









Coolmate™ 3

1. Safety Symbol Definitions

	<p>DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.</p> <p>DANGER! – Indique une situation dangereuse qui si on l'évite pas peut donner la mort ou des blessures graves. Les dangers possibles sont montrés par les symboles joints ou sont expliqués dans le texte.</p>		<p>Have only trained and qualified persons install, operate, or service this unit. Call your distributor if you do not understand the directions. For WELDING SAFETY and EMF information, read wire feeder and welding power source manuals.</p> <p>L'installation, l'exploitation et l'entretien de cet appareil doivent être confiés uniquement à des personnes qualifiées et convenablement formées. S'adresser à un distributeur si l'on ne comprend pas les directives. Pour des renseignements ayant trait à la SÉCURITÉ lors du soudage et aux champs électromagnétiques, consulter les manuels traitant les dévidoirs et les sources de courant pour le soudage.</p>
	<p>Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.</p> <p>Indique une situation dangereuse qui si on l'évite pas peut donner la mort ou des blessures graves. Les dangers possibles sont montrés par les symboles joints ou sont expliqués dans le texte.</p>		<p>Beware of moving parts. Attention! Pièces en mouvement.</p>
<p>NOTICE</p> 	<p>Indicates statements not related to personal injury. Indique des déclarations pas en relation avec des blessures personnelles.</p> <p>Indicates special instructions. Indique des instructions spécifiques.</p>		<p>Wear safety glasses with side shields. Porter des lunettes de sécurité avec protections latérales.</p>
	<p>Beware of electric shock from wiring. Attention! Risque d'électrocution due au contact avec des fils.</p>		<p>Recycle or dispose of used coolant in an environmentally safe way. Recycler ou éliminer tout liquide de refroidissement utilisé conformément aux méthodes prescrites pour assurer la protection de l'environnement.</p>

2. EMF Information

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). Welding current creates an EMF field around the welding circuit and welding equipment. EMF fields may interfere with some medical implants, e.g. pacemakers. Protective measures for persons wearing medical implants have to be taken. For example, access restrictions for passers-by or individual risk assessment for welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.

4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld whilst carrying the welding power source or wire feeder.

About Implanted Medical Devices:

Implanted Medical Device wearers should consult their doctor and the device manufacturer before performing or going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, then following the above procedures is recommended.

3. Important Information Regarding CE Products (Sold Within The EU)



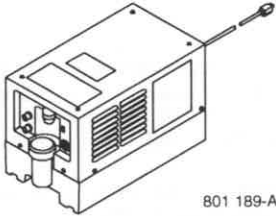
This equipment shall not be used by the general public as the EMF limits for the general public might be exceeded during welding.

This equipment is built in accordance with EN 60974-1 and is intended to be used only in an occupational environment (where the general public access is prohibited or regulated in such a way as to be similar to occupational use) by an expert or an instructed person.

Wire feeders and ancillary equipment (such as torches, liquid cooling systems and arc striking and stabilizing devices) as part of the welding circuit may not be a major contributor to the EMF. See the Owner's Manuals for all components of the welding circuit for additional EMF exposure information.

- The EMF assessment on this equipment was conducted at 0.5 meter.
- At a distance of 1 meter the EMF exposure values were less than 20% of the permissible values.





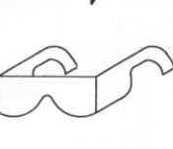
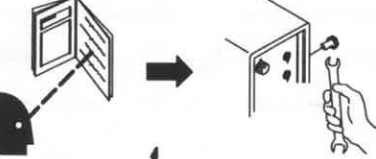
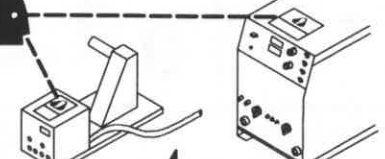
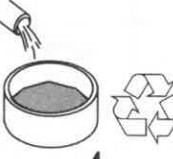


4. Specifications

 801 189-A	Recirculating Coolant System For Water-Cooled GTAW Torches And GMAW Guns
	Use With Guns/Torches Rated Up To 600 Amperes
	IP Rating: 23 – Not Intended For Use In Heavy Rain, Or Near Splashing Water
	3 gal (11.4 L) Coolant Tank Capacity; Maximum Cooling Capacity: 3,820 W (13,000 BTU/hr) @ 4.2 qt/min (4.0 L/min)
	IEC Cooling Capacity: 1,420 W (4,840 BTU/hr) @ 1.1 qt/min (1 L/min) IEC Cooling Capacity States That The Water Inlet Temperature Can Not Exceed 40° C Above Ambient Temperature At A 1l/ Min Flow Rate.
	Dimensions: 23 in. (584 mm) Long, 12 in. (305 mm) Wide, 13-1/4 in. (337 mm) High Weight: 39 lb (18 kg)
	115 Volt Models Use 5.9 Amperes, 50/60 Hertz, Single-Phase Input Power 230 Volt Models Use 3 Amperes, 50/60 Hertz, Single-Phase Input Power

5. Serial Number And Rating Label Location



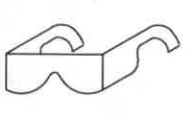
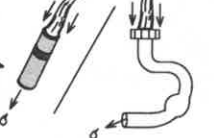

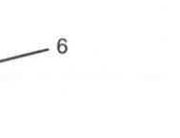


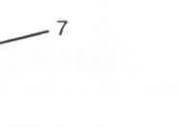
The serial number and rating information for this product is located on the back panel. Use rating label to determine input power requirements and/or rated output. For future reference, write serial number in space provided on cover of this manual.

6. Warning Label Definitions For CE Products

S-180 663

- 1 Warning! Watch Out! There are possible hazards as shown by the symbols.
- 2 Electric shock from wiring can kill.
- 3 Disconnect input plug or power before working on machine.
- 4 Moving parts, such as fans, can cut fingers and hands and cause injury. Keep away from moving parts.
- 5 Wear safety glasses with side shields.
- 6 Read the Owner's Manual before working on this machine.
- 7 Read the labels on the welding power source, wire feeder, or other major equipment for welding safety information.
- 8 Recycle or dispose of used coolant in an environmentally safe way.
- 9 Do not remove or paint over (cover) the label.









		
	 <p>100 h. std.</p>	
	 <p>043 810 (HF) 043 809 (AL)</p>	

S-178 910

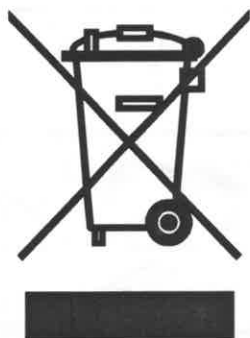
- 1 Warning! Watch Out! There are possible hazards as shown by the symbols.
- 2 Disconnect input plug or power before working on machine.
- 3 Wear safety glasses with side shields.
- 4 Plugged filter or hoses cause overheating and damage.
- 5 Read Owner's Manual.
- 6 Check and clean filter every 100 hours; also check condition of hoses.
- 7 Use Low Conductivity Coolant No. 043 810 for High-Frequency assisted or Gas Tungsten Arc Welding applications. Use Aluminum Protecting Coolant No. 043 809 where coolant contacts aluminum parts or for Gas Metal Arc Welding applications or where High Frequency is not used.

7. Symbols And Definitions

 Some symbols are found only on CE products.

A	Amperes		Alternating Current		Voltage Input		Circulating Unit With Coolant Pump
V	Volts		Water (Coolant) Input		Water (Coolant) Output		Line Connection
	Protective Earth (Ground)	IP	Degree Of Protection	I₁	Primary Current	Hz	Hertz
I	On	O	Off	U₁	Primary Voltage	1 	Single Phase

8. WEEE Label (For Products Sold Within The EU)




Do not discard product (where applicable) with general waste.

Reuse or recycle Waste Electrical and Electronic Equipment (WEEE) by disposing at a designated collection facility.

Contact your local recycling office or your local distributor for further information.

9. Coolant Chart

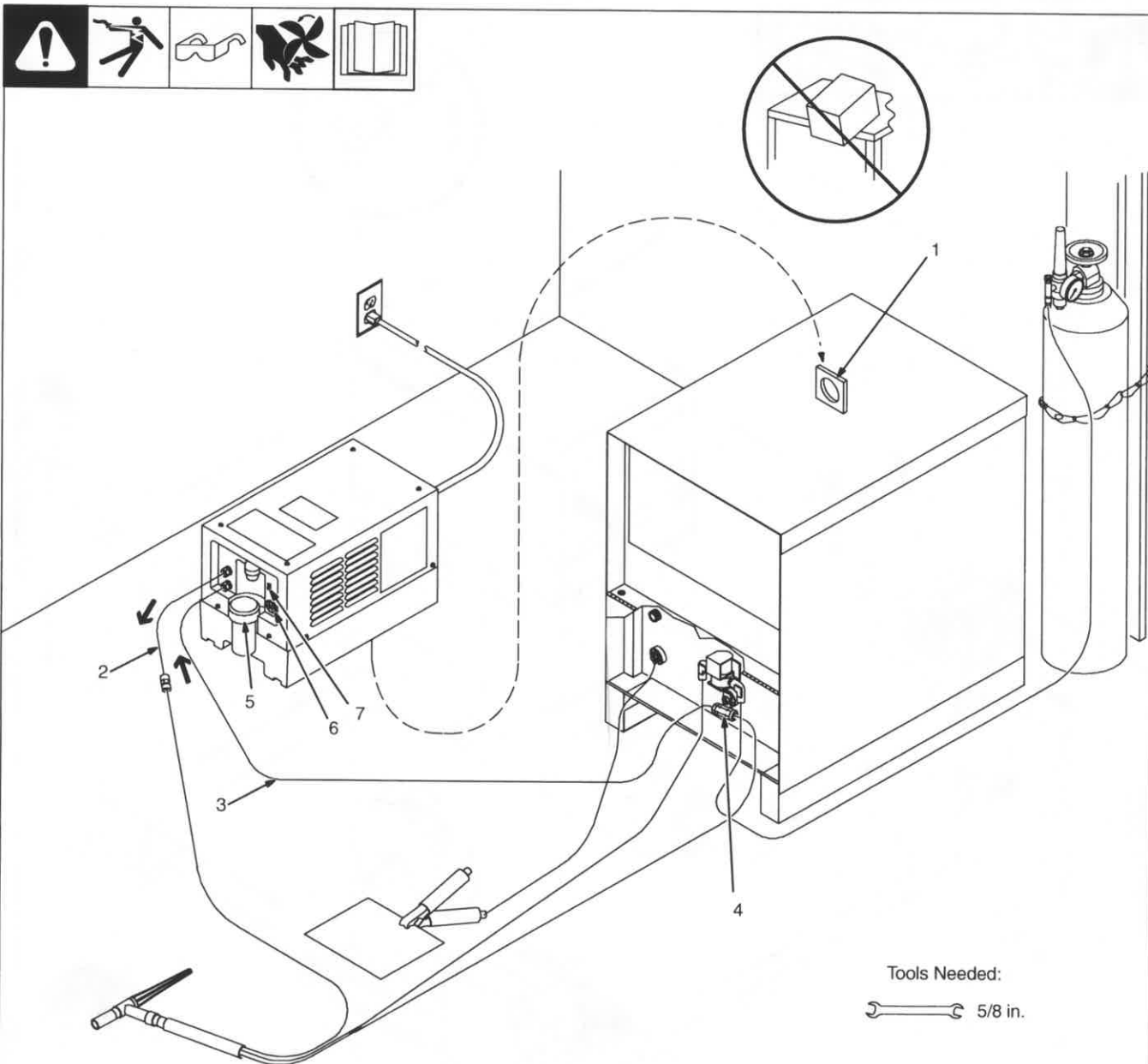
Application	GTAW Or Where HF* Is Used	GMAW Or Where HF* Is Not Used	Where Coolant Contacts Aluminum Parts
 Coolant	Low Conductivity Coolant No. 043 810**; Distilled Or Deionized Water OK Above 32° F (0° C)	Low Conductivity Coolant No. 043 810**; Or Aluminum Protecting Coolant No. 043 809**; Distilled Or Deionized Water OK Above 32° F (0° C)	Aluminum Protecting Coolant No. 043 809**

*HF: High Frequency Current

**Coolants 043 810 and 043 809 protect to -37° F (-38°C) and resist algae growth.

NOTICE – Use of any coolant other than those listed in the table voids the warranty on any parts that come in contact with the coolant (pump, radiator, etc.).

10. GTAW Connections



⚠ Do not move or operate unit where it could tip.

1 Lift-Eye

If placing cooling unit on welding power source, slots are provided in bottom of unit so it fits over lift-eye.

To prevent overheating, make sure cooling unit is positioned so airflow is not restricted.

NOTICE – If welding power source has a water valve, do not connect hoses to water valve. Connect hoses as shown.

2 Coolant Out Hose

3 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown.

4 TIG Block

Customer supplied for use with some welding power sources, or use proper connector supplied with welding power source.

5 Coolant Tank Cap

Use table in Section 9 to select proper coolant, and fill tank. Maintain coolant level at approximately 1 in (25 mm) below top of filler neck.

6 Flow Indicator

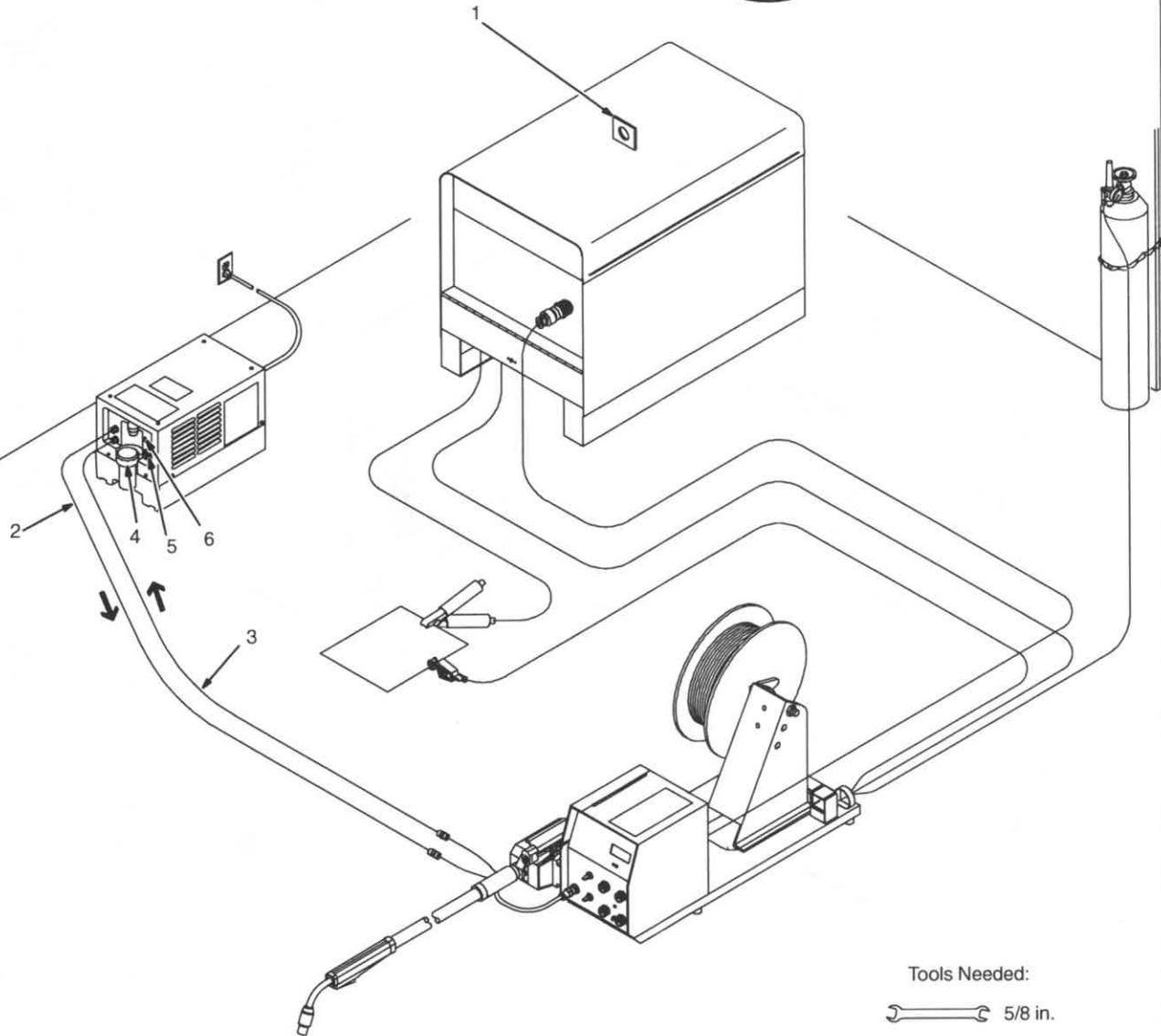
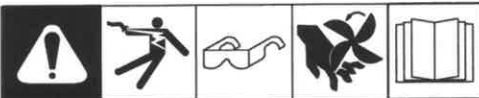
7 Power Switch

Operation:

Turn power switch On. Flow indicator spins to indicate that at least 0.53 qt/min (0.5 L/min) of coolant is flowing.

801 190-B

11. GMAW Connections



Tools Needed:

5/8 in.

801 191-B

⚠ Do not move or operate unit where it could tip.

1 Lift-Eye

If placing cooling unit on welding power source, slots are provided in bottom of unit so it fits over lift-eye.

To prevent overheating, make sure cooling unit is positioned so airflow is not restricted.

NOTICE – If welding power source has a

water valve, do not connect hoses to water valve. Connect hoses as shown.

2 Coolant Out Hose

3 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown.

4 Coolant Tank Cap

Use table in Section 9 to select proper coolant, and fill tank. Maintain coolant level at approximately 1 in (25 mm) below top of filler neck.

5 Flow Indicator

6 Power Switch

Operation:

Turn power switch On. Flow indicator spins to indicate that at least 0.53 qt/min (0.5 L/min) of coolant is flowing.

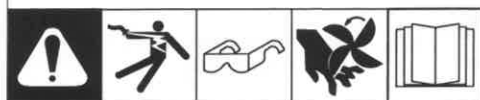
12. Routine Maintenance

3 Months					
<p>NOTICE – Clean coolant strainer. Severe conditions may require more frequent cleaning (continuous use, high/low temperatures, dirty environment, etc.). Failure to properly clean coolant strainer voids pump warranty.</p>			<p>Blow Out Heat Exchanger Fins</p>		
6 Months					
<p>Replace Cracked Hoses</p>		<p>Change Coolant (If Using Water)</p>		<p>Replace Unreadable Labels</p>	
12 Months					
<p>Change Coolant (If Using 043 809 or 043 810 Coolant)</p>					

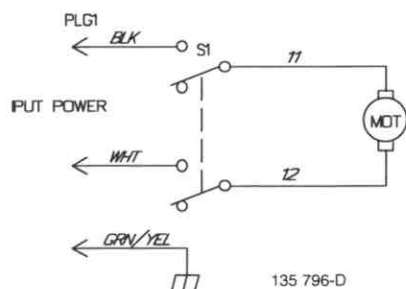
13. Coolant Maintenance

<p>1 Coolant Filter</p> <p>Unscrew housing to clean filter.</p> <p>Changing coolant: Drain coolant by tipping unit forward. Fill with clean water and run for 10 minutes. Drain and refill.</p> <p> If replacing hoses, use hoses compatible with ethylene glycol, such as Buna-n, Neoprene, or Hypalon. NOTE: Oxy-acetylene hoses are not compatible with any product containing ethylene glycol.</p>					
<p>Tools Needed:</p> <p> 3/8 in.</p>					

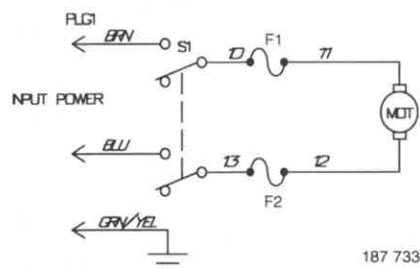
14. Troubleshooting



Trouble	Remedy
Coolant system does not work.	Be sure input power cord is plugged in to energized receptacle.
	Check line fuses or circuit breaker, and fuses F1, F2 if applicable, and replace or reset if necessary.
	Motor overheated. Unit starts running when motor has cooled.
	Have Factory Authorized Service Agent check Power switch S1 and motor Mot.
Decreased or no coolant flow.	Add coolant.
	Check for clogged hoses or coolant filter. Clean filter or clean / replace hoses if necessary.
	Disconnect pump, and check for sheared coupling. Replace coupling if necessary.

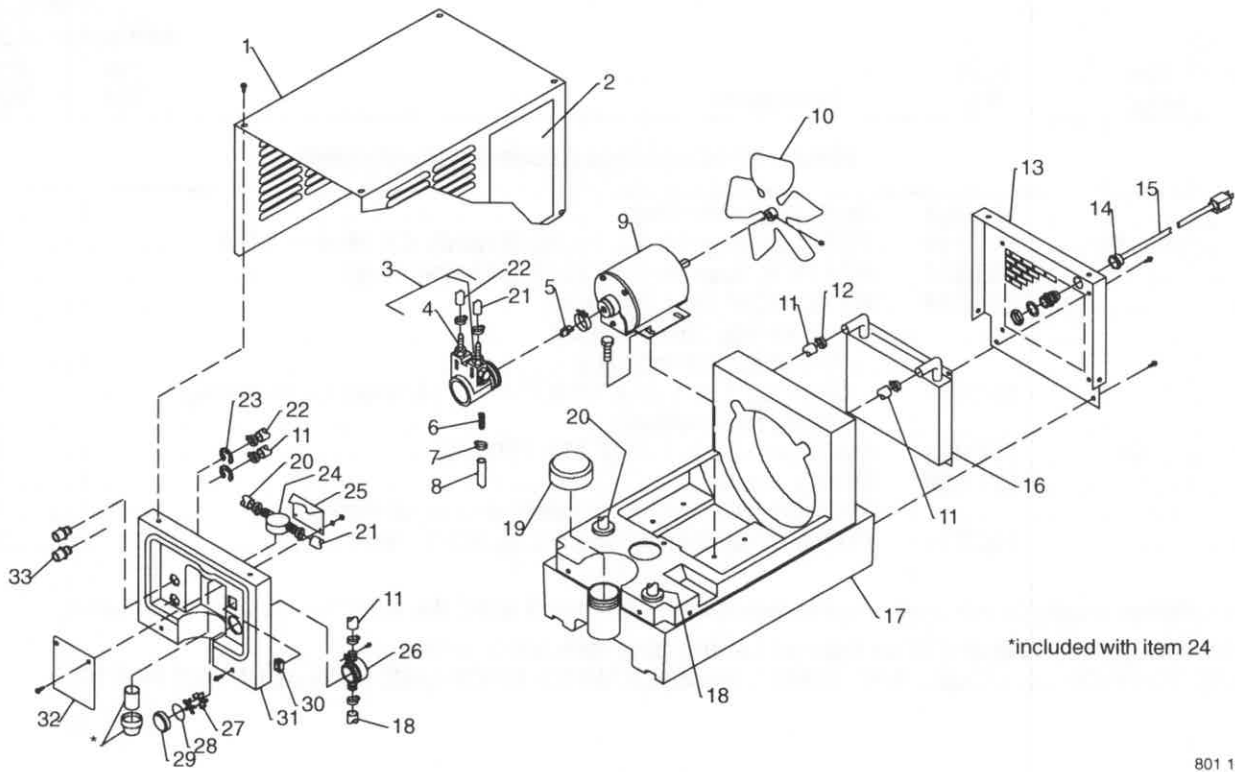


Circuit Diagram For 115 And 230 Volt



Circuit Diagram For 230 Volt (CE Models)

15. Parts List



801 196-J

Figure 15-1. Complete Assembly

Item No.	Dia. Mkgs.	Part No.	Description	Quantity	
				Model	Model
				043 007	043 008
				115 Volt	230 Volt

Figure 15-1 Complete Assembly.

...	1	...	+166 562	...	WRAPPER	...	1	...	1
...	2	...	192 449	...	LABEL, warning general precautionary	...	1	...	1
...	3	...	197 361	...	PUMP COOLANT w/V-BAND, (includes)	...	1	...	1
...	4	...	126 978	...	FITTING, hose brs barbed M 3/8tbg x 3/8	...	2	...	2
...	5	...	134 795	...	COUPLER, drive pump	...	1	...	1
...	6	...	196 990	...	FITTING, hose brs barbed	...	1	...	1
...	7	...	089 120	...	CLAMP, hose .375 - .450 clip	...	1	...	1
...	8	...	196 991	...	HOSE, nprn brd no 1 x .250ID	...	1	...	1
...	9	MOT	173 264	...	MOTOR, 1/4hp 230VAC 50/60Hz 1425/1725rpm (230V model)	...	1	...	1
...	9	MOT	173 263	...	MOTOR, 1/4hp 115VAC 50/60Hz 1425/1725rpm (115V model)	...	1	...	1
...	10	...	166 570	...	BLADE, fan 9.000 5wg 38deg .500 bore cw (setscrew included)	...	1	...	1
...	11	...	174 044	...	TUBING, PVC .375 x .625 OD X 18.000	...	2	...	2
...	12	...	*010 323	...	CLAMP, Hose .250 - .625 Clp Dia	...	1	...	1
...	13	...	192 454	...	PANEL, rear	...	1	...	1
...	14	...	139 042	...	BUSHING, strain relief .270/.480 id x .804 mtg hol	...	1	...	1
...	15	PLG1	192 458	...	CABLE, power 11FT 16ga 3c (230V model)	...	1	...	1
...	15	PLG1	192 457	...	CABLE, power 10ft 16ga (115V model)	...	1	...	1
...	15	PLG1	192 456	...	CABLE, pwr 10ft (230V CE Models)	...	1	...	1
...	16	...	196 515	...	RADIATOR, heat exchanger	...	1	...	1
...	17	...	168 267	...	TANK COOLANT	...	1	...	1
...	18	...	174 043	...	TUBING, PVC .375 ID x .625 OD x 1.250	...	1	...	1
...	19	...	166 608	...	CAP, tank screw-on w/vent	...	1	...	1
...	20	...	182 994	...	TUBE, pick-up coolant	...	1	...	1
...	21	...	136 369	...	TUBING, PVC .375 ID x .625 OD x 10.000	...	1	...	1
...	22	...	136 731	...	HOSE, nprn brd No. 1 x .375 ID x 10.50 black	...	1	...	1
...	23	...	166 560	...	RING, ring ext .500 shaft grv x .042thk	...	2	...	2
...	24	...	166 564	...	FILTER, in-line	...	1	...	1

Item No.	Dia. Mkgs.	Part No.	Description	Quantity	
				Model	
				043 007 115 Volt	043 008 230 Volt

Figure 15-1 Complete Assembly (continued).

... 25		168 254	.. CLIP, filter mounting	1	1
..... F1, F2		011 116	.. FUSE, mintr gl slo-blo 7A 250V (230V CE Models only)	2	2
.....		098 376	.. HOLDER, fuse mintr (230V CE Models only)	1	1
.....		215 279	.. INDICATOR, flow (includes)	1	1
... 26			HOUSING, flow indicator	1	1
... 27			PADDLE, flow indicator	1	1
... 28		166 566	.. O-RING, 1.301 ID x .070CS (may be bought separately)	1	1
... 29			LENS, flow indicator	1	1
... 30	S1	177 396	.. SWITCH, rocker DPST 15A 250VAC	1	1
... 31		177 399	.. PANEL, front	1	1
... 32			NAMEPLATE, (order by model and serial number)	1	1
... 33		166 571	.. FITTING, coolant barbed 3/8tbg 5/8-18 female	2	2

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

*Hose clamps (2 per hose) should be ordered for any hose removal or repair.

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.



DECLARATION OF CONFORMITY

for European Community (CE marked) products.

MILLER Electric Mfg. Co., 1635 Spencer Street, Appleton, WI 54914 U.S.A. declares that the product(s) identified in this declaration conform to the essential requirements and provisions of the stated Council Directive(s) and Standard(s).

Product/Apparatus Identification:

Product	Stock Number
COOLMATE 3 115V W/CE COMPLIANCE	043007012
COOLMATE 3 230V W/CE COMPLIANCE	043008012

Council Directives:

- 2006/95/EC Low Voltage
- 2004/108/EC Electromagnetic Compatibility

Standards:

- IEC 60974-1:2005 Arc welding equipment – Part 1: Welding power sources
- IEC 60974-2:2008 Arc welding equipment – Part 2: Liquid cooling systems
- IEC 60974-10:2007 Arc Welding Equipment – Part 10: Electromagnetic compatibility (EMC) requirements
- EN 50445:2008 Product family standard to demonstrate compliance of equipment for resistance welding, arc welding and allied processes with the basic restrictions related to human exposure to electromagnetic fields (0 Hz – 300Hz)

US Signatory:

August 31, 2009

David A. Werba

Date of Declaration

MANAGER, PRODUCT DESIGN COMPLIANCE



Off. Turnpike #15741

Owner's Record

Please complete and retain with your personal records.

Model Name Coolmate 3 Serial # MA020350F
Serial/Style Number Stock # 043007

Purchase Date 3-17-10 (Date which equipment was delivered to original customer.)

Distributor

Address

City

State

Zip



For Service

Contact a **DISTRIBUTOR** or **SERVICE AGENCY** near you.

Always provide Model Name and Serial/Style Number.

Contact your Distributor for:

Welding Supplies and Consumables

Options and Accessories

Personal Safety Equipment

Service and Repair

Replacement Parts

Training (Schools, Videos, Books)

Technical Manuals (Servicing Information and Parts)

Circuit Diagrams

Welding Process Handbooks

To locate a Distributor or Service Agency visit
www.millerwelds.com or call 1-800-4-A-Miller

Contact the Delivering Carrier to:

File a claim for loss or damage during shipment.

For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.

Miller Electric Mfg. Co.

An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters-USA


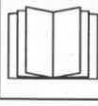






USA Phone: 920-735-4505 Auto-Attended
USA & Canada FAX: 920-735-4134
International FAX: 920-735-4125

For International Locations Visit
www.MillerWelds.com



Coolmate™ 3

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	<p>Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.</p> <p>Indique une situation dangereuse qui si on l'évite pas peut donner la mort ou des blessures graves. Les dangers possibles sont montrés par les symboles joints ou sont expliqués dans le texte.</p>		<p>Beware of moving parts. Attention! Pièces en mouvement.</p>
<p>NOTICE</p> 	<p>Indicates statements not related to personal injury. Indique des déclarations pas en relation avec des blessures personnelles.</p> <p>Indicates special instructions. Indique des instructions spécifiques.</p>		<p>Wear safety glasses with side shields. Porter des lunettes de sécurité avec protections latérales.</p>
	<p>Beware of electric shock from wiring. Attention! Risque d'électrocution due au contact avec des fils.</p>		<p>Recycle or dispose of used coolant in an environmentally safe way. Recycler ou éliminer tout liquide de refroidissement utilisé conformément aux méthodes prescrites pour assurer la protection de l'environnement.</p>

2. EMF Information

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). Welding current creates an EMF field around the welding circuit and welding equipment. EMF fields may interfere with some medical implants, e.g. pacemakers. Protective measures for persons wearing medical implants have to be taken. For example, access restrictions for passers-by or individual risk assessment for welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.

4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld whilst carrying the welding power source or wire feeder.

About Implanted Medical Devices:

Implanted Medical Device wearers should consult their doctor and the device manufacturer before performing or going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, then following the above procedures is recommended.

3. Important Information Regarding CE Products (Sold Within The EU)



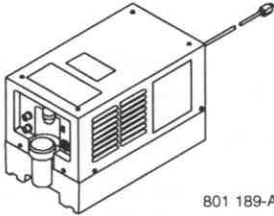
This equipment shall not be used by the general public as the EMF limits for the general public might be exceeded during welding.

This equipment is built in accordance with EN 60974-1 and is intended to be used only in an occupational environment (where the general public access is prohibited or regulated in such a way as to be similar to occupational use) by an expert or an instructed person.

Wire feeders and ancillary equipment (such as torches, liquid cooling systems and arc striking and stabilizing devices) as part of the welding circuit may not be a major contributor to the EMF. See the Owner's Manuals for all components of the welding circuit for additional EMF exposure information.

- The EMF assessment on this equipment was conducted at 0.5 meter.
- At a distance of 1 meter the EMF exposure values were less than 20% of the permissible values.





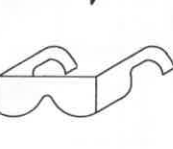
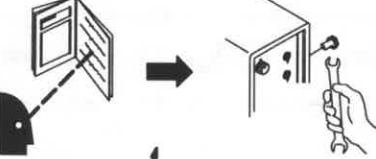
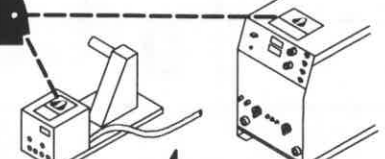
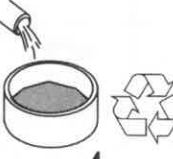


4. Specifications

 801 189-A	Recirculating Coolant System For Water-Cooled GTAW Torches And GMAW Guns
	Use With Guns/Torches Rated Up To 600 Amperes
	IP Rating: 23 – Not Intended For Use In Heavy Rain, Or Near Splashing Water
	3 gal (11.4 L) Coolant Tank Capacity; Maximum Cooling Capacity: 3,820 W (13,000 BTU/hr) @ 4.2 qt/min (4.0 L/min)
	IEC Cooling Capacity: 1,420 W (4,840 BTU/hr) @ 1.1 qt/min (1 L/min) IEC Cooling Capacity States That The Water Inlet Temperature Can Not Exceed 40° C Above Ambient Temperature At A 1l/ Min Flow Rate.
	Dimensions: 23 in. (584 mm) Long, 12 in. (305 mm) Wide, 13-1/4 in. (337 mm) High Weight: 39 lb (18 kg)
	115 Volt Models Use 5.9 Amperes, 50/60 Hertz, Single-Phase Input Power 230 Volt Models Use 3 Amperes, 50/60 Hertz, Single-Phase Input Power

5. Serial Number And Rating Label Location



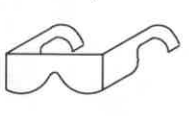
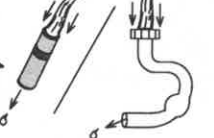

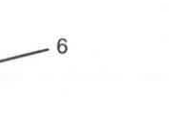


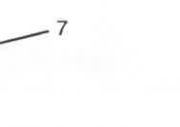
The serial number and rating information for this product is located on the back panel. Use rating label to determine input power requirements and/or rated output. For future reference, write serial number in space provided on cover of this manual.

6. Warning Label Definitions For CE Products

S-180 663

- 1 Warning! Watch Out! There are possible hazards as shown by the symbols.
- 2 Electric shock from wiring can kill.
- 3 Disconnect input plug or power before working on machine.
- 4 Moving parts, such as fans, can cut fingers and hands and cause injury. Keep away from moving parts.
- 5 Wear safety glasses with side shields.
- 6 Read the Owner's Manual before working on this machine.
- 7 Read the labels on the welding power source, wire feeder, or other major equipment for welding safety information.
- 8 Recycle or dispose of used coolant in an environmentally safe way.
- 9 Do not remove or paint over (cover) the label.








		
	 <p>100 h. std.</p>	
	 <p>043 810 (HF) 043 809 (AL)</p>	

S-178 910

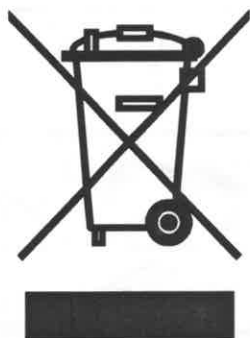
- 1 Warning! Watch Out! There are possible hazards as shown by the symbols.
- 2 Disconnect input plug or power before working on machine.
- 3 Wear safety glasses with side shields.
- 4 Plugged filter or hoses cause overheating and damage.
- 5 Read Owner's Manual.
- 6 Check and clean filter every 100 hours; also check condition of hoses.
- 7 Use Low Conductivity Coolant No. 043 810 for High-Frequency assisted or Gas Tungsten Arc Welding applications. Use Aluminum Protecting Coolant No. 043 809 where coolant contacts aluminum parts or for Gas Metal Arc Welding applications or where High Frequency is not used.

7. Symbols And Definitions

 Some symbols are found only on CE products.

A	Amperes		Alternating Current		Voltage Input		Circulating Unit With Coolant Pump
V	Volts		Water (Coolant) Input		Water (Coolant) Output		Line Connection
	Protective Earth (Ground)	IP	Degree Of Protection	I₁	Primary Current	Hz	Hertz
I	On	O	Off	U₁	Primary Voltage	1~	Single Phase

8. WEEE Label (For Products Sold Within The EU)




Do not discard product (where applicable) with general waste.

Reuse or recycle Waste Electrical and Electronic Equipment (WEEE) by disposing at a designated collection facility.

Contact your local recycling office or your local distributor for further information.

9. Coolant Chart

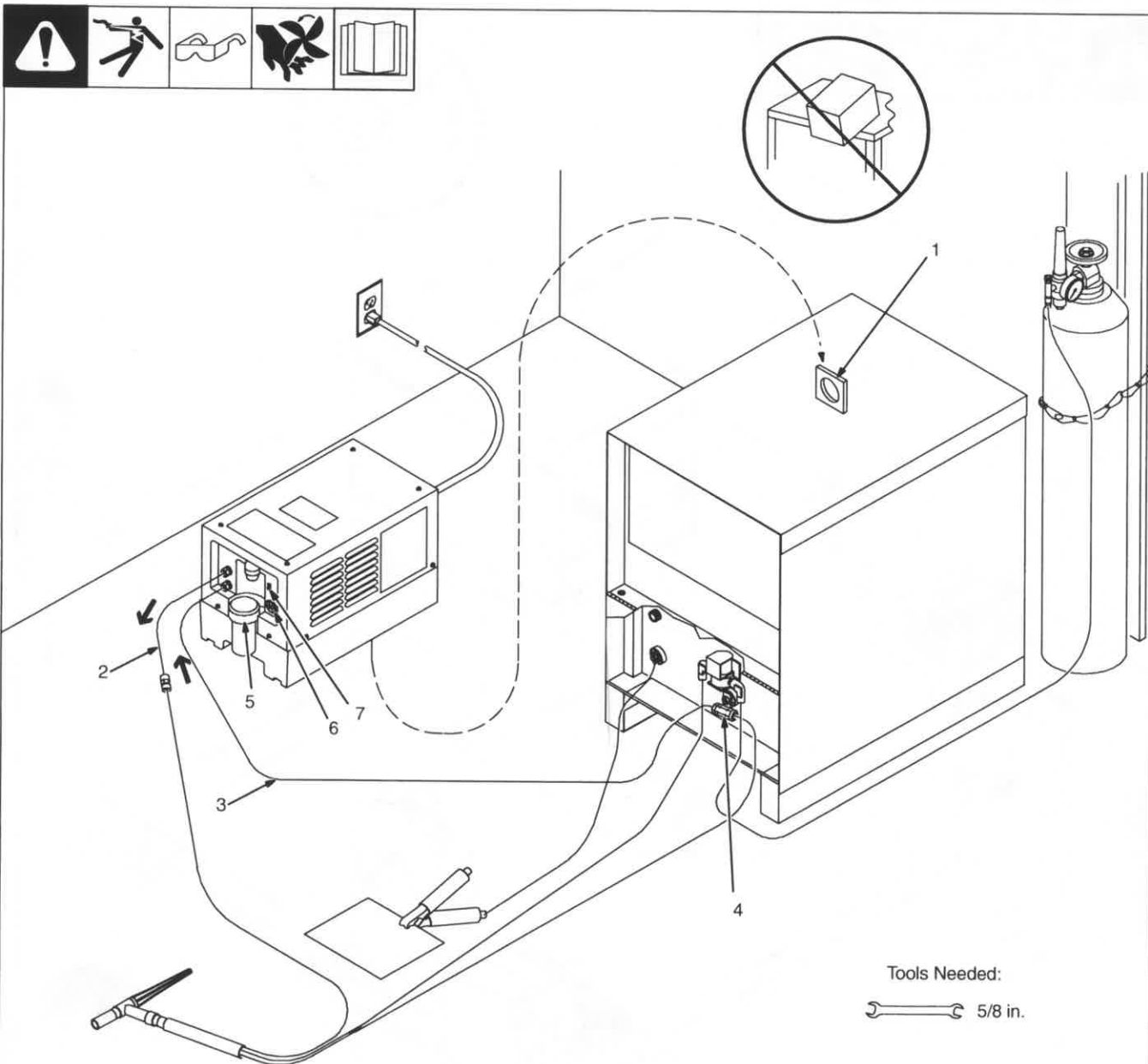
Application	GTAW Or Where HF* Is Used	GMAW Or Where HF* Is Not Used	Where Coolant Contacts Aluminum Parts
 Coolant	Low Conductivity Coolant No. 043 810**; Distilled Or Deionized Water OK Above 32° F (0° C)	Low Conductivity Coolant No. 043 810**; Or Aluminum Protecting Coolant No. 043 809**; Distilled Or Deionized Water OK Above 32° F (0° C)	Aluminum Protecting Coolant No. 043 809**

*HF: High Frequency Current

**Coolants 043 810 and 043 809 protect to -37° F (-38°C) and resist algae growth.

NOTICE – Use of any coolant other than those listed in the table voids the warranty on any parts that come in contact with the coolant (pump, radiator, etc.).

10. GTAW Connections



Tools Needed:

5/8 in.

801 190-B

⚠ Do not move or operate unit where it could tip.

1 Lift-Eye

If placing cooling unit on welding power source, slots are provided in bottom of unit so it fits over lift-eye.

To prevent overheating, make sure cooling unit is positioned so airflow is not restricted.

NOTICE – If welding power source has a water valve, do not connect hoses to water valve. Connect hoses as shown.

2 Coolant Out Hose

3 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown.

4 TIG Block

Customer supplied for use with some welding power sources, or use proper connector supplied with welding power source.

5 Coolant Tank Cap

Use table in Section 9 to select proper coolant, and fill tank. Maintain coolant level at approximately 1 in (25 mm) below top of filler neck.

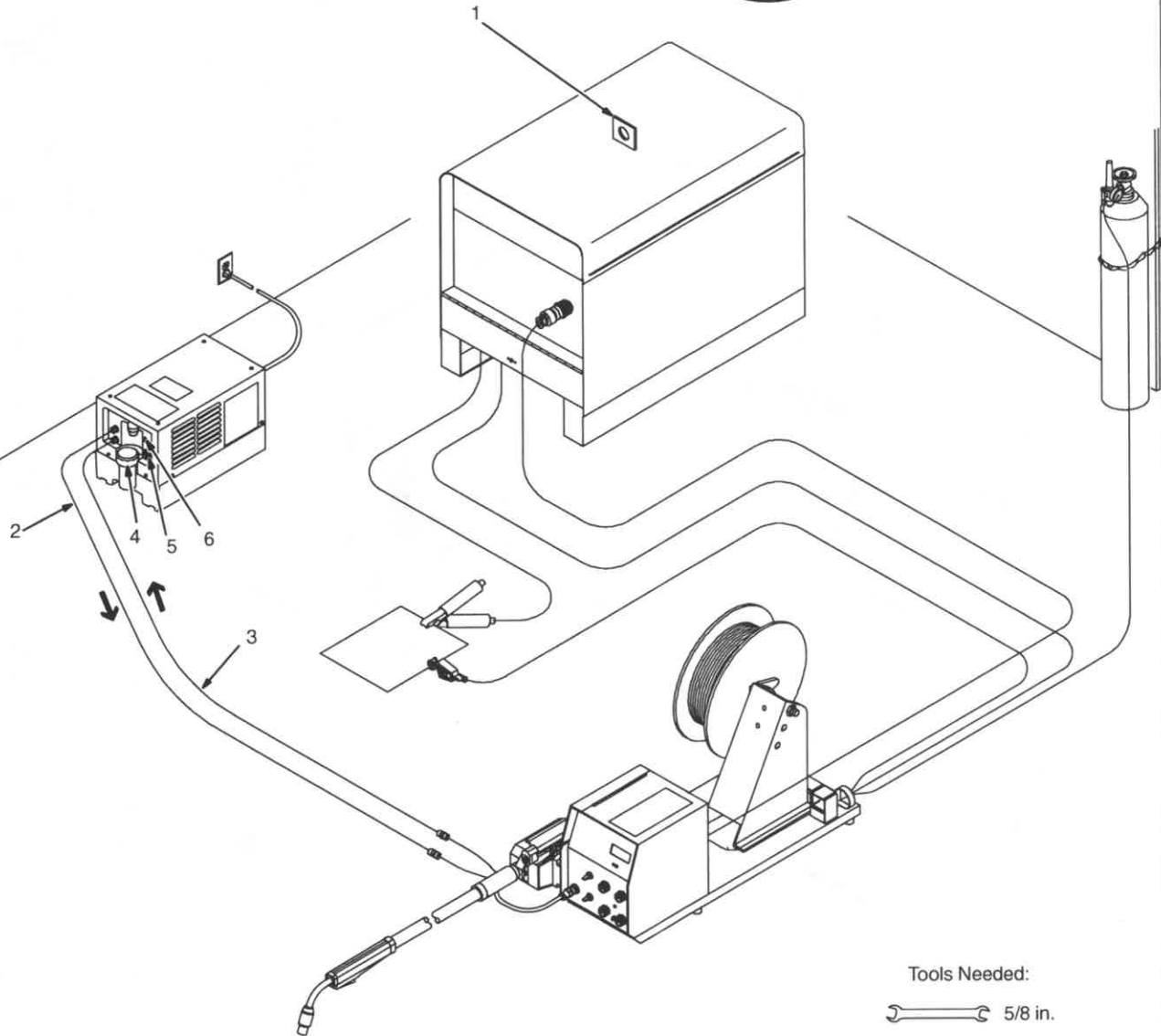
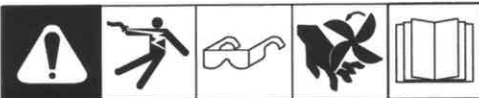
6 Flow Indicator

7 Power Switch

Operation:

Turn power switch On. Flow indicator spins to indicate that at least 0.53 qt/min (0.5 L/min) of coolant is flowing.

11. GMAW Connections



801 191-B

⚠ Do not move or operate unit where it could tip.

1 Lift-Eye

If placing cooling unit on welding power source, slots are provided in bottom of unit so it fits over lift-eye.

To prevent overheating, make sure cooling unit is positioned so airflow is not restricted.

NOTICE – If welding power source has a

water valve, do not connect hoses to water valve. Connect hoses as shown.

2 Coolant Out Hose

3 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown.

4 Coolant Tank Cap

Use table in Section 9 to select proper coolant, and fill tank. Maintain coolant level at approximately 1 in (25 mm) below top of filler neck.

5 Flow Indicator

6 Power Switch

Operation:

Turn power switch On. Flow indicator spins to indicate that at least 0.53 qt/min (0.5 L/min) of coolant is flowing.

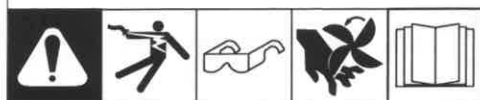
12. Routine Maintenance

3 Months					
<p>NOTICE – Clean coolant strainer. Severe conditions may require more frequent cleaning (continuous use, high/low temperatures, dirty environment, etc.). Failure to properly clean coolant strainer voids pump warranty.</p>			<p>Blow Out Heat Exchanger Fins</p>		
6 Months					
<p>Replace Cracked Hoses</p>		<p>Change Coolant (If Using Water)</p>		<p>Replace Unreadable Labels</p>	
12 Months					
<p>Change Coolant (If Using 043 809 or 043 810 Coolant)</p>					

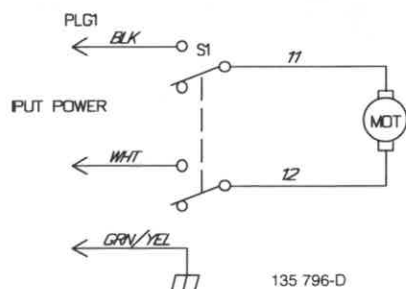
13. Coolant Maintenance

<p>1 Coolant Filter</p> <p>Unscrew housing to clean filter.</p> <p>Changing coolant: Drain coolant by tipping unit forward. Fill with clean water and run for 10 minutes. Drain and refill.</p> <p> If replacing hoses, use hoses compatible with ethylene glycol, such as Buna-n, Neoprene, or Hypalon. NOTE: Oxy-acetylene hoses are not compatible with any product containing ethylene glycol.</p>					
<p>Tools Needed:</p> 3/8 in.					

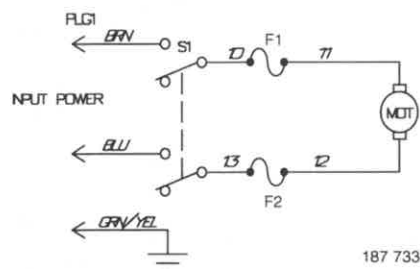
14. Troubleshooting



Trouble	Remedy
Coolant system does not work.	Be sure input power cord is plugged in to energized receptacle.
	Check line fuses or circuit breaker, and fuses F1, F2 if applicable, and replace or reset if necessary.
	Motor overheated. Unit starts running when motor has cooled.
	Have Factory Authorized Service Agent check Power switch S1 and motor Mot.
Decreased or no coolant flow.	Add coolant.
	Check for clogged hoses or coolant filter. Clean filter or clean / replace hoses if necessary.
	Disconnect pump, and check for sheared coupling. Replace coupling if necessary.

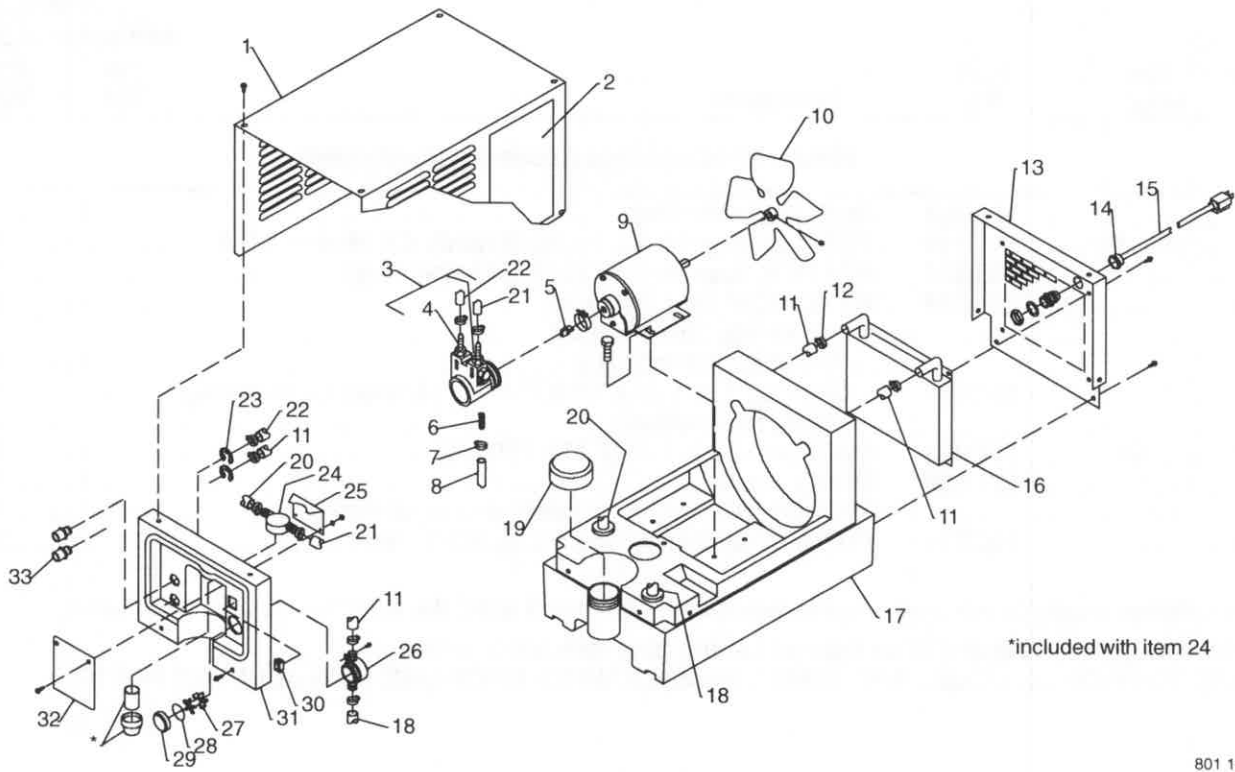


Circuit Diagram For 115 And 230 Volt



Circuit Diagram For 230 Volt (CE Models)

15. Parts List



801 196-J

Figure 15-1. Complete Assembly

Item No.	Dia. Mkgs.	Part No.	Description	Quantity	
				Model	Model
				043 007	043 008
				115 Volt	230 Volt

Figure 15-1 Complete Assembly.

...	1	...	+166 562	WRAPPER	1	1
...	2	...	192 449	LABEL, warning general precautionary	1	1
...	3	...	197 361	PUMP COOLANT w/V-BAND, (includes)	1	1
...	4	...	126 978	FITTING, hose brs barbed M 3/8tbg x 3/8	2	2
...	5	...	134 795	COUPLER, drive pump	1	1
...	6	...	196 990	FITTING, hose brs barbed	1	1
...	7	...	089 120	CLAMP, hose .375 - .450 clip	1	1
...	8	...	196 991	HOSE, nprn brd no 1 x .250ID	1	1
...	9	MOT	173 264	MOTOR, 1/4hp 230VAC 50/60Hz 1425/1725rpm (230V model)	1	1
...	9	MOT	173 263	MOTOR, 1/4hp 115VAC 50/60Hz 1425/1725rpm (115V model)	1	1
...	10	...	166 570	BLADE, fan 9.000 5wg 38deg .500 bore cw (setscrew included)	1	1
...	11	...	174 044	TUBING, PVC .375 x .625 OD X 18.000	2	2
...	12	...	*010 323	CLAMP, Hose .250 - .625 Clp Dia	1	1
...	13	...	192 454	PANEL, rear	1	1
...	14	...	139 042	BUSHING, strain relief .270/.480 id x .804 mtg hol	1	1
...	15	PLG1	192 458	CABLE, power 11FT 16ga 3c (230V model)	1	1
...	15	PLG1	192 457	CABLE, power 10ft 16ga (115V model)	1	1
...	15	PLG1	192 456	CABLE, pwr 10ft (230V CE Models)	1	1
...	16	...	196 515	RADIATOR, heat exchanger	1	1
...	17	...	168 267	TANK COOLANT	1	1
...	18	...	174 043	TUBING, PVC .375 ID x .625 OD x 1.250	1	1
...	19	...	166 608	CAP, tank screw-on w/vent	1	1
...	20	...	182 994	TUBE, pick-up coolant	1	1
...	21	...	136 369	TUBING, PVC .375 ID x .625 OD x 10.000	1	1
...	22	...	136 731	HOSE, nprn brd No. 1 x .375 ID x 10.50 black	1	1
...	23	...	166 560	RING, ring ext .500 shaft grv x .042thk	2	2
...	24	...	166 564	FILTER, in-line	1	1

Item No.	Dia. Mkgs.	Part No.	Description	Quantity	
				Model	
				043 007	043 008
				115 Volt	230 Volt

Figure 15-1 Complete Assembly (continued).

... 25		168 254	.. CLIP, filter mounting	1	1
..... F1, F2		011 116	.. FUSE, mintr gl slo-blo 7A 250V (230V CE Models only)	2	2
.....		098 376	.. HOLDER, fuse mintr (230V CE Models only)	1	1
.....		215 279	.. INDICATOR, flow (includes)	1	1
... 26			HOUSING, flow indicator	1	1
... 27			PADDLE, flow indicator	1	1
... 28		166 566	.. O-RING, 1.301 ID x .070CS (may be bought separately)	1	1
... 29			LENS, flow indicator	1	1
... 30	S1	177 396	.. SWITCH, rocker DPST 15A 250VAC	1	1
... 31		177 399	.. PANEL, front	1	1
... 32			NAMEPLATE, (order by model and serial number)	1	1
... 33		166 571	.. FITTING, coolant barbed 3/8tbg 5/8-18 female	2	2

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

*Hose clamps (2 per hose) should be ordered for any hose removal or repair.

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

DECLARATION OF CONFORMITY



for European Community (CE marked) products.

MILLER Electric Mfg. Co., 1635 Spencer Street, Appleton, WI 54914 U.S.A. declares that the product(s) identified in this declaration conform to the essential requirements and provisions of the stated Council Directive(s) and Standard(s).

Product/Apparatus Identification:

Product	Stock Number
COOLMATE 3 115V W/CE COMPLIANCE	043007012
COOLMATE 3 230V W/CE COMPLIANCE	043008012

Council Directives:

- 2006/95/EC Low Voltage
- 2004/108/EC Electromagnetic Compatibility

Standards:

- IEC 60974-1:2005 Arc welding equipment – Part 1: Welding power sources
- IEC 60974-2:2008 Arc welding equipment – Part 2: Liquid cooling systems
- IEC 60974-10:2007 Arc Welding Equipment – Part 10: Electromagnetic compatibility (EMC) requirements
- EN 50445:2008 Product family standard to demonstrate compliance of equipment for resistance welding, arc welding and allied processes with the basic restrictions related to human exposure to electromagnetic fields (0 Hz – 300Hz)

US Signatory:

August 31, 2009

David A. Werba

Date of Declaration

MANAGER, PRODUCT DESIGN COMPLIANCE



Off. Turnpike #15741

Owner's Record

Please complete and retain with your personal records.

Model Name Coolmate 3 Serial # MA020350F
Serial/Style Number Stock # 043007

Purchase Date 3-17-10 (Date which equipment was delivered to original customer.)

Distributor

Address

City

State

Zip



For Service

Contact a **DISTRIBUTOR** or **SERVICE AGENCY** near you.

Always provide Model Name and Serial/Style Number.

Contact your Distributor for:

Welding Supplies and Consumables
Options and Accessories
Personal Safety Equipment
Service and Repair
Replacement Parts
Training (Schools, Videos, Books)
Technical Manuals (Servicing Information and Parts)
Circuit Diagrams
Welding Process Handbooks

To locate a Distributor or Service Agency visit
www.millerwelds.com or call 1-800-4-A-Miller

Contact the Delivering Carrier to:

File a claim for loss or damage during shipment.

For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.

Miller Electric Mfg. Co.

An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters-USA

USA Phone: 920-735-4505 Auto-Attended
USA & Canada FAX: 920-735-4134
International FAX: 920-735-4125

For International Locations Visit
www.MillerWelds.com



Coolmate™ Series

Issued Oct. 2008 • Index No. AY/7.2

**Coolant
Systems** 

**Quick
Specs**



Light/Heavy Industrial Applications

Manufacturing
Aerospace
Automotive
Tube Mills
Automation

Processes

TIG (GTAW)
MIG (GMAW)
Plasma Cutting
Resistance Welding

Input Power Single-Phase

Input Voltage 115 VAC or 230 VAC, 50/60 Hz

Max. Cooling Capacity 9,700–18,000 BTU/hr

The Power of Blue.®



New!

Coolmate 1

Coolmate 3

Coolmate V3

Coolmate 3.5

Coolmate 4

Closed-loop design with radiator reduces coolant temperatures and prevents the system from overheating. Closed-loop design also recirculates the coolant through a fan-cooled heat exchanger.

Rustproof coolant reservoir molded of polyethylene for durability and corrosion resistance.

Standard inlet/outlet torch fittings are compatible with TIG and MIG torches having standard 5/8-18 left-hand fittings.

10 ft (3 m) power cords with plugs are longer than most power cords in the industry — providing the extra length when required.

Compatible with Miller coolants and are ideal for warm and cold weather conditions, while providing HF or corrosion protection.



Coolant systems are warranted for 1 year, parts and labor.

MADE IN **USA**
APPLETON, WI



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



**PIPEWORX COOLER**

Mounted cooler for MIG or TIG welding. Unit is removable for service and repair.

300370**\$992.00**

* All prices are U.S. dollars and reflect Manufacturer's Suggested Retail Price (MSRP) for the U.S. market. Tax, delivery and setup not included. Actual selling price determined by the Distributor. Prices are subject to change without notice. Additional items may be required for welding, such as shielding gas, consumables, and safety equipment.

Product Descriptions

Coolmate™ V3



#043 009 115 VAC, 50/60 Hz
#043 009-01-2 115 VAC, 50/60 Hz CE

Vertical, 3-gallon cooler designed for water-cooled torches rated up to 500 A*.

- Distinct, vertical design allows mounting onto a power source running gear or gas cylinder rack
- Weighs only 48 lb (22 kg) dry
- On/off power switch, "paddle wheel" coolant flow indicator, filter and coolant filling spout are all conveniently located on front panel
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4 HP motor guards against overheating
- Efficient fin and tube heat exchanger
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

Coolmate™ 3.5



#300 245 115 VAC, 50/60 Hz

Industrial, 3.5-gallon cooler designed for water-cooled torches rated up to 600 A*.

- Designed to integrate with Dynasty 350/700 and Maxstar 350/700
- Horizontal design allows stacking or convenient mounting onto a MIGRunner™ cart
- Weighs only 64 lb (29 kg) dry
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4 HP motor guards against overheating
- Efficient fin and tube heat exchanger
- Equipped with internal check valves to prevent coolant flow when torch is disconnected
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

Coolmate™ 4



#042 288 115 VAC, 50/60 Hz
#042 288-01-5 115 VAC, 50/60 Hz CE

The best performer in its class — industrial, 4-gallon cooler designed for water-cooled torches rated up to 600 A*.

- Patented circular design available only from Miller
- Weighs only 38 lb (17 kg) dry
- Tough, one-piece case is portable and rustproof
- Convenient carrying handle and filler spout are molded into case
- Easily accessible coolant filter
- Factory-set pressure relief valve (60 PSI) maintains consistent pressure during operation
- Thermally protected 1/4 HP motor guards against overheating
- Efficient fin and tube heat exchanger
- Coolant system has a constant flow of coolant inside to keep the pump primed and to reduce algae buildup in the tank
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

Coolmate™ 3X



Includes wheels and handles.

#300 419 115 VAC, 50/60 Hz

Industrial, 3-gallon cooler designed for water-cooled torches rated up to 500 A*.

- Includes easy load dual cylinder rack, running gear and handles for Syncrowave 250 DX/350 LX
- "Paddle wheel" coolant flow indicator, filter and coolant filling spout are all conveniently located on front panel
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4 HP motor guards against overheating
- Efficient fin and tube heat exchanger
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

**May vary with torch design and cable length.*

Genuine Miller Accessories

Torch Kits



250 A with WP20 Water-Cooled Torch #300 185

- 25 ft (7.6 m) Weldcraft® WP20 torch
- Torch cable cover
- AK4C torch accessory kit includes shielding cups, collets, collet bodies and 2% cerium tungsten electrodes (1/16, 3/32 and 1/8 in)
- Smith® regulator/flowmeter HM2051A-580
- 12 ft (3.7 m) rubber gas hose (regulator to machine)
- Water-cooled Dinse torch adapter
- 15 ft (4.6 m) 1/0 work cable with clamp and Dinse connector



300 A with CS310 Water-Cooled Torch #300 183

- 25 ft (7.6 m) Weldcraft® CS310 torch
- Torch cable cover
- CS310AKC torch accessory kit includes shielding cups, collets, collet bodies and 2% cerium tungsten electrodes (1/16, 3/32 and 1/8 in)
- Smith® regulator/flowmeter HM2051A-580
- 12 ft (3.7 m) rubber gas hose (regulator to machine)
- Water-cooled Dinse torch adapter
- 15 ft (4.6 m) 1/0 work cable with clamp and Dinse connector

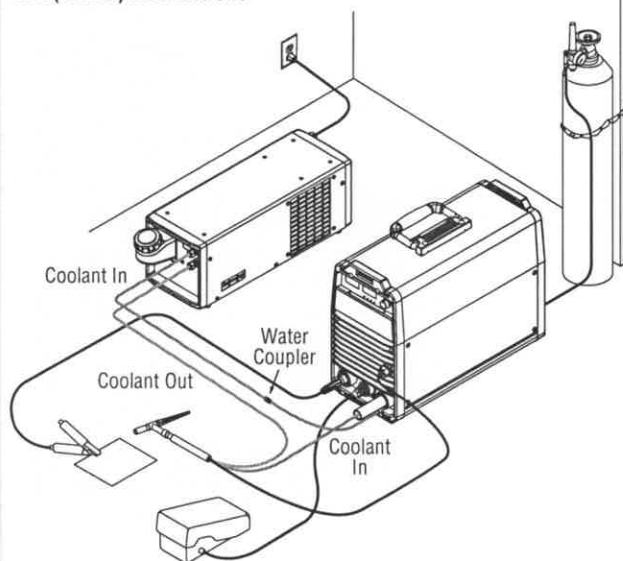


400 A with WP18SC Water-Cooled Torch #300 186

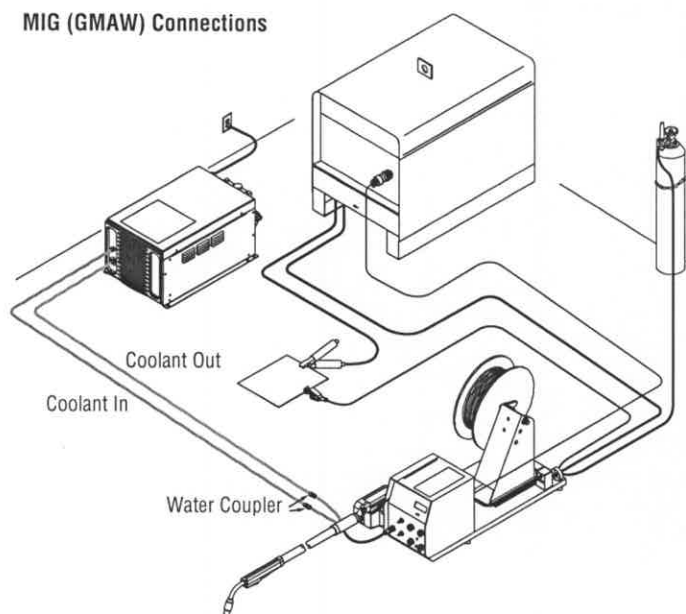
- 25 ft (7.6 m) Weldcraft® WP18SC torch
- Torch cable cover
- AK18C torch accessory kit includes shielding cups, collets, collet bodies and 2% cerium tungsten electrodes (3/32, 1/8 and 5/32 in)
- Smith® regulator/flowmeter H1954D-580
- 12 ft (3.7 m) rubber gas hose (regulator to machine)
- Water-cooled thread lock torch adapters
- 12 ft (3.7 m) 4/0 work cable with clamp

Typical Coolmate™ Connections

TIG (GTAW) Connections



MIG (GMAW) Connections



Typical Coolmate™ Usages



Coolmate 1 shown with
Maxstar® 200 DX TIGRunner®



Coolmate 3.5 shown with
Dynasty® 350 and 700 TIGRunners®



Coolmate 1 shown with
Syncrowave® 200 Runner

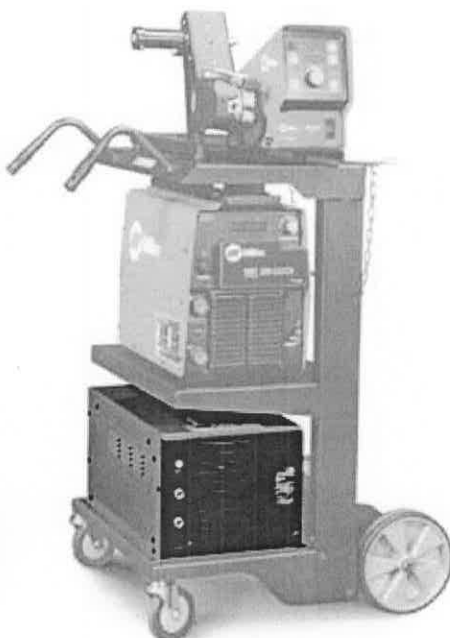


Coolmate 3X shown with
Syncrowave® 250 DX TIGRunner®

Typical Coolmate™ Usages



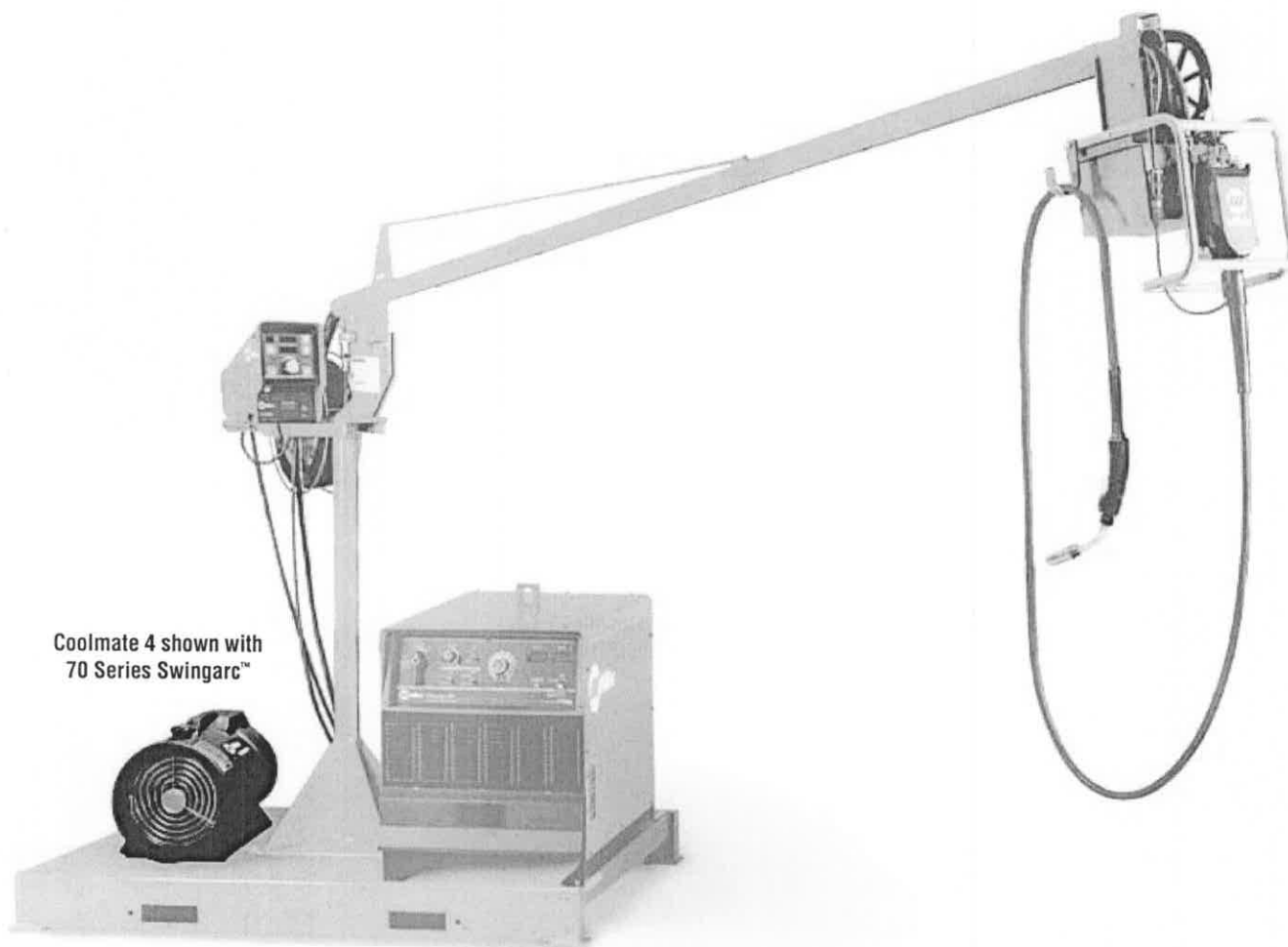
Coolmate 3 shown with
XMT® 350 MIGRunner™



Coolmate 3.5 shown with
XMT® 350 MIGRunner™



Coolmate V3 shown with
stationary spot welder



Coolmate 4 shown with
70 Series Swingarc™

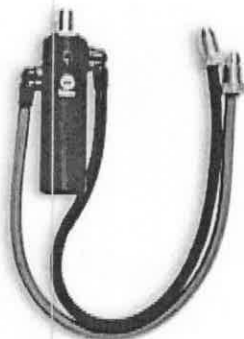
Genuine Miller Accessories

Water-Cooled TIG Torch Adapters



50 mm International with Water Return Line #195 377

For Maxstar 200, 300 and 350, Dynasty 200, 300 and 350, and Syncrowave 250 and 350. Used with (WP125, WP24W, WP25, WP20, WP18, WP12, CS310, CS410, WP22, WP27) water-cooled torch. Order from Miller Service Parts.



With gas and water return line

50 mm International Flow Thru #195 380

For Econotig and Syncrowave 180 and 200. Used with (WP125, WP24W, WP25, WP20) water-cooled torch. Order from Miller Service Parts.



50 mm Thread Lock-Style #225 028

For Dynasty 700 and Maxstar 700. Used with (WP125, WP24W, WP25, WP20, WP18, WP12, CS310, CS410, WP22, WP27) water-cooled torch. Order from Miller Service Parts.



Water-Cooled TIG Block Adapter #45V11

For Miller power sources with stud-type output terminals. Order from Miller Service Parts.



Replacement Water Hose for Dinse Adapter #222 809

18 in (457 mm). Order from Miller Service Parts.

Water Hoses and Connectors



Water Hose Extension

#40V83R-3 3 ft (0.9 m)

#40V76R6 6 ft (1.8 m)

#40V76R 12-1/2 ft (3.8 m)

Hose with two male 5/8 in 18 LH thread connections. Order from Miller Service Parts.



Water Coupler #057 020

Brass hose fitting with 5/8 in 18 LH thread. Order from Miller Service Parts.

Coolants



Sold in multiples of four in 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).

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.

Aluminum-Protecting Coolant (Green, Pre-Mixed) #043 809

Primarily used in push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used.

Replacement Filter Assemblies



#166 564
Filter



#215 667
Filter

Filter Assemblies

#166 564 For Coolmate 1, 3, V3 and 3X

#215 667 For Coolmate 3.5

Order from Miller Service Parts.



Filter Strainer

#146 249 For Coolmate 4

Located inside pump assembly. See owner's manual. Order from Miller Service Parts.

Shopmate 300 AC/DC
CC/CE - AC/DC power source

Specifications (Subject to change without notice.)


1
Phase


Model	Motor Input Voltage 50/60 Hz	Maximum Current Draw 50 Hz 60 Hz	Maximum Cooling Capacity*	Rated Cooling Capacity**	Tank Capacity	Dimensions	Net Shipping Weight
Coolmate 1 Coolmate 1 CE	115 VAC, 60 Hz	— 2.1 A	2,850 W (9,700 BTU/hr) 1.8 qt/min (1.7 L/min)	1,210 W (4,120 BTU/hr) 1.1 qt/min (1 L/min)	1 gal (3.8 L)	H: 8 in (203 mm) W: 7-1/2 in (191 mm) D: 23-3/4 in (603 mm)	29 lb (13 kg)
	230 VAC, 50/60 Hz	0.65 A 0.55 A					
Coolmate 3 Coolmate 3 CE	115 VAC	5.9 A 4.7 A	3,820 W (13,000 BTU/hr) 4.2 qt/min (4.0 L/min)	1,420 W (4,840 BTU/hr) 1.1 qt/min (1 L/min)	3 gal (11.4 L)	H: 13-1/4 in (337 mm) W: 12-1/4 in (311 mm) D: 23-1/4 in (584 mm)	43 lb (20 kg)
	230 VAC	2.5 A 3.0 A					
Coolmate V3 Coolmate V3 CE	115 VAC	5.9 A 4.7 A	3,820 W (13,000 BTU/hr) 4.2 qt/min (4.0 L/min)	1,420 W (4,840 BTU/hr) 1.1 qt/min (1 L/min)	3 gal (11.4 L)	H: 33 in (838 mm) W: 9-1/4 in (235 mm) D: 9-1/4 in (235 mm)	54 lb (24 kg)
Coolmate 3.5	115 VAC	5.9 A 4.7 A	4,140 W (14,000 BTU/hr) 5.0 qt/min (4.7 L/min)	1,660 W (5,660 BTU/hr) 1.1 qt/min (1 L/min)	3.5 gal (13.2 L)	H: 11-3/4 in (298 mm) W: 15-3/4 in (400 mm) D: 26 in (660 mm)	70 lb (32 kg)
Coolmate 4 Coolmate 4 CE	115 VAC	5.9 A 4.7 A	5,500 W (18,000 BTU/hr) 5.9 qt/min (5.6 L/min)	1,780 W (6,070 BTU/hr) 1.1 qt/min (1 L/min)	4 gal (15 L)	H: 16-1/4 in (413 mm) W: 15-1/4 in (387 mm) D: 18-3/4 in (476 mm)	40 lb (18 kg)
Coolmate 3X	115 VAC	5.9 A 4.7 A	4,140 W (14,000 BTU/hr) 5.0 qt/min (4.7 L/min)	1,660 W (5,660 BTU/hr) 1.1 qt/min (1 L/min)	3 gal (11.4 L)	H: 17 in (432 mm) W: 27 in (686 mm)*** D: 39 in (991 mm)	158 lb (72 kg)

*Maximum cooling capacity is based on a 25°C (77°F) environment at maximum flow with a 65°C (149°F) coolant temperature rise.

**Rated IEC standard cooling capacity is based on a 25°C (77°F) environment at a flow of 1 L/min with a 40°C (104°F) coolant temperature rise.

***Width measurement includes rear wheels and axle. Cooler width without rear wheels and axle is 22-1/4 in (565 mm).

 All models are certified by Canadian Standards Association to both the Canadian and U.S. Standards.

 All CE models conform to the applicable parts of the IEC 60974 series of standards.

Product Descriptions

Coolmate™ 1



#300 360 115 VAC, 60 Hz
#300 360-00-1 115 VAC, 60 Hz CE
#300 459 230 VAC, 50/60 Hz
#300 459-00-1 230 VAC, 50/60 Hz CE

Light industrial, 1-gallon cooler designed for water-cooled torches on power sources rated up to 200 A*.

- Designed to integrate with smaller Dynasty and Maxstar models and Syncrowave 200
- Compact horizontal design allows stacking and convenient mounting
- Lightweight at 25 lb (11 kg) dry
- Equipped with lighted on/off power switch on front panel
- Filter and coolant filling spout are conveniently located for easy access
- Fluid level sight window
- Polyethylene-molded coolant tank and filler spout are rustproof
- Thermally protected piston pump guards against overheating
- Stainless steel oscillating piston pump provides consistent coolant flow and pressure rating with long pump-life expectancy

Coolmate™ 3



#043 007 115 VAC, 50/60 Hz
#043 007-01-2 115 VAC, 50/60 Hz CE
#043 008 230 VAC, 50/60 Hz
#043 008-01-2 230 VAC, 50/60 Hz CE

Economical, 3-gallon cooler designed for water-cooled torches rated up to 500 A*.

- Compact horizontal design allows stacking and convenient mounting
- Midsize cooler weighs 40 lb (18 kg) dry
- On/off power switch, "paddle wheel" coolant flow indicator, filter and coolant filling spout are all conveniently located on front panel
- Polyethylene-molded coolant tank, fan shroud and filler spout are rustproof
- Factory-set pressure relief valve (55 PSI) maintains consistent pressure during operation
- Thermally protected 1/4 HP motor guards against overheating
- Efficient fin and tube heat exchanger
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

*May vary with torch design and cable length.

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Coolmate™ 1	#300 360	115 VAC, 60 Hz		
	#300 360-00-1	115 VAC, 60 Hz with CE		
	#300 459	230 VAC, 50/60 Hz		
	#300 459-00-1	230 VAC, 50/60 Hz with CE		
Coolmate™ 3	#043 007	115 VAC, 50/60 Hz		
	#043 007-01-2	115 VAC, 50/60 Hz with CE		
	#043 008	230 VAC, 50/60 Hz		
	#043 008-01-2	230 VAC, 50/60 Hz with CE		
Coolmate™ V3	#043 009	115 VAC, 50/60 Hz		
	#043 009-01-2	115 VAC, 50/60 Hz with CE		
Coolmate™ 3.5	#300 245	115 VAC, 50/60 Hz with CE		
Coolmate™ 4	#042 288	115 VAC, 50/60 Hz		
	#042 288-01-5	115 VAC, 50/60 Hz with CE		
Coolmate™ 3X	#300 419	115 VAC, 50/60 Hz		
Accessories				
Water-Cooled TIG Torch Adapters <i>Order from Miller Service Parts</i>	#195 377	50 mm International with water return line		
	#195 380	50 mm International flow thru with gas and water return line		
	#225 028	50 mm thread lock-style		
	#45V11	Water-cooled TIG block		
	#222 809	18 in (457 mm) replacement water hose		
Water Hose Extensions <i>Order from Miller Service Parts</i>	#40V83R-3	3 ft (0.9 m) hose with two male 5/8 in 18 LH thread connections		
	#40V76R6	6 ft (1.8 m) hose with two male 5/8 in 18 LH thread connections		
	#40V76R	12-1/2 ft (3.8 m) hose with two male 5/8 in 18 LH thread connections		
Water Coupler	#057 020	Brass hose fitting with 5/8 in 18 LH thread		
Low-Conductivity Coolant (Clear, Pre-Mixed)	#043 810	For TIG and MIG applications. NOT for push-pull systems or where aluminum is in coolant path/circuit.		
Aluminum-Protecting Coolant (Green, Pre-Mixed)	#043 809	For push-pull systems where aluminum is in coolant path/circuit and high frequency is NOT used.		
Filter Assemblies <i>Order from Miller Service Parts</i>	#166 564	For use with Coolmate 1, 3, V3 and 3X		
	#215 667	For use with Coolmate 3.5		
Filter Strainer	#146 249	For use with Coolmate 4. <i>Order from Miller Service Parts</i>		
Torch Kits	#300 185	250 A with WP20 water-cooled torch		
	#300 183	300 A with CS310 water-cooled torch		
	#300 186	400 A with WP18SC water-cooled torch		

Date:

Total Quoted Price:

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Distributed by:

		Stock #	Mfg. List Price US\$*	(US & Canada) Add to List
	COOLMATE 1 230VAC Light industrial, 1-gallon cooler designed for water-cooled torches on power sources rated up to 200A. Compact horizontal design allows stacking and convenient mounting. Filter and coolant filling spout are conveniently located for easy access.	300459	\$550.00	
	COOLMATE 1 115 VAC Light industrial, 1-gallon cooler designed for water-cooled torches on power sources rated up to 200A. Compact horizontal design allows stacking and convenient mounting. Filter and coolant filling spout are conveniently located for easy access.	300360	\$550.00	
	COOLMATE 3X W/CART & DUAL CYLINDER RACK Industrial, 3-gallon cooler designed for water-cooled torches rated up to 500A. Includes easy load dual cylinder rack, running gear and handles for Syncrowave 250 DX/LX.	300419	\$1668.00	
	Coolmate™ 3 115 VAC, 50/60 Hz For use with water-cooled torches rated up to 600 amps. Runs on 115 VAC. Unique paddle-wheel indicator, external filter and easy-fill spout. 3 gallon capacity.	043007	\$719.00	
	Coolmate™ 3 230 VAC, 50/60 Hz For use with water-cooled torches rated up to 600 amps. Runs on 230 VAC. Unique paddle-wheel indicator, external filter and easy-fill spout. 3 gallon capacity.	043008	\$779.00	
	Coolmate™ 3.5 Designed to integrate with the Dynasty and Maxstar 350 and 700 power sources. For use with water-cooled torches rated up to 600 amps. 3.5 gallon capacity.	300245	\$922.00	
	Coolmate™ 4 115 VAC For use with water-cooled torches rated up to 600 amps. Runs on 115 VAC. The best performer in its class. Tough molded polyethylene case with carrying handle. 4 gallon capacity.	042288	\$800.00	
	Coolmate™ V3 For use with water-cooled torches rated up to 500 amps. Runs on 115 VAC. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder. 3 gallon capacity.	043009	\$848.00	