feeder capable** so you can always have two wires ready as particular jobs change, saving time and money with less set-up.

**Line voltage compensation** keeps welding output constant even if input power varies by +/- 10 percent. 352 models further expand line voltage compensation on 460 VAC to an amazing +37/-59 percent.

**SharpArc®** changes welding arc characteristics in Pulsed MIG (GMAW-P) welding mode. If a gas is used other than what is listed on the Pulsed MIG welding program chart (page 3), the SharpArc® can be adjusted to help customize your arc to the gas being used.

**Weld Cross Section**




Lower SharpArc® settings widen the arc cone, increase puddle fluidity and flattens the weld bead.

**Auto Remote Sense**™ enables unit to automatically use remote control if connected to remote control receptacle.

**Large, dual digital meters** are easy to view and are presettable to ease setting weld output.

**Ultra-tough, polycarbonate-blended cover for control panel** protects front controls from damage.

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

**115 VAC auxiliary power** provides 10 amps of circuit-breaker-protected power for water circulators, etc.

*Note: 115 VAC auxiliary power is standard on Invision 450 MPa models, and optional on Invision 352 MPa models.*

## Specifications (Subject to change without notice.)

CC/CV DC 3 Phase 1 Phase *(Invision 450 MPa is 3-Phase only.)*

| Model | Input Power | Amp/Volt Ranges | Rated Output | Amps Input at Rated Load Output, 60 Hz 208 V | 230 V | 400 V | 460 V | 575 V | KVA | KW | Max. Open-Circuit Voltage | Dimensions | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Invision 352 MPa | Three-Phase | CC Mode: 5–425 A<br>CV Mode: 10–38 V | 350 A at 34 VDC, 60% Duty Cycle | 40.4 | 36.1 | 20.6 | 17.8 | 14.1 | 14.2 | 13.6 | 75 VDC | H: 17 in. (432 mm)<br>W: 12.5 in. (318 mm)<br>D: 24 in. (610 mm) | 80 lb. (36.3 kg) |
| | Single-Phase | CC Mode: 5–425 A<br>CV Mode: 10–38 V | 300 A at 32 VDC, 60% Duty Cycle* | 60.8 | 54.6 | 29.7 | 24.5 | 19.9 | 11.7 | 11.2 | | | |
| Invision 450 MPa | Three-Phase | CC Mode: 15–600 A<br>CV Mode: 10–38 V | 450 A at 36.5 VDC, 100% Duty Cycle | — | 49.4 | — | 27.2 | 23.6 | 21.6 (23.5 on 575 V) | 18.3 | 90 VDC | H: 17.25 in. (438 mm)<br>W: 14.5 in. (368 mm)<br>D: 27.125 in. (689 mm) | 122 lb. (55.3 kg) |

**Duty cycle rating achieved with 6-gauge input power cord (8-gauge cord supplied with unit).*

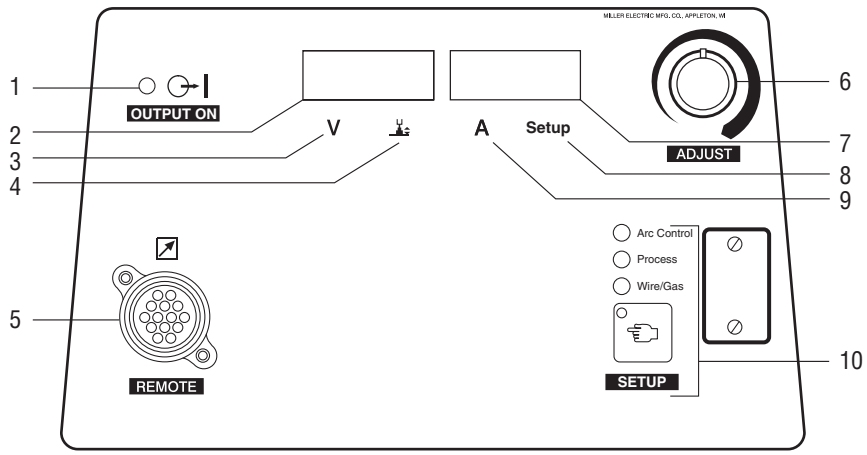
*Certified by Canadian Standards Association to both the Canadian and U.S. Standards.*



Miller

# Control Panel

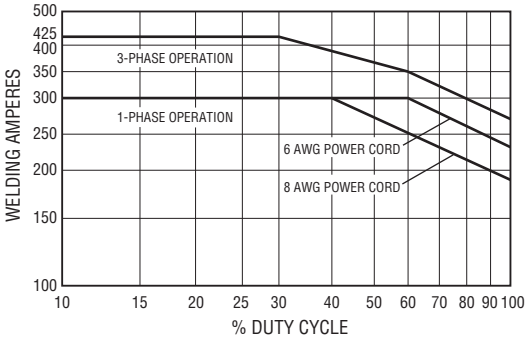
**The Invision™ 352 or 450 MPa model and a 74 MPa Plus single or dual wire feeder combine for a synergic system that simplifies and improves MIG and Pulsed MIG welding applications for industrial manufacturing.**



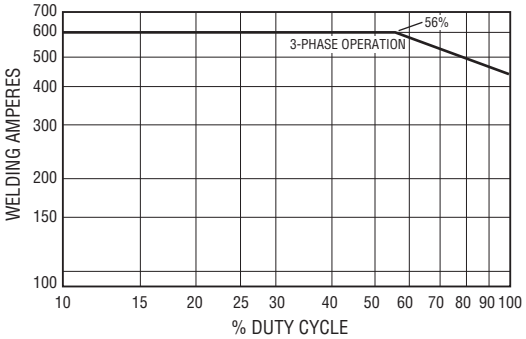

1. Output ON Indicator Light
2. Left Display
3. Voltage Indicator
4. Arc Length Indicator
5. Wire Feeder Receptacle
6. Adjustment Control
7. Right Display
8. Setup Indicator
9. Amperage Indicator
10. Setup Indicator Lights
    - Arc Control Indicator
    - Process Indicator
    - Wire/Gas Type Indicator
    - Setup Button

# Performance Data

**INVISION 352 MPa DUTY CYCLE CHART**




**INVISION 450 MPa DUTY CYCLE CHART**




# Built-In Pulsed MIG Programs

The Invision MPa models have built-in Pulsed MIG programs. See the table below for the wide range of Pulsed MIG (GMAW-P) welding applications the Invision MPa models can handle.

| Wire Types | | Gas Types |
|---|---|---|
| Steel | .035 STL, .045 STL | 90% ARGN / 10% $CO_2$ (Argon/Carbon Dioxide)<br>95% ARGN / 5% OXY (Argon/Oxygen) |
| | .052 STL (450 model only)<br>1/16 STL (450 model only) | 90% ARGN / 10% $CO_2$ (Argon/Carbon Dioxide)<br>95% ARGN / 5% OXY (Argon/Oxygen) |
| Metal Core | .035 MCOR<br>.045 MCOR<br>.052 MCOR<br>1/16 MCOR (450 model only) | 90% ARGN / 10% $CO_2$ (Argon/Carbon Dioxide) |
| Stainless Steel | .035 SSTL, .045 SSTL | TRI MIX (Tri-gas mixture:<br>81% ARGN / 18% HE / 1% $CO_2$<br>[Argon/Helium/Carbon Dioxide])<br>98% ARGN / 2% OXY (Argon/Oxygen)<br>98% ARGN / 2% $CO_2$ (Argon/Carbon Dioxide) |
| | 1/16 SSTL (450 model only) | 98% ARGN / 2% $CO_2$ (Argon/Carbon Dioxide) |
| Aluminum | .035 AL4X (4000 Series)<br>.040 AL4X (4000 Series)<br>3/64 AL4X (4000 Series)<br>1/16 AL4X (4000 Series) | 100% ARGN (Argon) |
| | .035 AL5X (5000 Series)<br>.040 AL5X (5000 Series)<br>3/64 AL5X (5000 Series)<br>1/16 AL5X (5000 Series) | 100% ARGN (Argon)<br>75% HE / 25% ARGN (Helium/Argon) |
| | .035 AL49<br>3/64 AL49<br>1/16 AL49 | 100% ARGN (Argon) |
| Nickel | .035 NI, .045 NI | 75% ARGN / 25% HE (Argon/Helium) |
| | 1/16 NI (450 model only) | 100% ARGN (Argon) |
| Silicon Bronze | .035 SIBR | 100% ARGN (Argon) |
| Copper Nickel | .045 CUNI | 75% HE / 25% ARGN (Helium/Argon) |

# Optimized Wire Feeder Options

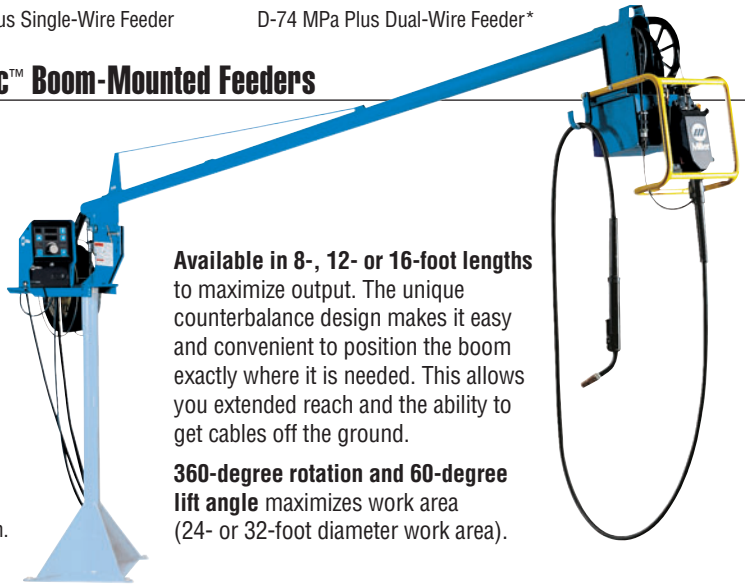
## Bench-Style Feeders

S-74 MPa Plus Single-Wire Feeder

D-74 MPa Plus Dual-Wire Feeder*

**Only left side of dual-wire model is capable of using push-pull gun.*

## Swingarc™ Boom-Mounted Feeders



Swingarc single-wire model shown.

**Available in 8-, 12- or 16-foot lengths** to maximize output. The unique counterbalance design makes it easy and convenient to position the boom exactly where it is needed. This allows you extended reach and the ability to get cables off the ground.

**360-degree rotation and 60-degree lift angle** maximizes work area (24- or 32-foot diameter work area).

## Remote Configurations

S-74 MPa Plus Single-Wire Control Box

D-74 MPa Plus Dual-Wire Control Box*

MPa Plus Wire Drive Motor Assembly

**Offers added flexibility to install the power source, control box and drive assembly in three separate places.** This is desirable for mounting to custom jibs, booms or other extended-reach applications.

**Only left side of dual-wire model is capable of using push-pull gun.*

**Synergic Pulsed MIG —** The MPa Plus feeders give you the benefit of a Synergic Pulsed MIG system. As you increase/decrease the wire feed speed, the pulse parameters increase/decrease, matching the right amount of power output to match the wire speed. Feeders only operate synergically with an MPa power source.

**Alumination™** gives the operator the ability to use the extended reach of a push-pull system to feed aluminum wire. Alumination provides the versatility to handle whatever aluminum welding job you want to tackle.

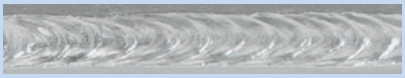
**Trigger schedule select** allows the operator to select the alternative schedule by quickly tapping the gun trigger when not welding. When optimized with an MPa power source the operator can also switch from MIG to Pulsed MIG.

**Available as either single- or dual-wire models.** Provides trouble-free feeding performance.

**Dual-wire models** allow you to set up one side for soft wires (aluminum) while maintaining the ability to push a variety of hard wires on the other, saving time and money.

**Trigger hold** reduces fatigue by allowing the operator to weld without holding the trigger.

**Program locks and limits** allow you to maintain proper weld parameters.



**Profile Pulse™** gives you the cosmetic bead appearance for the welds you want to show off.

# Power Source Compatibility for MPa Plus Wire Feeders

| Power Source | Pulse Capable | Synergic Pulsed MIG | System Communication Enhanced Arc Control | Electronic Inductance/ SharpArc | Compatibility |
|---|---|---|---|---|---|
| Invision™ 352 and 450 MPa | Yes | Yes | Yes | Yes | **Optimized** |
| XMT® 350 and 450 MPa | Yes | Yes | Yes | Yes | Best |
| AlumaPower™ 350 and 450 MPa | Yes *(Aluminum only)* | Yes *(Aluminum only)* | Yes | Yes | Best |
| XMT® 350 and 450 CC/CV | Yes *(with Optima)* | No | No | Yes | Better |
| XMT® 304 CC/CV | Yes *(with Optima)* | No | No | Yes | Better |
| Invision™ 456P | Yes *(with Optima)* | No | No | Yes | Better |
| Invision™ 456MP | Yes | No | No | Yes | Better |
| Invision™ 354P | Yes *(with Optima)* | No | No | Yes | Better |
| Invision™ 354MP | Yes | No | No | Yes | Better |
| Deltaweld® *(after KF790532)* | No | No | No | No | Good |
| Dimension™ *(after KE614131)* | No | No | No | No | Good |

*Note: Power sources not included in this list are not recommended. For specific information, please contact your local Miller® distributor.*

# MPa Plus Wire Feeders Specifications (Subject to change without notice.)

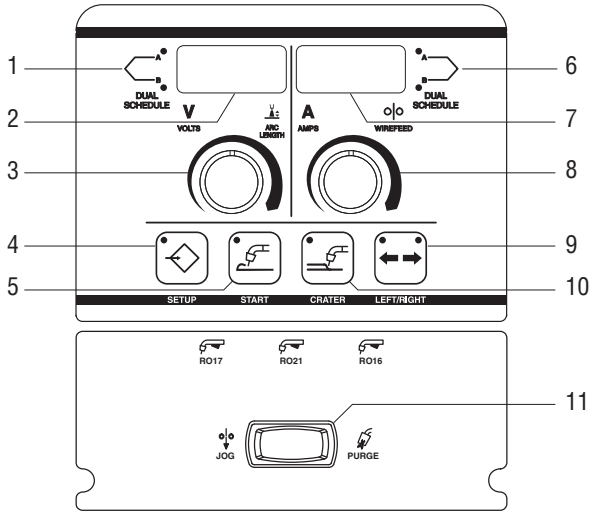
CV DC *(Use with CV, DC Power Sources.)*

| Model | Input Power | Electrode Wire Diameter Capacity | Wire Speed | Dimensions (Single) | (Dual) | Net Weight (Single) | (Dual) |
|---|---|---|---|---|---|---|---|
| 74 MPa Plus Feeder | 24 VAC, 10 A, 50/60 Hz | .035–5/64 in. (0.9–2.0 mm)<br>.035–1/16 in (0.9–1.6 mm) Aluminum | 50–780 IPM (1.3–19.8 m/min.) | H: 14 in. (356 mm)<br>W: 12 in. (305 mm)<br>D: 28 in. (711 mm) | H: 14 in. (356 mm)<br>W: 21 in. (533 mm)<br>D: 35 in. (889 mm) | 58 lb. (26 kg) | 87 lb. (35.5 kg) |
| 74 MPa Plus Control Box with Wire Drive Assembly | 24 VAC, 10 A, 50/60 Hz | .035–5/64 in. (0.9–2.0 mm)<br>.035–1/16 in (0.9–1.6 mm) Aluminum | 50–780 IPM (1.3–19.8 m/min.) | H: 11 in. (279 mm)<br>W: 11 in. (279 mm)<br>D: 16 in. (406 mm) | H: 12 in. (305 mm)<br>W: 14 in. (356 mm)<br>D: 23 in. (584 mm) | 17 lb. (7.7 kg) | 30 lb. (13.6 kg) |
| | | | | Wire Drive Assembly Dimensions | H: 12 in. (305 mm)<br>W: 13 in. (330 mm)<br>D: 16 in. (406 mm) | Wire Drive Assembly Net Weight | 24 lb. (10.9 kg) |

# Control Panel

**D-74 MPa Plus Dual Wire Feeder Control Panel Shown**

1. Left A/B Indicator
2. Voltage/Arc Length Display Meter
3. Left Adjust Knob
4. Setup Button
5. Start Button
6. Right A/B Indicator
7. Amperage/Wire Speed Display Meter
8. Right Adjust Knob
9. Left/Right Select Button
10. Crater Button
11. Jog/Purge




# Drive Roll Kits and Guides (Order from Miller Service Parts.)

*Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include four drive rolls, necessary guides and feature an anti-wear sleeve for inlet guide.*

| Wire Size | "V" groove for hard wire | "U" groove for aluminum wires contains nylon guides | "V" knurled for hard-shelled cored wires | "U" cogged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types) | "U" groove for soft wire or soft-shelled cored wires |
|---|---|---|---|---|---|
| .035 in. (0.9 mm) | **#151 026** | **#243 233** | **#151 052** | — | — |
| .040 in. (1.0 mm) | **#161 190** | — | — | — | — |
| .045 in. (1.1/1.2 mm) | **#151 027** | **#243 234*** | **#151 053** | **#151 070** | **#151 037*** |
| .052 in. (1.3/1.4 mm) | **#151 028** | — | **#151 054** | **#151 071** | **#151 038** |
| 1/16 in. (1.6 mm) | **#151 029** | **#243 235** | **#151 055** | **#151 072** | **#151 039** |
| .068/.072 in. (1.8 mm) | — | — | **#151 056** | — | — |
| 5/64 in. (2.0 mm) | — | — | **#151 057** | **#151 073** | **#151 040** |

**Accommodates .045- and .047-inch (3/64-inch) wire.*

## Nylon Wire Guides for Feeding Aluminum Wire

| Wire Size | Inlet Guide | Intermediate Guide |
|---|---|---|
| .035 in. (0.9 mm) | **#221 912** | **#242 417** |
| .047 in. (1.2 mm) | **#221 912** | **#205 936** |
| 1/16 in. (1.6 mm) | **#221 912** | **#205 937** |

*Note: "U" groove drive rolls are recommended when feeding aluminum wire.*

## Wire Guides

| Wire Size | Inlet Guide | Intermediate Guide |
|---|---|---|
| .023–.040 in. (0.6–1.0 mm) | **#221 030** | **#149 518** |
| .045–.052 in. (1.1–1.4 mm) | **#221 030** | **#149 519** |
| 1/16–5/64 in. (1.6–2 mm) | **#221 030** | **#149 520** |

# Push-Pull Welding Gun Options

## Gooseneck-Style Gun

XR-Aluma-Pro™ Plus Gun

## Pistol Grip Gun

New! XR™-Pistol-Plus Gun

**Alumination**™ allows the operator to use the XR-Aluma-Pro Plus and XR-Pistol-Plus push-pull guns with any of the MPa Plus feeder options shown on page 4.

**Available in 15-, 25- and 35-foot lengths** for extended reach with trouble-free, reliable feeding. Guns are available in either air- or water-cooled versions.

**Aluminum-series-specific tension setting** ensures smooth wire feeding performance with 4000 or 5000 series aluminum wires.

**Replaceable feed cable liner** is designed to provide consistent arc performance. It also reduces parts cost and service time by allowing a simple means of removing and replacing liner and not the complete feed cable.

**Easy-to-rotate** self-seating head tube allows for better access into tight spots, providing excellent current transfer.

**Isolated common, knurled drive roll** helps reduce wear, reducing down time and cost.

**Serviceability.** These guns feature a full length Velcro-seamed leather jacket with integrated strain reliefs for easy cable maintenance and protection. Additionally, the Aluma-Pro Plus guns feature quick connections between the control cable and electrical components (trigger, motor, potentiometer).

# Gun Specifications (Subject to change without notice.)

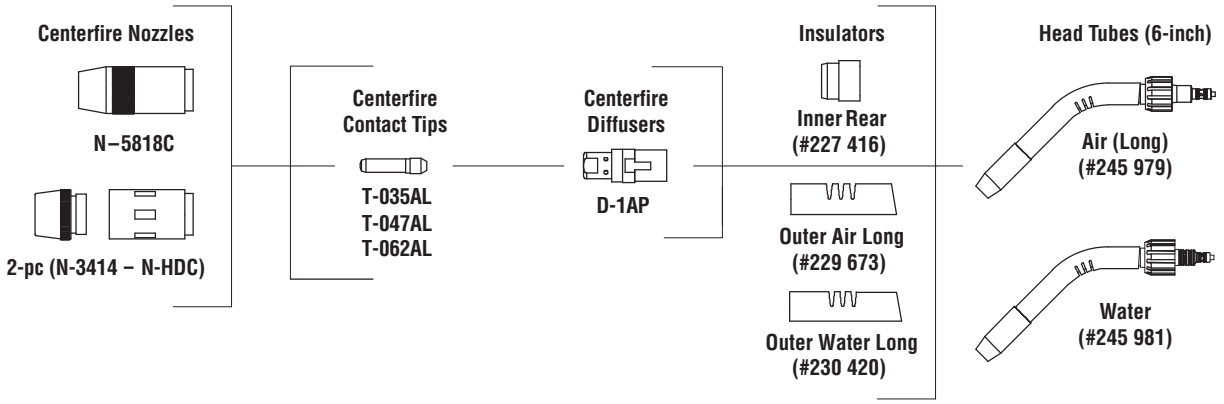
| Model | Welding Output Range with 100% Argon and Peak Amperages | Electrode Wire Diameter Capacity | Wire Speed | Dimensions | Net Weight (Torch only) |
|---|---|---|---|---|---|
| XR-Aluma-Pro Plus (Air-Cooled) | 300 A at 100% Duty Cycle | .030–1/16 in. (0.8–1.6 mm) aluminum wire<br>Wire kit #230 708 required to run 1/16-in. (1.6 mm) wire | 50–780 IPM (1.3–19.8 m/min) dependent on feeder used | H: 5 in. (127 mm)<br>W: 2.5 in. (64 mm)<br>D: 17 in. (432 mm) | 2.5 lb. (1.1 kg) |
| XR-Aluma-Pro Plus (Water-Cooled) | 400 A at 100% Duty Cycle | | 50–780 IPM (1.3–19.8 m/min) | H: 5 in. (127 mm)<br>W: 2.5 in. (64 mm)<br>D: 17 in. (432 mm) | 2.9 lb. (1.3 kg) |
| XR-Pistol-Plus (Air-Cooled) | 200 A at 100% Duty Cycle<br>250 A at 60% Duty Cycle | .030–1/16 in. (0.8–1.6 mm) aluminum wire<br>Wire kit #230 708 required to run 1/16-in. (1.6 mm) wire | 50–780 IPM (1.3–19.8 m/min) | H: 7.375 in. (187 mm)<br>W: 1.875 in. (48 mm)<br>D: 10.625 in. (270 mm) | 2.2 lb. (1 kg) |
| XR-Pistol-Plus (Water-Cooled) | 400 A at 100% Duty Cycle | | | | 2.4 lb. (1.1 kg) |

*Certified by Canadian Standards Association to both the Canadian and U.S. Standards.* *Conforms to European standards.*

*Note: XR-Aluma-Pro Plus and XR-Pistol-Plus guns are only compatible with MPa Plus feeders.*

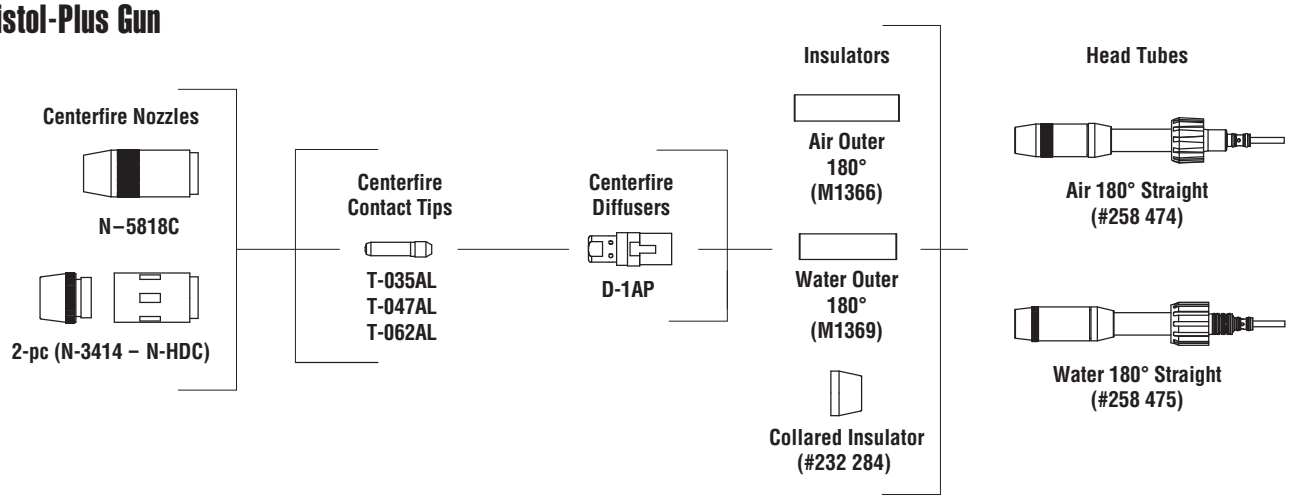
# Standard Consumables (Order from Miller Service Parts.)

## XR-Aluma-Pro™ Plus Gun




*Note: Many other Centerfire™ options are available.*
*Visit BernardWelds.com for more information.*

## XR™-Pistol-Plus Gun



# Invision™ MPa Plus Packages

## Stationary Packages

Invision 352 MPa air-cooled package with single feeder shown.

**Invision MPa Plus Stationary Packages**
Stationary display without running gear/cylinder rack.

**#951 283** Invision 352 MPa air-cooled package with single feeder
**#951 502** Invision 352 MPa air-cooled package with dual feeder
**#951 377** Invision 352 MPa water-cooled package with single feeder

Packages include:

- Invision 352 MPa (with auxiliary power in water-cooled packages)
- Single or dual 74 MPa Plus wire feeder with drive rolls (.035/.047 U-groove and .035/.045 V-groove)
- 25-ft. XR-Aluma-Pro Plus push-pull gun for aluminum
- 15-ft. Bernard® Q400 Gun (two included w/dual feeders)
- Industrial MIG 4/0 Kit w/Dinse Connectors (see page 10 for contents)
- Coolmate™ 3 and coolant (water-cooled packages only)

## MIGRunner™ Packages

Invision 352 MPa water-cooled package shown with single feeder (wire not included).

**Invision MPa Plus MIGRunner™ Packages**
MIGRunner system with running gear/cylinder rack.

**#951 287** Invision 352 MPa air-cooled package with single feeder
**#951 501** Invision 352 MPa air-cooled package with dual feeder
**#951 379** Invision 352 MPa water-cooled package with single feeder

Packages include:

- Invision 352 MPa (with auxiliary power in water-cooled packages)
- Single or dual 74 MPa Plus wire feeder with drive rolls (.035/.047 U-groove and .035/.045 V-groove)
- 25-ft. XR-Aluma-Pro Plus push-pull gun for aluminum
- 15-ft. Bernard® Q400 Gun (two included w/dual feeders)
- Industrial MIG 4/0 Kit w/Dinse Connectors (see page 10 for contents)
- Coolmate™ 3 and coolant (water-cooled packages only)
- Running gear/cylinder rack (MIGRunner Cart for single feeders **or** Running Gear Cylinder Rack for dual feeders)

**Invision MPa Plus MIGRunner™ Push-Only Packages**
Provides the same great Invision arc characteristics and synergic MIG capabilities as packages above, but comes with Q400 gun only (no XR-Aluma-Pro push-pull gun)

**#951 411** Invision 352 MPa air-cooled package with single feeder
**#951 500** Invision 352 MPa air-cooled package with dual feeder
**#951 499** Invision 450 MPa air-cooled package with single feeder
**#951 457** Invision 450 MPa air-cooled package with dual feeder

Packages include:

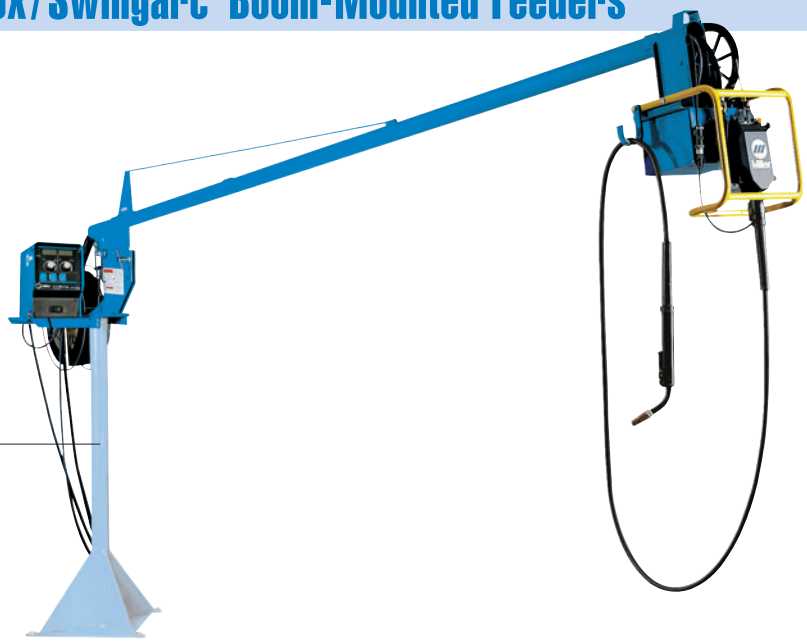
- Invision 352 MPa with auxiliary power **or** Invision 450 MPa with auxiliary power
- Single or dual 74 MPa Plus wire feeder with drive rolls (.035/.045 V-groove)
- 15-ft. Bernard® Q400 Gun (two included w/dual feeders)
- Industrial MIG 4/0 Kit w/Dinse Connectors for Invision 352 MPa **or** w/lugs for Invision 450 MPa (see page 10 for contents)
- Running gear/cylinder rack (MIGRunner Cart for single feeders **or** Running Gear Cylinder Rack for dual feeders)

# 70 Series MPa Plus Control Box/Swingarc™ Boom-Mounted Feeders

**Single-Wire Models** **#951 437** 8 ft. (2.4 m)
**#951 438** 12 ft. (3.7 m)
**#951 439** 16 ft. (4.9 m)

**Dual-Wire Models** **#951 440** 8 ft. (2.4 m)
**#951 441** 12 ft. (3.7 m)
**#951 442** 16 ft. (4.9 m)

*Note: Swingarcs include Bernard® Q-Gun™ (one for single-wire models and two for dual-wire models) and drive rolls.*



**Pipe Post NOT included. Must be ordered separately.**
**#149 838** 4-foot Pipe Post with 18-inch base
**#149 839** 6-foot Pipe Post with 18-inch base

# 70 Series MPa Plus Control Box, Cables and Wire Drive Motor Assemblies

## Single Remote Configuration

**For additional lengths visit MillerWelds.com/equiptoweld.*

*Gun NOT included. Must be ordered separately.*

**MPa Plus Control Box**
**#300 738** S-74 MPa Plus

**MPa Plus Motor Control Cable (14 conductor)***
**#254 864 010** 10 ft. (3 m)
**#254 864 025** 25 ft. (7.6 m)

**MPa Plus Wire Drive Motor Assembly**
**#300 740** Left-hand drive
(for use with push-only guns, AlumaPro Plus push-pull guns and Pistol Plus push-pull guns)

## Dual Remote Configuration

*Note: Right-side drive in dual remote configurations is push-only.*

*Gun NOT included. Must be ordered separately.*

**MPa Plus Control Box**
**#300 739** D-74 MPa Plus

**Right Side Motor Control Cable (11 conductor)***
**#254 935 010** 10 ft. (3 m)
**#254 935 025** 25 ft. (7.6 m)

**Wire Drive Motor Assembly**
**#300 741** Right-hand drive
(for use with push-only guns)

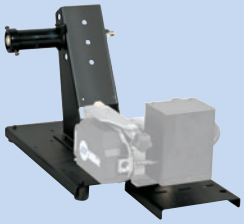
**For additional lengths visit MillerWelds.com/equiptoweld.*

*Gun NOT included. Must be ordered separately.*

**MPa Plus Motor Control Cable (14 conductor)***
**#254 864 010** 10 ft. (3 m)
**#254 864 025** 25 ft. (7.6 m)

**MPa Plus Wire Drive Motor Assembly**
**#300 740** Left-hand drive
(for use with push-only guns, AlumaPro Plus push-pull guns and Pistol Plus push-pull guns)

**Flexible Mounting Options for Wire Drive Assembly:** Fixed automation, boom applications, or other applications that benefit from having the drive assembly located away from the control box.



If using spooled wire you will need to order **Feeder Base #195 369.**

# Genuine Miller® Accessories

## Wire Feeders/Guns

D-74 MPa Plus feeder shown.

### 70 Series Wire Feeders

**S-74 MPa Plus** **#951 291** Single feeder
**D-74 MPa Plus** **#951 292** Dual feeder

*Order XR-Aluma-Pro Plus gun and U-groove drive rolls separately to match your aluminum needs. Above models are optimized for Invision 352 MPa and 450 MPa, with push-pull capability.*

**S-74S** **#951 196** Single feeder
**S-74D** **#951 198** Single feeder
**S-74DX** **#951 200** Single feeder
**D-74S** **#951 203** Dual feeder
**D-74D** **#951 204** Dual feeder
**D-74DX** **#951 206** Dual feeder

70 Series feeders feature Posifeed™ wire drive assembly and handle a variety of wires. Each includes a 15-foot Bernard® Q400 gun (two for dual feeders) and .035/.045-inch V-groove drive rolls. See Lit. Index No. M/3.0.

### Extension Cables*

**#247 831 025** 25 ft. (7.6 m)
**#247 831 050** 50 ft. (15.2 m)
**#247 831 080** 80 ft. (24.4 m)

Eleven conductors to support contactor control and remote voltage control on all Miller electronic CV 14-pin power sources. Additional functions supported when using the Invision 352 MPa or 450 MPa power source include Synergic Pulsed MIG, and remote process select and side select capabilities.

**For additional lengths visit MillerWelds.com/equiptoweld.*

***A variety of MIG guns are also available. Visit MillerWelds.com/equiptoweld for more information.***

### XR-Aluma-Pro™ Plus Guns

**#300 000 001** 15 ft. (4.6 m), air-cooled
**#300 001 001** 25 ft. (7.6 m), air-cooled
**#300 264 001** 35 ft. (10.6 m), air-cooled
**#300 003 001** 15 ft. (4.6 m), water-cooled
**#300 004 001** 25 ft. (7.6 m), water-cooled
**#300 265 001** 35 ft. (10.6 m), water-cooled

*Above gun models are specific to the 74 MPa Plus wire feeders.*

This easy-to-use and easy-to-maintain gooseneck-style MIG gun is designed for push-pull wire feed systems. Available in air- or water-cooled versions. Gun design allows for better access into tight spots.

### XR™-Pistol-Plus Guns

**#300 753** 15 ft. (4.6 m), air-cooled
**#300 754** 25 ft. (7.6 m), air-cooled
**#300 755** 35 ft. (10.6 m), air-cooled
**#300 756** 15 ft. (4.6 m), water-cooled
**#300 757** 25 ft. (7.6 m), water-cooled
**#300 758** 35 ft. (10.6 m), water-cooled

*Above gun models are specific to the 74 MPa Plus wire feeders.*

This easy-to-use and easy-to-maintain pistol-grip MIG gun is designed for push-pull wire feed systems. Available in air- or water-cooled versions.

### 1/16-inch (1.6 mm) Wire Kit #230 708

Specially designed for 1/16-inch wire. Includes idler roll, head tube liner and inlet guide. Required when running 1/16-inch wires. Not included with standard XR-Aluma-Pro Plus or XR-Pistol-Plus guns.

### Hardwire Liner Kit for Steel and Stainless

**#198 377** For 15-, 25-, or 35-foot (4.6, 7.6 or 10.6 m) guns

Kit consists of gun head tube liner and feed cable liner. Recommend using .030–.045 inch mild steel or stainless steel electrode wire (.052- and 1/16-inch wire not recommended).

### Phosphorous Bronze Liner (Optional)

**#233 999** Long Head Tube (air or water)
**#233 998** Short Head Tube (air only)

### Spool Covers

**#057 607**
For S-74 and left side of D-74 models
**#090 389**
For right side of D-74 models

For 12-inch (305 mm) spool.

*Note: Spool Covers cannot be installed if the wire drive assembly is in a rotated position.*

### Wire Reel Assembly

**#108 008**
For 60-pound (27 kg) coil of wire.

### Industrial MIG 4/0 Kit with Dinse Connectors #300 405

*For Invision 352 MPa power source.*
Includes Smith® flowmeter/regulator with 10-foot (3 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with Dinse connector on one end and a lug on the other, 15-foot (4.6 m) work cable with Dinse connector on one end and 600-amp C-clamp on the other.

### Industrial MIG 4/0 Kit #300 390

*For Invision 450 MPa power source.*
Includes the same as the kit above, except weld and work cables have lugs instead of Dinse connectors.

### Protective Cover

**#195 478**
*For Invision 352 MPa power source.* Mildew and water resistant, odor-free cover protects your machine's finish.

## Running Gear

**MIGRunner™ Cart #195 445**
For single-feeders. Small footprint and easily maneuverable, with cylinder rack low enough that you do not have to lift bottles.

**Running Gear Cylinder Rack #300 408**
Holds two large gas cylinders and has gun cable hangers and a consumable drawer in front for easy access. A convenient handle allows the cart to be pulled easily through doorways. System components including power source, and single or dual feeders can be mounted to the cart and secured.

## Coolant Systems

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

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

**Coolmate™ 3.5 #300 245** 115 VAC
Industrial, 3.5-gallon cooler designed for water-cooled torches rated up to 600 A.

**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.

## Cable Connectors and Adapters

*Note: Invision 352 MPa power sources are equipped with Dinse-style connectors for secondary connections.*

**Dinse-Style Connector Kit**
**#042 418**
Accepts #4 to #1/0 AWG cable size.
**#042 533**
Accepts #1/0 to #2/0 AWG cable size.
Required if male plugs shipped with power source must be replaced or if additional plugs are needed. Kit includes one Dinse-style male plug which attaches to the work and/or weld cables and plugs into the Dinse-style receptacles on the power source.

**Extension Kit for Dinse-Style Cable Connectors**
**#042 419**
Accepts #4 to #1/0 AWG cable size.
**#042 534**
Accepts #1/0 to #2/0 AWG cable size.
Used to adapt or extend weld and/or work cables. Kit includes one male Dinse-style plug and one in-line female Dinse-style receptacle.

**Dinse/Tweco® Adapter**
**#042 465**
**Dinse/Cam-Lok Adapter**
**#042 466**
One-piece adapter with Dinse-style male plug (to power source) on one end and female receptacle (Tweco or Cam-Lok for weld cable connection) on other end.

# Ordering Information

| Power Source and Options | Stock No. | Description | Qty. | Price |
|---|---|---|---|---|
| **Invision™ 352 MPa** | **#907 431**<br>**#907 431 001** | Power source only. 208–575 VAC with Auto-Line™<br>Power source only. 208–575 VAC with Auto-Line™ and Auxiliary Power | | |
| **Invision™ 352 MPa Plus Air-Cooled Stationary Packages** | **#951 283**<br>**#951 502** | With single feeder *(see page 8 for package details)*<br>With dual feeder *(see page 8 for package details)* | | |
| **Invision™ 352 MPa Plus Air-Cooled MIGRunner™ Packages** | **#951 287**<br>**#951 501** | With single feeder and MIGRunner Cart *(see page 8 for package details)*<br>With dual feeder and Running Gear Cylinder Rack *(see page 8 for package details)* | | |
| **Invision™ 352 MPa Plus Air-Cooled MIGRunner™ Packages (push-only package with Q400 gun)** | **#951 411**<br>**#951 500** | With single feeder and MIGRunner Cart *(see page 8 for package details)*<br>With dual feeder and Running Gear Cylinder Rack *(see page 8 for package details)* | | |
| **Invision™ 352 MPa Plus Water-Cooled Stationary Packages** | **#951 377** | With single feeder *(see page 8 for package details)* | | |
| **Invision™ 352 MPa Plus Water-Cooled MIGRunner™ Packages** | **#951 379** | With single feeder and MIGRunner Cart *(see page 8 for package details)* | | |
| **Invision™ 450 MPa** | **#907 485**<br>**#907 486** | Power source only. 230/460 VAC with Auxiliary Power<br>Power source only. 575 VAC with Auxiliary Power | | |
| **Invision™ 450 MPa Plus Air-Cooled MIGRunner™ Packages (push-only package with Q400 gun)** | **#951 499**<br>**#951 457** | With single feeder and MIGRunner Cart *(see page 8 for package details)*<br>With dual feeder and Running Gear Cylinder Rack *(see page 8 for package details)* | | |
| **Wire Feeders** | | | | |
| 70 Series MPa Plus Control Box/ Swingarc Boom-Mounted Feeders | **#951 437**<br>**#951 438**<br>**#951 439**<br>**#951 440**<br>**#951 441**<br>**#951 442** | 8-ft. single-wire model. Includes Bernard™ Q400 gun and .035/.045-in. V-groove drive rolls<br>12-ft. single-wire model. Includes Bernard™ Q400 gun and .035/.045-in. V-groove drive rolls<br>16-ft. single-wire model. Includes Bernard™ Q400 gun and .035/.045-in. V-groove drive rolls<br>8-ft. dual-wire model. Includes two Bernard™ Q400 guns and .035/.045-in. V-groove drive rolls<br>12-ft. dual-wire model. Includes two Bernard™ Q400 guns and .035/.045-in. V-groove drive rolls<br>16-ft. dual-wire model. Includes two Bernard™ Q400 guns and .035/.045-in. V-groove drive rolls | | |
| 70 Series MPa Plus Control Box | **#300 738**<br>**#300 739** | Single control box for remote configurations<br>Dual control box for remote configurations | | |
| Wire Drive Motor Assemblies | **#300 740**<br>**#300 741** | MPa Plus for single remote configurations or left side of dual remote configurations<br>Push-only drive for right side of dual remote configurations | | |
| Motor Control Cables | | See page 9 | | |
| 70 Series MPa Plus Feeder *(Order XR-Aluma-Pro Plus and U-groove drive rolls separately)* | **#951 291**<br><br>**#951 292** | S-74 MPa Plus. Single feeder optimized for Invision MPa with push-pull capability. Includes Bernard™ Q400 gun and .035/.045-in. V-groove drive rolls.<br>D-74 MPa Plus. Dual feeder optimized for Invision MPa with push-pull capability. Includes two Bernard™ Q400 guns and .035/.045-in. V-groove drive rolls | | |
| 70 Series Feeder | | See page 10 | | |
| Extension Cables | | See page 10 | | |
| Spool Covers | **#057 607**<br>**#090 389** | 12-in. (305 mm) spool for single feeders or left side of dual feeders<br>12-in. (305 mm) spool for right side of dual feeders | | |
| Wire Reel Assembly | **#108 008** | For 60-lb. (27 kg) coil | | |
| **Guns** | | | | |
| XR-Aluma-Pro™ Plus Guns | | See page 10 | | |
| XR™-Pistol-Plus Guns | | See page 10 | | |
| **Accessories** | | | | |
| Industrial MIG 4/0 Kit | **#300 405**<br>**#300 390** | With Dinse connectors for Invision™ 352. See page 10<br>With lugs for Invision™ 450. See page 10 | | |
| Protective Cover | **#195 478** | For Invision™ 352 | | |
| **Running Gear** | | | | |
| MIGRunner™ Cart | **#195 445** | For single feeders | | |
| Running Gear Cylinder Rack | **#300 408** | For dual feeders | | |
| **Coolant Systems** | | See page 11. See Lit. Index No. AY/7.2 | | |
| **Cable Connectors and Adapters** | | See page 11 | | |

**Date:** **Total Quoted Price:**

**Distributed by:**

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