



OM-401268A

2026-08

Processes



TIG (GTAW) Welding



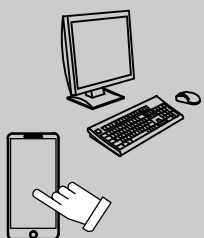
MIG (GMAW) Welding

Description



Recirculating Coolant System

Coolmate™ PRO 4



For product information,
Owner's Manual translations,
and more, visit

www.MillerWelds.com

OWNER'S MANUAL

From Miller to You

Thank you and congratulations on choosing Miller. Now you can get the job done and get it done right. We know you don't have time to do it any other way.

That's why when Niels Miller first started building arc welders in 1929, he made sure his products offered long-lasting value and superior quality. Like you, his customers couldn't afford anything less. Miller products had to be more than the best they could be. They had to be the best you could buy.

Today, the people that build and sell Miller products continue the tradition. They're just as committed to providing equipment and service that meets the high standards of quality and value established in 1929.

This Owner's Manual is designed to help you get the most out of your Miller products. Please take time to read the Safety Precautions. They will help you protect yourself against potential hazards on the worksite. We've made installation and operation quick and easy. With Miller, you can count on years of reliable service with proper maintenance. And if for some reason the unit needs repair, there's a Troubleshooting section that will help you figure out what the problem is, and our extensive service network is there to help fix the problem. Warranty and maintenance information for your particular model are also provided.

Miller Electric manufactures a full line of welders and welding-related equipment. For information on other quality Miller products, contact your local Miller distributor to receive the latest full line catalog or individual specification sheets. **To locate your nearest distributor or service agency call**

1-800-4-A-Miller, or visit us at www.MillerWelds.com on the web.



Working as hard as you do – every power source from Miller is backed by the most hassle-free warranty in the business.



Miller is the first welding equipment manufacturer in the U.S.A. to be registered to the ISO 9001 Quality System Standard.



TABLE OF CONTENTS

SECTION 1 – SAFETY PRECAUTIONS – READ BEFORE USING	1
1-1 Symbol Usage	1
1-2 Cooling Equipment Hazards	1
1-3 Additional Hazards For Installation, Operation, And Maintenance	1
1-4 California Proposition 65 Warnings	2
1-5 Principal Safety Standards	2
SECTION 2 – CONSIGNES DE SÉCURITÉ - LIRE AVANT UTILISATION	3
2-1 Symboles utilisés	3
2-2 Dangers liés aux équipements de refroidissement	3
2-3 Symboles de dangers supplémentaires en relation avec l'installation, le fonctionnement et la maintenance	3
2-4 Proposition californienne 65 Avertissements	4
2-5 Principales normes de sécurité	4
SECTION 3 – SPECIFICATIONS	5
3-1 Specifications	5
3-2 Coolant Specifications	5
3-3 Dimensions, Weights, And Mounting Options	5
SECTION 4 – INSTALLATION	7
4-1 Selecting A Location	7
4-2 Installing Mounting Brackets	8
4-3 GTAW Connections	9
4-4 GMAW Connections	10
4-5 Connecting To 120 Volt Input Power (Independent From Dynasty 400/800 or Maxstar 400)	11
SECTION 5 – MAINTENANCE AND TROUBLESHOOTING	12
5-1 Routine Maintenance	12
5-2 Coolant Maintenance	12
5-3 Troubleshooting Table	13
SECTION 6 – ELECTRICAL DIAGRAMS	14
SECTION 7 – PARTS LIST	15
SECTION 8 – DEFINITIONS	16
8-1 Additional Safety Symbol Definitions	16
8-2 Miscellaneous Symbols And Definitions	17
SECTION 9 – REGULATORY AND COMPLIANCE INFORMATION	18
9-1 Serial Number And Rating Label Location	18
9-2 Environmental Specifications	18

SECTION 1 – SAFETY PRECAUTIONS – READ BEFORE USING

 Protect yourself and others from injury—read, follow, and save these important safety precautions and operating instructions.

1-1. Symbol Usage

 **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.

 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.

NOTICE – Indicates statements not related to personal injury.

 Indicates special instructions.



This group of symbols means Warning! Watch Out! **ELECTRIC SHOCK**, **MOVING PARTS**, and **HOT PARTS** hazards. Consult symbols and related instructions below for necessary actions to avoid these hazards.

1-2. Cooling Equipment Hazards

 The symbols shown below are used throughout this manual to call attention to and identify possible hazards. When you see the symbol, watch out, and follow the related instructions to avoid the hazard. The safety information given below is only a summary of the more complete safety information found in the Principal Safety Standards. Read and follow all Safety Standards.

 Only qualified persons should install, operate, maintain, and repair this equipment. A qualified person is defined as one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project and has received safety training to recognize and avoid the hazards involved.

 During operation, keep everybody, especially children, away.



HOT PARTS can burn.

- Do not touch hot parts bare handed.
- Allow cooling period before working on equipment.
- To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.

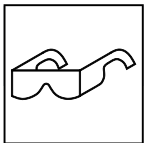


ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The input power circuit and machine internal circuits are also live when power is on. Incorrectly installed or improperly grounded equipment is a hazard.

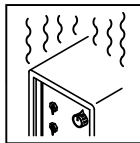
- Do not touch live electrical parts.
- Disconnect input power or stop engine before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Safety Standards).
- Properly install, ground, and operate this equipment according to its Owner's Manual and national, state, and local codes.
- Do not store or use equipment in standing water.
- Always verify the supply ground—check and be sure that input power cord ground wire is properly connected to ground terminal in disconnect box or that cord plug is connected to a properly grounded receptacle outlet.
- Keep cords dry, free of oil and grease, and protected from hot metal and sparks.
- Frequently inspect input power cord and ground conductor for damage or bare wiring—replace immediately if damaged—bare wiring can kill.
- Turn off all equipment when not in use.
- Use only well-maintained equipment. Repair or replace damaged parts at once. Maintain unit according to manual.
- Keep all panels and covers securely in place.

1-3. Additional Hazards For Installation, Operation, And Maintenance



FLYING METAL OR DIRT can injure eyes.

- Wear approved safety glasses with side shields even under your welding helmet.



OVERUSE can cause OVERHEATING.

- Allow cooling period; follow rated duty cycle.
- Do not block or filter airflow to unit.

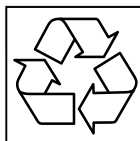


FALLING EQUIPMENT can injure.

- Use correct procedures and equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.

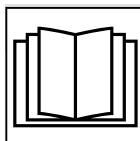
- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.

- Follow the guidelines in the Applications Manual for the Revised NIOSH Lifting Equation (Publication No. 94-110) when manually lifting heavy parts or equipment.



RECYCLE.

- Recycle or dispose of used coolant in an environmentally safe way.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.

- Use only genuine replacement parts from the manufacturer.
- Perform installation, maintenance, and service according to the Owner's Manuals, industry standards, and national, state, and local codes.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.



STEAM AND HOT COOLANT can burn.

Hose may rupture if coolant overheats.

- Visually inspect condition of hoses before each use. Do not use damaged hoses.
- Allow cooling period before working on equipment.



HIGH PRESSURE FLUIDS can injure or kill.

- Coolant can be under high pressure.
- Release pressure before working on cooler.

- If ANY fluid is injected into the skin or body seek medical help immediately.



MOVING PARTS can injure.

- Keep away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.
- Have only qualified persons remove doors, panels, covers, or guards for maintenance and troubleshooting as necessary.
- Reinstall doors, panels, covers, or guards when maintenance is finished and before reconnecting input power.

1-4. California Proposition 65 Warnings



WARNING – This product can expose you to chemicals including lead, which are known to the state of California to cause cancer and birth defects or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov.

1-5. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, American Welding Society standard ANSI Standard Z49.1. Website: www.aws.org.

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1. Website: www.aws.org.

National Electrical Code, NFPA Standard 70 from National Fire Protection Association. Website: www.nfpa.org.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1 from Compressed Gas Association. Website: www.cganet.com.

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2 from Canadian Standards Association. Website: www.csagroup.org.

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute. Website: safetyequipment.org.

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B from National Fire Protection Association. Website: www.nfpa.org.

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910.177 Subpart N, Part 1910 Subpart Q, and Part 1926, Subpart J. Website: www.osha.gov.

OSHA Important Note Regarding the ACGIH TLV, Policy Statement on the Uses of TLVs and BEIs. Website: www.osha.gov.

Applications Manual for the Revised NIOSH Lifting Equation from the National Institute for Occupational Safety and Health (NIOSH). Website: www.cdc.gov/NIOSH.

Cooler 2026-02

SECTION 2 – CONSIGNES DE SÉCURITÉ - LIRE AVANT UTILISATION

 Pour écarter les risques de blessure pour vous-même et pour autrui — lire, appliquer et ranger en lieu sûr ces consignes relatives aux précautions de sécurité et au mode opératoire.

2-1. Symboles utilisés

 **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.

 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.

AVIS – Indique des déclarations pas en relation avec des blessures personnelles.

 Indique des instructions spécifiques.



Ce groupe de symboles veut dire Avertissement! Attention! DANGER DE CHOC ELECTRIQUE, PIECES EN MOUVEMENT, et PIECES CHAUDES. Reportez-vous aux symboles et aux directives ci-dessous afin de connaître les mesures à prendre pour éviter tout danger.

2-2. Dangers liés aux équipements de refroidissement

 Les symboles représentés ci-dessous sont utilisés dans ce manuel pour attirer l'attention et identifier les dangers possibles. En présence de ce symbole, prendre garde et suivre les instructions afférentes pour éviter tout risque. Les consignes de sécurité présentées ci-après ne font que résumer l'information contenue dans les Normes de sécurité principales. Lire et suivre toutes les Normes de sécurité.

 L'installation, l'utilisation, l'entretien et les réparations ne doivent être confiés qu'à des personnes qualifiées. Une personne qualifiée est définie comme celle qui, par la possession d'un diplôme reconnu, d'un certificat ou d'un statut professionnel, ou qui, par une connaissance, une formation et une expérience approfondies, a démontré avec succès sa capacité à résoudre les problèmes liés à la tâche, le travail ou le projet et a reçu une formation en sécurité afin de reconnaître et d'éviter les risques inhérents.

 Au cours de l'utilisation, tenir toute personne à l'écart et plus particulièrement les enfants.



LES PIÈCES CHAUDES peuvent provoquer des brûlures.

- Ne pas toucher des parties chaudes à mains nues.
- Prévoir une période de refroidissement avant de travailler à l'équipement.
- Ne pas toucher aux pièces chaudes, utiliser les outils recommandés et porter des gants de soudage et des vêtements épais pour éviter les brûlures.



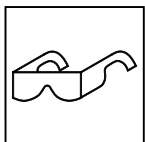
UNE DÉCHARGE ÉLECTRIQUE peut entraîner la mort.

Le contact d'organes électriques sous tension peut provoquer des accidents mortels ou des brûlures graves. Le circuit d'alimentation et les circuits

internes de la machine sont également sous tension lorsque l'alimentation est sur marche. Un équipement installé ou mis à la terre de manière incorrecte ou impropre constitue un danger.

- Ne pas toucher aux pièces électriques sous tension.
- Couper l'alimentation ou arrêter le moteur avant de procéder à l'installation, à la réparation ou à l'entretien de l'appareil. Déverrouiller l'alimentation selon la norme OSHA 29 CFR 1910.147 (voir normes de sécurité).
- Brancher correctement la mise à la terre et utiliser cet appareil conformément à son manuel d'utilisateur et aux codes nationaux, provinciaux et municipaux.
- Ne stockez pas et n'utilisez pas l'équipement dans de l'eau stagnante.
- Toujours vérifier la mise à la terre — vérifier et assurez-vous que le conducteur de mise à la terre du cordon d'alimentation est bien raccordé à la borne de mise à la terre dans le boîtier de déconnexion ou que la fiche du cordon est raccordée à une prise correctement mise à la terre.
- Les câbles doivent être exempts d'humidité, d'huile et de graisse; protégez-les contre les étincelles et les pièces métalliques chaudes.
- Vérifier fréquemment le cordon d'alimentation afin de s'assurer qu'il n'est pas altéré ou à nu, le remplacer immédiatement s'il l'est. Un fil à nu peut entraîner la mort.
- L'équipement doit être hors tension lorsqu'il n'est pas utilisé.
- N'utiliser qu'un matériel en bon état. Réparer ou remplacer sur-le-champ les pièces endommagées. Entretenir l'appareil conformément à ce manuel.
- S'assurer que tous les panneaux et couvercles sont correctement en place.

2-3. Symboles de dangers supplémentaires en relation avec l'installation, le fonctionnement et la maintenance



DES PIÈCES DE METAL ou DES SALETES peuvent provoquer des blessures dans les yeux.

- Porter des lunettes de sécurité approuvées avec des protections latérales même sous un masque

de soudage.



LA CHUTE DE L'ÉQUIPEMENT peut provoquer des blessures.

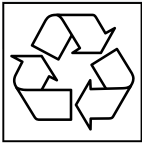
- Utilisez les procédures correctes et des équipements d'une capacité appropriée pour soulever et supporter l'appareil.
- En utilisant des fourches de levage pour déplacer l'unité, s'assurer que les fourches sont suffisamment longues pour dépasser du côté opposé de l'appareil.

- Tenir l'équipement (câbles et cordons) à distance des véhicules mobiles lors de toute opération en hauteur.
- Suivre les consignes du Manuel des applications pour l'équation de levage NIOSH révisée (Publication N° 94–110) lors du levage manuel de pièces ou équipements lourds.



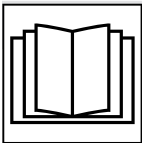
L'EMPLOI EXCESSIF peut SURCHAUFFER L'ÉQUIPEMENT.

- Prévoir une période de refroidissement, respecter le cycle opératoire nominal.
- Ne pas obstruer les passages d'air du poste.



RECYCLER.

- Recycler ou éliminer tout liquide de refroidissement utilisé, conformément aux méthodes prescrites pour assurer la protection de l'environnement.



LIRE LES INSTRUCTIONS.

- Lire et appliquer les instructions sur les étiquettes et le Mode d'emploi avant l'installation, l'utilisation ou l'entretien de l'appareil. Lire les informations de sécurité au début du manuel et dans chaque

section.

- Utiliser exclusivement les pièces de rechange du fabricant.
- Effectuer l'installation, l'entretien et toute intervention selon les manuels d'utilisateurs, les normes nationales, provinciales et de l'industrie, ainsi que les codes municipaux.
- Lire et comprendre les fiches de données de sécurité et les instructions du fabricant concernant les adhésifs, les revêtements, les nettoyants, les consommables, les produits de refroidissement, les dégraisseurs, les flux et les métaux.



LA VAPEUR ET LE LIQUIDE DE REFROIDISSEMENT CHAUD peuvent provoquer des brûlures.

Un tuyau peut se rompre lorsque le liquide de refroidissement surchauffe.

- Vérifiez visuellement l'état des tuyaux avant chaque utilisation. N'utilisez pas de tuyaux endommagés.
- Laissez refroidir avant d'intervenir sur l'équipement.



LES LIQUIDES SOUS HAUTE PRESSION peuvent provoquer des blessures ou la mort.

- Liquide de refroidissement sous haute pression.
- Libérez la pression avant d'intervenir sur le refroidisseur.
- En cas d'injection d'un liquide QUELCONQUE dans la peau ou le corps, consultez immédiatement un médecin.



Les PIÈCES MOBILES peuvent causer des blessures.

- Rester à l'écart des organes mobiles comme le ventilateur.
- Maintenir fermés et verrouillés les portes, panneaux, recouvrements et dispositifs de protection.
- Lorsque cela est nécessaire pour des travaux d'entretien et de dépannage, faire retirer les portes, panneaux, recouvrements ou dispositifs de protection uniquement par du personnel qualifié.
- Remettre les portes, panneaux, recouvrements ou dispositifs de protection quand l'entretien est terminé et avant de rebrancher l'alimentation électrique.

2-4. Proposition californienne 65 Avertissements

⚠ AVERTISSEMENT – Ce produit peut vous exposer à des produits chimiques tels que le plomb, reconnus par l'État de Californie comme cancérigènes et sources de malformations ou d'autres troubles de la reproduction.

Pour plus d'informations, consulter www.P65Warnings.ca.gov.

2-5. Principales normes de sécurité

Safety in Welding, Cutting, and Allied Processes, American Welding Society standard ANSI Standard Z49.1. Website: www.aws.org.

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1. Website: www.aws.org.

National Electrical Code, NFPA Standard 70 from National Fire Protection Association. Website: www.nfpa.org.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1 from Compressed Gas Association. Website: www.cganet.com.

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2 from Canadian Standards Association. Website: www.csa-group.org.

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute. Website: safetyequipment.org.

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B from National Fire Protection Association. Website: www.nfpa.org.

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910.177 Subpart N, Part 1910 Subpart Q, and Part 1926, Subpart J. Website: www.osha.gov.

OSHA Important Note Regarding the ACGIH TLV, Policy Statement on the Uses of TLVs and BEIs. Website: www.osha.gov.

Applications Manual for the Revised NIOSH Lifting Equation from the National Institute for Occupational Safety and Health (NIOSH). Website: www.cdc.gov/NIOSH.

Cooler_fre 2026–02

SECTION 3 – SPECIFICATIONS

3-1. Specifications

The correction factor on the cooling power at an ambient temperature of 104°F (40°C) is 0.625.

Recirculating Coolant System For Water-Cooled GTAW Torches And GMAW Guns.		
Use With Guns/Torches Rated Up To 600 Amperes.		
Coolant Tank Capacity	4 gal (15.1 L)	
Rated Cooling Power	8086 BTU/hr at 0.66 gal/min at 77°F (2.37 kW at 1.0 L/min at 25°C)	
Maximum Cooling Power	17095 BTU/hr at 0.66 gal/min at 77°F (5.01 kW at 1.0 L/min at 25°C)	
Input Voltage	120 VAC, Single Phase, 50 or 60 Hz	240 VAC, Single Phase, 50 or 60 Hz
Input Amperage	1.2 Amperes, 50 Hz	0.6 Amperes, 50 Hz

3-2. Coolant Specifications

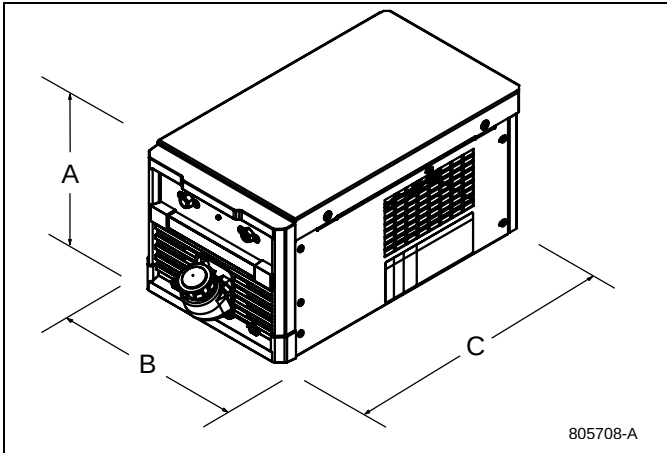
Do not use conductive coolant.

Application	Coolant
GTAW Or Where High Frequency Current Is Used	Low Conductivity Coolant 043810* Distilled Or Deionized Water Okay Above 32°F (0°C)
GMAW Or Where High Frequency Current Is Not Used	Low Conductivity Coolant 043810* Aluminum Protecting Coolant 043809* Distilled Or Deionized Water Okay Above 32°F (0°C)
Where Coolant Contacts Aluminum Parts	Aluminum Protecting Coolant 043809*
*Coolants 043810 and 043809 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.).	

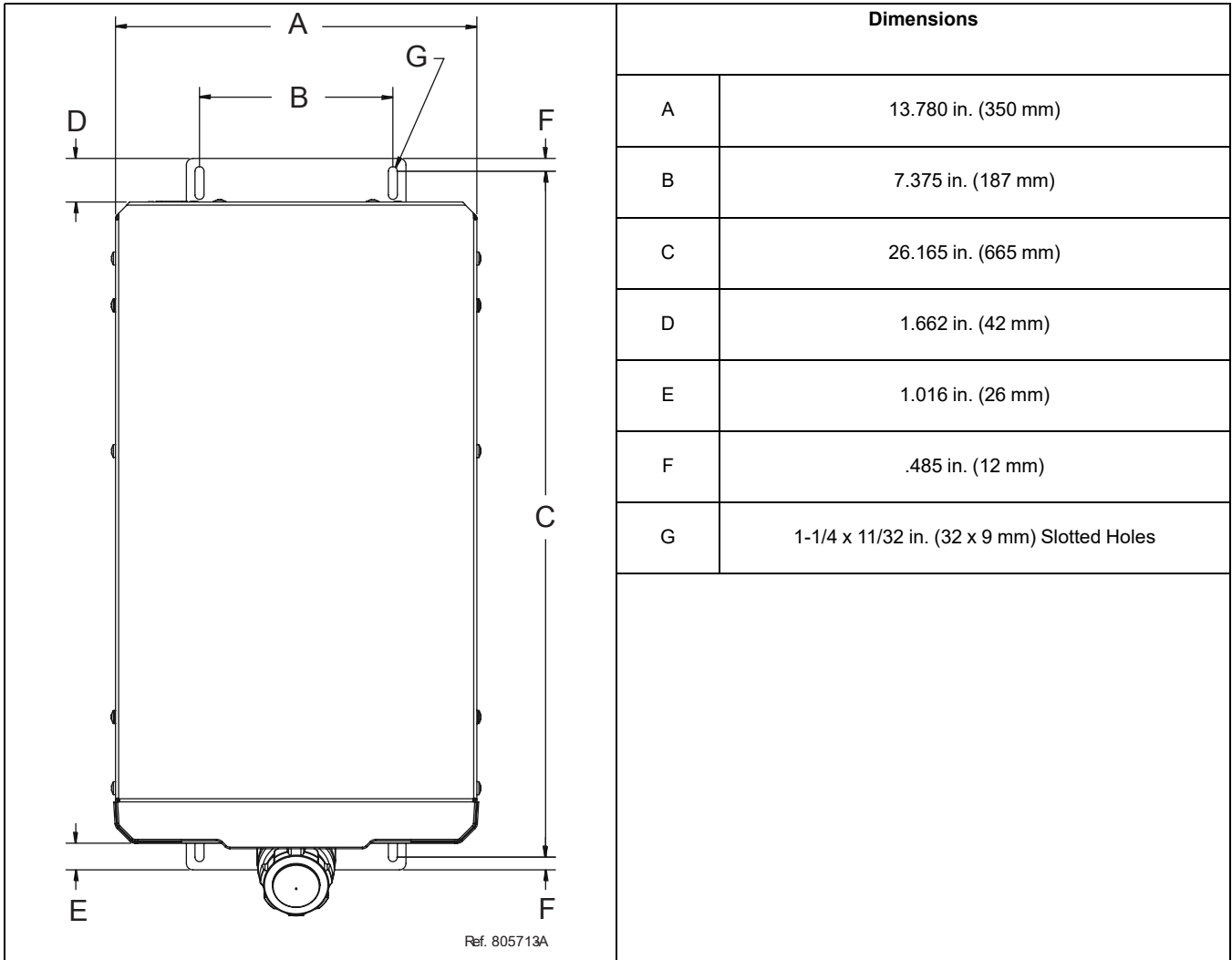
3-3. Dimensions, Weights, And Mounting Options

A. Cooler Dimensions

Dimensions	
A	11.907 in. (302 mm)
B	14.081 in. (358 mm)
C	27.306 in. (694 mm)
Weight	46.5 lbs (21 kg)



B. Mounting Hole Dimensions

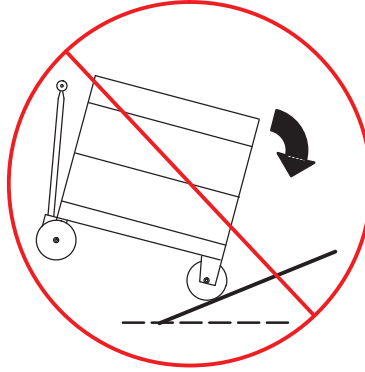
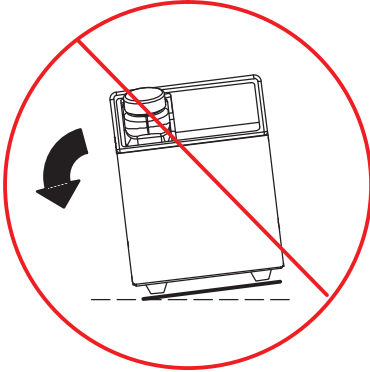


SECTION 4 – INSTALLATION

4-1. Selecting A Location

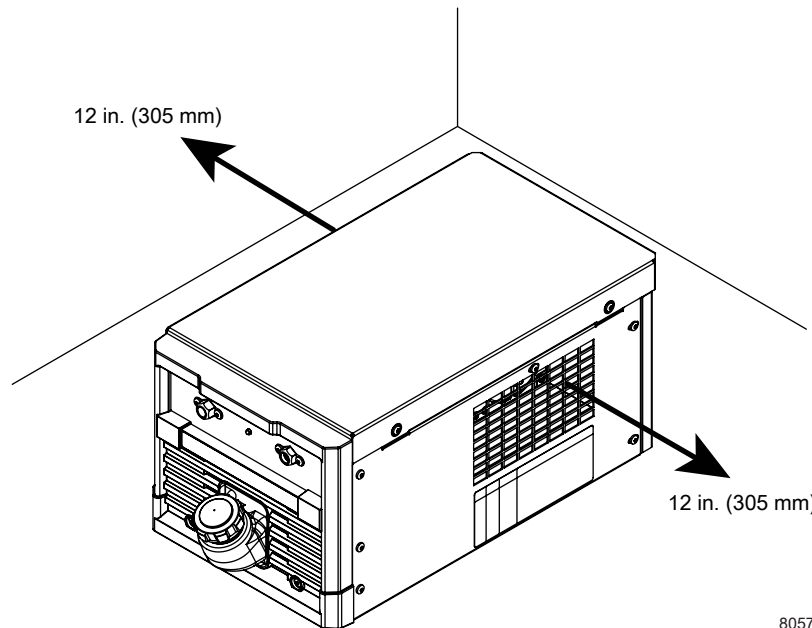


 Do not move or operate unit where it could tip.



Airflow

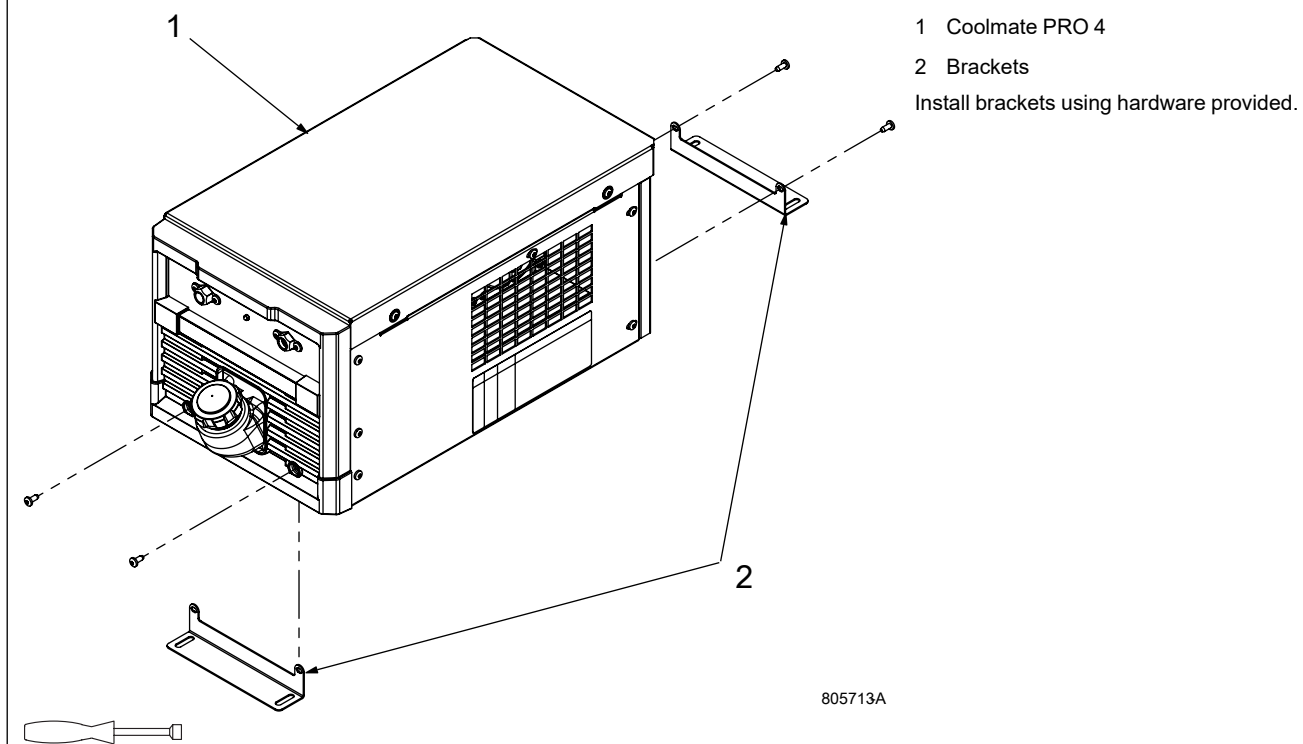
12 in. (305 mm)



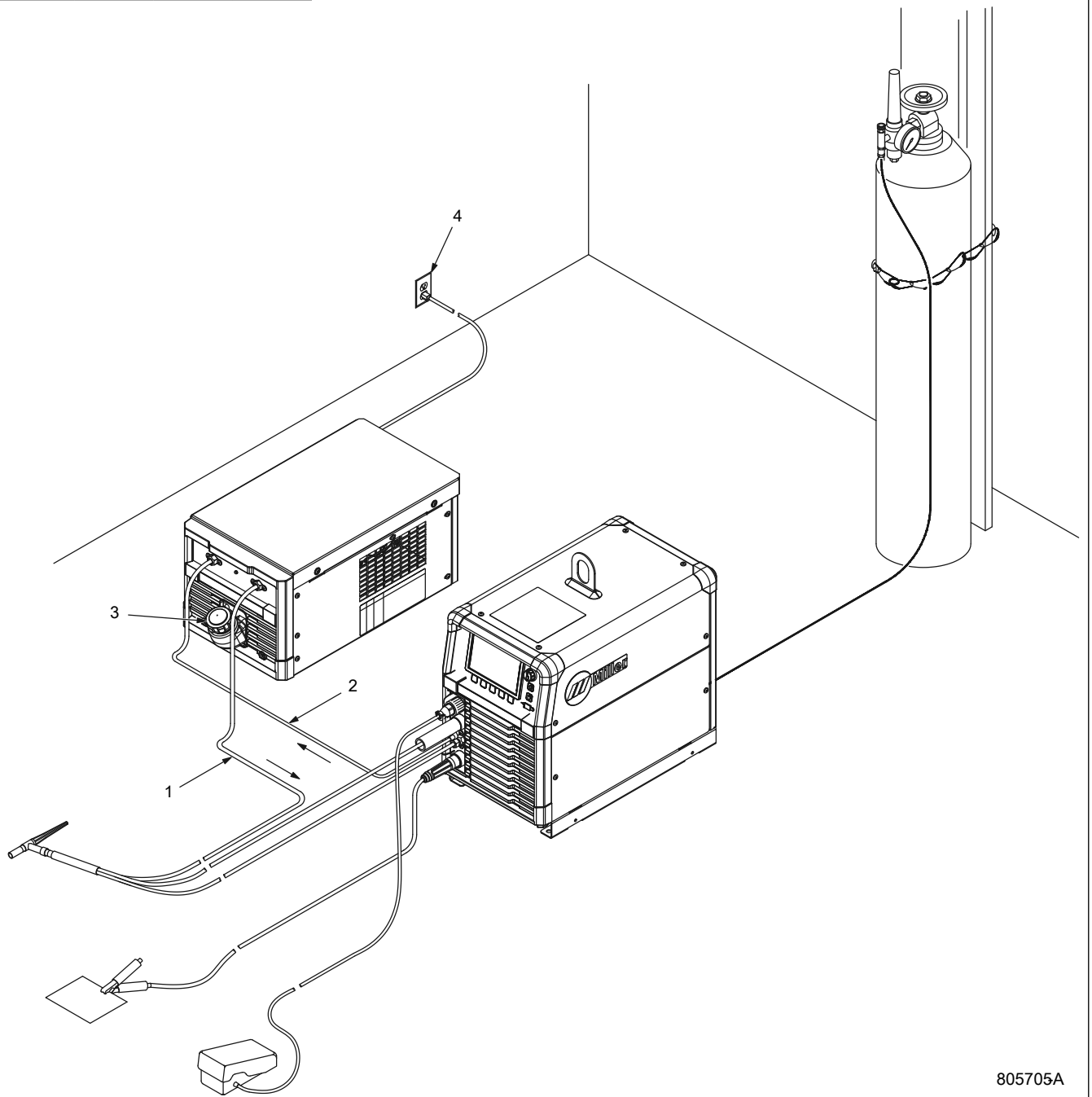
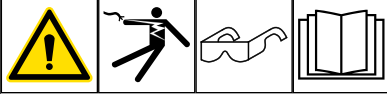
12 in. (305 mm)

805708A

4-2. Installing Mounting Brackets



4-3. GTAW Connections



5/8 in.

Do not move or operate unit where it could tip.

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.

1 Coolant Out Hose

2 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown. Some power sources may require a TIG block.

3 Coolant Tank Cap

4 115 Volt AC Grounded Receptacle

An individual circuit capable of carrying 15 amperes and protected by fuses or circuit

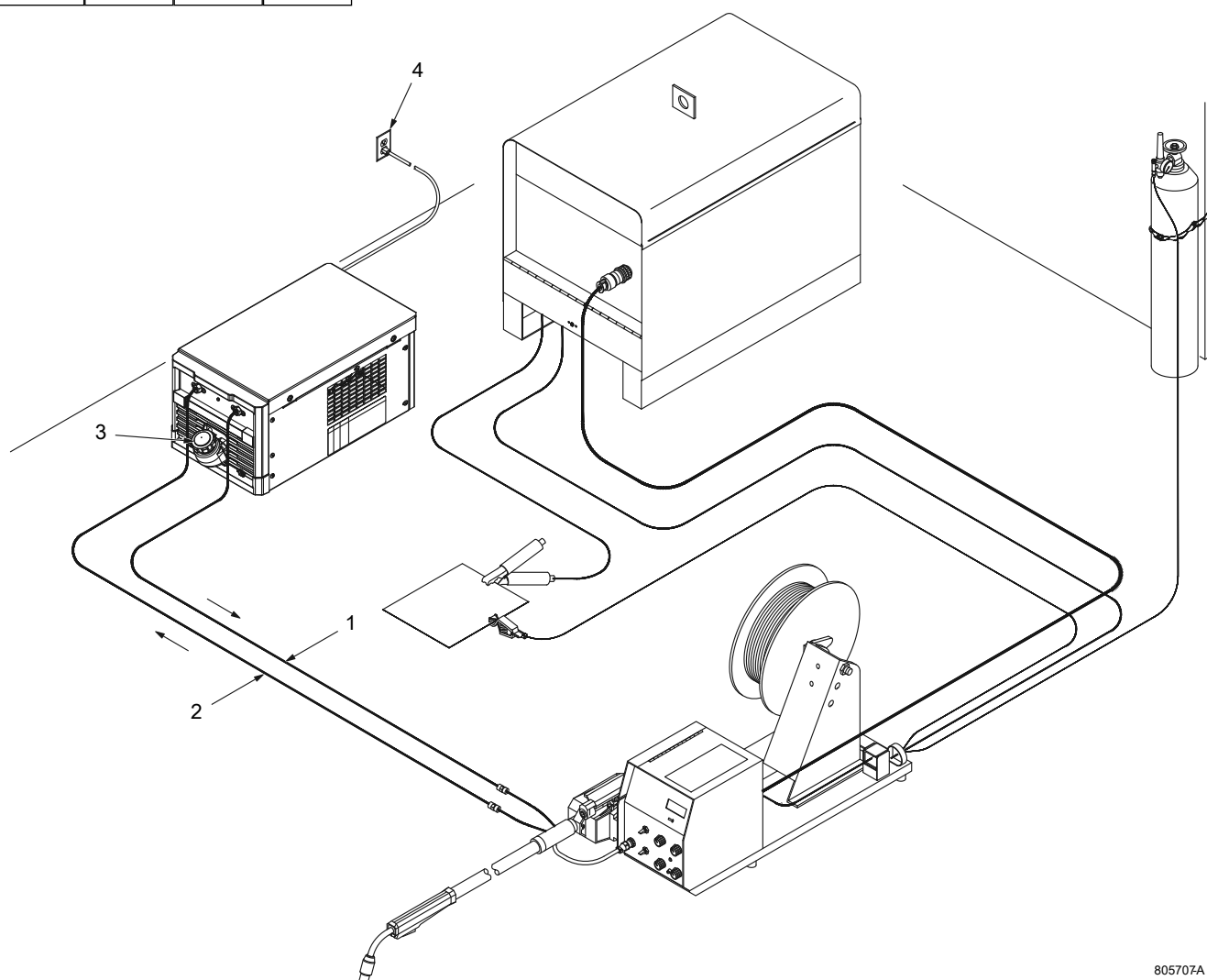
breakers is recommended. Recommended fuse or circuit breaker size is 15 amperes.

Operation:

Fill tank with proper coolant. Use table in Section 3-2 to select proper coolant. Maintain coolant level at approximately 1 in. (25 mm) below top of filler neck. Connect hoses as shown. Unit turns on when plugged in.

805705A

4-4. GMAW Connections



805707A

5/8 in.

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

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.

- 1 Coolant Out Hose
- 2 Coolant In Hose

Fittings have 5/8-18 left-hand threads. Connect hoses with proper fittings as shown. Some power sources may require a TIG block.

- 3 Coolant Tank Cap
- 4 115 Volt AC Grounded Receptacle

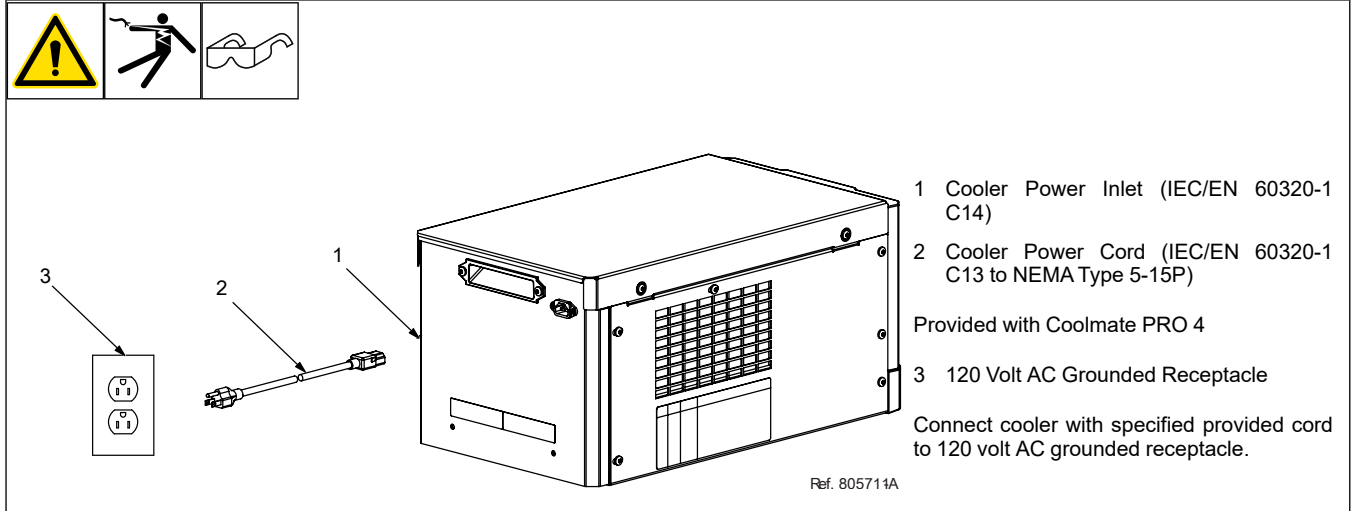
An individual circuit capable of carrying 15 amperes and protected by fuses or circuit

breakers is recommended. Recommended fuse or circuit breaker size is 15 amperes.

Operation:

Fill tank with proper coolant. Use table in Section 3-2 to select proper coolant. Maintain coolant level at approximately 1 in. (25 mm) below top of filler neck. Connect hoses as shown. Unit turns on when plugged in.

4-5. Connecting To 120 Volt Input Power (Independent From Dynasty 400/800 or Maxstar 400)



SECTION 5 – MAINTENANCE AND TROUBLESHOOTING

5-1. Routine Maintenance



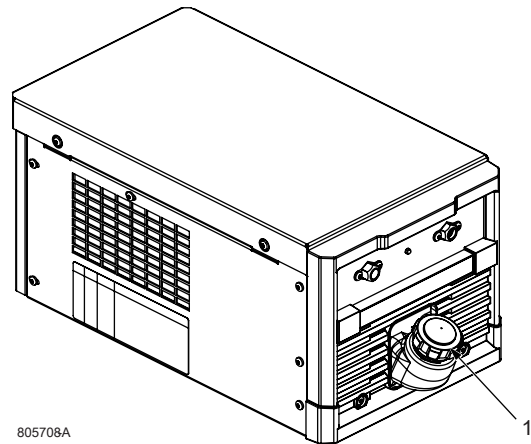
⚠ Disconnect power before maintaining.

🔧 Service equipment more often if used in severe conditions.

Maintenance Schedule		Every 3 Months	Every 6 Months	Every 12 Months	Reference Section
Heat Exchanger Fins	Blow out heat exchanger fins. Check coolant level. Top off with distilled or deion- ized water if necessary.	●			
Coolant (Water)	Change coolant (If using water)		●		
Gas Hoses	Visually check condition of gas hoses. Replace damaged hoses.		●		
Labels	Check and replace labels if damaged.		●		
Coolant (Miller Brand)	Change coolant (If using Miller coolant)			●	

*To be done by Factory Authorized Service Agent.

5-2. Coolant Maintenance



805708A

M30 Torx

⚠ Disconnect cooler plug from welding power source receptacle before maintaining.

⚠ Dispose of used coolant according to national, state, and local codes. Do not pour down drain.

1 Coolant Fill Cap

Changing Coolant

Drain coolant by tipping unit toward fill neck. Fill with clean water and run for 10 minutes. Drain and refill.

NOTICE – If replacing hoses, use hoses compatible with ethylene glycol, such as Buna-n, Neoprene, or Hypalon. Oxy-acetylene hoses are not compatible with any product containing ethylene glycol.

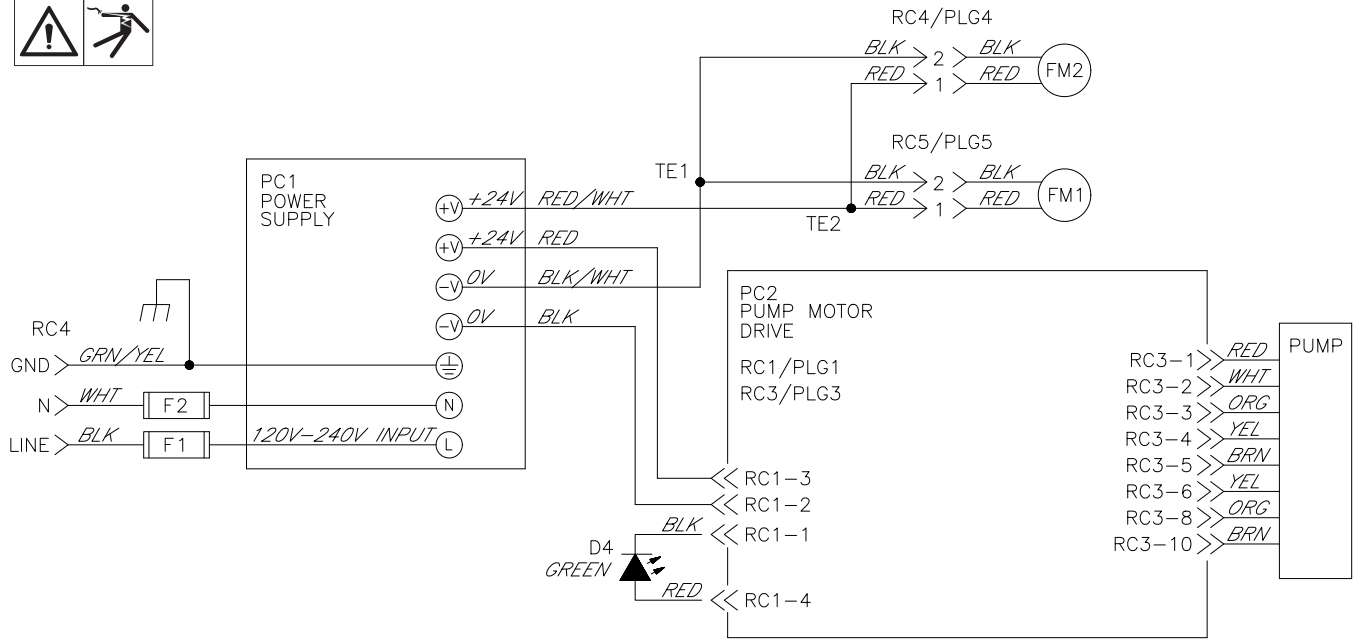
Install cover if removed.

NOTICE – Do not run cooler without coolant.

5-3. Troubleshooting Table

    				
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 replace or reset if necessary.		
		Motor overheated. Unit starts running when motor has cooled.		
		Have Factory Authorized Service Agent check motor Mot.		
Decreased or no coolant flow.		Add coolant.		
		Check for clogged hoses. Replace hoses if necessary.		
		Check, repair, or replace remote control.		

SECTION 6 – ELECTRICAL DIAGRAMS



401277A

Figure 6-1. Circuit Diagram For Cooler

SECTION 7 – PARTS LIST

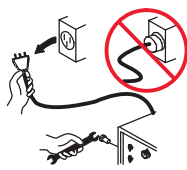
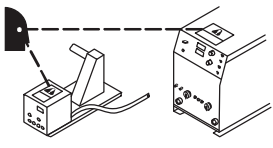
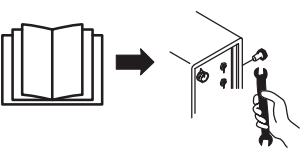
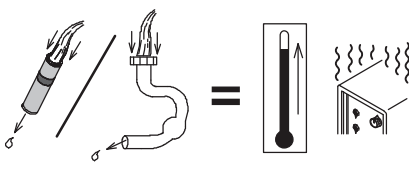
Recommended Spare Parts

Item No.	Part No.	Description	Qty.
	043810	Coolant	1

SECTION 8 – DEFINITIONS

8-1. Additional Safety Symbol Definitions

 Some symbols are found only on CE products.

	Warning! Watch Out! There are possible hazards as shown by the symbols.
	Do not remove or paint over (cover) the label.
	Disconnect input plug or power before working on machine.
	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.
	Use coolant suggested by the manufacturer.
	Recycle.
	Read the labels on the welding power source, wire feeder, or other major equipment for welding safety information.
	Read Owner's Manual before working on this machine.
	Plugged filter or hoses can cause overheating to the power source and torch.

8-2. Miscellaneous Symbols And Definitions

 Some symbols are found only on CE products.

Hz	Hertz
	Input Power
	Power On Indicator
	Water (Coolant) Input
	Water (Coolant) Output

	Line Connection
1 	Single Phase
U₁	Primary Voltage
I_{1max}	Rated Maximum Supply Current

IP	Degree of Protection
	Cooling
P₁	Rated Cooling Power
p_{max}	Rated Maximum Pressure

SECTION 9 – REGULATORY AND COMPLIANCE INFORMATION

9-1. Serial Number And Rating Label Location

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

9-2. Environmental Specifications

A. IP Rating

IP Rating
IP23
This equipment is designed for outdoor use.

B. Information On Electromagnetic Compatibility (EMC)

 This Class A equipment is not intended for use in residential locations where the electrical power is provided by the public low-voltage supply system. There can be potential difficulties in ensuring electromagnetic compatibility in those locations, due to conducted as well as radiated disturbances.

This equipment complies with IEC 61000-3-11 and IEC 61000-3-12.

C. Temperature Specifications

Operating Temperature Range	Storage/Transportation Temperature Range
14 to 104°F (-10 to 40°C)	-4 to 131°F (-20 to 55°C)

D. EU Ecodesign Information

	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.
--	--

Critical raw materials possibly present in indicative amounts higher than 1 gram at component level	
Component	Critical Raw Material
Printed circuit boards	Baryte, Bismuth, Cobalt, Gallium, Germanium, Hafnium, Indium, Heavy Rare Earth, Light Rare Earth, Niobium, Platinum Group Metals, Scandium, Silicon Metal, Tantalum, Vanadium
Plastic components	Antimony, Baryte
Electrical and electronic components	Antimony, Beryllium, Magnesium
Metal components	Beryllium, Cobalt, Magnesium, Tungsten, Vanadium
Cables and cable assemblies	Borate, Antimony, Baryte, Beryllium, Magnesium
Display panels	Gallium, Indium, Heavy Rare Earth, Light Rare Earth, Niobium, Platinum Group Metals, Scandium
Batteries	Fluorspar, Heavy Rare Earth, Light Rare Earth, Magnesium



Effective January 1, 2026 (Equipment with a serial number preface of NG or newer)

This limited warranty supersedes all previous Miller warranties and is exclusive with no other guarantees or warranties expressed or implied.

LIMITED WARRANTY - Subject to the terms and conditions below, Miller Electric Mfg. LLC, Appleton, Wisconsin, warrants to authorized distributors that new Miller equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Miller. **THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.**

Within the warranty periods listed below, Miller will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. Notifications submitted as online warranty claims must provide detailed descriptions of the fault and troubleshooting steps taken to diagnose failed parts. Warranty claims that lack the required information as defined in the Miller Service Operation Guide (SOG) may be denied by Miller.

Miller shall honor warranty claims on warranted equipment listed below in the event of a defect within the warranty coverage time periods listed below. Warranty time periods start on the delivery date of the equipment to the end-user purchaser.

1 5 Years Parts — 3 Years Labor

- Original Main Power Rectifiers Only to Include SCRs, Diodes, and Discrete Rectifier Modules in non-inverter products

2 4 Years Parts (No Labor)

- Auto-Darkening ClearLight 2.0 and 4x Helmet Lenses

3 3 Years — Parts and Labor Unless Specified

- Auto-Darkening Helmet Lenses (No Labor)
- Copilot Collaborative Welding Systems
- Engine and Hydraulic Driven Welder/Generators (Including EnPak) (**NOTE: Engines are Warranted Separately by the Engine Manufacturer.**)
- Handheld Laser Power Sources
- Insight Welding Intelligence Products (Except External Sensors)
- Inverter Power Sources
- Plasma Arc Cutting Power Sources
- Process Controllers
- Semi-Automatic and Automatic Wire Feeders
- Transformer/Rectifier Power Sources

4 2 Years — Parts and Labor

- Auto-Darkening Weld Masks (No Labor)
- Fume Extractors - Filtair 215, Capture 5, Purifier, and Industrial Collector Series

5 1 Year — Parts and Labor Unless Specified

- ArcCapture Camera
- ArcReach Heater
- AugmentedArc, LiveArc, and MobileArc Welding Systems
- Automatic Motion Devices
- Bernard BTB Air-Cooled MIG Guns (No Labor)
- CoolBelt, PAPR Blower, and PAPR Face Shield (No Labor)
- Desiccant Air Dryer System

- Field Options (**NOTE: Field options are covered for the remaining warranty period of the product they are installed in, or for a minimum of one year — whichever is greater.**)

- RFCS Foot Controls (Except RFCS-RJ45)
- Fume Extractors - Filtair 130, MWX and SWX Series, Standard, Telescopic, and ZoneFlow Extraction Arms and Motor Control Box
- Handheld Laser Torches (No Labor)
- Induction Heating Power Sources, Coolers (**NOTE: Digital Recorders are Warranted Separately by the Manufacturer.**)
- Insight Sensors
- Laser Welding Helmets (No Labor)
- Load Banks
- MDX Series MIG Guns (No Labor)
- Motor-Driven Guns
- Positioners and Controllers
- Racks (For Housing Multiple Power Sources)
- Running Gear/Trailers
- Spoolmate Spoolguns (No Labor)
- Subarc Wire Drive Assemblies
- Supplied Air Respirator (SAR) Boxes and Panels
- TIG Torches (No Labor)
- Tregaskiss Guns (No Labor)
- Venture 150 Battery (Warranted for 1 year or 1000 charge cycles, whichever comes first)
- Water Cooling Systems
- Wireless Remote Foot/Hand Controls and Receivers
- Work Stations/Weld Tables/Weld Booths (No Labor)
- XT Plasma Cutting Torches (No Labor)

6 6 Months — Parts

- 12 Volt Automotive-Style Batteries
- PAPR Batteries

7 90 Days — Parts

- Accessories (Kits)
- ArcReach Heater Quick Wrap and Air Cooled Cables
- Canvas Covers
- Induction Heating Coils and Blankets, Cables, Rolling Inductor, and Non-Electronic Controls
- M-Guns
- Subarc (SAW) Torches and External Cladding Heads
- Remote Controls and RFCS-RJ45
- Replacement Parts (No labor)

Miller's True Blue[®] Limited Warranty shall not apply to:

1. **Consumable components; such as contact tips, cutting nozzles, contactors, brushes, relays, work station table tops and welding curtains, or parts that fail due to normal wear. (Exception: brushes and relays are covered on all engine-driven products.)**
2. Items furnished by Miller, but manufactured by others, such as engines or trade accessories. These items are covered by the manufacturer's warranty, if any.
3. Equipment that has been modified by any party other than Miller, or equipment that has been improperly installed, improperly operated or

misused based upon industry standards, or equipment which has not had reasonable and necessary maintenance, or equipment which has been used for operation outside of the specifications for the equipment.

4. Defects caused by accident, unauthorized repair, or improper testing.

MILLER PRODUCTS ARE INTENDED FOR COMMERCIAL AND INDUSTRIAL USERS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF WELDING EQUIPMENT.

The exclusive remedies for warranty claims are, at Miller's option, either: (1) repair; or (2) replacement; or, if approved in writing by Miller, (3) the pre-approved cost of repair or replacement at an authorized Miller service station; or (4) payment of or credit for the purchase price (less reasonable depreciation based upon use). Products may not be returned without Miller's written approval. Return shipment shall be at customer's risk and expense.

The above remedies are F.O.B. Appleton, WI, or Miller's authorized service facility. Transportation and freight are the customer's responsibility. TO THE EXTENT PERMITTED BY LAW, THE REMEDIES HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES REGARDLESS OF THE LEGAL THEORY. IN NO EVENT SHALL MILLER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT) REGARDLESS OF THE LEGAL THEORY. ANY WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY, OR REPRESENTATION, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, ARE EXCLUDED AND DISCLAIMED BY MILLER.

Some US states do not allow limiting the duration of an implied warranty or the exclusion of certain damages, so the above limitations may not apply to you. This warranty provides specific legal rights, and other rights may be available depending on your state. In Canada, some provinces provide additional warranties or remedies, and to the extent the law prohibits their waiver, the limitations set out above may not apply. This Limited Warranty provides specific legal rights, and other rights may be available, but may vary by province.

Warranty Questions?

Call 1-800-4-A-MILLER for your local Miller distributor.

Your distributor also gives you...

Service

You always get the fast, reliable response you need. Most replacement parts can be in your hands in 24 hours.

Support

Need fast answers to the tough welding questions? The expertise of the distributor and Miller is there to help you, every step of the way.

Owner's Record

Please complete and retain with your personal records.

Model Name	Serial/Style Number
Purchase Date	(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 Protective Equipment (PPE) Service and Repair Replacement Parts Training (Schools, Videos, Books) 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. LLC

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

International Headquarters—USA

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

For International Locations Visit
www.MillerWelds.com

