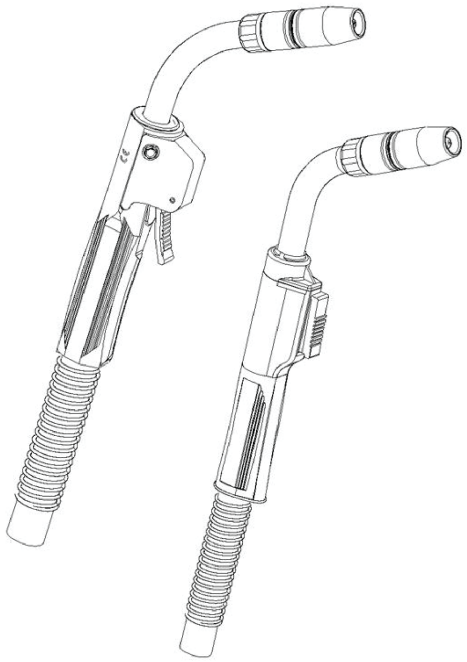
Bernard® TGX® Series Semi-Automatic Air-Cooled MIG Gun

OWNER'S MANUAL

March 2022 **TG083-1.3**

Semi-Automatic, Air-Cooled, MIG
(GMAW) Welding Gun



BERNARD®

Tregaskiss.com/TechnicalSupport
1-855-MIGWELD (644-9353) (US & Canada)
+1-519-737-3000 (International)

Thank You for Choosing Bernard

Thank you for selecting a Bernard product. Before installing, compare the equipment received against the invoice to verify that the shipment is complete and undamaged. It is the responsibility of the purchaser to file all claims of damage or loss that may have occurred during transit with the carrier.

The owner's manual contains general information, instructions and maintenance to help better maintain your MIG gun or peripheral. Please read, understand and follow all safety precautions.

While every precaution has been taken to assure the accuracy of this owner's manual, Bernard assumes no responsibility for errors or omissions. Bernard assumes no liability for damages resulting from the use of information contained herein. The information presented in this owner's manual is accurate to the best of our knowledge at the time of printing. Please reference Tregaskiss.com for updated material.

For customer support and special applications, please call the Bernard Customer Service Department at 1-855-MIGWELD (644-9353) (US & Canada) or +1-519-737-3000 (International), fax 1-708-946-6726, or email at cs@itwmig.com. Our trained Customer Service Team is available between 8:00 a.m. and 5:30 p.m. EST, and will answer your product application or repair questions.

Bernard manufactures premium semi-automatic (GMAW) and FCAW (flux-cored) welding guns, consumables, accessories and manual arc products. For more information on other Bernard products, contact your local Bernard distributor or visit us on the web at Tregaskiss.com.

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 the 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 section 1-4 Principal Safety Standards on page 3, and in welding power source Owner's Manual. 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 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.

- Always wear dry insulating gloves.
- Insulate yourself from work and ground.
- Do not touch live electrode or electrical parts.
- Replace worn, damaged, or cracked guns or cables.
- Turn off welding power source before changing contact tip or gun parts.
- Keep all covers and handle securely in place.

FUMES AND GASES can be hazardous.

- Keep your head out of the fumes.
- Ventilate area, or use breathing device. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.

MOVING PARTS can injure.

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

WELDING can cause fire or explosion.

- Do not weld near flammable material.
- 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 and AWS A6.0 (see Safety Standards).
- Watch for fire; keep 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.

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.

HOT PARTS can burn.

- Allow gun to cool before touching.
- Do not touch hot metal.
- Protect hot metal from contact by others.

NOISE can damage hearing.

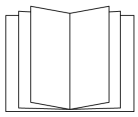
Noise from some processes or equipment can damage hearing.

- Check for noise level limits exceeding those specified by OSHA.
- Use approved ear plugs or ear muffs if noise level is high.
- Warn others nearby about noise hazard.

WELDING WIRE can injure.

- Keep hands and body away from gun tip when trigger is pressed.

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.

1-3 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**.

1-4 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: www.ansi.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.

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1-5 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, gouging, plasma arc cutting, and induction heating operations) creates an EMF field around the welding circuit. EMF fields may 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 welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld whilst carrying the welding power source wire feeder.

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

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 peutdonner la mort ou des blessures graves. Les dangers possiblessont montrés par les symboles joints ou sont expliquésdans 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 cidessous afin de connaître les mesures à prendre pour éviter tout danger.

2-2 Dangers relatifs au soudage à l'arc

Les symboles donnés ci-après sont utilisés dans tout le ma- nuel pour attirer l'attention sur les dangers possibles et pour indiquer le type de danger dont il s'agit. Quand on voit le symbole, prendre garde et suivre les directives corres- pondantes pour éviter le danger. Les consignes de sécurité présentées ci-après ne font que résumer l'information contenue dans les Normes de sécurité principales, et dans le Guide d'utilisation de la source de courant de soudage. Lire et suivre toutes les Normes de sécurité.

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

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

UN CHOC ÉLECTRIQUE peut tuer.

- Porter toujours des gants secs et isolants.
- S'isoler de la pièce et de la terre.
- Ne jamais toucher une électrode ou des pièces électriques sous tension.
- Remplacer les pistolets ou câbles de soudage qui sont endommagés, usés ou craquelés.
- Mettre la soudeuse hors tension avant de remplacer un bec contact ou des pièces de pistolet.
- S'assurer que tous les couvercles et poignées sont fermement assujettis.

LES FUMÉES ET LES GAZ peuvent être dangereux.

- Garder la tête hors des fumées.
- Aérer la zone de travail ou porter un appareil respiratoire. Pour déterminer la bonne ventilation, il est recommandé de procéder à un prélèvement pour la composition et la quantité de fumées et de gaz auxquels est exposé le personnel.
- 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.

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.

Le SOUDAGE peut provoquer un incendie ou une explosion.

- Ne pas souder à proximité de matériaux inflammables
- 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 et AWS A6.0 (voir les Normes de Sécurité).
- Prendre garde aux incendies et toujours avoir 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.

L'ACCUMULATION 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.

LE RAYONNEMENT DE L'ARC peut brûler les yeux et 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 ignifu- ges (FRC). La protection du corps comporte des vêtements sans huile, comme des gants de cuir, une chemise solide, des panta- lons sans revers, des chaussures hautes et une casquette.

LES PIÈCES CHAUDES peuvent provoquer des brûlures.

- Laisser refroidir le pistolet avant de le toucher.
- Ne pas toucher d'objets métalliques chauds.
- Abriter les objets métalliques contre tout contact par les personnes à proximité.

Le BRUIT peut endommager l'ouie.

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

- Vérifier si les niveaux de bruit excèdent les limites spécifiées par l'OSHA.
- Utiliser des bouche-oreilles ou des serre-tête antibruit approuvés si le niveau de bruit est élevé.
- Avertir les personnes à proximité au sujet du danger inhérent au bruit.

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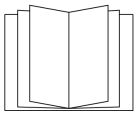
LES FILS DE SOUDAGE peuvent provoquer des blessures.

- Éloigner les mains et le corps de la buse du pistolet après avoir appuyé sur la gâchette.

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 les 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.

2-3 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**.

2-4 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: www.ansi.org.

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

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

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2-5 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 — PRECAUCIONES DE SEGURIDAD — LEA ANTES DE USAR

Protéjase usted mismo y a otros contra lesiones — lea, cumpla y conserve estas importantes precauciones de seguridad e instrucciones de utilización.

3-1 Uso de símbolos

PELIGRO! – Indica una situación peligrosa que, si no se la evita, resultará en muerte o lesión grave. Los peligros posibles se muestran en los símbolos adjuntos o se explican en el texto.

Indica una situación peligrosa que, si no se la evita, podríaresultar en muerte o lesión grave. Los peligros posiblesse muestran en los símbolos adjuntos, o se explican en eltexto.

AVISO *– Indica precauciones no relacionadas a lesiones personales.*

☞ *– Indica instrucciones especiales.*

Este grupo de símbolos significa ¡Advertencia!, ¡Cuidado! CHOQUE O DESCARGA ELÉCTRICA, PIEZAS QUE SE MUEVEN, y peligros de PARTES CALIENTES. Consulte los símbolos y las instrucciones relacionadas que aparecen a continuación para ver las acciones necesarias para evitar estos peligros.

3-2 Peligros en soldadura de arco

Los símbolos mostrados abajo se usan en todo este manual para llamar la atención a e identificar los posibles peligros. Cuando vea el símbolo, preste atención y siga las instruc- ciones relacionadas para evitar el peligro. La información de seguridad dada abajo es solamente un resumen de la in- formación más completa de seguridad que se encuentra en los estandares de seguridad, y la fuente de alimentación pa- ra soldadura del Manual del usuario. Lea y siga todas las normas de seguridad.

Solamente personal cualificado debe instalar, utilizar, mantener y reparar este equipo. La definición de personal cualificado es cualquier persona que, debido a que posee un título, un certificado o una posición profesional reconocida, o gracias a su gran conocimiento, capacitación y experiencia, haya demostrado con éxito la capacidad para solucionar o resolver problemas relacionados con el trabajo, el proyecto o el tema en cuestión, además de haber asistido a una capacitación en seguridad para reconocer y evitar los peligros que implica el proceso.

Durante su operación mantenga lejos a todos, especialmente a los niños.

UNA DESCARGA ELÉCTRICA puede matarlo.

- Siempre use guantes aislantes secos.
- Aíslese usted mismo del trabajo y la tierra.
- No toque electrodo eléctricamente vivo o partes eléctricamente vivas.
- Reemplace antorchas o cables desgastados, dañados o rotos.
- Repare o reemplace aislamiento de la pistola o del cable que esté desgastado, dañado o agrietado.
- Apague la máquina de soldar antes de cambiar los tubos de contacto o piezas de la antorcha.
- Mantenga todas las tapas y asa bien seguras en sitio.

HUMO y GASES pueden ser peligrosos.

- Mantenga su cabeza fuera del humo.
- Ventile el lugar o use un aparato para respirar. El método recomendado para determinar la ventilación adecuada es tomar muestras de la composición y cantidad de humos y gases a los que está expuesto el personal.
- Lea y entienda las Hojas de datos del material (SDS) y las instrucciones del fabricante relacionadas con los adhesivos, metales, consumibles, recubrimientos, limpiadores, refrigerantes, desengrasadores, fundentes y metales.

Las PIEZAS MÓVILES pueden provocar lesiones.

- Aléjese de toda parte en movimiento.
- Aléjese de todo punto que pellizque, tal como rodillos impulsados.

EL SOLDAR puede causar fuego o explosión.

- No suelde cerca de material inflamable
- No suelde en recipientes que han contenido combustibles, ni en recipientes cerrados como tanques, tambores o tuberías, a menos que estén preparados correctamente de acuerdo con la norma AWS F4.1 y AWS A6.0 (vea las normas de seguridad).
- Siempre mire que no haya fuego y mantenga un extinguidor de fuego cerca.
- Lea y entienda las Hojas de datos del material (SDS) y las instrucciones del fabricante relacionadas con los adhesivos, metales, consumibles, recubrimientos, limpiadores, refrigerantes, desengrasadores, fundentes y metales.

EL AMONTONAMIENTO DE GAS puede enfermarle o matarle.

- Cierre el suministro de gas comprimido cuando no lo use.
- Siempre dé ventilación a espacios cerrados o use un respirador aprobado que reemplaza el aire.

LOS RAYOS DEL ARCO pueden quemar sus ojos y piel.

Los rayos del arco de un proceso de suelda producen un calor intenso y rayos ultravioletas fuertes que pueden quemar los ojos y la piel. Las chispas se escapan de la soldadura.

- Use una careta para soldar aprobada equipada con un filtro de protección apropiado para proteger su cara y ojos de los rayos del arco y de las chispas mientras esté soldando o mirando. (véase los estándares de seguridad ANSI Z49.1 y Z87.1).
- Use anteojos de seguridad aprobados que tengan protección lateral.
- Use pantallas de protección o barreras para proteger a otros del destello, reflejos y chispas, alerte a otros que no miren el arco.
- Use protección para el cuerpo hecha de cuero o de prendas resis- tentes a las llamas (FRC). Entre la protección para el cuerpo se in- cluye la ropa sin aceite, como guantes de cuero, una camisa gruesa, pantalones sin vuelta, calzado alto y una gorra.

PARTES CALIENTES puedan causar quemaduras severas.

- Permita que la antorcha se enfríe antes de tocarla.
- No toque metal caliente.
- Proteja a otros del contacto con el metal caliente.

EL RUIDO puede trastornar su oído.

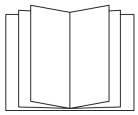
Ruido proveniente de algunos procesos o equipo puede dañar el oído.

- Chequee los límites del nivel del ruido si exceden aquellos especificados por OSHA.
- Use tapas para los oídos o cubiertas para los oídos si el nivel del ruido es demasiado alto.
- Advierta a otros que estén cerca acerca del peligro del ruido.

El ALAMBRE de SOLDAR puede causarle heridas.

- Mantenga las manos y el cuerpo lejos del tubo de contacto de la antorcha cuando se haya presionado el gatillo.

LEER INSTRUCCIONES.



- Lea y siga cuidadosamente las instrucciones contenidas en todas las etiquetas y en el Manual del usuario antes de instalar, utilizar o realizar tareas de mantenimiento en la unidad. Lea la información de seguridad incluida en la primera parte del manual y en cada sección.
- Utilice únicamente piezas de reemplazo legítimas del fabricante.
- Los trabajos de instalación y mantenimiento deben ser ejecutados de acuerdo con las instrucciones del manual del usuario, las normas del sector y los códigos nacionales, estatales y locales.

3-3 Advertencias de la Proposición 65 del estado de California

ADVERTENCIA: Este producto puede exponerlo a químicos, incluso plomo, que el estado de California conoce como causantes de cáncer, defectos de nacimiento u otros daños reproductivos.

Para obtener más información, acceda a **www.P65Warnings.ca.gov**.

3-4 Estándares principales de seguridad

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: www.ansi.org.

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1 from Global Engineering Documents. 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.

SR7_spa 2022–01

3-5 Información sobre los campos electromagnéticos (EMF)

La corriente que fluye a través de un conductor genera campos eléctricos y magnéticos (EMF) localizados. La corriente del arco de soldadura (y otras técnicas afines como la soldadura por puntos, el ranurado, el corte por plasma y el calentamiento por inducción) genera un campo EMF alrededor del circuito de soldadura. Los campos EMF pueden interferir con algunos dispositivos médicos implantados como, por ejemplo, los marcapasos. Por lo tanto, se deben tomar medidas de protección para las personas que utilizan estos implantes médicos. Por ejemplo, aplique restricciones al acceso de personas que pasan por las cercanías o realice evaluaciones de riesgo individuales para los soldadores. Todos los soldadores deben seguir los procedimientos que se indican a continuación con el objeto de minimizar la exposición a los campos EMF generados por el circuito de soldadura:

1. Mantenga los cables juntos retorciéndolos entre sí o uniéndolos mediante cintas o una cubierta para cables.
2. No ubique su cuerpo entre los cables de soldadura. Disponga los cables a un lado y apártelos del operario.
3. No enrolle ni cuelgue los cables sobre su cuerpo.
4. Mantenga la cabeza y el tronco tan apartados del equipo del circuito de soldadura como le sea posible.
5. Conecte la pinza de masa en la pieza lo más cerca posible de la soldadura.
6. No trabaje cerca de la fuente de alimentación para soldadura, ni se siente o recueste sobre ella.
7. No suelde mientras transporta la fuente de alimentación o el alimentador de alambre.

Acerca de los aparatos médicos implantados:
Las personas que usen aparatos médico implantados deben consultar con su médico y el fabricante del aparato antes de llevar a cabo o acercarse a soldadura de arco, soldadura de punto, ranurar, hacer corte por plasma, u operaciones de calentamiento por inducción. Si su doctor lo permite, entonces siga los procedimientos de arriba.

SECTION 4 — PRODUCT WARRANTY

4-1 Product Warranty

Limited Warranty

Tregaskiss' Products shall, from the date of original purchase (or, solely with respect to Low Stress Robotic Unicables packaged with any Tregaskiss® Robotic MIG Gun, from the date the product goes into production for its intended use) and for the period set forth below, be free from defects in material and workmanship. To obtain repair or replacement of any Product, the covered Product must be delivered, transportation pre-paid by Purchaser, to the address specified by Tregaskiss on its Returned Materials Authorization, with: (i) written proof of warranty coverage (e.g., Purchaser dated purchase order); (ii) serial number on product (if any); (iii) the Product's installed location within Purchaser's facility and usage of the Product; and (iv) written specification of any alleged defect(s). In the event the foregoing materials are not timely provided to Tregaskiss by claimant, warranty coverage will be determined by Tregaskiss, in its sole discretion. For the avoidance of doubt, the warranty period for any Product or part/component of any Product that is replaced or repaired by Tregaskiss under the foregoing warranty is not extended or renewed at the time of such replacement or repair. **The Warranty against defects does not apply to: (1) consumable components or ordinary wear items; (2) products which are improperly altered, modified, stored, installed, operated, handled, used or neglected or use of the Products with equipment, components or parts not specified or supplied by Tregaskiss or contemplated under the Product documentation; or (3) Products which have not been operated, maintained, and repaired pursuant to Product documentation provided by Tregaskiss. Purchaser shall pay Tregaskiss for all warranty claim costs incurred by Tregaskiss (including inspection, labor, parts, testing, scrap and freight) due to warranty claims submitted by Purchaser which are not covered by Tregaskiss' warranty.**

- Bernard® BTB Semi-Automatic Air-Cooled MIG Guns: **1 year**; *Lifetime warranty on straight handles, straight handle switches, and rear strain relief*
- Bernard® W-Gun™ and T-Gun™ Semi-Automatic Water-Cooled MIG Guns: **180 days**
- Bernard® TGX® Chassis and Bernard TGX Ready To Weld MIG Guns: **90 days**
- Tregaskiss® Robotic MIG Guns and Components: **1 year**
- Tregaskiss® Automatic MIG Guns: **1 year**
- Tregaskiss® TOUGH GUN® Reamer: **1 year**
  - When factory-equipped with lubricator: **2 years** when factory-equipped with lubricator
  - When (i) factory-equipped with lubricator and (ii) used exclusively with Tregaskiss® TOUGH GARD® Anti-Spatter Liquid: **3 years** when both (i) and (ii)
- Tregaskiss® TOUGH GUN® Robotic Peripheral (Clutch, Sprayer, Wire Cutter, Arms): **1 year**
- Tregaskiss® Low-Stress Robotic Unicables (LSR Unicables): **6 months**

Service Warranty

Tregaskiss warrants the Services shall conform to any mutually agreed upon specifications or statements of work. Purchaser's sole remedy, and Tregaskiss's sole liability, for a breach of the foregoing warranty is for Tregaskiss, at its option, to re-perform the Services or credit Purchaser's account for such Services.

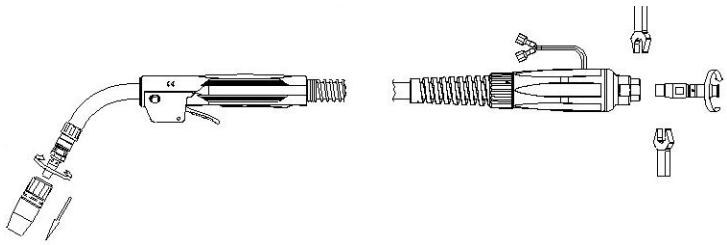
Limitation of Liability and Remedies

TREGASKISS WILL NOT BE LIABLE, AND PURCHASER WAIVES ALL CLAIMS AGAINST TREGASKISS FOR INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, DOWN TIME, LOST PROFITS OR COMMERCIAL LOSSES, WHETHER OR NOT BASED UPON TREGASKISS' NEGLIGENCE OR BREACH OF WARRANTY OR STRICT LIABILITY IN TORT OR ANY OTHER CAUSE OF ACTION. IN NO EVENT WILL TREGASKISS' LIABILITY IN CONNECTION WITH THE AGREEMENT OR SALE OF TREGASKISS' PRODUCTS OR SERVICES EXCEED THE PURCHASE PRICE OF THE SPECIFIC PRODUCTS OR SERVICES AS TO WHICH THE CLAIM IS MADE.

1.0 – ASSEMBLY

1.1 ASSEMBLY INSTRUCTIONS – EASY AS 1-2-3! MIG GUNS ONLY

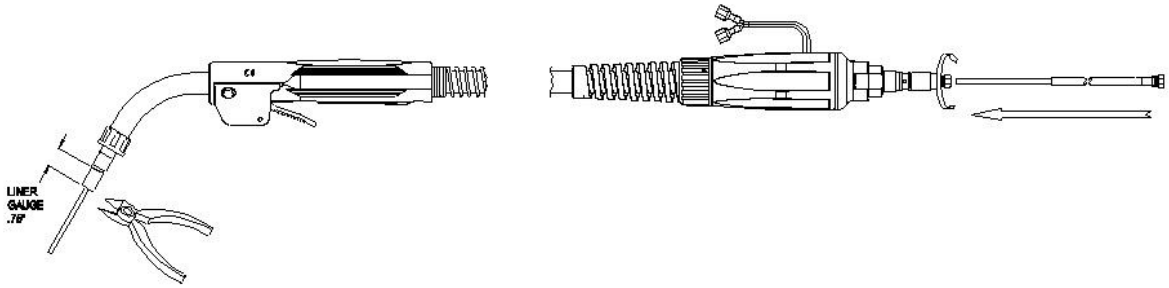
STEP #1



NOTE: Applies to all TGX XS and XL gun models

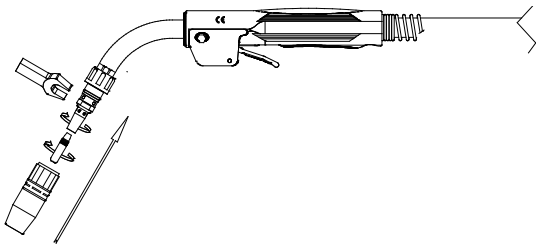
- Remove gun from box and extend to full length.
- Slide nozzle off of front end of gun.
- Thread retaining head off of front end of gun.
- Remove power pin from package and thread on to rear of gun using a 3/4” (19 mm) wrench on the rear block and a 5/8” (16 mm) or 3/4” (19 mm) wrench on power pin. Torque to 18 ft.-lbs. (24.4 Nm). Install power pin/block insulator.

STEP #2



- Remove liner from package end extend to full length. Feed liner into the back end of the gun using short strokes to avoid kinking. Twist liner counter clockwise if necessary, to ease insertion.
- Seat liner retainer to end of power pin and using a 10 mm wrench, turn retainer in a clockwise direction and tighten into power pin.
- Measure the proper liner stick-out at the front end of the gun using liner gauge (provided). Before cutting, push liner into gun to compress liner then cut the liner and remove any burrs that may obstruct wire feed.

STEP #3



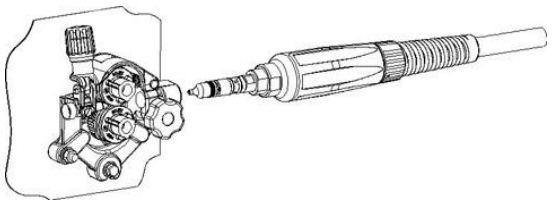
- Thread Tregaskiss™ TOUGH LOCK™ Retaining Head onto neck and securely tighten using a wrench.
- Remove Tregaskiss TOUGH LOCK Contact Tip from package and thread securely into head.
- Slip nozzle fully onto head.

2.0 – INSTALLATION

2.1 INSERTING MIG GUN INTO A WIRE FEEDER

For most power pins

1. Insert power pin to shoulder and secure.
2. Insert control plug to control housing of MIG gun.
3. Insert control plug into feeder.
4. Feed welding wire into power pin by hand and tighten drive rolls.

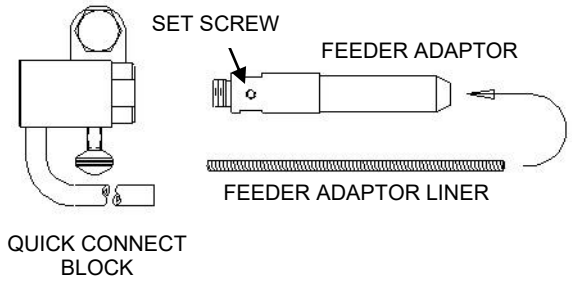


NOTE: On Lincoln® feeders it is necessary to connect the gas hose to the barbed fitting on the power pin.

2.2 INSTALLING QUICK CONNECT BLOCK TO FEEDER

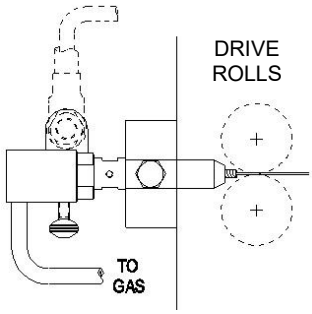
STEP #1

- Insert the correct feeder adaptor liner for desired wire diameter (2 provided) flush with the threaded end of the feeder adaptor.
- Tighten set screw.
- Thread feeder adaptor into Quick Connect Block and tighten.



STEP #2

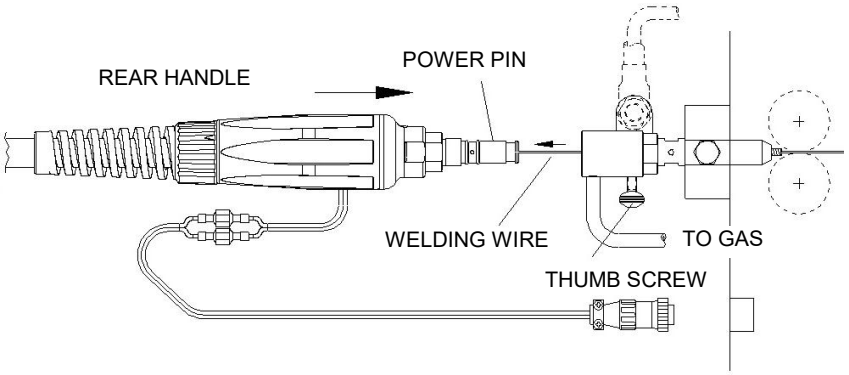
- Position assembly into feeder adaptor and trim liner within 1/16” (1.6 mm) of the drive rolls and remove burrs if necessary.
- Secure assembly into feeder.
- Connect gas hose to gas fitting on feeder.
- Connect power cable to 1/2” (13 mm) power bolt with appropriate lug.
- **Tighten all connections.**
- Feed welding wire through assembly by hand and tighten drive rolls.



2.3 INSTALLING GUN TO QUICK CONNECT BLOCK

Ensure correct liner and contact tip are utilized. Examine and replace power pin o-rings if necessary.

STEP #1



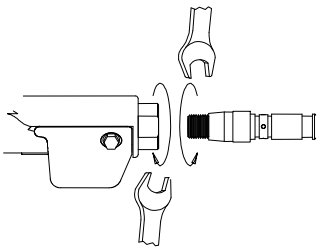
- Guide welding wire into power pin.
- Insert power pin to shoulder.
- Tighten thumbscrew securely.
- Connect control plug leads to leads on rear of gun.
- **NOTE:** If installing the Euro version of the Quick Connect Block, connect leads from the Quick Connect Block directly to the leads on the gun.
- Insert control plug into feeder.

STEP #2

- With gun lying straightened, pull trigger and feed wire through gun. It may be necessary to remove contact tip when feeding small wire sizes.
- Recheck: - proper gas flow
  - drive roll pressure
  - voltage and wire feed speed

2.4 INSTALLING / REPLACING POWER PIN ON GUN

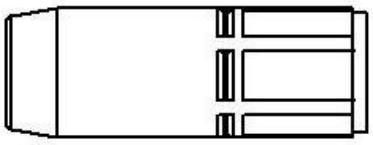
NOTE: The rear handle and screws do not have to be removed when installing the two-piece power pins. *T-Gun™ Model Shown*.



- Thread power pin into rear housing.
- Tighten the power pin into the rear housing using a 3/4” (19 mm) wrench on the rear block and a 5/8” (16 mm) or 3/4” (19 mm) wrench on power pin. Torque to 18 ft.-lbs. (24.4 Nm).
- **IMPORTANT:** The thread-in two-piece power pin has a taper to seat and lock the power pin in the rear handle block. Tighten the power pin in the block with a wrench to ensure that pin remains in place.
- Install liner. See ***Section 3.2 CONVENTIONAL LINER REPLACEMENT*** or ***Section 3.3 TREGASKISS QUICK LOAD™ LINER REPLACEMENT.***

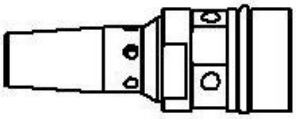
3.0 – MAINTENANCE

3.1 TREGASKISS™ NOZZLE AND TOUGH LOCK™ CONSUMABLES



STANDARD DUTY NOZZLE
VARIOUS SIZES AVAILABLE

STANDARD DUTY
TREGASKISS TOUGH
LOCK CONTACT TIP



STANDARD DUTY
TREGASKISS TOUGH
LOCK RETAINING HEAD

NECK
INSULATOR

IMPORTANT:

- Neck insulator MUST be in place before welding to properly insulate neck armor.
- Check all parts to ensure that connections are tight before welding.
- The retaining head MUST be tightened with a 5/8” (16 mm) wrench to prevent the contact tip from overheating.
- DO NOT use pliers to remove or tighten the retaining head or scoring may result.

Removal and Replacement

Nozzle

- Pull slip-on nozzles off with a twisting motion.
- When installing the nozzle, ensure that it is fully seated.

Contact Tip

- Thread the contact tip into the retaining head.
- Torque to 30 in.-lbs. (3.5 Nm).
- The Tregaskiss Tip Tool (Part # 450-18 – for heavy-duty tips) or a pair of weld pliers are the optimal tools for contact tip installation.

Retaining Head

- Thread retaining head onto neck with a 5/8” (16 mm) wrench.
- Torque to 80 in.-lbs. (9 Nm).
- DO NOT use pliers to remove or tighten the heavy duty retaining head or scoring may result.

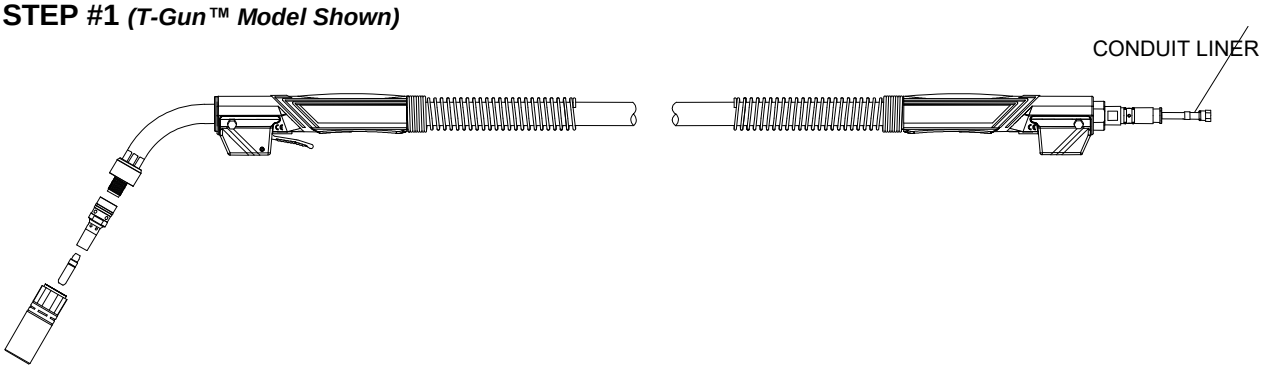
Neck Insulator

- The neck insulator is pressed onto the neck by hand.

3.2 CONVENTIONAL LINER REPLACEMENT

NOTE: For guns equipped with thread-in power pins, Bernard, or Euro-connector, follow the procedure below. On Miller® style guns, liner is held captive by a guide cap, which must be removed and replaced when changing liner.

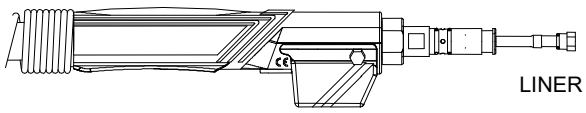
STEP #1 ***(T-Gun™ Model Shown)***



NOTE: Ensure power supply is off and gun is removed from feeder before proceeding.

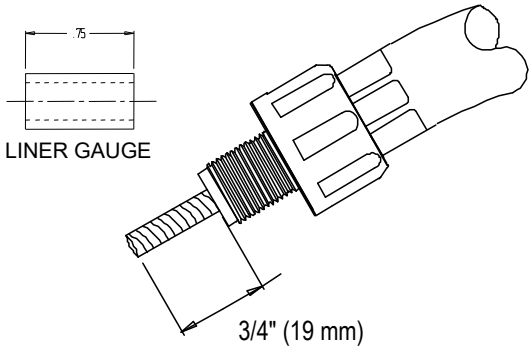
- Remove nozzle, tip and retaining head.
- If power pin is thread-in liner type, using a 10 mm wrench, turn thread-in liner retainer counterclockwise until liner is free from the power pin.
- With gun straightened, grip conduit liner with pliers and remove.

STEP #2



- Feed replacement liner through gun using short strokes to avoid kinking. Twist liner clockwise if necessary.
- Using a 10 mm wrench, turn thread-in liner retainer in a clockwise direction and tighten in power pin.

STEP #3

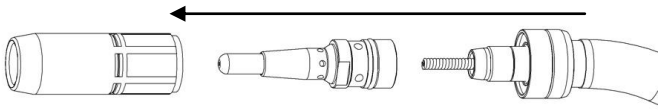


- Push liner back into gun and hold in place.
- Using liner gauge, trim conduit liner with 3/4" (19 mm) stick out.
- Remove any burr that may obstruct wire feed, especially on flat wire type conduit liner.
- Replace nozzle, tip and retaining head onto gooseneck.

3.3 TREGASKISS QUICK LOAD™ LINER REPLACEMENT

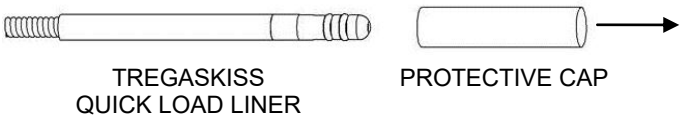
STEP 1

- Remove consumables (nozzle, contact tip and retaining head).
- Pull existing Tregaskiss QUICK LOAD Liner from neck using pliers.



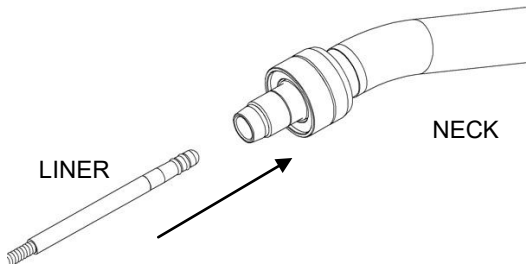
STEP 2

- Remove the protective cap from the new Tregaskiss QUICK LOAD Liner.



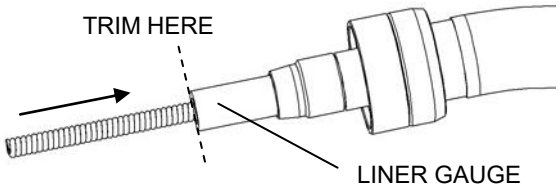
STEP 3

- Insert the liner through the neck using the wire as a guide. Push the liner in using short strokes to prevent the wire from kinking.



STEP 4

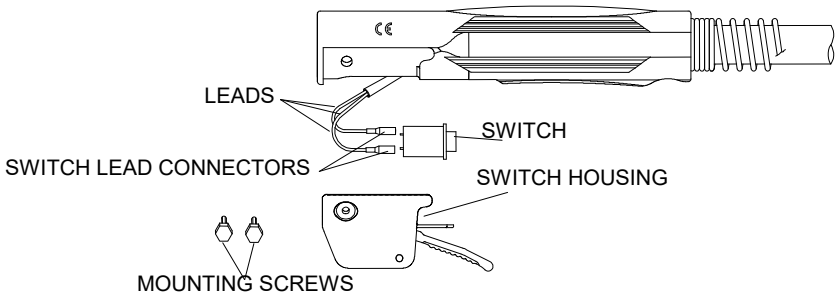
- Once the liner stops feeding, give it an extra push to ensure it is inserted completely.
- **IMPORTANT!** Push liner back into gun and hold in place. Using the liner gauge, trim liner with 3/4” (19 mm) stick out.
- Reinstall consumables.



IMPORTANT NOTE: Liners trimmed too long or too short can cause serious wire feeding problems. Be sure to use your liner gauge as instructed to trim the liner to the correct stick out.

3.4 SWITCH REPLACEMENT – XL GUN MODELS

STEP #1

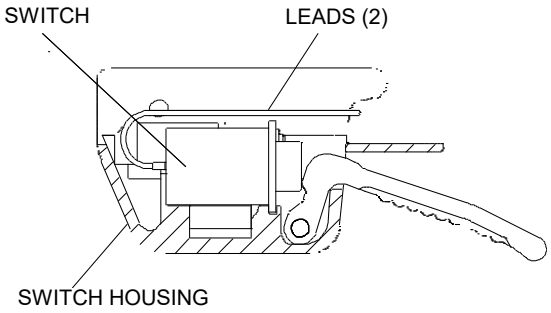


- Remove both mounting screws with a 5/16” nut driver.
- Ease switch out of switch housing by gently pulling up on leads.
- Remove switch from switch lead connectors with needle nose pliers.

STEP #2

Push switch lead connectors firmly onto switch terminals with needle nose pliers.

- Depress switch plunger and nest back into housing.
- Fit switch housing into nest on handle (switch leads must lie parallel).
- Align housing holes with threaded holes in body and insert mounting screws.
- Start both screws first before tightening with 5/16” nut driver to even alignment.



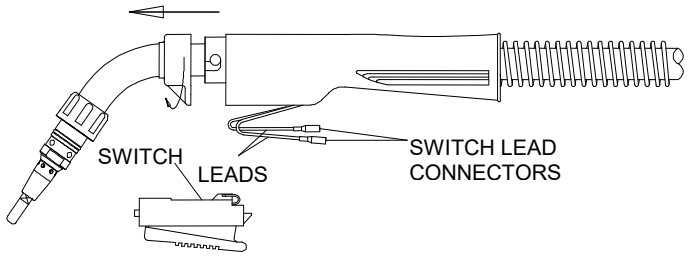
IMPORTANT:

Use manufacturer’s screws (Part # 411-3M) to ensure proper length, hardness and tolerance.

3.5 SWITCH REPLACEMENT – XS GUN MODELS

STEP #1

- Twist handle lock nut in direction of arrow.
- Pull handle lock away from handle.
- Remove switch from nest in handle.
- Remove switch from switch lead connectors with needle nose pliers.
- Push switch lead connectors firmly onto switch terminals with needle nose pliers.
- Fit switch into nest on handle, switch leads must lie parallel to switch.
- Reinstall handle lock nut on handle.

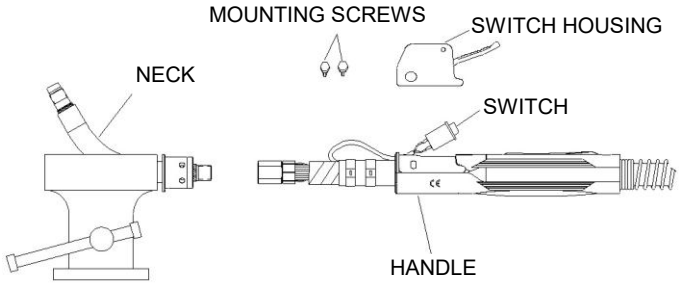


3.6 NECK REPLACEMENT – XL GUN MODELS

STEP #1

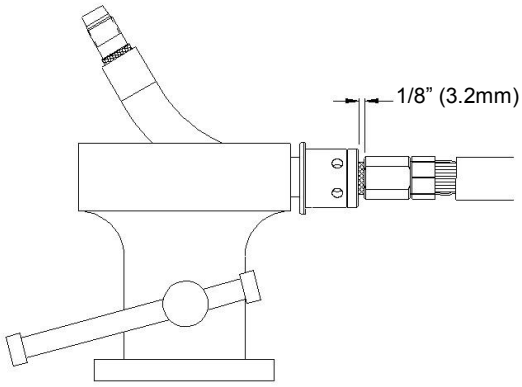
- Place neck in vise.
- Remove both switch housing mounting screws.
- Slide handle back exposing the cable connection.
- Loosen the cable / neck connection using an 11/16” (17 mm) wrench.
- Remove from vise and unthread neck by hand.

NOTE: The body is an integral part of the neck and the handle mounting holes are metric (M5). Use the screws supplied with the new neck to avoid stripping of threads.



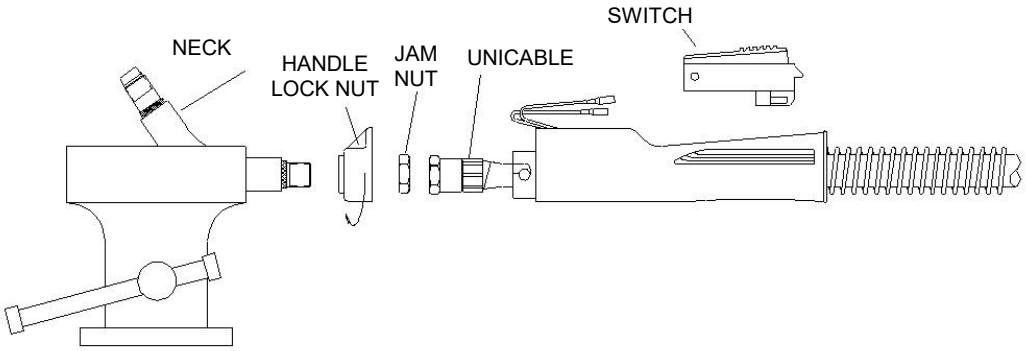
STEP #2

- Thread the neck into the cable connection (hand tighten).
- Place neck in vise and tighten with a wrench to within 1/8” (3.2 mm) spacing between the cable connection and neck body. Torque to 18 ft.-lbs.
- Install the switch and reposition handle and switch housing.
- Reinstall switch housing mounting screws.



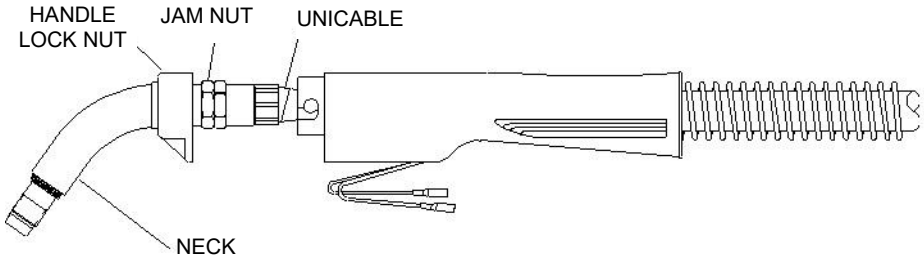
3.7 NECK REPLACEMENT – XS GUN MODELS

STEP #1



- Place neck in vise.
- Twist handle nut and pull away from handle.
- Slide handle back exposing jam nut and front of unicable.
- Loosen jam nut using two 3/4” (19 mm) wrenches and unthread neck.
- Remove from vise and unthread neck by hand.

STEP #2



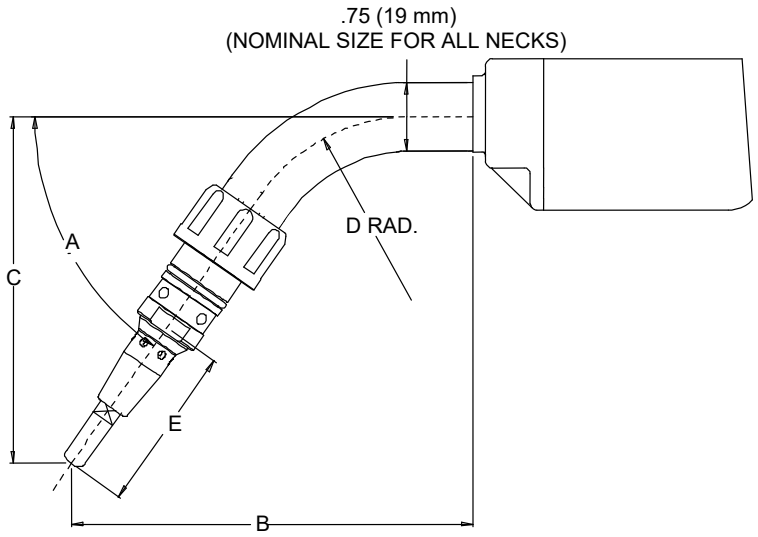
- Install handle lock nut on neck.
- Thread jam nut onto new neck.
- Thread neck into unicable (hand tighten) to desired orientation.
- Place neck in vise and tighten unicable and jam nut.
- Reposition handle and switch.
- Reinstall handle lock nut.

3.8 UNICABLE REPLACEMENT

- The unicable in this gun can only be replaced by ordering a replacement gun chassis. Please refer to the Standard Parts Chart on the last page of this Technical Guide.

4.0 – TECHNICAL DATA

4.1 NECK DIMENSIONS



		B		C		D		E	
NECK	ANGLE	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
205-60X	55°	4.42	112	3.82	97	2.00	51	1.88	48
405-60X	60°	4.98	127	4.78	121	3.00	76	1.90	48

4.2 GUN AMPERAGE RATINGS

GUN MODEL	60% DUTY CYCLE - MIXED GASES OR 100% DUTY CYCLE - CO_2
180 amp (XS)	150 amp
260 amp (XS)	250 amp
300 amp (XS)	300 amp
300 amp (XL)	300 amp
400 amp (XL)	400 amp

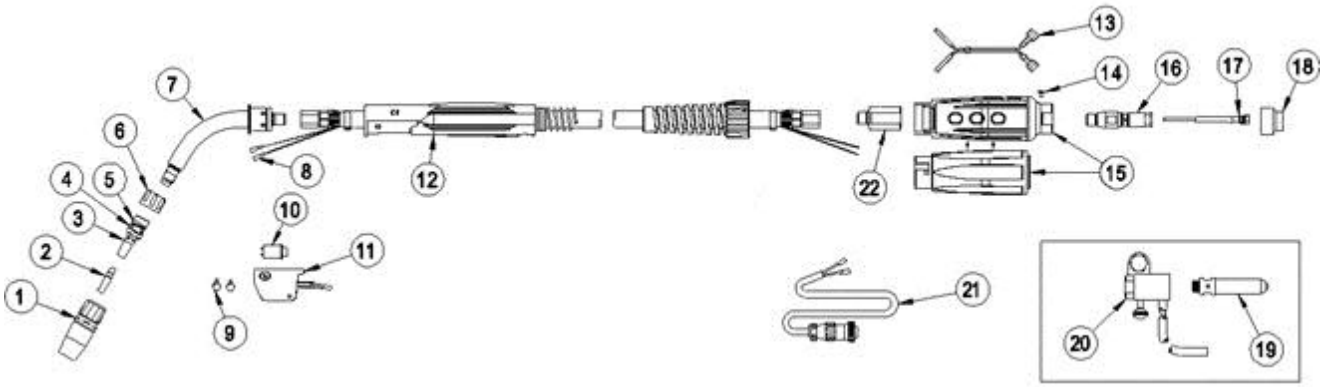
NOTE: *Ratings are based on tests that comply with IEC 60974-7 standards.*

5.0 – TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE
POOR WIRE FEED	• CONDUIT LINER CLOGGED OR KINKED • INCORRECT LINER SIZE OR CONTACT TIP • LINER CUT TOO SHORT AND NOT SEATING PROPERLY IN GAS DIFFUSER • DRIVE ROLLS TOO TIGHT RESULTING IN SCORING OF WELDING WIRE • WELDING WIRE DIRTY, RUSTY OR TOO MUCH CAST
SHORT TIP LIFE	• DRIVE ROLLS TOO TIGHT RESULTING IN SCORING OF WELDING WIRE • WELDING WIRE DIRTY, RUSTY OR TOO MUCH CAST • UNCOATED WIRE BEING USED, INCREASING USAGE • WRONG TIP SIZE • OVER TORCH RATED DUTY CYCLE • LOOSE CONSUMABLES
GUN OVERHEATING	• LOOSE RETAINING SCREW ON QUICK CONNECT BLOCK • INSUFFICIENT GAUGE POWER CABLE AND/OR GROUND CABLE • LOOSE CONNECTOR CONES AND/OR CONE NUTS • GUN BEING RUN BEYOND ITS AMPERAGE RANGE • ELECTRICAL MALFUNCTION IN POWER SOURCE • LOOSE CONSUMABLES
SWITCH MALFUNCTIONING	• BAD CONNECTION OF LEADS TO SWITCH TERMINALS • SPATTER BUILD UP BETWEEN LEVER AND SWITCH HOUSING • CONTACTS DIRTY IN SWITCH • SWITCH HOUSING SCREWS LOOSE • BROKERN OR WORN SWITCH LEAD
WELD POROSITY	• SPATTER BUILD UP IN NOZZLE BLOCKING GAS • LEAKS IN GAS HOSE OR IMPROPER CONNECTION • O-RINGS ON POWER PIN ARE CUT OR DAMAGED • INNER TUBE LOOSE FROM CONNECTOR CONE • POOR WIRE FEED (SEE ABOVE) • IMPROPER SHIELDING GAS OR WELDING WIRE • RUSTY OR POOR QUALITY WELDING WIRE • PARENT METAL RUSTY OR CONTAMINATED OR HIGH IN SULPHUR CONTENT • FLOW IMPROPERLY SET

6.0 – EXPLODED VIEW AND PARTS LISTS

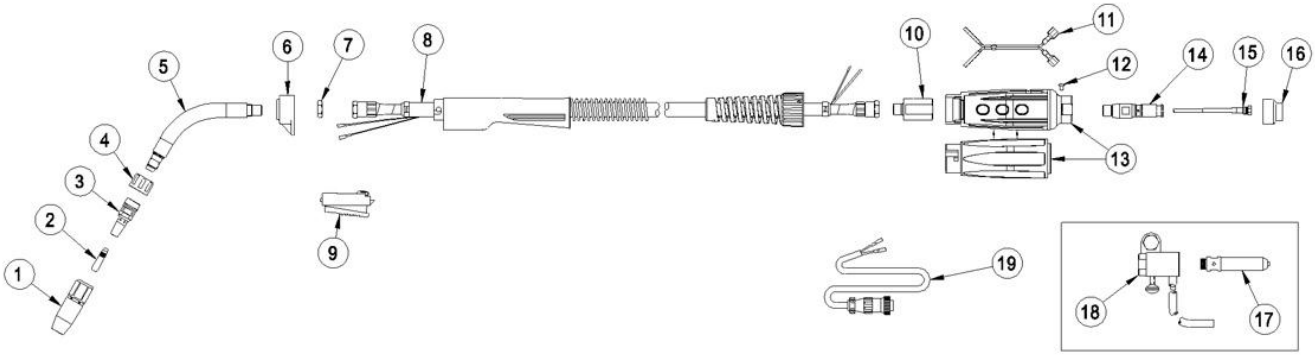
6.1 TGX XL SERIES GUNS



Numbers in this column correspond to the exploded view images above.

	PART #	DESCRIPTION
1		STANDARD DUTY NOZZLE (SELF-INSULATED)
2	403-14-xx	STANDARD DUTY TREGASKISS™ TOUGH LOCK™ CONTACT TIPS
	403-20-xx	HEAVY DUTY TREGASKISS TOUGH LOCK CONTACT TIPS
3	404-26	HEAVY DUTY TREGASKISS TOUGH LOCK RETAINING HEAD
4	454-1-2	RETAINING RING ONLY
5	402-6	O-RING ONLY
6	402-7	NECK INSULATOR
7	405-60X	NECK 60 DEGREE 400 AMP
8	412-1	SWITCH LEAD CON□ECTOR
9	411-3M	MOUNTING SCREW (METRIC M5)
10	411-1	SWITCH ONLY
11	411-2X	SWITCH HOUSING WITH SCREWS
12		CHASSIS
13	419-21	TGX JUMPER CABLE (SAME FOR ALL AMPERAGES)
14		S.B.H.C.S. - M4 X .7 X 6 LG
15	510X	REAR HANDLE ASSEMBLY
16	214-xx	POWER PIN
17	415-xx-xx	LINER (CHOOSE CONVENTIONAL OR TREGASKISS QUICK LOAD™ LINER)
18	414-400-xx	POWER PIN INSULATOR
19	418-xx	FEEDER ADAPTOR
20		**FEEDER ADAPTOR REQUIREMENTS** (SOLD SEPARATELY)
	417	QUICK CONNECT BLOCK ASSEMBLY (TWECO® #4)
	417-60	QUICK CONNECT BLOCK□ASSEMBLY (TWECO #5)
	417-64	QUICK CONNECT BLOCK ASSEMBLY (MILLER® TO EURO - DOES NOT REQUIRE FEEDER ADAPTOR ITEM 19 ABOVE)
	417-65	QUICK CONNECT BLOCK ASSEMBLY (TWECO #4 TO EURO - DOES NOT REQUIRE FEEDER ADAPTOR ITEM 19 ABOVE)
21	419-xx	CONTROL PLUG
22	414-400X	POWER PIN BLOCK

6.2 TGX XS SERIES GUNS



	PART #	DESCRIPTION
1		STANDARD DUTY NOZZLE (SELF-INSULATED)
2	403-14-xx	STANDARD DUTY TREGASKISS TOUGH LOCK™ CONTACT TIPS
	403-20-xx	HEAVY DUTY TREGASKISS TOUGH LOCK CONTACT TIPS
3	404-18	STANDARD DUTY TREGASKISS TOUGH LOCK RETAINING HEAD
	404-26	HEAVY DUTY TREGASKISS TOUGH LOCK RETAINING HEAD
4	402-7	NECK INSULATOR
5	205-60X	NECK 60 DEGREE 200 AMP
6	210-6X	HANDLE LOCK NUT
7	208-2	JAM NUT
8		CHASSIS
9	211-5	SWITCH ASSEMBLY
10	414-400X	POWER PIN BLOCK
11	419-21	TGX JUMPER CABLE (SAME FOR ALL AMPERAGES)
12		S.B.H.C.S. - M4 X .7 X 6 LG
13	510X	REAR HANDLE ASSEMBLY
14	214-xx	POWER PIN
15	415-xx-xx	LINER (CHOOSE CONVENTIONAL OR TREGASKISS QUICK LOAD™ LINER)
16	414-400-xx	POWER PIN INSULATOR
17	418-xx	FEEDER ADAPTOR
18		**FEEDER ADAPTOR REQUIREMENTS** (SOLD SEPARATELY)
	417	QUICK CONNECT BLOCK ASSEMBLY (TWECO #4)
	417-60	QUICK CONNECT BLOCK ASSEMBLY (TWECO #5)
	417-64	QUICK CONNECT BLOCK ASSEMBLY (MILLER TO EURO - DOES NOT REQUIRE FEEDER ADAPTOR ITEM 17 ABOVE)
	417-65	QUICK CONNECT BLOCK ASSEMBLY (TWECO #4 TO EURO - DOES NOT REQUIRE FEEDER ADAPTOR ITEM 17 ABOVE)
19	419-xx	CONTROL PLUG

7.0 – ORDERING INFORMATION

7.1 TGX CHASSIS

MODEL NO.	AMPERAGE RATING	LENGTH
XS1810	180	10’
XS1812	180	12’
XS1815	180	15’
XS2610	260	10’
XS2612	260	12’
XS2615	260	15’
XS3210	300	10’
XS3212	300	12’
XS3215	300	15’
XL3010	300	10’
XL3012	300	12’
XL3015	300	15’
XL4010	400	10’
XL4012	400	12’
XL4015	400	15’

7.2 TREGASKISS™ CONSUMABLES AND PARTS SMALL QUANTITY PACKAGING

TREGASKISS TOUGH LOCK CONTACT TIPS

PART #	STANDARD DUTY TIPS - 5 / PACK
403-14-23-05	FOR .023” OR 0.6 mm WIRE
403-14-30-05	FOR .030” OR 0.8 mm WIRE
403-14-35-05	FOR .035” OR 0.9 mm WIRE
403-14-1.0-05	FOR .040” OR 1.0 mm WIRE
403-14-45-5	FOR .045” OR 1.2 mm WIRE
	HEAVY DUTY TIPS - 5 / PACK
403-20-30-05	FOR .030” OR 0.8 mm WIRE
403-20-35-05	FOR .035” OR 0.9 mm WIRE
403-20-1.0-05	FOR .040” OR 1.0 mm WIRE
403-20-45-05	FOR .045” OR 1.2 mm WIRE
403-20-52-05	FOR .052” OR 1.3 mm WIRE
403-20-116-05	FOR 1/16” OR 1.6 mm WIRE
403-20-332-05	FOR 3/32” OR 2.4 mm WIRE

TREGASKISS TOUGH LOCK RETAINING HEADS

PART #	RETAINING HEAD - 2 PER PACK
404-18-02	STANDARD DUTY RETAINING HEAD
404-26-02	HEAVY DUTY RETAINING HEAD - SEMI-AUTO

TREGASKISS NOZZLES

PART #	NOZZLES - 2 / PACK
401-4-50-02	1/2” BORE – 1/8” TIP RECESS
401-4-62-02	5/8” BORE – 1/8” TIP RECESS
401-42-50-02	1/2" BORE – 1/8" TIP RECESS
401-5-62-02	5/8” BORE – 1/4” TIP RECESS
401-6-62-02	5/8” BORE – 1/8” TIP RECESS

NECK INSULATORS

PART #	NECK INSULATOR - 2 / PACK
402-7-2-02	NECK INSULATOR
402-11-02	NECK INSULATOR

TREGASKISS LINERS

PART #	WIRE SIZE	KIT CONTENTS
415-23-15	.023”	CONVENTIONAL LINER
415-30-15	.030”	CONVENTIONAL LINER
415-35-15	.035” - .045”	CONVENTIONAL LINER
415-116-15	.045” - 1/16”	CONVENTIONAL LINER
415-564-15	1/16” - 5/64”	CONVENTIONAL LINER
415-30-6Q	.030”	*QUICK LOAD™ LINER
415-30-15Q	.030”	*QUICK LOAD LINER
415-35-6Q	.035” - .045”	*QUICK LOAD LINER
415-35-10Q	.035” - .045”	*QUICK LOAD LINER
415-35-15Q	.035” - .045”	*QUICK LOAD LINER
415-116-6Q	.045” - 1/16”	*QUICK LOAD LINER
415-□16-10Q	.045” - 1/16”	*QUICK LOAD LINER
415-116-15Q	.045” - 1/16”	*QUICK LOAD LINER
415-564-6Q	1/16” - 5/64”	*QUICK LOAD LINER
415-564-15Q	1/16” - 5/64”	*QUICK LOAD LINER
415-332-6Q	.078” - 3/32”	*QUICK LOAD LINER
415-332-15Q	.078” - 3/32”	*QUICK LOAD LINER
TREGASKISS QUICK LOAD LINER RETAINER (SOLD SEPARATELY)		
415-24	.078” - 3/32”	TREGASKISS QUICK LOAD LINER RETAINER
415-26	.030” - 5/64”	TREGASKISS QUICK LOAD LINER RETAINER
415-37	.030” - 5/64”	TREGASKISS QUICK LOAD LINER RETAINER FOR MOST TWECO® GUNS

*Tregaskiss QUICK LOAD Liners are front-loading.

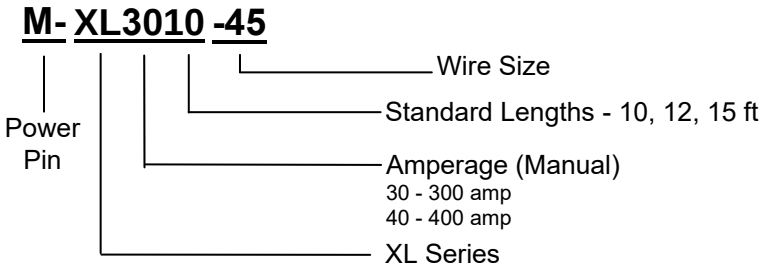
POWER PINS

FEEDER	FEEDER MODELS	PART #	QTY
HOBART®	BETA-MIG (NEW STYLE), BETA-MIG 250 AND 251, DUAL FEEDER, DIGITAL 2000, DUAL DIGITAL, PORTA FEED 17, ULTRA FEED 1000, 2000, 2400, HANDLER, OSCAWA, HEFTY CV/CC	214 (Tweco® #4 Style)	1
	BETA-MIG 261, OLYMPIC 22-P, OLYMPIC VS, IRONMAN 275	214-1	1
LINCOLN®	WIREMATIC 250, 255, SP-85, SP-86, SP-100, SP-100T, SP-125PLUS, SP-130, SP-130T, SP-150, SP-170, SP-200, SP-250, IDEALARC SP-255, MIG PAK10, MIG PAK 55, WELD PAK 100, POWERMIG 255, POWERMIG 200, 250 AND 300, POWER FEED 10M, POWER FEED 25M, DH-10, LN-10 (NEW STYLE), STT-10	214	1
	LN7, LN8, LN9, LN22, LN25, SUITCASE, LN742, SYNERGIC	214-2	1
MILLER®	**(XS GUNS):** CRICKET, INTELLIMATIC, SIDEKICK, D-51A, MILLERMATIC 130, 150, 200, 250, 250MP AND 300, MM-35 (NEW), MM90, NEW AUTOMATIC 1, PORTOMIG, S32P, S-42GL, S-52A, S-54A, SWING ARC-DUAL, SWING ARC-SINGLE, S-32S, 52D, 54D, 52E, 54E, SHOP MASTER 300, 22 SERIES, ALL 60 SERIES, 70 SERIES, MILLERMATIC 130XP, CHALLENGER 172, 185, VINTAGE, AND 250X, SUITCASE 8VS & 12VS, R115	214-1	1
	(XL GUNS): CRICKET, INTELLIMATIC, SIDEKICK, D-51A, MILLERMATIC 130, 150, 200, 250, 250MP AND 300, MM-35 (NEW), MM90, NEW AUTOMATIC 1, PORTOMIG, S32P, S-42GL, S-52A, S-54A, SWING ARC-DUAL, SWING ARC-SINGLE, S-32S, 52D, 54D, 52E, 54E, SHOP MASTER 300, 22 SERIES, ALL 60 SERIES, 70 SERIES, MILLERMATIC 130XP, CHALLENGER 172, 185, VINTAGE, AND 250X, SUITCASE 8VS & 12VS, R115	214-6-116	1
EURO	EURO QUICK CONNECT BLOCK FOR USE WITH 214-1 & 214-6-116 POWER PINS (MILLER STYLE)	417-64	1
	EURO QUICK CONNECT BLOCK FOR USE WITH 214 POWER PIN (TWECO #4 STYLE)	417-65	1

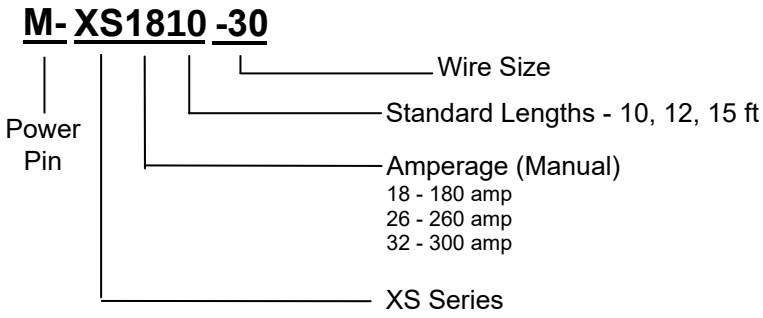
CONTROL PLUGS

FEEDER	FEEDER MODELS	PART #	QTY
HOBART	HOBART BETA-MIG 261, OLYMPIC 22-P, OLYMPIC VS, IRONMAN 210, 250, 275	419-4	1
	BETA-MIG (NEW STYLE), BETA-MIG 250 AND 251, DUAL FEEDER, DIGITAL 2000, DUAL DIGITAL, PORTA FEED 17, ULTRA FEED 1000, 19, 2000, 2200, 2400, 2410, HANDLER, OSCAWA, HEFTY, CV/CC, MIG-MAN, PORT-A-WIRE, MODEL 17. 2000, 2400 (LARGE PIN), 27, 27A, DUALMATIC 27/70, H3S, H4S, H6S, 44, 45, 70, 70S, SP100, BETA-MIG 250 (OLD STYLE), MEGA-CONDS	419-8	1
LINCOLN	POWERWAVE C300	419-4	1
	LN7, LN8, LN9, LN22, LN25	419-6	1
	SUITCASE, IDEALARC	419-8	1
MILLER	CRICKET, INTELLIMATIC, SIDEKICK, D-51A, MILLERMATIC 35 (1980 AND NEWER) 90, 120, 130,135, 150, 175, 185, 200, 210, 212, 250, 251, 250MP and 300, 350P, MM90, NEW AUTOMATIC 1, PORTOMIG, S-21, S-21E, 22A, S32P, S-42GL, S-52A, S-54A, S-62A, SWING ARC-DUAL, SWING ARC-SINGLE, S-32S, 52D, 54D, 52E, 54E, SIDEKICK, SHOP MASTER 300, 22 SERIES, ALL 60 SERIES, 70 SERIES, MILLERMATIC 130XP, CHALLENGER 172, 185, VINTAGE, AND 250X, Suitcase 8VS & 12VS, PORTO-MIG, SWING ARC, R115, DELTAWELD, MILLER AXCESS	419-4	1

7.3 EXAMPLE OF STANDARD XL MODEL NO.



7.4 EXAMPLE OF STANDARD XS MODEL NO.



7.5 GUN STANDARDS CHART

GUN MODEL	NOZZLE	CONTACT TIP	RETAINING HEAD	NECK INSULATOR	NECK	GUN LENGTH (FT)	CHASSIS
180 amp (XS)	401-42-50	403-14-xx	404-18	402-7	205-60X	10	XS1810
						12	XS1812
						15	XS1815
260 amp (XS)	401-4-50	403-20-xx	404-26	402-7	205-60X	10	XS2610
						12	XS2612
						15	XS2615
300 amp (XS)	401-4-50	403-20-xx	404-26	402-7	205-60X	10	XS3210
						12	XS3212
						15	XS3215
300 amp (XL)	401-4-62	403-20-xx	404-26	402-7	405-60X	10	XL3010
						12	XL3012
						15	XL3015
400 amp (XL)	401-4-62	403-20-xx	404-26	402-7	405-60X	10	XL4010
						12	XL4012
						15	XL4015

ADDITIONAL SUPPORT MATERIALS

For additional support materials such as Spec Sheets, troubleshooting information, how-to guides and videos, animations, online configurators and much more, please visit Bernard. Scan the QR Code with your smart phone for immediate access to Tregaskiss.com/TechnicalSupport.

Scan to view the TGX® Semi-Automatic Air-Cooled MIG Gun Owner's Manual

Scan to view the TOUGH LOCK® Consumables Spec Sheet

Scan to view additional Bernard® Owner's Manuals and Spec Sheets

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