OM-291018D 2026-03

Processes

MIG (GMAW) Welding

Flux Cored (FCAW) Welding

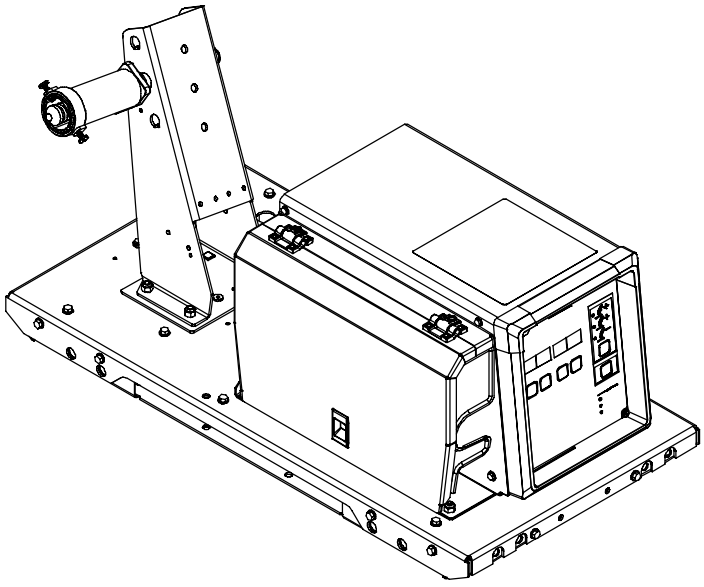
Air Carbon Arc (CAC-A) Cutting and Gouging

Description

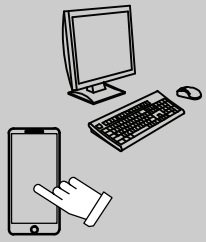
CV DC

Wire Feeder

ArcReach® 16 Wire Feeder



OWNER'S MANUAL



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

www.MillerWelds.com

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.**

TRUE BLUE® WARRANTY

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

CERTIFIED BY SCB ISO 9001™

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

Miller®

TABLE OF CONTENTS

SECTION 1 – SAFETY PRECAUTIONS – READ BEFORE USING

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

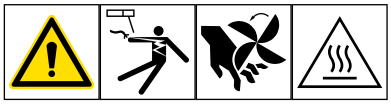
1-1. Symbol Usage

⚠ **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. Arc Welding 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.**

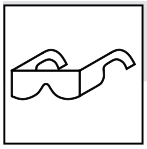
ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.

- Do not touch live electrical parts.
- Wear dry, hole-free insulating gloves and body protection.
- Insulate yourself from work and ground using dry insulating mats or covers big enough to prevent any physical contact with the work or ground.
- Do not use AC weld output in damp, wet, or confined spaces, or if there is a danger of falling.
- Do not store or use equipment in standing water.
- Use AC output ONLY if required for the welding process.
- If AC output is required, use remote output control if present on unit.
- Additional safety precautions are required when any of the following electrically hazardous conditions are present: in damp locations or while wearing wet clothing; on metal structures such as floors, gratings, or scaffolds; when in cramped positions such as sitting, kneeling, or lying; or when there is a high risk of unavoidable or accidental contact with the workpiece or ground. For these conditions, use the following equipment in order presented: 1) a semiautomatic DC constant voltage (wire) welding power source, 2) a DC manual (stick) welding power source, or 3) an AC welding power source with reduced open-circuit voltage. In most situations, use of a DC, constant voltage wire welding power source is recommended. And, do not work alone!
- 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.
- 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.
- When making input connections, attach proper grounding conductor first—double-check connections.
- 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.
- Do not use worn, damaged, undersized, or repaired cables.
- Do not drape cables over your body.
- If earth grounding of the workpiece is required, ground it directly with a separate cable.
- Do not touch electrode if you are in contact with the work, ground, or another electrode from a different machine.
- Use only well-maintained equipment. Repair or replace damaged parts at once. Maintain unit according to manual.
- Do not touch electrode holders connected to two welding machines at the same time because double open-circuit voltage can be present.
- Wear a safety harness if working above floor level.
- Keep all panels and covers securely in place.
- Clamp work cable with good metal-to-metal contact to workpiece or worktable as near the weld as practical.
- Insulate work clamp when not connected to workpiece to prevent contact with any metal object.
- Do not connect more than one electrode or work cable to any single weld output terminal. Disconnect cable for process not in use.
- Use GFCI protection when operating auxiliary equipment in damp or wet locations.

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.



FLYING METAL OR DIRT can injure eyes.

Welding, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.

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

FUMES AND GASES can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- Ventilate the work area and/or use local forced ventilation at the arc to remove welding fumes and gases. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and the operator is wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.

BUILDUP OF GAS can injure or kill.

- Shut off compressed gas supply when not in use.
- Always ventilate confined spaces or use approved air-supplied respirator.

ARC RAYS can burn eyes and skin.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

- Wear an approved welding helmet fitted with a proper shade of filter lenses to protect your face and eyes from arc rays and sparks when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards).
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear body protection made from leather or flame-resistant clothing (FRC). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.

WELDING can cause fire or explosion.

Welding on closed containers, such as tanks, drums, or pipes, can cause them to blow up. Sparks can fly off from the welding arc. The flying sparks, hot workpiece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure the area is safe before doing any welding.

- Remove all flammables within 35 ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.
- Do not weld where flying sparks can strike flammable material.
- Protect yourself and others from flying sparks and hot metal.
- Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
- Watch for fire, and keep a fire extinguisher nearby.
- Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- Do not cut or weld on tire rims or wheels. Tires can explode if heated. Repaired rims and wheels can fail. See OSHA 29 CFR 1910.177 listed in Safety Standards.
- Do not weld on containers that have held combustibles, or on closed containers such as tanks, drums, or pipes unless they are properly prepared according to AWS F4.1 (see Safety Standards).
- Do not weld where the atmosphere can contain flammable dust, gas, or liquid vapors (such as gasoline).
- Connect work cable to the work as close to the welding area as practical to prevent welding current from traveling long, possibly unknown paths.
- Do not use welding power source to thaw frozen pipes.
- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- Wear body protection made from leather or flame-resistant clothing (FRC). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.
- Remove any combustibles, such as a butane lighter or matches, from your person before doing any welding.
- After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.
- Use only correct fuses or circuit breakers. Do not oversize or bypass them.
- Follow requirements in OSHA 1910.252 (a) (2) (iv) and NFPA 51B for hot work and have a fire watcher and extinguisher nearby.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.

NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Check for noise level limits exceeding those specified by OSHA.
- Wear appropriate ear protection if noise level is high.
- Warn others nearby about noise hazard.

ELECTRIC AND MAGNETIC FIELDS (EMF) can affect Implanted Medical Devices.

- Wearers of pacemakers and other implanted medical devices should keep away.
- Implanted medical device wearers should consult their doctor and the device manufacturer before going near arc welding, spot welding, arc gouging, plasma arc cutting, or induction heating operations.

CYLINDERS can explode if damaged.

Compressed gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

- Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, sparks, and arcs.
- Install cylinders in an upright position by securing to a stationary support or cylinder rack to prevent falling or tipping.
- Keep cylinders away from any welding or other electrical circuits.
- Never drape a welding torch over a gas cylinder.
- Never allow a welding electrode to touch any cylinder.
- Never weld on a pressurized cylinder—explosion will result.
- Use only correct compressed gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and associated parts in good condition.
- Turn face away from valve outlet when opening cylinder valve. Do not stand in front of or behind the regulator when opening the valve.
- Keep protective cap in place over valve except when cylinder is in use or connected for use.
- Use the proper equipment, correct procedures, and sufficient number of persons to lift, move, and transport cylinders.
- Read and follow instructions on compressed gas cylinders, associated equipment, and Compressed Gas Association (CGA) publication P-1 listed in Safety Standards.

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

FIRE OR EXPLOSION hazard.

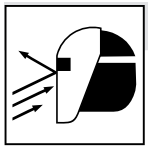
- Do not install or place unit on, over, or near combustible surfaces.
- Do not install unit near flammables.
- Do not overload building wiring — be sure power supply system is properly sized, rated, and protected to handle this unit.

FALLING EQUIPMENT can injure.

- Use lifting eye to lift unit only, NOT running gear, gas cylinders, or any other accessories.
- 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.

OVERUSE can cause OVERHEATING.

- Allow cooling period; follow rated duty cycle.
- Reduce output or reduce duty cycle before starting to weld again.
- Do not block or filter airflow to unit.



FLYING SPARKS can injure.

- Wear a face shield to protect eyes and face.
- Shape tungsten electrode only on grinder with proper guards in a safe location while wearing proper face, hand, and body protection.
- Sparks can cause fires—keep flammables away.

MOVING PARTS can injure.

- Keep away from moving parts.
- Keep away from pinch points such as drive rolls.

WELDING WIRE can injure.

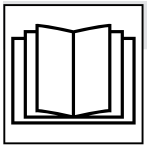
- Do not press gun trigger until instructed to do so.
- Do not point gun toward any part of the body, other people, or any metal when threading welding wire.

BATTERY EXPLOSION can injure.

- Do not use welding power source to charge batteries or jump start vehicles unless it has a battery charging feature designed for this purpose.

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.



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.

HF RADIATION can cause interference.

- High-frequency (HF) can interfere with radio navigation, safety services, computers, and communications equipment.
- Have only qualified persons familiar with electronic equipment perform this installation.
- The user is responsible for having a qualified electrician promptly correct any interference problem resulting from the installation.
- If notified by the FCC about interference, stop using the equipment at once.
- Have the installation regularly checked and maintained.
- Keep high-frequency source doors and panels tightly shut, keep spark gaps at correct setting, and use grounding and shielding to minimize the possibility of interference.

ARC WELDING can cause interference.

- Electromagnetic energy can interfere with sensitive electronic equipment such as microprocessors, computers, and computer-driven equipment such as robots.

- Be sure all equipment in the welding area is electromagnetically compatible.
- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.
- Locate welding operation 100 meters from any sensitive electronic equipment.
- Be sure this welding equipment is installed and grounded according to this manual.
- If interference still occurs, the user must take extra measures such as moving the welding equipment, using shielded cables, using line filters, or shielding the work area.

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

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.

SOM 2026–02

1-6. EMF Information

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). The current from arc welding (and allied processes including spot welding, arc gouging, plasma arc cutting, and induction heating operations) creates EMF around the welding circuit. EMF can interfere with some medical implants, e. g. pacemakers. Protective measures for persons wearing medical implants have to be taken. For example, restrict access for passersby or conduct individual risk assessment for operators. All operators should use the following procedures in order to minimize exposure to EMF fields:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between 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 output circuit as possible.
5. Connect work clamp to workpiece as close to the arc as possible.
6. Do not work next to, sit or lean on, or carry the power source or other equipment while operating.

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, arc gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, follow the procedures above.

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 relatifs au soudage à l'arc

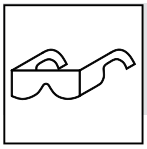
UNE DÉCHARGE ÉLECTRIQUE peut entraîner la mort.

Le contact d'organes électriques sous tension peut provoquer des accidents mortels ou des brûlures graves. Le circuit de l'électrode et de la pièce est sous tension lorsque le courant est délivré à la sortie. Le circuit d'alimentation et les circuits internes de la machine sont également sous tension lorsque l'alimentation est sur Marche. Dans le mode de soudage avec du fil, le fil, le dérouleur, le bloc de commande du rouleau et toutes les parties métalliques en contact avec le fil sont sous tension électrique. Un équipement installé ou mis à la terre de manière incorrecte ou impropre constitue un danger.

- Ne pas toucher aux pièces électriques sous tension.
- Porter des gants isolants et des vêtements de protection secs et sans trous.
- S'isoler de la pièce à couper et du sol en utilisant des housses ou des tapis assez grands afin d'éviter tout contact physique avec la pièce à couper ou le sol.
- Ne pas utiliser de sortie de soudage CA dans des zones humides ou confinées ou s'il y a un risque de chute.
- Se servir d'une source électrique à courant électrique UNIQUEMENT si le procédé de soudage le demande.
- Si l'utilisation d'une source électrique à courant électrique s'avère nécessaire, se servir de la fonction de télécommande si l'appareil en est équipé.
- D'autres consignes de sécurité sont nécessaires dans les conditions suivantes : risques électriques dans un environnement humide ou si l'on porte des vêtements mouillés ; sur des structures métalliques telles que sols, grilles ou échafaudages ; en position coincée comme assise, à genoux ou couchée ; ou s'il y a un risque élevé de contact inévitable ou accidentel avec la pièce à souder ou le sol. Dans ces conditions, utiliser les équipements suivants, dans l'ordre indiqué : 1) un poste à souder DC à tension constante (à fil), 2) un poste à souder DC manuel (électrode) ou 3) un poste à souder AC à tension à vide réduite. Dans la plupart des situations, l'utilisation d'un poste à souder DC à fil à tension constante est recommandée. En outre, ne pas travailler seul !
- 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.
- 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.
- En effectuant les raccordements d'entrée, fixer d'abord le conducteur de mise à la terre approprié et contre-vérifier les connexions.
- 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 et le conducteur de mise à la terre afin de s'assurer qu'il n'est pas altéré ou dénudé -, le remplacer immédiatement s'il l'est -. Un fil dénudé peut entraîner la mort.
- L'équipement doit être hors tension lorsqu'il n'est pas utilisé.
- Ne pas utiliser des câbles usés, endommagés, de grosseur insuffisante ou mal épissés.
- Ne pas enrouler les câbles autour du corps.
- Si la pièce soudée doit être mise à la terre, le faire directement avec un câble distinct.
- Ne pas toucher l'électrode quand on est en contact avec la pièce, la terre ou une électrode provenant d'une autre machine.
- Ne pas toucher des porte électrodes connectés à deux machines en même temps à cause de la présence d'une tension à vide doublée.
- N'utiliser qu'un matériel en bon état. Réparer ou remplacer sur-le-champ les pièces endommagées. Entretenir l'appareil conformément à ce manuel.
- Porter un harnais de sécurité si l'on doit travailler au-dessus du sol.
- S'assurer que tous les panneaux et couvercles sont correctement en place.
- Fixer le câble de retour de façon à obtenir un bon contact métal-métal avec la pièce à souder ou la table de travail, le plus près possible de la soudure.
- Isoler la pince de masse quand pas mis à la pièce pour éviter le contact avec tout objet métallique.
- Ne pas raccorder plus d'une électrode ou plus d'un câble de masse à une même borne de sortie de soudage. Débrancher le câble pour le procédé non utilisé.
- Utiliser une protection différentielle lors de l'utilisation d'un équipement auxiliaire dans des endroits humides ou mouillés.

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.



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

- Le soudage, l'écaillement, le passage de la pièce à la brosse en fil de fer, et le meulage génèrent des étincelles et des particules métalliques volantes. Pendant la période de refroidissement des soudures, elles risquent de projeter du laitier.
- Porter des lunettes de sécurité avec écrans latéraux ou un écran facial.

LES FUMÉES ET LES GAZ peuvent être dangereux.

Le soudage génère des fumées et des gaz. Leur inhalation peut être dangereux pour votre santé.

- Eloigner votre tête des fumées. Ne pas respirer les fumées.
- À l'intérieur, ventiler la zone et/ou utiliser une ventilation forcée au niveau de l'arc pour l'évacuation des fumées et des gaz de soudage. Pour déterminer la bonne ventilation, il est recommandé de procéder à un prélèvement pour la composition et la quantité de fumées et de gaz auxquelles est exposé le personnel.
- Si la ventilation est médiocre, porter un respirateur anti-vapeurs approuvé.
- 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.
- Travailler dans un espace fermé seulement s'il est bien ventilé ou en portant un respirateur à alimentation d'air. Demander toujours à un surveillant dûment formé de se tenir à proximité. Des fumées et des gaz de soudage peuvent déplacer l'air et abaisser le niveau d'oxygène provoquant des blessures ou des accidents mortels. S'assurer que l'air de respiration ne présente aucun danger.
- Ne pas souder dans des endroits situés à proximité d'opérations de dégraissage, de nettoyage ou de pulvérisation. La chaleur et les rayons de l'arc peuvent réagir en présence de vapeurs et former des gaz hautement toxiques et irritants.
- Ne pas souder des métaux munis d'un revêtement, tels que l'acier galvanisé, plaqué en plomb ou au cadmium à moins que le revêtement n'ait été enlevé dans la zone de soudure, que l'endroit soit bien ventilé, et en portant un respirateur à alimentation d'air. Les revêtements et tous les métaux renfermant ces éléments peuvent dégager des fumées toxiques en cas de soudage.

LES ACCUMULATIONS DE GAZ risquent de provoquer des blessures ou même la mort.

- Fermer l'alimentation du gaz comprimé en cas de non utilisation.
- Veiller toujours à bien aérer les espaces confinés ou se servir d'un respirateur d'adduction d'air homologué.

LES RAYONS DE L'ARC peuvent provoquer des brûlures dans les yeux et sur la peau.

Le rayonnement de l'arc du procédé de soudage génère des rayons visibles et invisibles intenses (ultraviolets et infrarouges) susceptibles de provoquer des brûlures dans les yeux et sur la peau. Des étincelles sont projetées pendant le soudage.

- Porter un casque de soudage approuvé muni de verres filtrants approprié pour protéger visage et yeux pendant le soudage (voir ANSI Z49.1 et Z87.1 énuméré dans les normes de sécurité).
- Porter des lunettes de sécurité avec écrans latéraux même sous votre casque.
- Avoir recours à des écrans protecteurs ou à des rideaux pour protéger les autres contre les rayonnements les éblouissements et les étincelles ; prévenir toute personne sur les lieux de ne pas regarder l'arc.
- Porter une protection corporelle en cuir ou des vêtements ignifuges (FRC). La protection du corps comporte des vêtements sans huile, comme des gants de cuir, une chemise solide, des pantalons sans revers, des chaussures hautes et une casquette.

LE SOUDAGE peut provoquer un incendie ou une explosion.

Le soudage effectué sur des conteneurs fermés tels que des réservoirs, tambours ou des conduites peut provoquer leur éclatement. Des étincelles peuvent être projetées de l'arc de soudure. La projection d'étincelles, des pièces chaudes et des équipements chauds peut provoquer des incendies et des brûlures. Le contact accidentel de l'électrode avec des objets métalliques peut provoquer des étincelles, une explosion, un surchauffement ou un incendie. Avant de commencer le soudage, vérifier et s'assurer que l'endroit ne présente pas de danger.

- Déplacer toutes les substances inflammables à une distance de 10,7 m de l'arc de soudage. En cas d'impossibilité les recouvrir soigneusement avec des protections homologués.
- Ne pas souder dans un endroit là où des étincelles peuvent tomber sur des substances inflammables.
- Se protéger et d'autres personnes de la projection d'étincelles et de métal chaud.
- Des étincelles et des matériaux chauds du soudage peuvent facilement passer dans d'autres zones en traversant de petites fissures et des ouvertures.
- Surveiller tout déclenchement d'incendie et tenir un extincteur à proximité.
- Le soudage effectué sur un plafond, plancher, paroi ou séparation peut déclencher un incendie de l'autre côté.
- Ne pas couper ou souder des jantes ou des roues. Les pneus peuvent exploser s'ils sont chauffés. Les jantes et les roues réparées peuvent défaillir. Voir OSHA 29 CFR 1910.177 énuméré dans les normes de sécurité.
- Ne pas effectuer le soudage sur des conteneurs fermés tels que des réservoirs, tambours, ou conduites, à moins qu'ils n'aient été préparés correctement conformément à AWS F4.1 (voir les Normes de Sécurité).
- Ne pas souder là où l'air ambiant pourrait contenir des poussières, gaz ou émanations inflammables (vapeur d'essence, par exemple).
- Brancher le câble de masse sur la pièce le plus près possible de la zone de soudage pour éviter le transport du courant sur une longue distance par des chemins inconnus éventuels en provoquant des risques d'électrocution, d'étincelles et d'incendie.
- Ne pas utiliser le poste de soudage pour dégeler des conduites gelées.
- En cas de non utilisation, enlever la baguette d'électrode du porte-électrode ou couper le fil à la pointe de contact.

- Porter une protection corporelle en cuir ou des vêtements ignifuges (FRC). La protection du corps comporte des vêtements sans huile, comme des gants de cuir, une chemise solide, des pantalons sans revers, des chaussures hautes et une casquette.
- Avant de souder, retirer toute substance combustible de vos poches telles qu'un allumeur au butane ou des allumettes.
- Une fois le travail achevé, assurez-vous qu'il ne reste aucune trace d'étincelles incandescentes ni de flammes.
- Utiliser exclusivement des fusibles ou coupe-circuits appropriés. Ne pas augmenter leur puissance; ne pas les ponter.
- Suivre les recommandations dans OSHA 1910.252 (a) (2) (iv) et NFPA 51B pour les travaux à chaud et avoir de la surveillance et un extincteur à proximité.
- 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.

Le BRUIT peut endommager l'ouïe.

Le bruit des processus et des équipements peut affecter l'ouïe.

- Porter des protections approuvées pour les oreilles si le niveau sonore est trop élevé.

Les CHAMPS ÉLECTROMAGNÉTIQUES (CEM) peuvent affecter les implants médicaux.

- Les porteurs de stimulateurs cardiaques et autres implants médicaux doivent rester à distance.
- Les porteurs d'implants médicaux doivent consulter leur médecin et le fabricant du dispositif avant de s'approcher de la zone où se déroule du soudage à l'arc, du soudage par points, du gougeage, de la découpe plasma ou une opération de chauffage par induction.

Si des BOUTEILLES sont endommagées, elles pourront exploser.

Des bouteilles de gaz comprimé protecteur contiennent du gaz sous haute pression. Si une bouteille est endommagée, elle peut exploser. Du fait que les bouteilles de gaz font normalement partie du procédé de soudage, les manipuler avec précaution.

- Protéger les bouteilles de gaz comprimé d'une chaleur excessive, des chocs mécaniques, des dommages physiques, du laitier, des flammes ouvertes, des étincelles et des arcs.
- Placer les bouteilles debout en les fixant dans un support stationnaire ou dans un porte-bouteilles pour les empêcher de tomber ou de se renverser.
- Tenir les bouteilles éloignées des circuits de soudage ou autres circuits électriques.
- Ne jamais placer une torche de soudage sur une bouteille à gaz.
- Une électrode de soudage ne doit jamais entrer en contact avec une bouteille.
- Ne jamais souder une bouteille pressurisée - risque d'explosion.
- Utiliser seulement des bouteilles de gaz comprimé, régulateurs, tuyaux et raccords convenables pour cette application spécifique; les maintenir ainsi que les éléments associés en bon état.
- Tourner le dos à la sortie de vanne lors de l'ouverture de la vanne de la bouteille. Ne pas se tenir devant ou derrière lerégulateur lors de l'ouverture de la vanne.
- Maintenir le chapeau de protection sur la soupape, sauf en cas d'utilisation ou de branchement de la bouteille.
- Utilisez les équipements corrects, les bonnes procédures et suffisamment de personnes pour soulever, déplacer et transporter les bouteilles.
- Lire et suivre les instructions sur les bouteilles de gaz comprimé, l'équipement connexe et le dépliant P-1 de la CGA (Compressed Gas Association) mentionné dans les principales normes de sécurité.

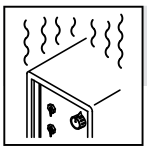
2-3. Symboles de dangers supplémentaires en relation avec l'installation, le fonctionnement et la maintenance

Risque D'INCENDIE OU D'EXPLOSION.

- Ne pas placer l'appareil sur, au-dessus ou à proximité de surfaces inflammables.
- Ne pas installer l'appareil à proximité de produits inflammables
- Ne pas surcharger l'installation électrique – s'assurer que l'alimentation est correctement dimensionné et protégé avant de mettre l'appareil en service.

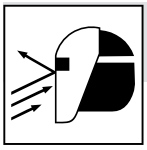
LA CHUTE DE L'ÉQUIPEMENT peut provoquer des blessures.

- Utiliser l'anneau de levage uniquement pour soulever l'appareil, NON PAS les organes de roulement, les bouteilles de gaz ou tout autre accessoire.
- 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 Nº94–110) lors du levage manuelle de pièces ou équipements lourds.



L'EMPLOI EXCESSIF peut SURCHAUFFER L'ÉQUIPEMENT.

- Laisser l'équipement refroidir ; respecter le facteur de marche nominal.
- Réduire le courant ou le cycle opératoire avant de recommencer le soudage.
- Ne pas obstruer les passages d'air du poste.



LES ÉTINCELLES PROJETÉES peuvent provoquer des blessures.

- Porter un écran facial pour protéger le visage et les yeux.
- Affûter l'électrode au tungstène uniquement à la meuleuse dotée de protecteurs. Cette manœuvre est à exécuter dans un endroit sûr lorsque l'on porte l'équipement homologué de protection du visage, des mains et du corps.
- Les étincelles risquent de causer un incendie - éloigner toute substance inflammable.

LES CHARGES ÉLECTROSTATIQUES peuvent endommager les circuits imprimés.

- Établir la connexion avec la barrette de terre AVANT de manipuler des cartes ou des pièces.

- Utiliser des pochettes et des boîtes antistatiques pour stocker, déplacer ou expédier des cartes de circuits imprimes.

Les PIÈCES MOBILES peuvent causer des blessures.

- Ne pas s'approcher des organes mobiles.
- Ne pas s'approcher des points de coincement tels que des rouleaux de commande.

LES FILS DE SOUDAGE peuvent provoquer des blessures.

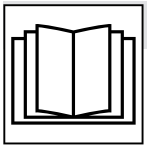
- Ne pas appuyer sur la gachette avant d'en avoir reçu l'instruction.
- Ne pas diriger le pistolet vers soi, d'autres personnes ou toute pièce mécanique en engageant le fil de soudage.

L'EXPLOSION DE LA BATTERIE peut provoquer des blessures.

- Ne pas utiliser l'appareil de soudage pour charger des batteries ou faire démarrer des véhicules à l'aide de câbles de démarrage, sauf si l'appareil dispose d'une fonctionnalité de charge de batterie destinée à cet usage.

Les PIÈCES MOBILES peuvent causer des blessures.

- S'abstenir de toucher des organes mobiles tels que des ventilateurs.
- 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.



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.
- N'utiliser que des pièces de remplacement provenant 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.

LE RAYONNEMENT HAUTE FRÉQUENCE (H.F.) risque de provoquer des interférences.

- Le rayonnement haute fréquence (H. F.) peut provoquer des interférences avec les équipements de radio-navigation et de communication, les services de sécurité et les ordinateurs.
- Demander seulement à des personnes qualifiées familiarisées avec des équipements électroniques de faire fonctionner l'installation.
- L'utilisateur est tenu de faire corriger rapidement par un électricien qualifié les interférences résultant de l'installation.
- Si le FCC signale des interférences, arrêter immédiatement l'appareil.
- Effectuer régulièrement le contrôle et l'entretien de l'installation.
- Maintenir soigneusement fermés les portes et les panneaux des sources de haute fréquence, maintenir les éclateurs à une distance correcte et utiliser une terre et un blindage pour réduire les interférences éventuelles.

LE SOUDAGE À L'ARC risque de provoquer des interférences.

- L'énergie électromagnétique risque de provoquer des interférences pour l'équipement électronique sensible tel que les ordinateurs et l'équipement commandé par ordinateur tel que les robots.
- Veiller à ce que tout l'équipement de la zone de soudage soit compatible électromagnétiquement.
- Pour réduire la possibilité d'interférence, maintenir les câbles de soudage aussi courts que possible, les grouper, et les poser aussi bas que possible (ex. par terre).
- Veiller à souder à une distance de 100 mètres de tout équipement électronique sensible.
- Veiller à ce que ce poste de soudage soit posé et mis à la terre conformément à ce mode d'emploi.
- En cas d'interférences après avoir pris les mesures précédentes, il incombe à l'utilisateur de prendre des mesures supplémentaires telles que le déplacement du poste, l'utilisation de câbles blindés, l'utilisation de filtres de ligne ou la pose de protecteurs dans la zone de travail.

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

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.

SOM_fre 2022–01

2-6. Informations relatives aux CEM

Le courant électrique qui traverse tout conducteur génère des champs électromagnétiques (CEM) à certains endroits. Le courant issu d'un soudage à l'arc (et de procédés connexes, y compris le soudage par points, le gougeage, le découpage plasma et les opérations de chauffage par induction) crée un champ électromagnétique (CEM) autour du circuit de soudage. Les champs électromagnétiques produits peuvent causer interférence à certains implants médicaux, p. ex. les stimulateurs cardiaques. Des mesures de protection pour les porteurs d'implants médicaux doivent être prises: par exemple, des restrictions d'accès pour les passants ou une évaluation individuelle des risques pour les soudeurs. Tous les soudeurs doivent appliquer les procédures suivantes pour minimiser l'exposition aux CEM provenant du circuit de soudage:

1. Rassembler les câbles en les torsadant ou en les attachant avec du ruban adhésif ou avec une housse.
2. Ne pas se tenir au milieu des câbles de soudage. Disposer les câbles d'un côté et à distance de l'opérateur.
3. Ne pas courber et ne pas entourer les câbles autour de votre corps.
4. Maintenir la tête et le torse aussi loin que possible du matériel du circuit de soudage.
5. Connecter la pince sur la pièce aussi près que possible de la soudure.
6. Ne pas travailler à proximité d'une source de soudage, ni s'asseoir ou se pencher dessus.
7. Ne pas souder tout en portant la source de soudage ou le dévidoir.

En ce qui concerne les implants médicaux :

Les porteurs d'implants doivent d'abord consulter leur médecin avant de s'approcher des opérations de soudage à l'arc, de soudage par points, de gougeage, du coupage plasma ou de chauffage par induction. Si le médecin approuve, il est recommandé de suivre les procédures précédentes.

SECTION 3 – SPECIFICATIONS

3-1. Serial Number And Rating Label Location

The serial number and rating information for this product is located on the back. 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.

3-2. Specifications

Input Power	Welding Power Source Type	Wire Feed Speed	Wire Diameter Range	Input Welding Circuit Rating	Max. Wire Spool Capacity	Overall Dimensions	Weight
Open-Circuit/ Arc Voltage, 12 - 110 Volts DC	Constant Voltage (CV) Or Constant Current (CC) DC Power Source Only	50 - 780 ipm (1.3 - 19.8 mpm) At high motor torque / low arc voltage settings, maximum motor speed may be limited	Solid Wire .035 - 5/64 in. (0.9 To 1.9 mm) Flux Cored .045 - 3/32 in. (1.1 To 2.4 mm)	450 Amperes At 100% Duty Cycle 500 Amperes At 60% Duty Cycle CAG = 600 Amperes At 40% Duty Cycle	60 lb (27.2 kg) 18 in. (457 mm)	Base Assembly Height = 15.3 in. (388 mm) Width = 16.7 in. (424 mm) Length = 32.8 in. (833 mm) Roller Assembly Height = 28.2 in. (716 mm) Width = 19.9 in. (505 mm) Length = 42.7 in. (1084 mm) Cart Assembly Height = 20.0 in. (508 mm) Width = 24.9 in. (632 mm) Length = 36.3 in. (922 mm)	Base Assembly 101 lb (45.8 kg) Roller Assembly 123 lb (55.7 kg) Cart Assembly 120 lb (54.4 kg)

3-3. Wire Type, Size, And Feed Speed Capability Table

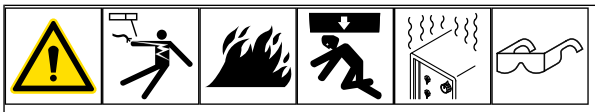
Motor Speed	Wire Type	Wire Size	Rated Speed Range*
Standard	All	Solid Wire .035 - 5/64 in. (0.9 To 1.9 mm) Flux Cored .045 - 3/32 in. (1.1 To 2.4 mm)	50 - 780 ipm (1.3 - 19.8* mpm)
*Rated speed range per IEC 60974-5			

3-4. Gun Recommendation Table

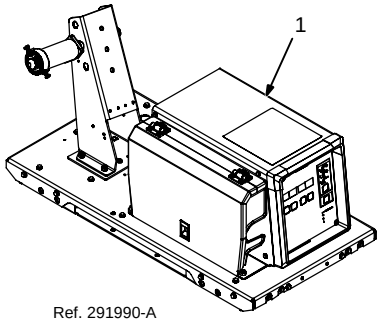
Process	Gun
GMAW - Hard or Cored Wires	Bernard Q-Gun, S-Gun Tregaskiss Tough Gun Roughneck C-Series
FCAW - Self-Shielding Wires	Bernard Dura-Flux Gun Ironmate Series

SECTION 4 – INSTALLATION

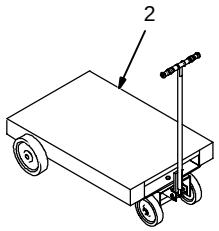
4-1. Selecting A Location

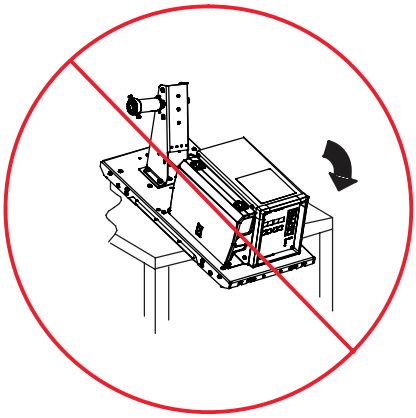


Movement



Ref. 291990-A





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

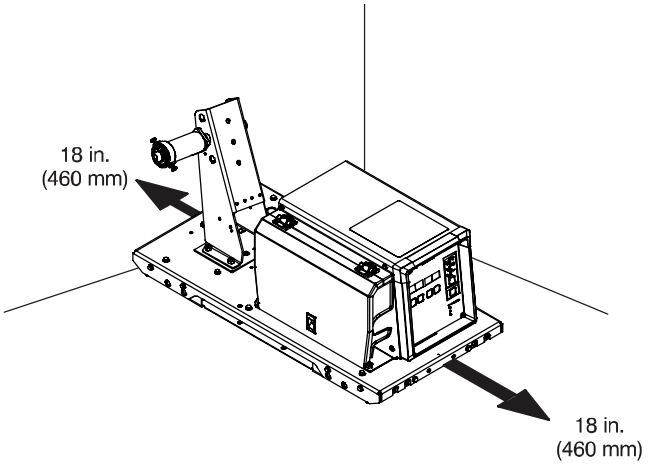
⚠ **Special installation may be required where gasoline or volatile liquids are present - see NEC Article 511 or CEC Section 20.**

1 Wire Feeder

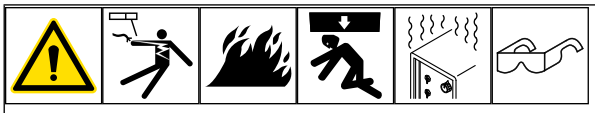
2 Hand Cart

Use hand cart or similar device to move unit.

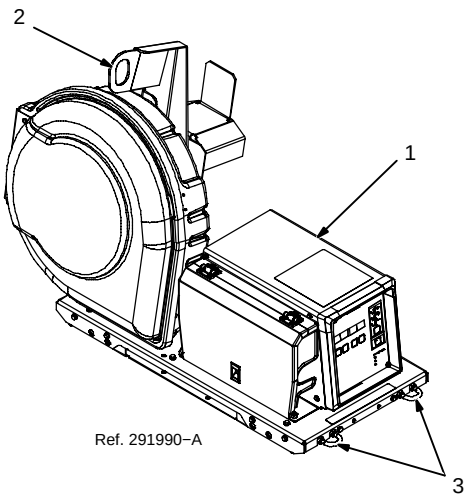
Location And Airflow

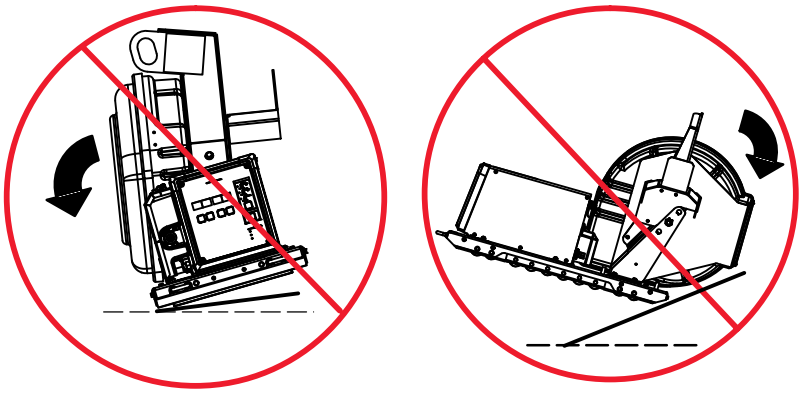


4-2. Selecting A Location (Roller Base)



Movement





⚠ **Do not stack units. Beware of tipping.**

⚠ **Special installation may be required where gasoline or volatile liquids are present - see NEC Article 511 or CEC Section 20.**

1 Wire Feeder

2 Lifting Eye

The lifting eye is used for lifting the unit overhead.

Lifting Eye Weight Rating: 250 lb (113.4 kg)

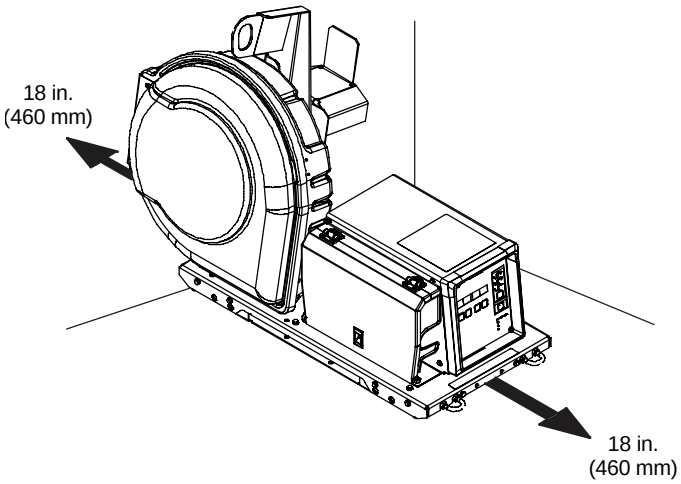
☞ *Lifting Eye Weight Rating is for roller base configuration only*

3 U-Bolts

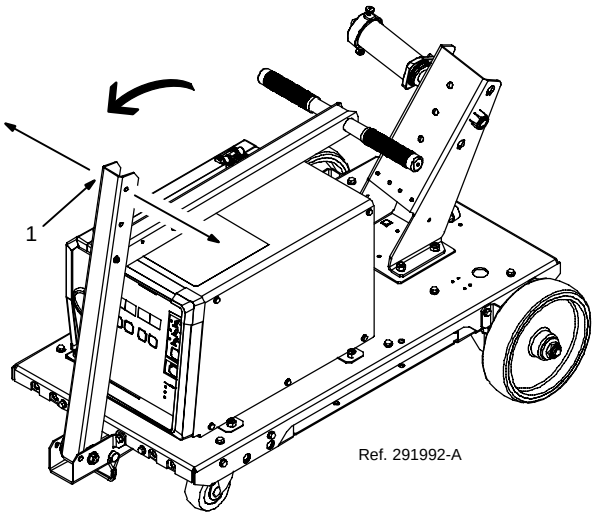
The u-bolts are only intended for moving the unit on a horizontal surface.

☞ *Do not use u-bolts for overhead lifting.*

Location And Airflow



4-3. Handling Means And Assembly Of Cart Option



Ref. 291992-A

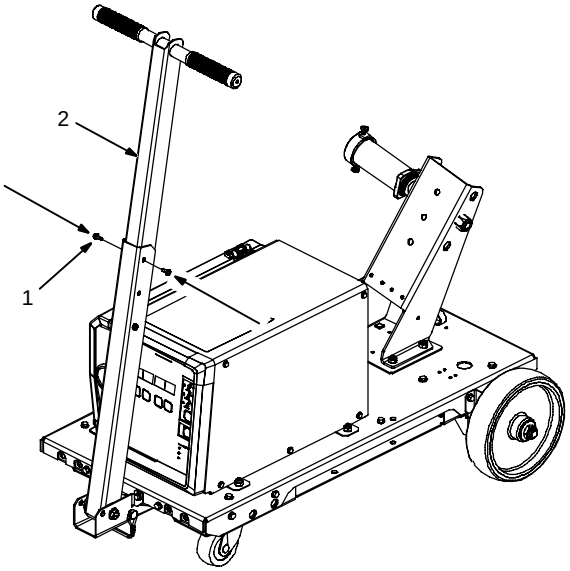
1 Screws (2)

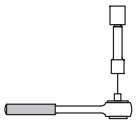
Remove 2 screws from handle.

2 Handle

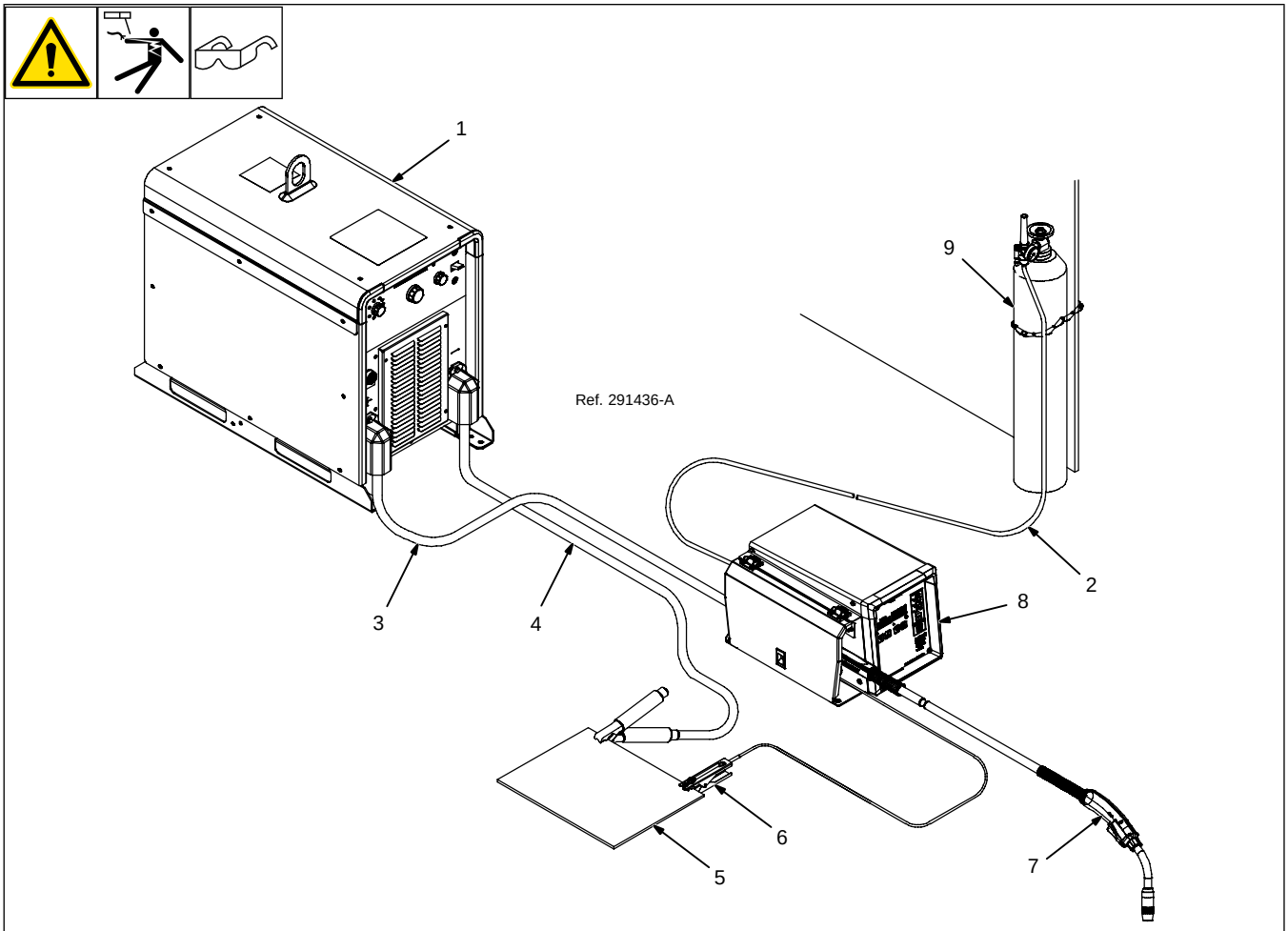
Lift handle into position as shown and reinstall screws.

Torque screws to 40 in. lb.





4-4. Connection Diagram



⚠ **Turn Off wire feeder and welding power source. Stop engine on welding generator.**

⚠ **Do not move or operate equipment where it could tip.**

⚠ **Use only with CV DC power sources.**

☞ *For correct polarity when using CAG-A, the feeder must be connected to the Positive (+) stud on an NPR (Non Polarity Reversing) power source, or to the Electrode stud on a PR (Polarity Reversing) power source. See power source owner's manual for details.*

1 Welding Power Source
2 Gas Hose
3 Weld Cable To Feeder
4 Weld Cable To Workpiece

Weld cable and work cable connections to power source (DCEN/DCEP) are dependant on wire type.

5 Workpiece
6 Voltage Sensing Clamp

Connect voltage sensing clamp to workpiece.

7 Gun
8 Wire Feeder
9 Gas Cylinder

Use of shielding gas is dependant on wire type.

☞ *Shielding gas pressure not to exceed 100 psi (689 kPa).*

☞ *See 4-9 for feeder connection details.*

4-5. ArcReach Applications

☞ *To take advantage of the ArcReach features, the ArcReach wire feeder must be used with an ArcReach compatible welding power source. The ArcReach wire feeder may also be used as a standard feeder on any Non-ArcReach power source.*

☞ *This wire feeder has the ability to associate with an ArcReach compatible welding power source at power up. The welding power source must be in an Output On mode. See instructions in the welding power source Owner's Manual.*

☞ *This wire feeder has the Cable Length Compensation feature, see Section 5-4 for details.*

4-6. Associating Wire Feeder To ArcReach Compatible Power Source

Associating wire feeder to an ArcReach compatible welding power source at power up

☞ *The welding power source must be in an Output On mode. See instructions in the welding power source Owner's Manual.*

☞ *If associating to a Power Source with the Cable Length Compensation feature, see Section 5-4 for details.*

1 Connect feeder to power source.

2 Turn on the welding power source.

3 Decimal points on feeder voltmeter will blink.

4 When decimal points stop blinking and a voltage is displayed, the feeder and power source are associated. The association process may take several seconds to complete.

5 Dependent on the capabilities of the ArcReach power source, the feeder may set the mode switch to the correct wire mode. The wire mode is determined by the polarity of the connections to the feeder. Otherwise, the feeder will default to the last process used, or to a default process based on polarity. On a CLC power source, wait until CLC calculation is complete. Verify process selected before proceeding. Do not weld before this step is complete. See 5-4 for details.

6 Use voltage control on feeder to adjust preset weld voltage.

7 The voltmeter on the feeder will display preset weld voltage while idle or weld voltage while welding.

4-7. Equipment Setup

☞ *To take advantage of the ArcReach features, the ArcReach wire feeder must be used with an ArcReach compatible welding power source. The ArcReach wire feeder may also be used as a standard feeder on any Non-ArcReach power source.*

During ArcReach operation, weld voltage and wire feed speed are set at the wire feeder front panel. Voltage control is disabled at the welding power source.

Using the ArcReach wire feeder with an ArcReach compatible welding power source

1 For the wire feeder to control the welding power source, the wire feeder and power source must be associated. If the wire feeder is not associated to the welding power source, the wire feeder will try to associate to a welding power source when the trigger is pulled. See Section 4-6 to associate the wire feeder to an ArcReach compatible power source.

2 When association is complete, the voltage display on the wire feeder will display preset voltage. The preset voltages of the wire feeder and the welding power source should be within 0.5 volts of each other.

3 While adjusting the voltage control on the feeder, the voltage display will show preset voltage.

4 While welding, the wire feeder displays weld voltage at the wire feeder.

5 While welding, due to the voltage drops in the weld cable, the voltage display at the wire feeder and the voltage display at the welding power source will not match. The preset voltage at the wire feeder must be set to a higher value to compensate for the voltage drop of the weld cable. Example: if welding voltage of 18 volts is desired at the wire feeder and there is a 4 volt drop in the weld cable, the preset voltage at the wire feeder should be 22 volts (18V + 4V = 22V).

☞ *When CLC is not available, the preset voltage at the wire feeder must be set to a higher value to compensate for the voltage drop of the weld cable. Example: If welding voltage of 18 volts is desired at the wire feeder and there is a 4 volt drop in the weld cable, the preset voltage at the wire feeder should be 22 volts (18V + 4V = 22V).*

6 When the wire feeder and welding power are associated, they will stay associated until the power source is turned off, or the feeder is disconnected. The wire feeder can lose power for up to ten seconds and still recover its association with the welding power source or ArcReach Control. This is for situations where the wire feeder may momentarily lose power due to a prolonged short circuit condition in the welding process.

Using the ArcReach wire feeder with a Non-ArcReach compatible welding power source

1 The wire feeder may be used with any constant voltage (CV) DC welding power source.

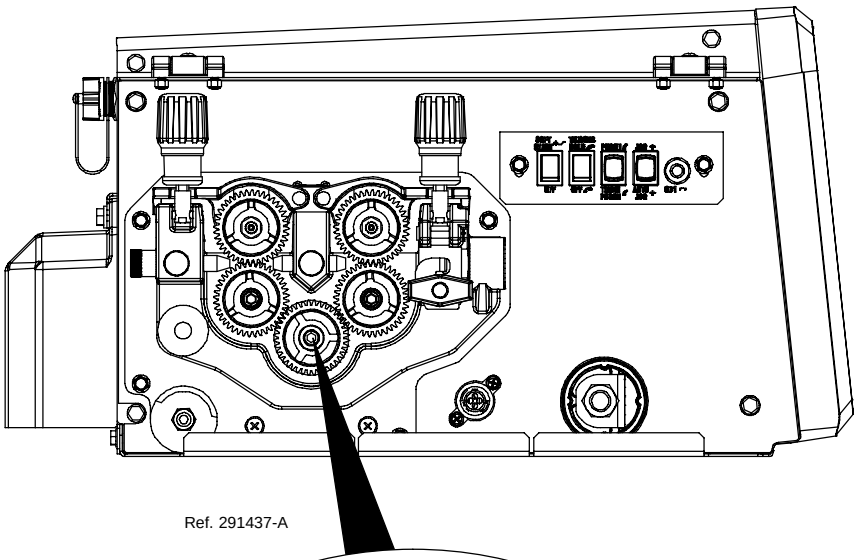
2 The wire feeder will automatically work on a non-ArcReach compatible welding power source. There are no switches or jumpers to change.

3 The ArcReach features will not be available.

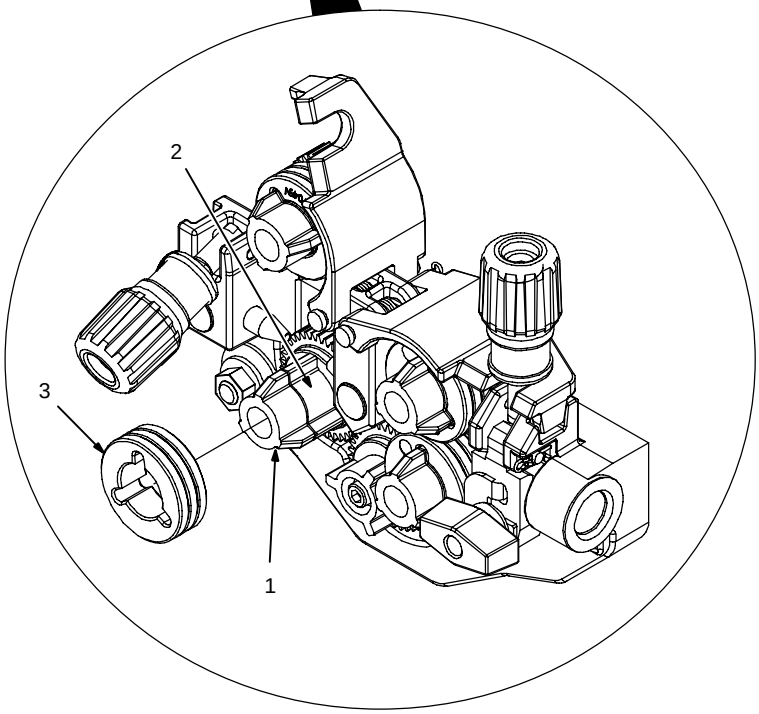
4 The voltage control on front panel will be non-functional.

5 While welding, the voltage display on the wire feeder will display weld voltage at the wire feeder.

4-8. Installing Drive Rolls



Ref. 291437-A



Installing Drive Rolls:

1 Drive Securing Roll Nut

2 Drive Roll Carrier

Turn nut one click until lobes of nut line up with lobes of drive roll carrier.

3 Drive Roll

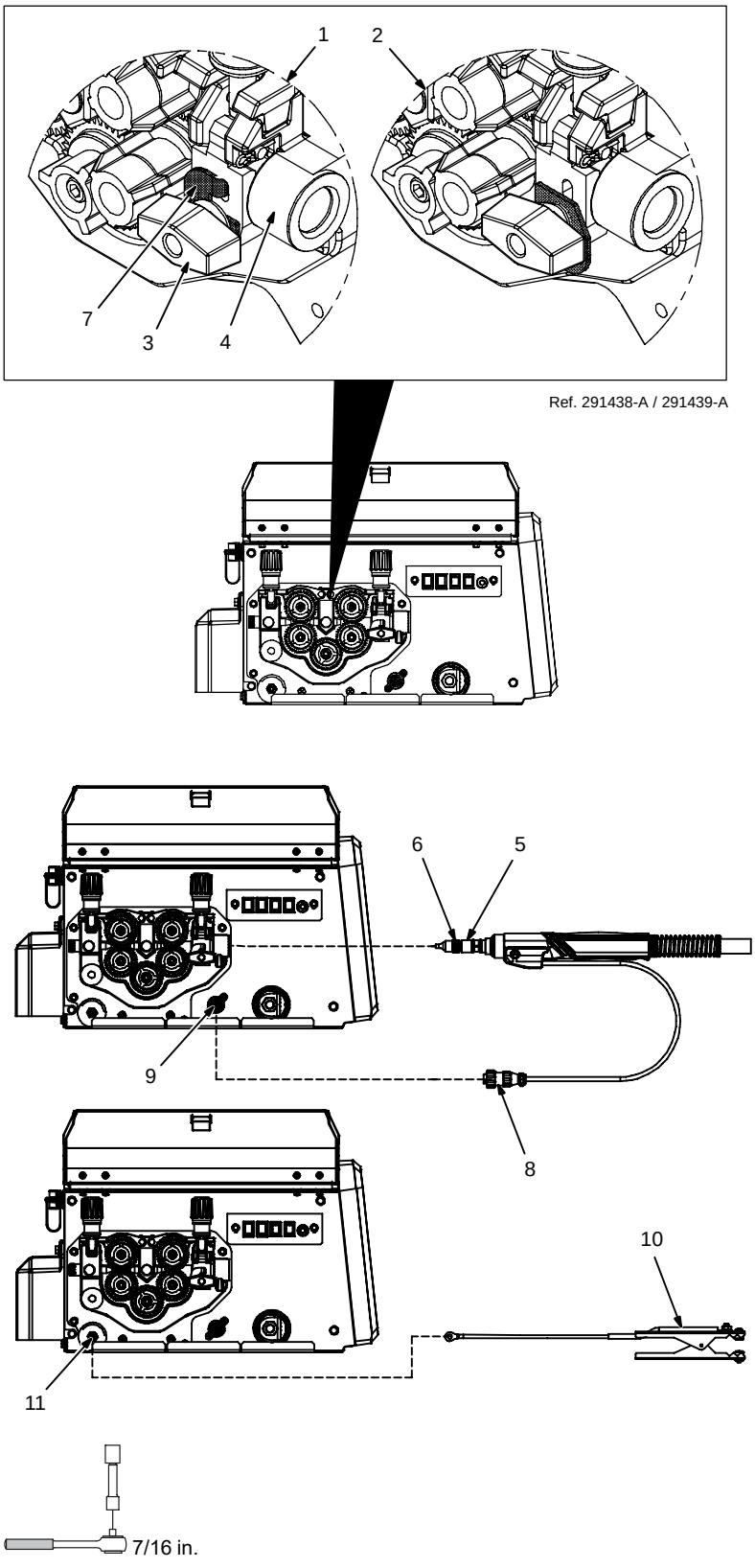
Slide drive roll onto drive roll carrier. Turn nut one click.

Repeat procedure for top drive roll.

Cleaning Drive Rolls:

Remove drive rolls, and clean grooves using a wire brush.

4-9. Connecting Welding Gun And Voltage Sensing Clamp



Ref. 291438-A / 291439-A

⚠ **Turn Off wire feeder and welding power source. Stop engine on welding generator.**

⚠ **Weld voltage is present at voltage sensing clamp when wire feeder and welding power source are on. This condition exists even if wire feeder light and meters are off.**

⚠ **Turn off wire feeder or welding power source before handling or moving voltage sensing clamp.**

1 **Gun Locking Tab In Place**

2 **Gun Locking Tab Out Of Place**

3 Gun Securing Knob

4 Gun Block

5 Gun Power Pin

6 Power Pin Groove

7 Gun Locking Tab

Loosen gun securing knob, insert gun power pin into gun block. Position power pin as close as possible to drive rolls without touching. Align the gun power pin groove with the gun locking tab. Tighten gun securing knob.

If the gun power pin does not have a groove, loosen knob to rotate the gun locking tab 180 degrees. This prevents the the gun locking tab from interfering with the gun power pin when inserted into the gun block. Insert the gun power pin into the gun block. Position power pin as close as possible to drive rolls without touching them. Tighten gun securing knob.

8 Gun Trigger Plug

9 Gun Trigger Receptacle

Connect gun trigger plug to gun trigger receptacle.

See Section 5-3 to make wire speed dual schedule connections to gun trigger receptacle.

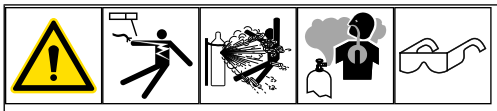
10 Voltage Sensing Clamp

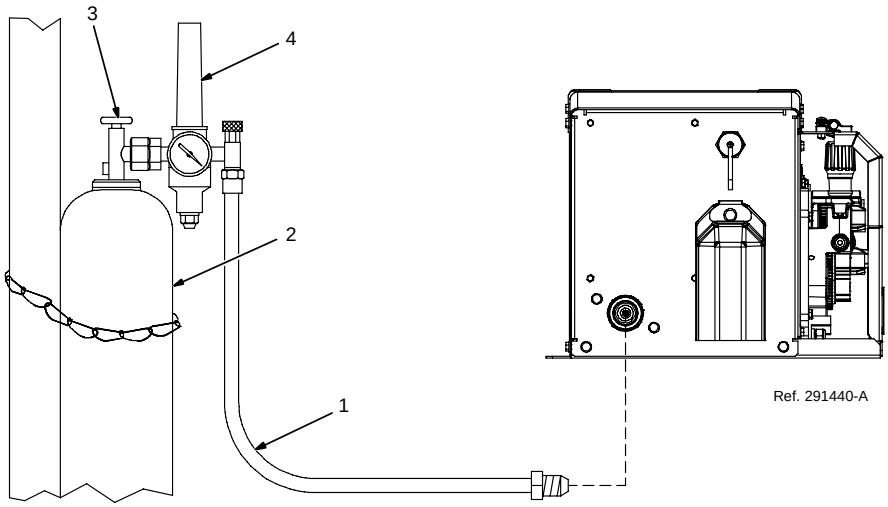
11 Voltage Sensing Stud

Torque to 50 in. lb.

Connect voltage sensing clamp to workpiece.

4-10. Connecting Shielding Gas





NOTICE – *This feeder has a shielding gas filter that requires special attention when cleaning. See Section 6-3 for proper cleaning instructions.*

1 Gas Hose With 5/8-18 Right-hand Thread Fittings (Customer Supplied)

☞ *Tighten gas hose fitting to a maximum of 100 in. lbs (12 Nm).*

2 Shielding Gas Cylinder

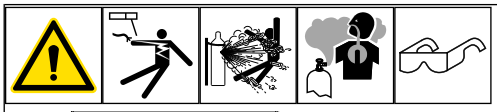
☞ *Shielding gas pressure not to exceed 100 psi (689 kPa).*

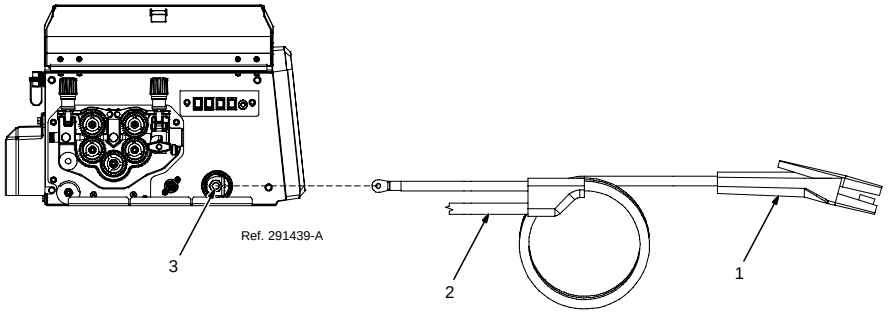
3 Valve

4 Flowmeter

Close valve on cylinder when finished welding.

4-11. Connecting CAC-A





3/4 in.

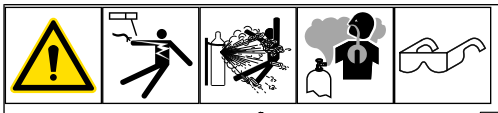
⚠ **Weld voltage is present at electrode holder for 30 seconds after gouging.**

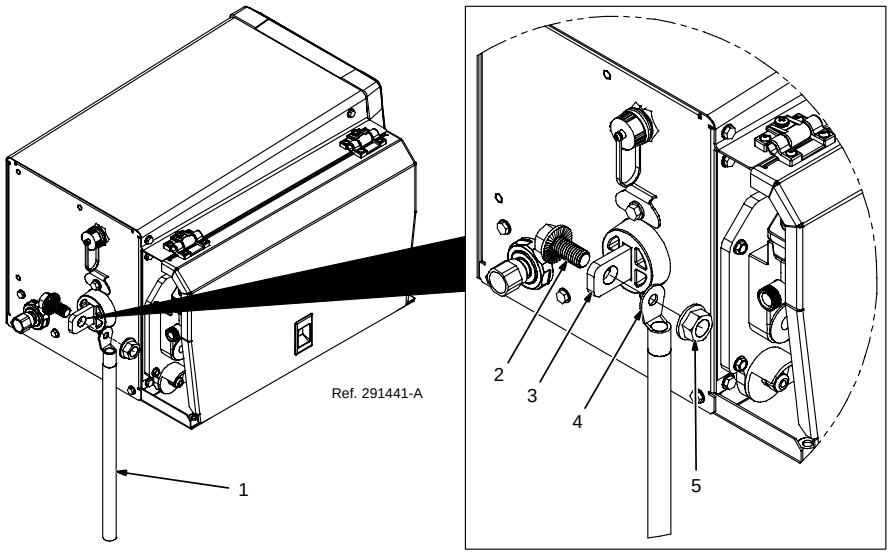
1 Electrode Holder

2 Compressed Air

3 CAC-A Connection Terminal

4-12. Connecting Weld Cable





3/4 in.

⚠ **Turn off power before connecting to weld terminal or receptacle.**

⚠ **Do not use worn, damaged, undersized, or repaired cables.**

⚠ **Failure to properly connect weld cables may cause excessive heat and start a fire, or damage your machine.**

1 User-Supplied Weld Cable

Follow wire manufacturer's recommendations for weld cable polarity.

2 Weld Bolt
3 Weld Terminal
4 Weld Cable Terminal
5 Supplied Nut

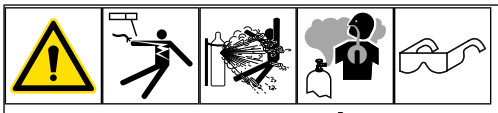
Remove supplied bolt and nut from weld output terminal.

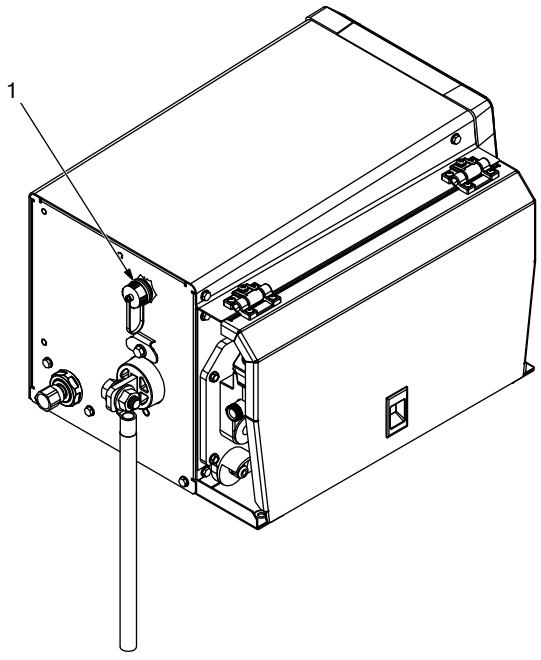
Secure weld cable terminals to output terminal with nut and bolt as shown, so that weld cable terminal is tight against copper bar.

Do not place anything between weld cable terminal and copper bar.

Make sure that the surfaces of the weld cable terminal and copper bar are clean.

4-13. USB Functionality





1 USB Port

Remove protective cap to access USB port

Software Update:

Download appropriate update file from Millerwelds.com onto a USB stick

☞ *Be sure the USB is formatted to work on a PC*

Power up feeder, and insert USB stick

Update will start prior to binding with power source

Wait for USB DONE to appear on LED's of feeder

Remove USB

Cycle power on feeder to complete update

4-14. Selecting Cable Sizes*

⚠ **Turn off power before connecting to weld output terminals.**

⚠ **Do not use worn, damaged, undersized, or repaired cables.**

NOTICE – *The Total Cable Length in Weld Circuit (see table below) is the combined length of both weld cables. For example, if the power source is 100 ft (30 m) from the workpiece, the total cable length in the weld circuit is 200 ft (2 cables x 100 ft). Use the 200 ft (60 m) column to determine cable size.*

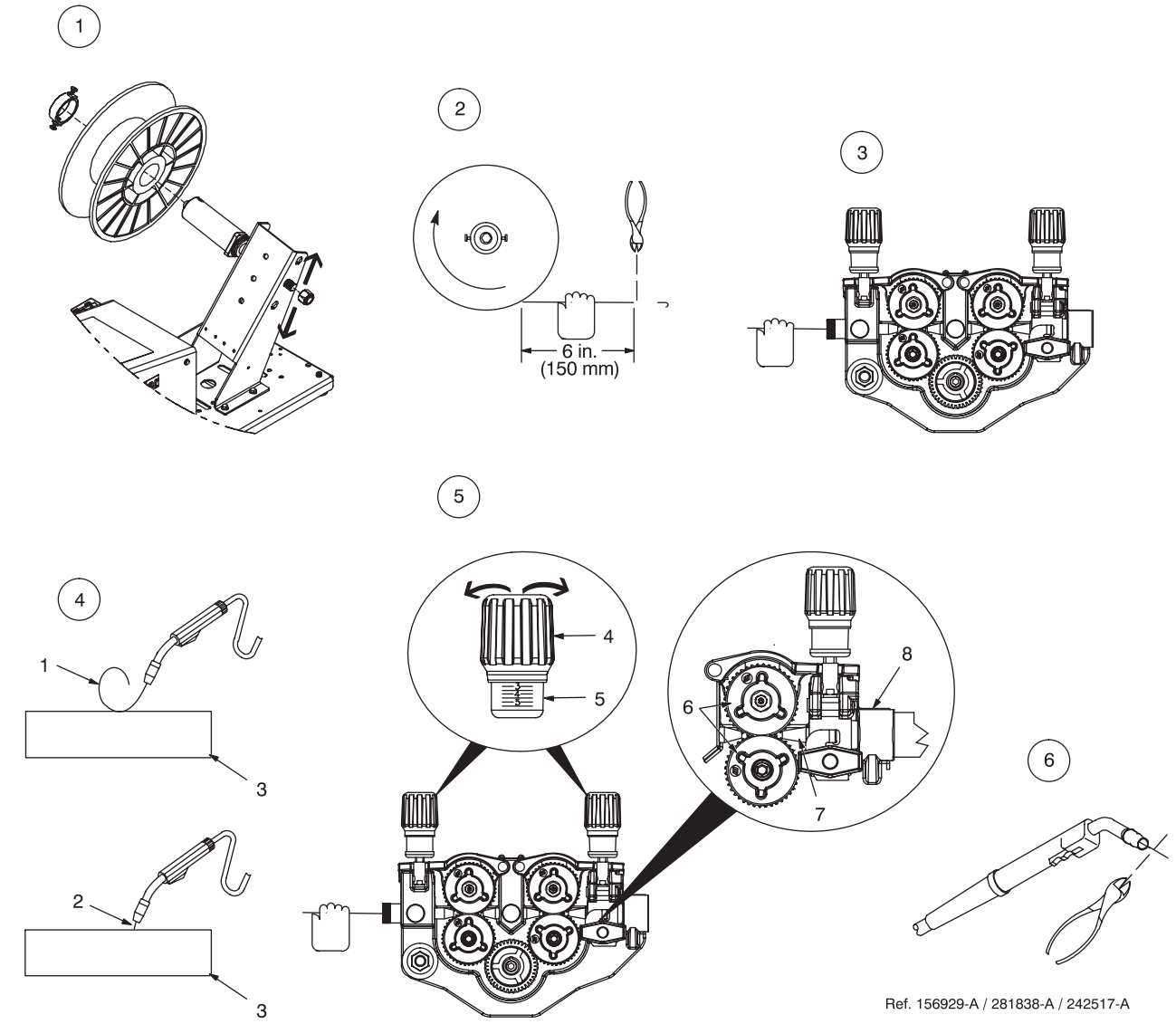
	Weld Cable Size and Total Cable (Copper) Length in Weld Circuit Not Exceeding*****							
	100 ft (30 m) or Less		**150 ft (45 m)**	**200 ft (60 m)**	**250 ft (70 m)**	**300 ft (90 m)**	**350 ft (105 m)**	**400 ft (120 m)**
Welding Amperes	**10 - 60% Duty Cycle AWG (mm²)**	**60 - 100% Duty Cycle AWG (mm²)**	**10 - 100% Duty Cycle AWG (mm²)**					
100	4 (20)	4 (20)	4 (20)	3 (30)	2 (35)	1 (50)	1/0 (60)	1/0 (60)
150	3 (30)	3 (30)	2 (35)	1 (50)	1/0 (60)	2/0 (70)	3/0 (95)	3/0 (95)
200	3 (30)	2 (35)	1 (50)	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)	4/0 (120)
250	2 (35)	1 (50)	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x2/0 (2x70)
300	1 (50)	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x3/0 (2x95)
350	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x3/0 (2x95)	2x4/0 (2x120)
400	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)	2x4/0 (2x120)
500	2/0 (70)	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)	3x3/0 (3x95)	3x3/0 (3x95)
600	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)	3x3/0 (3x95)	3x4/0 (3x120)	3x4/0 (3x120)

* This chart is a general guideline and may not suit all applications. If cable overheats, use next size larger cable.

**Weld cable size (AWG) is based on either a drop of 4 volts or less or at least 300 circular mils per ampere.
( ) = mm² for metric use.

***For distances longer than those shown in this guide, see AWS Fact Sheet No. 39, Welding Cables, available from the American Welding Society at http://www.aws.org.

4-15. Installing And Threading Welding Wire



Ref. 156929-A / 281838-A / 242517-A

☞ *Verify correct drive rolls are installed.*

1 Example Of No Wire Slippage
2 Example Of Wire Slippage
3 Nonconductive Surface
4 Pressure Adjust Knob
5 Pressure Indicator Scale
6 Drive Rolls
7 End Of Liner
8 Back Of Gun

Step 1. Select wire spool hub mounting position. Install wire spool. Adjust tension nut so wire is taut when wire feed stops.

Step 2. Pull and hold wire. Cut off end of wire.

☞ *Hold wire tightly to keep it from unraveling.*

Step 3. Push wire through guides up to drive rolls; continue to hold wire.

Install gun. Lay gun cable out straight. Cut off end of wire. Push wire through guides up to drive rolls; continue to hold wire. Press Jog button to feed wire out gun.

☞ *For best wire feeding performance, be sure that the outlet cable has the proper size liner for the welding wire size being used. Also, when the gun is installed, the liner extending from the back of the gun should be as close to the drive rolls as possible, without touching.*

Step 4. To adjust drive roll pressure, begin by holding nozzle about 2 in. (51 mm) from nonconductive surface and pressing gun trigger to feed wire against surface.

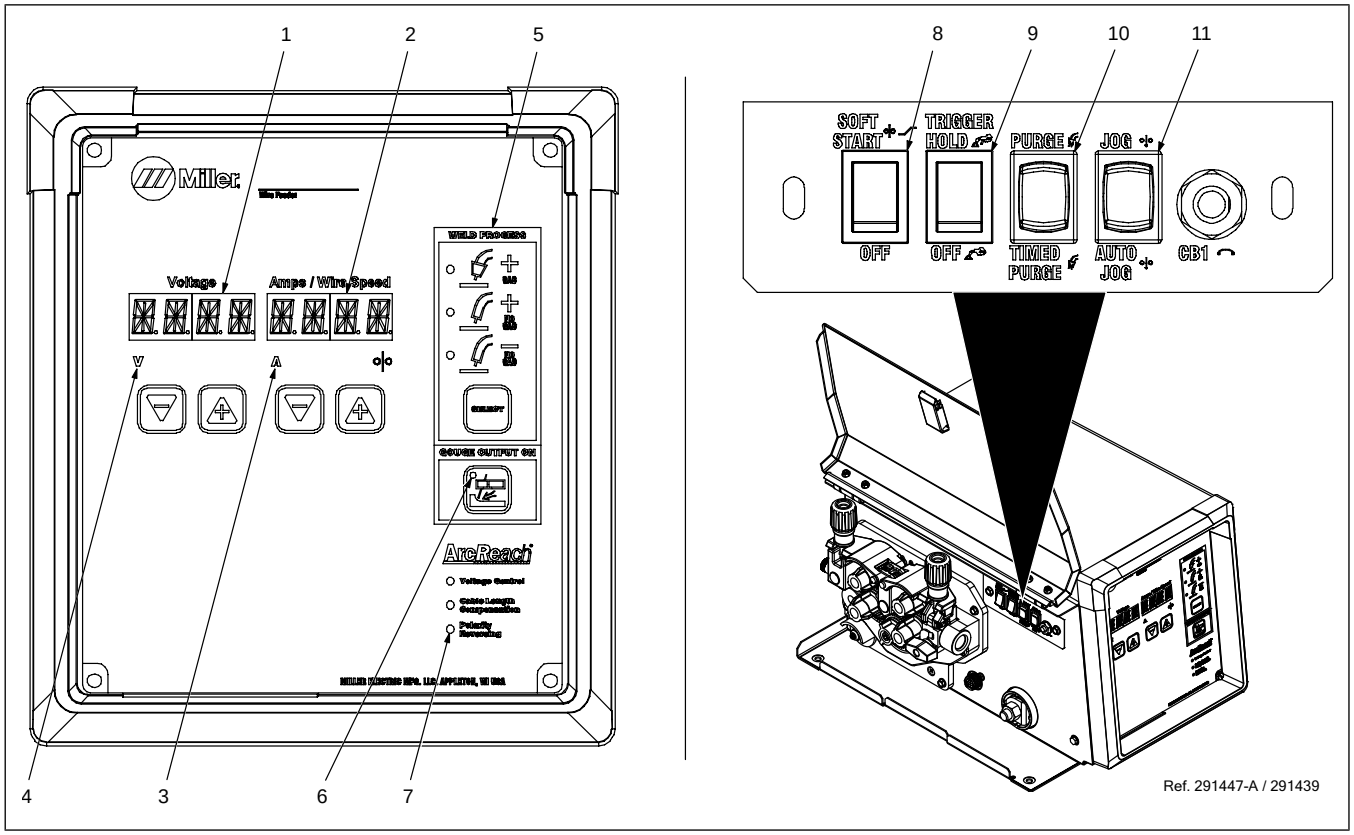
Step 5. Tighten knob so wire does not slip or wire will coil. Do not overtighten. When contact tip is completely blocked, (by moving nozzle closer) wire should slip at the feeder (see pressure adjustment in step 4).

Step 6. Cut wire off. Close cover.

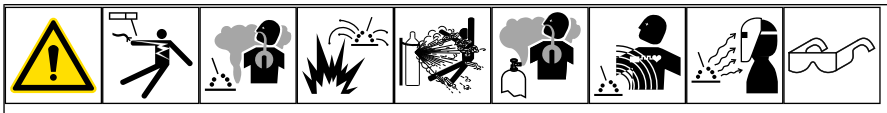
☞ *For soft wire or small diameter stainless steel wire, reduce drive roll pressure on the rear roll to half that of the front rolls.*

SECTION 5 – OPERATION

5-1. Front and Side Panel Controls (See Section 5-2)



5-2. Description of Front and Side Panel Controls (See Section 5-1)



1 Voltmeter

When not welding and the wire feeder is not associated with the ArcReach compatible welding power source, the voltmeter will display three dashes.

When the wire feeder is associated with an ArcReach compatible welding power source, the voltmeter will display preset voltage while idle. While welding, the feeder will display the actual weld voltage at the wire feeder.

When connected to a non-ArcReach welding power source, the voltmeter will display three dashes while idle. While welding, the feeder will display the actual weld voltage at the wire feeder.

Whether the wire feeder is associated or not, the voltage displayed while welding is an average reading over a time span of six to eight seconds. If the weld time is less than eight seconds, the voltage displayed may not be accurate.

2 Wire Speed / Amperage Meter

Displays wire speed in inches per minute.

Amperage displayed at the feeder is approximate. Refer to power source for actual amperage.

3 Wire Speed Control

Use control to adjust wire speed. Maximum wire speed may be limited by arc voltage.

4 Voltage Control

Used to adjust output voltage of welding power source when wire feeder is associated with an ArcReach compatible welding power source. Voltage may be adjusted while not welding.

☞ *If using a power source capable of Communication while welding, the voltage may be adjusted while welding.*

Voltage control has no function when the wire feeder is not associated with an ArcReach compatible welding power source.

5 Weld Process Selection and Indicators

When connected to a compatible power source, the feeder will allow for the selection of either GMAW +, FCAW + or FCAW -.

6 CAC-G Selection

When connected to a compatible power source, this button will activate the carbon arc gouging feature.

7 ArcReach Feature Indication

When an ArcReach feature is available with the attached power source, the corresponding indicator will be lit. When the feature is not available, the indicator will be off.

8 Soft Start Switch

The Soft Start feature provides a smooth start during most weld conditions. When the trigger is pulled, the wire speed is approximately 50 percent of the weld wire speed, as set by the wire speed knob control. After an arc is established, the wire speed increases to the weld wire speed. When using small diameter wire, or with inverter power sources, it may be necessary to turn switch off to obtain smooth starts.

9 Trigger Hold Switch

Trigger hold allows operator to weld without holding gun trigger. To use trigger hold function, place trigger hold switch in the ON position. The operator must hold the trigger for a minimum of two seconds, but no longer than six seconds before releasing it. Welding will continue when trigger is released. To stop welding, press and release the trigger.

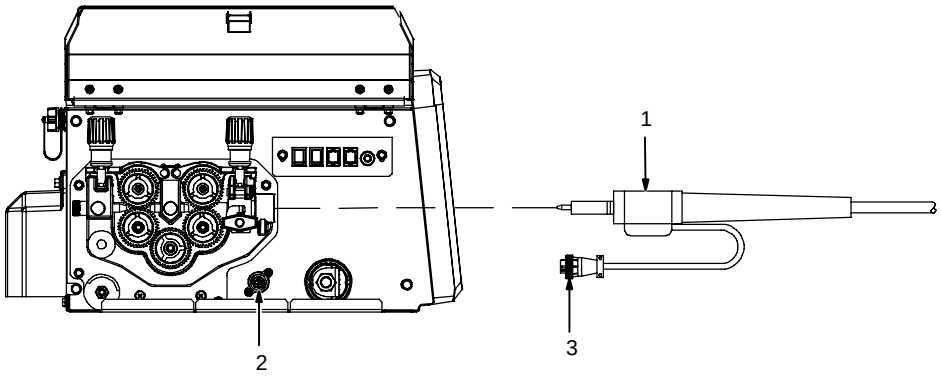
10 Purge/Timed Purge

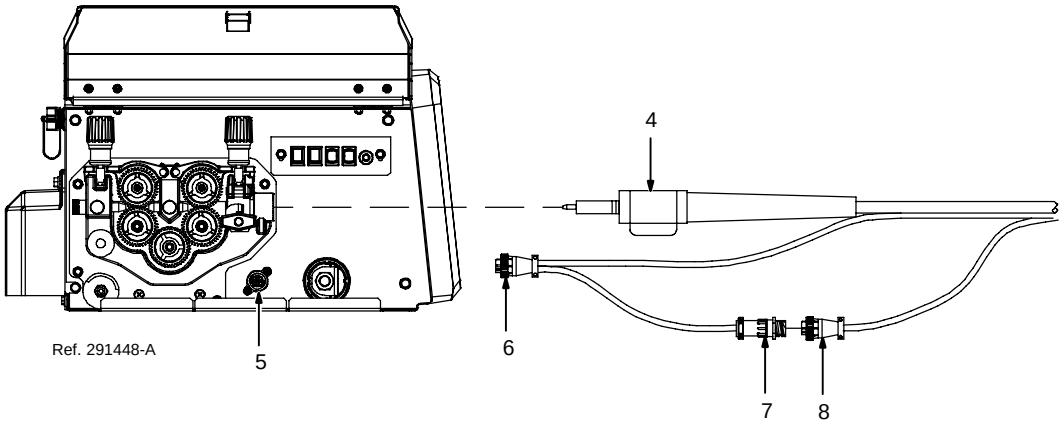
Pressing the Purge button will momentarily activate the Purge feature. Pressing Timed Purge will initiate a count down timer that will activate Purge for the time indicated on the display (in seconds). The time can be adjusted with the knob while the time is counting down. Factory default countdown is 30 seconds.

11 Jog/Auto Jog

Pressing Jog will jog the de-energized wire while the button is held down. Pressing Auto Jog will jog the indicated length of wire (in feet). This value can be adjusted while the wire is being jogged. Factory default Auto Jog length is 15.0 ft.

5-3. Wire Speed Dual Schedule





Wire Speed Dual Schedule allows the operator to switch between standard wire speed and a reduced wire speed. When activated, the reduced wire speed will be 87.5% of the standard wire speed. Wire Speed Dual Schedule may be activated any time before or during the weld by using a gun with an internally mounted dual schedule switch, or a gun with an added dual schedule switch. If the feeder is equipped with Wire Speed Meter it will display the active wire speed, whether it is standard wire speed or reduced wire speed.

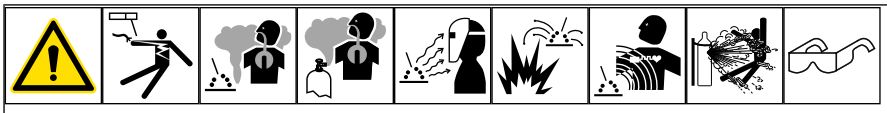
1 **Weld Gun With Internal Mounted Dual Schedule Switch** Comparable To Pipe-ProR Dura-Flux Gun.
2 Gun Trigger Receptacle
3 Gun Trigger Plug

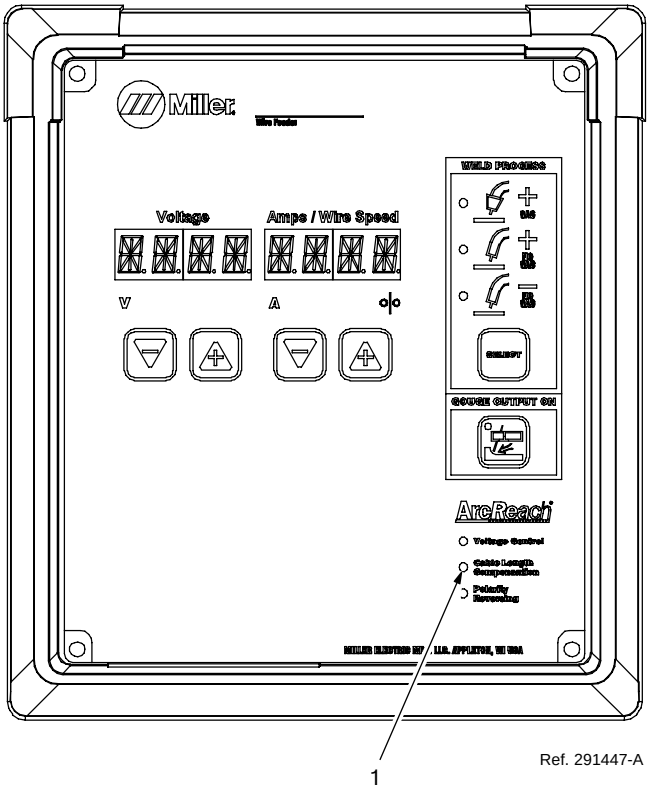
Connect gun trigger plug to gun trigger receptacle.

4 **Weld Gun With External Mounted Dual Schedule Switch** Comparable To DSS-9-15 (071833)
5 Gun Trigger Receptacle
6 Dual Schedule Plug
7 Dual Schedule Switch Receptacle
8 Gun Trigger Plug

Connect gun trigger plug to dual schedule switch receptacle . Connect dual schedule plug to gun trigger receptacle.

5-4. Cable Length Compensation (CLC)





1

Ref. 291447-A

☞ *CLC will only work with a compatible power source.*

☞ *Having a good clean connection with the v-sense clamp will ensure CLC works properly.*

1 Cable Length Compensation (CLC) Indicator

Cable Length Compensation (ON)

After the feeder associates (see Section4-6 to the power source, CLC will appear in the voltage display on the feeder. This indicates the feeder is calculating for CLC. Within 5-10 seconds, preset voltage will appear on the voltage display along with the CLC indicator turning on.

Only the desired weld voltage needs to be preset at the feeder without any manual compensation for voltage loss in the weld cables. While welding the power source will automatically adjust it's voltage to compensate for any voltage drop in the weld cables.

☞ *If the feeder is unable to calculate CLC the indicator will flash. If this happens a weld can be made and the CLC will be calculated in the first few seconds of the weld. The first few seconds of welding may be erratic due to the feeder calculating CLC.*

5-5. Setup Menu

The Setup Menu allows certain features of the feeder to be enabled or disabled by the user.

1 CLC (See Section 5-4)
2 Legacy Mode – Allows feeder to work on older generation ArcReach equipment.

Enter the Setup Menu by pushing both the Increase and Decrease buttons under the left display.

1 Pushing the Increase or Decrease button under the left display will change the menu item.
2 Pushing the Increase or Decrease button under the right display will set the menu item to ON or OFF.

While the Cable Length Compensation menu is active:

- The left display shows “CLC”
- The right display shows the current CLC setting selection. (ON or OFF)
  - CLC ON is default setting
  - If CLC *OFF is displayed, the star indicates the CLC feature is disabled by an internal switch and cannot be changed with the System Menu.
- The Increase and Decrease buttons under the right display toggles the CLC setting Off or ON
- The CLC setting takes effect upon exiting the CLC Menu

While the Legacy Mode menu is active:

- The left display shows “LGCY”
- The right display shows the current LGCY setting selection. (ON or OFF)
  - LGCY OFF is default setting
- The Increase and Decrease buttons under the right display toggles the LGCY setting Off or ON
- The LGCY setting takes effect upon exiting the CLC Menu

Exit the System Menu by:

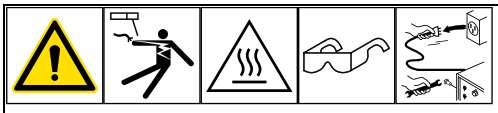
- Pushing the Select Button
- Pushing the Gouge Button
- Pressing the gun trigger

If the CLC setting has changed, upon exiting the CLC Menu, the feeder will unbind from the power source and rebind to allow CLC setting to take effect.

The left and right displays will follow the typical display sequence during the binding process.

SECTION 6 – MAINTENANCE AND TROUBLESHOOTING

6-1. Routine Maintenance

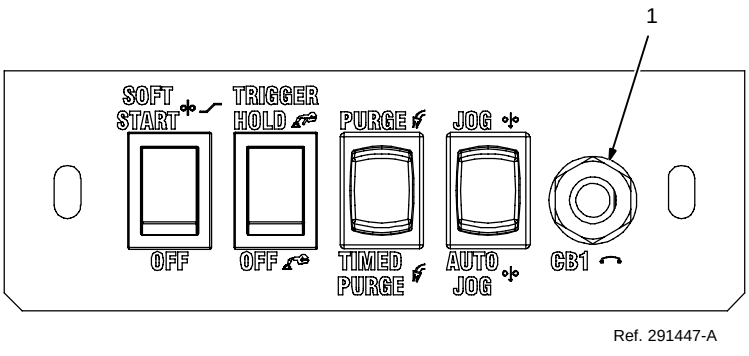


⚠ **Disconnect power before maintaining.**

☞ *Service equipment more often if used in severe conditions.*

Maintenance Schedule		Every 3 Months	Every 6 Months	Reference Section
Cords and Cables	Visually check condition of cords and cables. Replace damaged cords and cables.	•		
Gas Hoses	Visually check condition of gas hoses. Replace damaged hoses.	•		
Labels	Check and replace labels if damaged.	•		
Weld Terminals	Clean weld terminals.	•		
Weld Connections	Weld Connections	•		
Volt Sense Clamp	Visually check condition of volt sense clamp. Replace if damaged.	•		
Inside Unit			•	
Drive Rolls			•	

6-2. Overload Protection And Thermal Protection



Ref. 291447-A

⚠ **Turn Off wire feeder and welding power source. Stop engine on welding generator.**

1 Supplementary Protector CB1

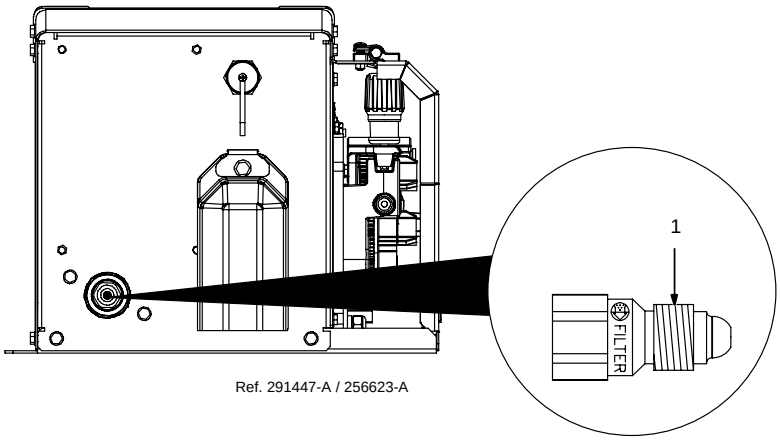
CB1 protects wire feeder from overload. Correct problem and reset CB1.

Close and latch door.

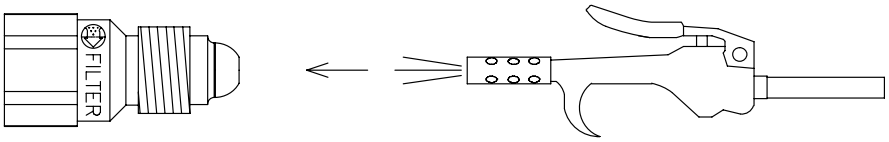
Thermal Protection

Unit has internal thermal protection and will not feed wire if overheating occurs (see Troubleshooting section).

6-3. Cleaning Debris From Shielding Gas Filter Fitting



Ref. 291447-A / 256623-A



3/4 in.

⚠ **Disconnect Power before maintaining.**

1 Shielding Gas Filter Fitting

Remove fitting from gas valve on back panel of feeder.

Blow compressed air through the threaded male end of fitting to dislodge debris from internal mesh screen.

☞ *Replace fitting if blowing compressed air through fitting does not clear obstructions.*

Reinstall fitting into gas valve.

Tighten fitting to 250 in. lbs (28 Nm).

6-4. Help Codes And Diagnostics

UI Display	Fault Name	Possible Corrective Action
Help 12	Trigger Held	Release the trigger
Help 13	Motor Tach Error	Plug in the tach (or replace it)
Help 14	Motor Over Current	Lower the motor load
Help 15	Bus Bar Over Temp	Lower the output current
Help 16	Bad Thermistor (Bus Bar)	Plug in Thermistor (or replace it)
Help 17	Motor Over Duty	Lower the motor load
Help 18	Bus Bar Over Duty	Lower the output current

☞ *When an over-temp code is shown, (example - Help 15) the code will clear after 10 minutes when the machine is running.*

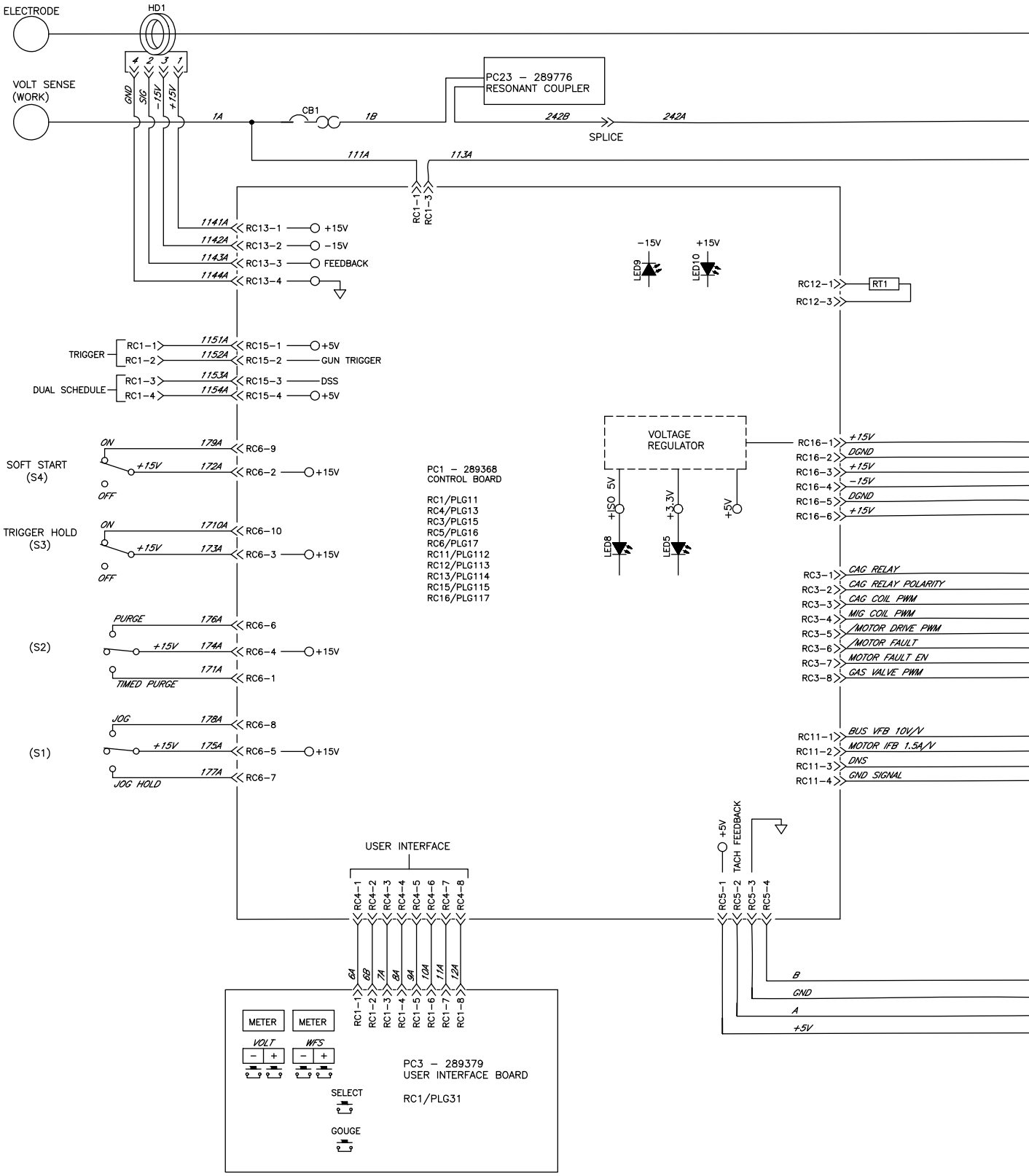
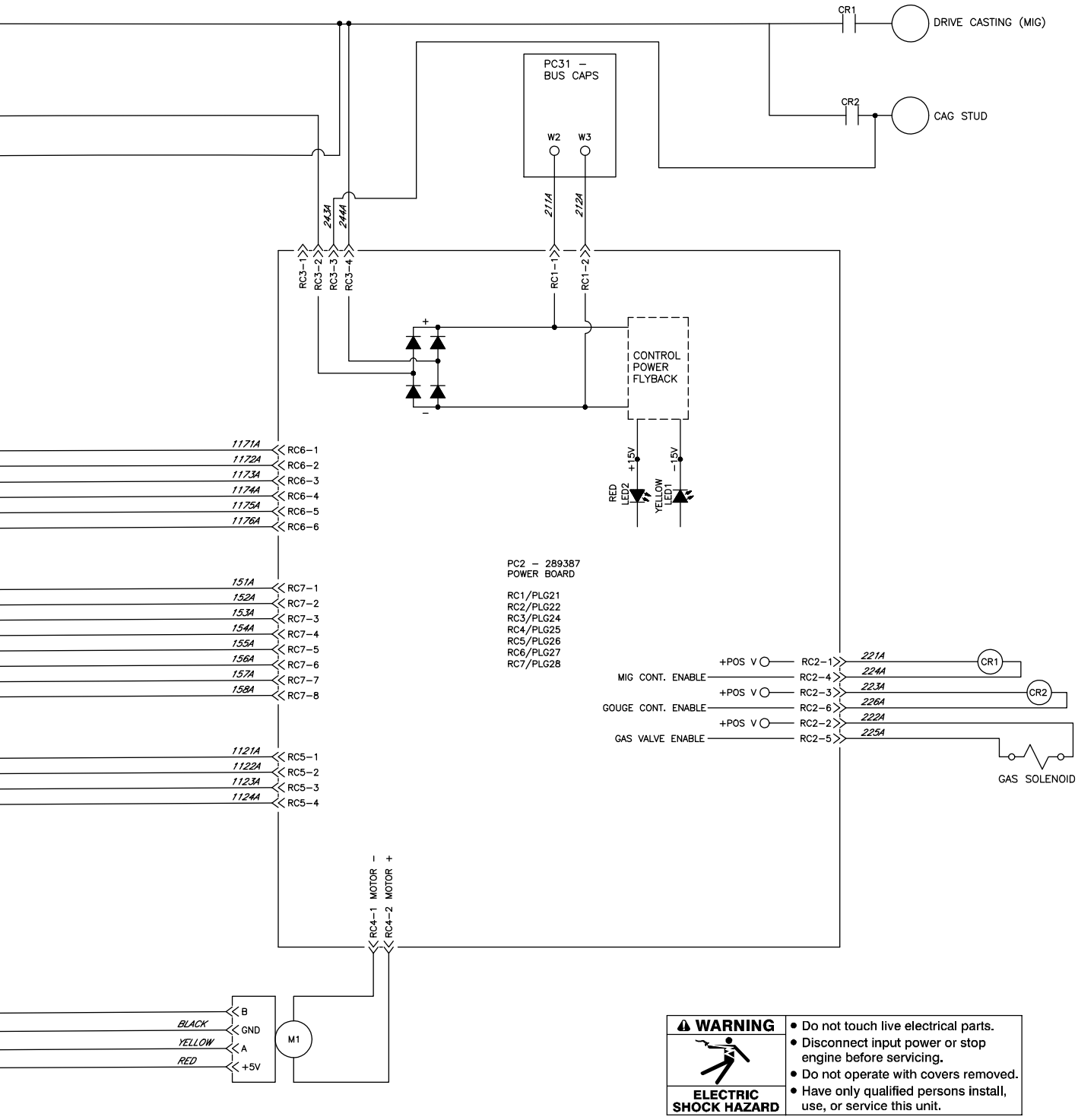


Figure 7-1. Circuit Diagram



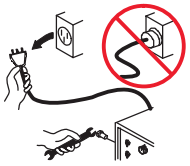
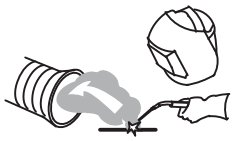
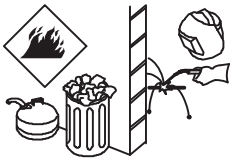
⚠ WARNING	• Do not touch live electrical parts. • Disconnect input power or stop engine before servicing. • Do not operate with covers removed. • Have only qualified persons install, use, or service this unit.
ELECTRIC SHOCK HAZARD	

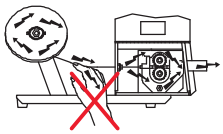
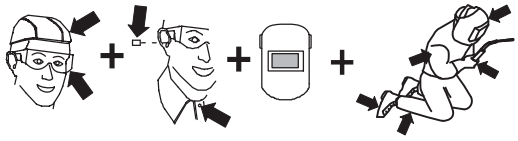
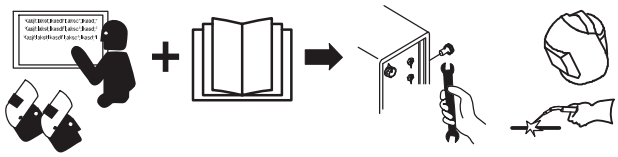
Ref. 291489-E

SECTION 8 – DEFINITIONS

8-1. Additional Safety Symbol Definitions

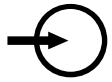
☞ *Some symbols are found only on CE products.*

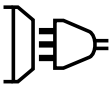
	Warning! Watch Out! There are possible hazards as shown by the symbols.
	Do not discard product (where applicable) with general waste. Reuse or recycle Waste Electrical and Electronic Equipment (WEEE) by disposing at a designated collection facility. Contact your local recycling office or your local distributor for further information.
	Wear dry insulating gloves. Do not touch electrode with bare hand. Do not wear wet or damaged gloves.
	Protect yourself from electric shock by insulating yourself from work and ground.
	Disconnect input plug or power before working on machine.
	Keep your head out of the fumes.
	Use forced ventilation or local exhaust to remove the fumes.
	Use ventilating fan to remove fumes.
	Keep flammables away from welding. Do not weld near flammables.

	Welding sparks can cause fires. Have a fire extinguisher nearby, and have a watchperson ready to use it.
	Do not weld on drums or any closed containers.
	Do not remove or paint over (cover) the label.
	Drive rolls can injure fingers.
	Welding wire and drive parts are at welding voltage during operation - keep hands and metal objects away.
	Pinch points can injure.
	Wear hat and safety glasses. Use ear protection and button shirt collar. Use welding helmet with correct shade of filter. Wear complete body protection made from leather or flame-resistant clothing (FRC). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.
	Become trained and read the instructions before working on the machine or welding.

8-2. Miscellaneous Symbols And Definitions

☞ *Some symbols are found on CE products.*

	Wire Run In Speed
A	Amperage
V	Voltage
	Constant Voltage
IP	Ingress Protection
	Increase
	Gas Input
	Input
	Off

%	Percent
	Purge By Gas
I_2	Rated Welding Current
	Line Connection
	Cold Jog (Inch) Towards Workpiece
	Trigger Hold On
	Gas Metal Arc Welding (GMAW) Gun
U_1	Primary Voltage

	Filter
I	On
	Read Instructions
	Wire Feed
	Constant Current
	Trigger Hold Off
I_1	Rated Supply Current
	Circuit Breaker

SECTION 9 – REGULATORY AND COMPLIANCE INFORMATION

9-1. Software Licensing Agreement

The End User License Agreement and any third-party notices and terms and conditions pertaining to third-party software can be found at https://www.millerwelds.com/eula and are incorporated by reference herein.

9-2. Information About Default Weld Parameters And Settings

NOTICE – *Each welding application is unique. Although certain Miller Electric products are designed to determine and default to certain typical welding parameters and settings based upon specific and relatively limited application variables input by the end user, such default settings are for reference purposes only; and final weld results can be affected by other variables and application-specific circumstances. The appropriateness of all parameters and settings should be evaluated and modified by the end user as necessary based upon application-specific requirements. The end user is solely responsible for selection and coordination of appropriate equipment, adoption or adjustment of default weld parameters and settings, and ultimate quality and durability of all resultant welds. Miller Electric expressly disclaims any and all implied warranties including any implied warranty of fitness for a particular purpose.*

9-3. Environmental Specifications

A. IP Rating: ArcReach 16 Feeder with Roller Base, Lift Eye and Spool Cover

IP Rating
IP23 This equipment is designed for outdoor use.

B. IP Rating: ArcReach 16 Feeder and ArcReach 16 WIre Feeder with Cart and Handle

IP Rating
IP2X This equipment is designed for indoor use and is not intended to be used or stored outside.

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)

*Output is derated at temperatures above 104°F (40°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

Notes

Notes

Notes

TRUE BLUE® WARRANTY

Miller

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

ORIGINAL INSTRUCTIONS – PRINTED IN USA