INSTRUCTIONS for

F-12-778-H
June, 1999

MT-200, MT-400 & MT-400EHD*
MIG WELDING GUN
WITH BAYONET CONNECTOR

*Extra Heavy Duty (EHD)

CAUTION

These INSTRUCTIONS are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for arc welding equipment, we urge you to read our booklet, "Precautions and Safe Practices for Arc Welding, Cutting and Gouging." Form 52-529. Do NOT permit untrained persons to install, operate, or maintain this equipment. Do NOT attempt to install or operate this equipment until you have read and fully understand these Instructions. If you do not fully understand these Instructions, contact your supplier for further information. Be sure to read the Safety Precautions on page 3 before installing or operating this equipment.

Be sure this information reaches the operator.
You can get extra copies through your supplier.

ESAB Welding & Cutting Products

USER RESPONSIBILITY

This equipment will perform in conformity with the description thereof contained in this manual and accompanying labels and/or inserts when installed, operated, maintained, and repaired in accordance with the instructions provided. This equipment must be checked periodically. Malfunctioning or poorly maintained equipment should not be used. Parts that are broken, missing, worn, distorted, or contaminated should be replaced immediately. Should such repair or replacement become necessary, the manufacturer recommends that a telephone or written request for service advice be made to the Authorized Distributor from whom it was purchased.

This equipment or any of its parts should not be altered without the prior written approval of the manufacturer. The user of this equipment shall have the sole responsibility for any malfunction which results from improper use, faulty maintenance, damage, improper repair, or alteration by anyone other than the manufacturer or a service facility designated by the manufacturer.

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SAFETY PRECAUTIONS

WARNING: These Safety Precautions are for your protection. They summarize precautionary information from the references listed in Additional Safety Information section. Before performing any installation or operating procedures, be sure to read and follow the safety precautions listed below as well as all other manuals, material safety data sheets, labels, etc. Failure to observe Safety Precautions can result in injury or death.

PROTECT YOURSELF AND OTHERS -- Some welding, cutting, and gouging processes are noisy and require ear protection. The arc, like the sun, emits ultraviolet (UV) and other radiation and can injure skin and eyes. Hot metal can cause burns. Training in the proper use of the processes and equipment is essential to prevent accidents. Therefore:

1. Always wear safety glasses with side shields in any work area, even if welding helmets, face shields, and goggles are also required.
2. Use a face shield fitted with the correct filter and cover plates to protect your eyes, face, neck, and ears from sparks and rays of the arc when operating or observing operations. Warn bystanders not to watch the arc and not to expose themselves to the rays of the electric-arc or hot metal.
3. Wear flameproof gauntlet type gloves, heavy long-sleeve shirt, cuffless trousers, high-topped shoes, and a welding helmet or cap for hair protection, to protect against arc rays and hot sparks or hot metal. A flameproof apron may also be desirable as protection against radiated heat and sparks.
4. Hot sparks or metal can lodge in rolled up sleeves, trouser cuffs, or pockets. Sleeves and collars should be kept buttoned, and open pockets eliminated from the front of clothing
5. Protect other personnel from arc rays and hot sparks with a suitable nonflammable partition or curtains.
6. Use goggles over safety glasses when chipping slag or grinding. Chipped slag may be hot and can fly far. Bystanders should also wear goggles over safety glasses.

FIRES AND EXPLOSIONS -- Heat from flames and arcs can start fires. Hot slag or sparks can also cause fires and explosions. Therefore:

1. Remove all combustible materials well away from the work area or cover the materials with a protective nonflammable covering. Combustible materials include wood, cloth, sawdust, liquid and gas fuels, solvents, paints and coatings, paper, etc.
2. Hot sparks or hot metal can fall through cracks or crevices in floors or wall openings and cause a hidden smoldering fire or fires on the floor below. Make certain that such openings are protected from hot sparks and metal.“
3. Do not weld, cut or perform other hot work until the workpiece has been completely cleaned so that there are no substances on the workpiece which might produce flammable or toxic vapors. Do not do hot work on closed containers. They may explode.
4. Have fire extinguishing equipment handy for instant use, such as a garden hose, water pail, sand bucket, or portable fire extinguisher. Be sure you are trained in its use.
5. Do not use equipment beyond its ratings. For example, overloaded welding cable can overheat and create a fire hazard.
6. After completing operations, inspect the work area to make certain there are no hot sparks or hot metal which could cause a later fire. Use fire watchers when necessary.
7. For additional information, refer to NFPA Standard 51B, "Fire Prevention in Use of Cutting and Welding Processes", available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

ELECTRICAL SHOCK -- Contact with live electrical parts and ground can cause severe injury or death. DO NOT use AC welding current in damp areas, if movement is confined, or if there is danger of falling.

1. Be sure the power source frame (chassis) is connected to the ground system of the input power.
2. Connect the workpiece to a good electrical ground.
3. Connect the work cable to the workpiece. A poor or missing connection can expose you or others to a fatal shock.
4. Use well-maintained equipment. Replace worn or damaged cables.
5. Keep everything dry, including clothing, work area, cables, torch/electrode holder, and power source.
6. Make sure that all parts of your body are insulated from work and from ground.
7. Do not stand directly on metal or the earth while working in tight quarters or a damp area; stand on dry boards or an insulating platform and wear rubber-soled shoes.
8. Put on dry, hole-free gloves before turning on the power.
9. Turn off the power before removing your gloves.
10. Refer to ANSI/ASC Standard Z49.1 (listed on next page) for specific grounding recommendations. Do not mistake the work lead for a ground cable.

ELECTRIC AND MAGNETIC FIELDS — May be dangerous. Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding and cutting current creates EMF around welding cables and welding machines. Therefore:

1. Welders having pacemakers should consult their physician before welding. EMF may interfere with some pacemakers.
2. Exposure to EMF may have other health effects which are unknown.
3. Welders should use the following procedures to minimize exposure to EMF:
   A. Route the electrode and work cables together. Secure them with tape when possible.
   B. Never coil the torch or work cable around your body.
   C. Do not place your body between the torch and work cables. Route cables on the same side of your body.
   D. Connect the work cable to the workpiece as close as possible to the area being welded.
   E. Keep welding power source and cables as far away from your body as possible.

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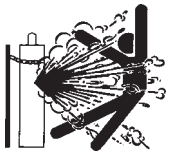
SAFETY PRECAUTIONS

FUMES AND GASES -- Fumes and gases, can cause discomfort or harm, particularly in confined spaces. Do not breathe fumes and gases. Shielding gases can cause asphyxiation. Therefore:

1. Always provide adequate ventilation in the work area by natural or mechanical means. Do not weld, cut, or gouge on materials such as galvanized steel, stainless steel, copper, zinc, lead, beryllium, or cadmium unless positive mechanical ventilation is provided. Do not breathe fumes from these materials.
2. Do not operate near de-greasing and spraying operations. The heat or arc rays can react with chlorinated hydrocarbon vapors to form phosgene, a highly toxic gas, and other irritant gases.
3. If you develop momentary eye, nose, or throat irritation while operating, this is an indication that ventilation is not adequate. Stop work and take necessary steps to improve ventilation in the work area. Do not continue to operate if physical discomfort persists.
4. Refer to ANSI/ASC Standard Z49.1 (see listing below) for specific ventilation recommendations.
5. **WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code §25249.5 et seq.)**



CYLINDER HANDLING -- Cylinders, if mishandled, can rupture and violently release gas. Sudden rupture of cylinder, valve, or relief device can injure or kill. Therefore:

1. Use the proper gas for the process and use the proper pressure reducing regulator designed to operate from the compressed gas cylinder. Do not use adaptors. Maintain hoses and fittings in good condition. Follow manufacturer's operating instructions for mounting regulator to a compressed gas cylinder.
2. Always secure cylinders in an upright position by chain or strap to suitable hand trucks, undercarriages, benches, walls, post, or racks. Never secure cylinders to work tables or fixtures where they may become part of an electrical circuit.
3. When not in use, keep cylinder valves closed. Have valve protection cap in place if regulator is not connected. Secure and move cylinders by using suitable hand trucks. Avoid rough handling of cylinders.
4. Locate cylinders away from heat, sparks, and flames. Never strike an arc on a cylinder.
5. For additional information, refer to CGA Standard P-1, "Precautions for Safe Handling of Compressed Gases in Cylinders", which is available from Compressed Gas Association, 1235 Jefferson Davis Highway, Arlington, VA 22202.

EQUIPMENT MAINTENANCE -- Faulty or improperly maintained equipment can cause injury or death. Therefore:

1. Always have qualified personnel perform the installation, troubleshooting, and maintenance work. Do not perform any electrical work unless you are qualified to perform such work.
2. Before performing any maintenance work inside a power source, disconnect the power source from the incoming electrical power.
3. Maintain cables, grounding wire, connections, power cord, and power supply in safe working order. Do not operate any equipment in faulty condition.
4. Do not abuse any equipment or accessories. Keep equipment away from heat sources such as furnaces, wet conditions such as water puddles, oil or grease, corrosive atmospheres and inclement weather.
5. Keep all safety devices and cabinet covers in position and in good repair.
6. Use equipment only for its intended purpose. Do not modify it in any manner.

ADDITIONAL SAFETY INFORMATION -- For more information on safe practices for electric arc welding and cutting equipment, ask your supplier for a copy of "Precautions and Safe Practices for Arc Welding, Cutting and Gouging", Form 52-529.

The following publications, which are available from the American Welding Society, 550 N.W. LeJuene Road, Miami, FL 33126, are recommended to you:

1. ANSI/ASC Z49.1 - "Safety in Welding and Cutting"
2. AWS C5.1 - "Recommended Practices for Plasma Arc Welding"
3. AWS C5.2 - "Recommended Practices for Plasma Arc Cutting"
4. AWS C5.3 - "Recommended Practices for Air Carbon Arc Gouging and Cutting"
5. AWS C5.5 - "Recommended Practices for Gas Tungsten Arc Welding"
6. AWS C5.6 - "Recommended Practices for Gas Metal Arc Welding""
7. AWS SP - "Safe Practices" - Reprint, Welding Handbook.
8. ANSI/AWS F4.1, "Recommended Safe Practices for Welding and Cutting of Containers That Have Held Hazardous Substances."

MEANING OF SYMBOLS - As used throughout this manual: Means Attention! Be Alert! Your safety is involved.

DANGER **Means immediate hazards which, if not avoided, will result in immediate, serious personal injury or loss of life.**

WARNING **Means potential hazards which could result in personal injury or loss of life.**

CAUTION **Means hazards which could result in minor personal injury.**

PRÉCAUTIONS DE SÉCURITÉ

AVERTISSEMENT: Ces règles de sécurité ont pour objet d' assurer votre protection. Veillez à lire et à observer les précautions énoncées ci-dessous avant de monter l' équipement ou de commercer à l'utiliser. Tout défaut d'observation de ces précautions risque d'entraîner des blessures graves ou mortelles.

1. PROTECTION INDIVIDUELLE-- Les brûlures de la peau et des yeux dues au rayonnement de l'arc électrique ou du métal incandescent, lors du soudage au plasma ou à l'électrode ou lors du gougeage à l'arc, peuvent s'avérer plus graves que celles résultant d'une exposition prolongée au soleil. Aussi convient-il d'observer les précautions suivantes:

a. Portez un écran facial adéquat muni des plaques protectrices et des verres filtrants appropriés afin de vous protéger les yeux, le visage, le cou et les oreilles des étincelles et du rayonnement de l'arc électrique lorsque vous effectuez des soudures ou des coupes ou lorsque vous en observez l'exécution.
AVERTISSEZ les personnes se trouvant à proximité de façon à ce qu'elles ne regardent pas l'arc et à ce qu'elles ne s'exposent pas à son rayonnement, ni à celui du métal incandescent.

b. Portez des gants ignifugés à crispins, une tunique épaisse à manches longues, des pantalons sans rebord, des chaussures à embout d'acier et un casque de soudage ou une calotte de protection, afin d'éviter d'exposer la peau au rayonnement de l'arc électrique ou du métal incandescent. Il est également souhaitable d'utiliser un tablier ininflammable de façon à se protéger des étincelles et du rayonnement thermique.

c. Les étincelles ou les projections de métal incandescent risquent de se loger dans des manches retroussées, des bords relevés de pantalons ou dans des poches. Aussi convient-il de garder boutonnés le col et les manches et de porter des vêtements sans poches à l'avant.

d. Protégez des étincelles et du rayonnement de l'arc électrique les autres personnes travaillant à proximité à l'aide d'un écran ininflammable adéquat.

e. Ne jamais omettre de porter des lunettes de sécurité lorsque vous vous trouvez dans un secteur où l'on effectue des opérations de soudage ou de coupage à l'arc. Utilisez des lunettes de sécurité à écrans ou verres latéraux pour piquer ou meûler le laitier. Les piquetures incandescentes de laitier peuvent être projetées à des distances considérables. Les personnes se trouvant à proximité doivent également porter des lunettes de protection.

f. Le gougeage à l'arc et le soudage à l'arc au plasma produisent un niveau de bruit extrêmement élevé (de 100 à 114 dB) et exigent par conséquent l'emploi de dispositifs appropriés de protection auditive.

2. PRÉVENTION DES INCENDES-- Les projections de laitier incandescent ou d'étincelles peuvent provoquer de graves incendies au contact de matériaux combustibles solides, liquides ou gazeux. Aussi faut-il observer les précautions suivantes:

a. Éloigner suffisamment tous les matériaux combustibles du secteur où l'on exécute des soudures ou des coupes à l'arc, à moins de les recouvrir complètement d'une bâche non-inflammable. Ce type de matériaux comprend notamment le bois, les vêtements, la sciure, l'essence, le kérosène, les peintures, les solvants, le gaz naturel, l'acétylène, le propane et autres substances combustibles semblables.

b. Les étincelles ou les projections de métal incandescent peuvent tomber dans des fissures du plancher ou dans des ouvertures des murs et y déclencher une ignition lente cachée. Veiller à protéger ces ouvertures des étincelles et des projections de métal.

c. N'exécutez pas de soudures, de coupes, d'opérations de gougeage ou autres travaux à chaud à la surface de barils, bidons, réservoirs ou autres contenants usagés, avant de les avoir nettoyés de toute trace de substance susceptible de produire des vapeurs inflammables ou toxiques.

d. En vue d'assurer la prévention des incendies, il convient de disposer d'un matériel d'extinction prêt à servir immédiatement, tel qu'un tuyau d'arrosage, un seau à eau, un seau de sable ou un extincteur portatif.

e. Une fois le travail à l'arc terminé, inspectez le secteur de façon à vous assurer qu'aucune étincelle ou projection de métal incandescent ne risque de provoquer ultérieurement un feu.

3. CHOC ÉLECTRIQUE-- Le gougeage à l'arc et à l'arc au plasma exige l'emploi de tensions à vide relativement importantes; or, celles-ci risquent de causer des dommages corporels graves et même mortels en cas d'utilisation inadéquate. La gravité du choc électrique reçu dépend du chemin suivi par le courant à travers le corps humain et de son intensité.

a. Ne laissez jamais de surfaces métalliques sous tension venir au contact direct de la peau ou de vêtements humides. Veillez à porter des gants bien secs.

b. Si vous devez effectuer un travail sur une surface métallique ou dans un secteur humide, veillez à assurer votre isolation corporelle en portant des gants secs et des chaussures à semelles de caoutchouc et en vous tenant sur une planche ou une plate-forme sèche.

c. Mettez toujours à la terre le poste de soudage/coupage en le reliant par un câble à une bonne prise de terre.

d. N'utilisez jamais de câbles usés ou endommagés. Ne surchargez jamais le câble. Utilisez toujours un équipement correctement entretenu.

e. Mettez l'équipement hors tension lorsqu'il n'est pas en service. une mise à la masse accidentelle peut en effet provoquer une surchauffe de l'équipement et un danger d'incendie. Ne pas enrouler ou passer le câble autour d'une partie quelconque du corps.

f. Vérifiez si le câble de masse est bien relié à la pièce en un point aussi proche que possible de la zone de travail. Le branchement des câbles de masse à l'ossature du bâtiment ou en un point éloigné de la zone de travail augmente en effet le risque de passage d'un courant de sortie par des chaînes de

levage, des câbles de grue ou divers chemins électriques.

g. Empêchez l'apparition de toute humidité, notamment sur vos vêtements, à la surface de l'emplacement de travail, des câbles, du porte-électrode et du poste de soudage/coupage. Réparez immédiatement toute fuite d'eau.

4. VENTILATION-- La respiration prolongée des fumées résultant des opérations de soudage/coupage, à l'intérieur, d'un local clos, peut provoquer des malaises et des dommages corporels. Aussi convient-il d'observer les précautions suivantes:

a. Assurez en permanence une aération adéquate de l'emplacement de travail en maintenant une ventilation naturelle ou à l'aide de moyens mécaniques. N'effectuez jamais de travaux de soudage ou de coupage sur des matériaux de zinc, de plomb, de beryllium ou de cadmium en l'absence de moyens mécaniques de ventilation capables d'empêcher l'inhalation des fumées dégagées par ces matériaux.

b. N'effectuez jamais de travaux de soudage ou de coupage à proximité de vapeurs d'hydrocarbure chloré résultant d'opérations voisines de dégraissage ou de pulvérisation. La chaleur dégagée ou le rayonnement de l'arc peut déclencher la formation de phosgène -- gaz particulièrement toxique -- et d'autres gaz irritants, à partir des vapeurs de solvant.

c. Une irritation momentanée des yeux, du nez ou de la gorge constatée au cours de l'utilisation de l'équipement dénote un défaut de ventilation. Arrêtez-vous de travailler afin de prendre les mesures nécessaires à l'amélioration de la ventilation. Ne poursuivez pas l'opération entreprise si le malaise persiste.

d. Certaines commandes comportent des canalisations où circule de l'hydrogène. L'armoire de commande est munie d'un ventilateur destiné à empêcher la formation de poches d'hydrogène, lesquelles présentent un danger d'explosion; ce ventilateur ne fonctionne que si l'interrupteur correspondant du panneau avant se trouve placé en position ON (Marche). Veillez à manœuvrer cette commande en vérifiant si le couvercle est bien en place, de façon à assurer l'efficacité de la ventilation ainsi réalisée. Ne jamais débrancher le ventilateur.

e. Les fumées produites par l'opération de soudage ou de coupage peuvent s'avérer toxiques. Aussi est-il nécessaire de disposer en permanence d'un dispositif adéquat de ventilation de type aspirant, afin d'éliminer du voisinage de l'opérateur tout dégagement de fumée visible.

f. Consultez les recommandations particulières en matière de ventilation indiquées à l'alinéa 6 de la norme Z49.1 de l'AWS.

5. ENTRETIEN DE L'ÉQUIPEMENT-- Un équipement entretenu de façon défectueuse ou inadéquate risque non seulement de réaliser un travail de mauvaise qualité mais, chose plus grave encore, d'entraîner des dommages corporels graves, voire mortels en déclenchant des incendies ou des chocs électriques. Observez par conséquent les précautions suivantes:

a. Efforcez-vous de toujours confier à un personnel qualifié l'installation, le dépannage et l'entretien du poste de soudage et de coupage. N'effectuez aucune réparation électrique sur l'équipement à moins d'être qua-lifié à cet effet.

b. Ne procédez jamais à une tâche d'entretien quelconque à l'intérieur du poste de soudage/coupage, avant d'avoir débranché l'alimentation électrique.

c. Maintenez en bon état de fonctionnement les câbles, le câble de masse, les branchements, le cordon d'alimentation et le poste de soudage/coupage. N'utilisez jamais le poste ou l'équipement s'il présente une défectuosité quelconque.

d. Prenez soin du poste de soudage et de coupage et des équipements accessoires. Gardez-les à l'écart des sources de charleur, notamment des fours, de l'humidité, des flaques d'eau maintenez-les à l'abri des traces d'huile ou de graisse, des atmosphères corrosives et des intempéries.

e. Laissez en place tous les dispositifs de sécurité et tous les panneaux de l'armoire de commande en veillant à les garder en bon état.

f. Utilisez le poste de soudage/coupage conformément à son usage prévu et n'effectuez aucune modification.

6. INFORMATIONS COMPLÉMENTAIRES RELATIVES À LA SÉCURITÉ--

Pour obtenir des informations complémentaires sur les règles de sécurité à observer pour le montage et l'utilisation d'équipements de soudage et de coupage électriques et sur les méthodes de travail recommandées, demandez un exemplaire du livret N° 52529 "Precautions and Safe Practices for Arc Welding, Cutting and Gouging" publié par ESAB. Nous conseillons également de consulter les publications sui-vantes, tenues à votre disposition par l'American Welding Society, 550 N.W. LeJuene Road, Miami, FL 32126:

a. "Safety in Welding and Cutting" AWS Z49.1

b. "Recommended Safe Practices for Gas-Shielded Arc Welding "AWS A6. 1.

c. "Safe Practices for Welding and Cutting Containers That Have Held Combustibles" AWS-A6.0.

d. "Recommended Safe Practices for Plasma Arc Cutting" AWS-A6. 3.

e. "Recommended Safe Practices for Plasma Arc Welding" AWS-C5. 1.

f. "Recommended Safe Practices for Air Carbon Arc Gouging and Cutting" AWS-C5. 3.

g. "Code For Safety in Welding and Cutting" CSA-Standard W117. 2.

I. INTRODUCTION

1.1 SCOPE

This manual provides installation, operation, service and parts information for the MT-200, MT-400 and MT-400EHD air-cooled welding torch with bayonet type connector for connecting to Mig-35 and Digimig. For information on the equipment with which the torch is used, such as power sources and wire feeders, refer to the instruction manuals for that equipment.

1.2 FEATURES/BENEFITS

- assembles or packages available - the MT-200, MT-400 "ready-to-weld" torch comes ready to hook up to the Mig 35 or Digimig Wire Feeder.
  —or, the MT-400 EHD torch packages which include unassembled liner, heavy duty contact tip(s) or tube(s), and extra-heavy duty threaded nozzle.

- lightweight extended performance - see Specification Table 1.1.

- self-insulated slide-on nozzle design - one piece design with insulator firmly crimped inside the nozzle is less susceptible to burn-up.
  —or, heavy-duty threaded nozzles that extend capacity.

- two-piece tip adaptor - reduces consumable costs

- heavy duty torque crimped cable design - eliminates premature failure of soldered cables due to constant flexing and subsequent work hardening and breakage of copper conductor strands.

- contact tips, or heavy-duty contact tubes - many of which are interchangeable with the MT-200 and MT-400 models.

- rugged, one piece composite cable assembly-strong lightweight and easy to manipulate, providing outstanding comfort and flexibility welders demand.

- flame retardant design - self-extinguishing material of high impact resistance for long life and durability.

- enclosed torch micro-switch - provides sure long life for millions of cycles; because the micro-switch is enclosed, no manual cleaning of exposed contacts is required to keep the torch working.

- reversible torch screw - enables welder to change the trigger location (top or bottom) to the position of his choice.

- "easy fix" design - thread-in wire guide, slide together trigger housing, and replaceable one-piece handle and cable assembly, allowing for quick and easy repair.

TABLE 1.1 Torch Specifications

Model	Rated Current Capacity*		Wire Sizes Accommodated	Available Lengths
	CO2	Mixed Gases		
MT-200	300 amps	200 amps	.023" to 1/16"	10', 12' or 15'
MT-400	400 amps	275 amps	.023" to 3/32"	10', 12', 15' or 25'
MT-400 EHD	500 amps	375 amps	.035" to 3/32"	15' (a)

(a) The MT-400 EHD torch uses HD (Heavy Duty) tips or tubes and EHD (Extra Heavy Duty) threaded nozzles to increase current capacity to 500 amps. Using these accessories will increase the capacity of any MT-400 torch to 500 amps (see Fig. 1.4).

* @ 60% duty cycle (10 min. base)

TABLE 1.2 Basic Torch Assemblies Available (see Fig. 5.1)*

* Basic torches do not include liners, contact tips/tubes, or nozzles. Mix and match the accessories listed in Fig. 1.4 and Tables 1.4.1, 1.4.2, and 1.4.3 to customize a torch for your welding application.

Basic Assy./Length	10-ft. (3.0m)	12-ft. (3.6m)	15-ft. (4.5m)	25-ft. (7.5m)
MT-200	998888	948921	998887	---
MT-400	999469	948922	999470	18232

1.3 REQUIRED EQUIPMENT (See Fig. 1.3)

1.3.1 Wire Feeder Connector Assembly - P/N 2075378

Provides quick connect and disconnect of the MT-200 or MT-400 to a MIG-35, or Digimig Wire Feeder. It includes power cable, gas hose, and switch cord with fitted connections.

1.3.2. Wire Outlet Guide and Feed Roll

Select the proper outlet guide and feed roll from Table 1.3.

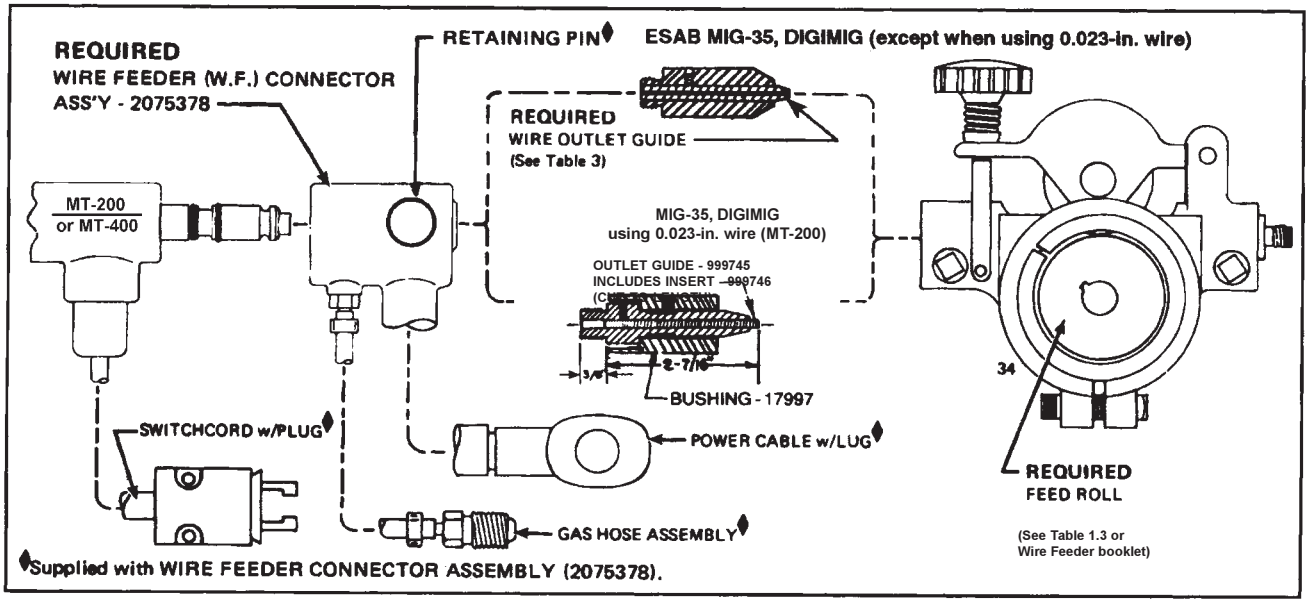


Figure 1.3 - Connecting MT-200 or MT-400 to a Mig-35 or Digimig Wire Feeder

Table 1.3 - Outlet Guide to Feed Roll

Wire Type	Wire Size In.	Wire Outlet Guide MIG-35 Digimig	Feed Roll (U-, V-, or Serrated Groove) MIG-35 Digimig
Hard "H"	0.023	999745■	17998(V)
	0.030	993860(a)	2075300(V)
	0.035	993860(a)	2075303(V)
	0.045	39N15(b)	2075302(V)
	0.052	39N15(b)	2075330(V)
	1/16	39N15(b)	2075299(V)
Cored "C"	0.035	9933860(a)	19761 (Serr.)
	0.045	39N15(b)	19761 (Serr.)
	0.052	39N15(b)	2075261 (Serr.)
	1/16	39N15(b)	2075261 (Serr.)
	5/64	62N17(c)	2075261 (Serr.)
	3/32	62N17(c)	2075257 (Serr.)
Soft "S"	0.035	29N13(d)	2075304 (U)
	3/64	29N13(d)	2075301 (U)

■ Also requires Guide Bushing, P/N 17997 (see Fig. 1.3).
(a) Includes replaceable sleeve (995651).
(b) Includes replaceable sleeve (995692).
(c) Requires outlet guide insert (993902 - yellow for 0.035-in.; 05N57 - red for 3/64-in.)

1.4 TORCH ACCESSORY GUIDE & SELECTION - Fig. 1.4, & Tables 1.4.1, 1.4.2 and 1.4.3.

Standard Duty Tips and Nozzles provide good performance and service life for the majority of welding applications.
Heavy Duty Tips, Tubes and Nozzles improve the performance and extend the service life when used with high current applications, high spatter wires, pulsed arc mig and when used in confined areas.

Extra Heavy Duty (brass) Slide-on Nozzles provide improved service life when subjected to extreme impact abuse.

Extra Heavy Duty Threaded Nozzles and Heavy Duty Tips and Tubes extend the rating of the MT-400 from 400 amps to 500 amps @ 60% duty cycle.

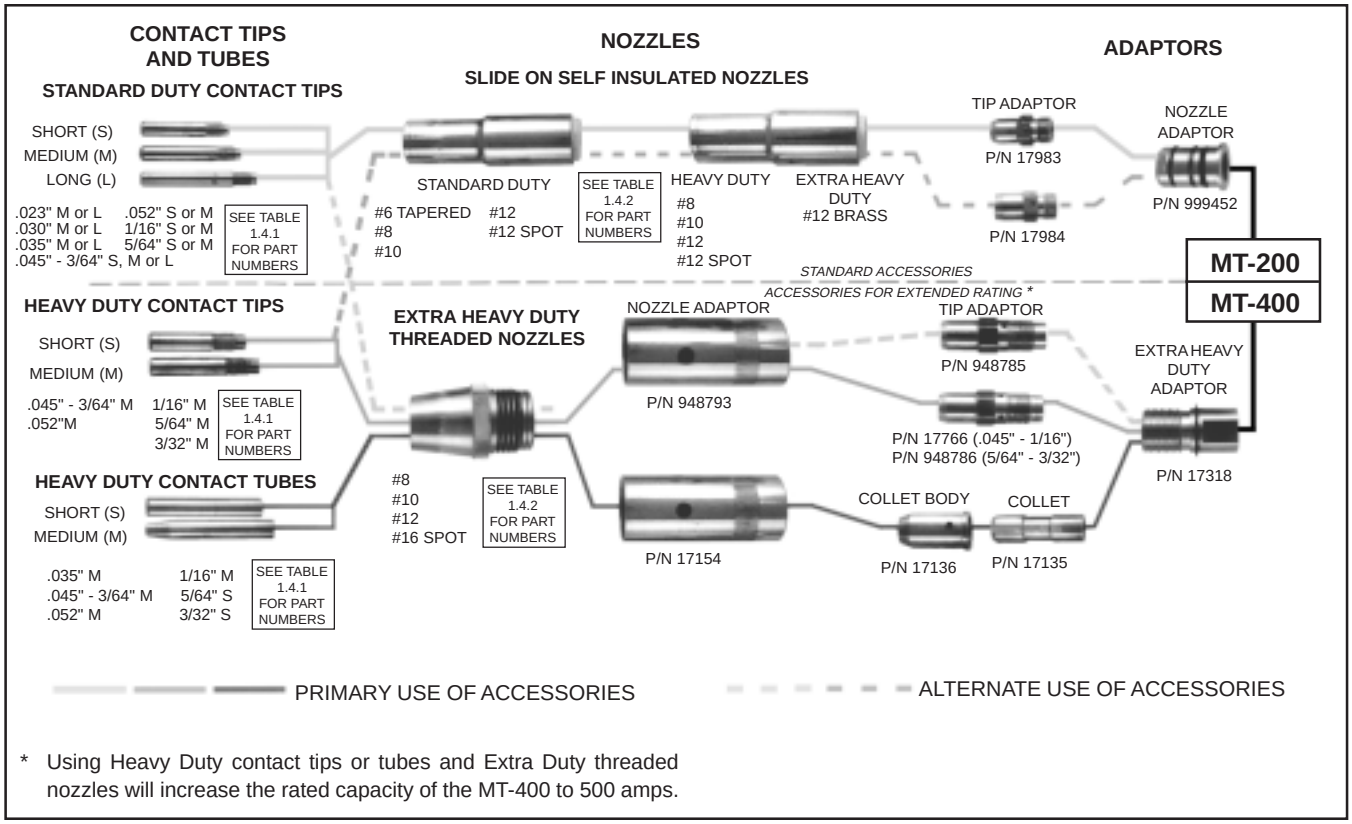
Accessory Selection - Assembly Guide .. see Fig. 1.4
Contact Tips and Tubes ..... see Table 1.4.1
Nozzles (slip-on or threaded) ..... see Table 1.4.2
Liners ..... see Table 1.4.3

II. INSTALLATION

1. Install the proper feed roll (see Table 1.3) to the wire feeder. Refer to the wire feeder booklet for installation and adjustment details.
2. Connect the proper wire outlet guide (see Table 1.3) to the wire feeder connector assembly as shown in figure 1.3.
3. Secure the outlet guide into the front clamp of the accessory support assembly on the wire feeder (refer to wire feeder instruction booklet).
4. Connect the power cable, gas hose, and switch cord to the wire feeder (see Fig. 2.1)
5. Remove retaining pin on wire feeder connector; insert torch inlet fitting fully; and then reinsert retaining pin to lock fitting in place. Be sure retaining pin is completely pushed in before feeding the wire.
6. Use the inching switch on the wire feeder to inch the wire through the torch.
7. The torch is now ready to operate. Refer to your wire feeder instruction booklet for operating details.

Figure 1.4 Accessories Selection - Assembly Guide

To select correct accessories, choose tip based on wire and follow Guide Chart to determine nozzle and adaptors.



* Using Heavy Duty contact tips or tubes and Extra Duty threaded nozzles will increase the rated capacity of the MT-400 to 500 amps.

Table 1.4.1 Recommended Contact Tips, Tubes and Adaptors

Wire Sizes & Type	Standard Duty Contact Tips			Heavy Duty* Contact Tips		Heavy Duty* Contact Tubes	
	Short[1]	Medium[2]	Long[3]	Short[1]	Medium[2]	Short[1]	Medium[2]
For Hard and Cored Wires							
.023" (.6mm)	-	20543	999742	-	-	-	-
.030" (.8mm)	-	20544	996994	-	-	-	-
.035" (.9mm)	-	996995	996996	-	-	-	17163
.040" (1.0mm)	-	37287	37288	-	-	-	-
.045" (1.2mm)	999578◆	37290◆	996998◆	-	37286◆	-	37292◆
.052" (1.4mm)	948340◆	2075349◆	-	-	17778◆	-	17155◆
1/16" (1.6mm)	948341◆	37289◆	-	-	37291◆	-	17157◆
5/64" (2.0mm)	-	2075230◆	-	948832◆	-	17159◆	-
3/32" (2.4mm)	-	-	-	948833◆	-	17161◆	-
For Soft (Aluminum) Wires							
.023" (.6mm)	-	20543	999742	-	-	-	-
.030" (.8mm)	-	20544	996994	-	-	-	-
.030" (.8mm)	-	36884‡	-	-	-	-	-
.035" (.9mm)	-	996995	996996	-	-	-	-
.035" (.9mm)	-	36885‡	-	-	-	-	-
.040" (1.0mm)	-	37287	37288	-	-	-	-
3/64" (1.2mm)	-	996999	-	-	17765		17164
3/64" (1.2mm)	-	36886‡	-	-	-	-	-
1/16" (1.6mm)	-	996997	-	-	948835	-	-
Tip Adaptor for Slide-On Nozzles	17983 (all diameters)+			17984 (all diameters)+		Not Available	
Tip Adaptor for Threaded Nozzles	948785 (all diameters)✧			17766 (.045"-1/16")✧ 948786 (5/64"-3/32")✧		Collet Body 17136 Collet 17135✧	

1 Short contact tips are generally recommended to give proper wire stick out for flux cored wire welding.
2 Medium contact tips are generally recommended to give proper wire stick out for spray transfer Mig welding.
3 Long contact tips are generally recommended to give good visibility and proper wire stick out for dip transferring welding.
* The use of Heavy Duty tips & tubes and Extra Heavy Duty threaded nozzles extends the rating of the MT-400 to 500 amps @ 60% duty cycle in CO_2.
\+ Use with Nozzle Adaptor (999452)
✧ Use with Nozzle Adaptor (948793) and Extra Heavy Duty Adaptor (17318)
◆ New ID for improved arc performance on steel/flux cored wire.
‡ Notched for improved arc starting and increased tip life.

TABLE 1.4.2 Recommended Nozzles Accessories

Nozzle		Slide-On, Self-Insulated*					Threaded+
		Standard Duty		Heavy Duty		Extra Heavy	Extra Heavy
Description	I.D.	Standard	Long-Life◆	Standard	Long-Life◆	duty (Brass)	Duty
#6 Tapered	3/8"	998895	998895XL	-	-	-	-
#8	1/2"	998893	998893XL	999471	999471XL	-	948767
#10	5/8"	998894	998894XL	999472	999472XL	-	948768
#12	3/4"	-	-	999473	-	17350	948769
#12 Spot	3/4"	17316▪	-	999625	-	-	-
#16 Spot	1"	-	-	-	-	-	999900

* Slide-on, Self-Insulated Nozzles require Adaptor 999452.
\+ Threaded Nozzles require Extra Heavy Duty Adaptor 17318 and Nozzle Adaptor 948793.
▪ Requires 17293 Tip Adaptor (replaces standard tip adaptor) and 17321 Nozzle Insulator.
◆ Long-life nozzles are coated to reduce weld spatter adherence and extend life on nozzle.

TABLE 1.4.3 Recommended Liners Accessories

Wire Size & Type		Liner 10'	12'	15'	25'
Hard Wires & Cored Wires					
.023"	(.6mm)	999743*	34929*	-	-
.030"	(.8mm)	948850	17717	-	-
.035"	(.9mm)	2075237	17718	2075238	18235
.045"	(1.2mm)	2075237	17718	2075238	18235
.052"	(1.4mm)	2075239	17719	2075240	18236
1/16"	(1.6mm)	2075239	17719	2085240	18236
5/64"	(2.0mm)	2075245	17720	2075246	-
3/32"	(2.4mm)	2075245+	17720	2075246	-
Soft Wires (aluminum)					
.035"	(.9mm)	948862	33931	-	-
3/64"	(1.2mm)	948863	34932	-	-
1/16"	(1.6mm)	19065**	-	-	-

* Requires support liner for .023" wire. Order P/N 999797 for 10 ft. or P/N 34930 for 12 ft.
** Requires Support Liner, P/N 34930.
\+ 45° curved wire guide (P/N 18243) recommended for 3/32" wire.

1. Install the proper feed roll (see Table 1.3) to the wire feeder. Refer to the wire feeder booklet for installation and adjustment details.
2. Connect the proper wire outlet guide (see Table 1.3) to the wire feeder connector assembly as shown in figure 1.3.
3. Secure the outlet guide into the front clamp of the accessory support assembly on the wire feeder (refer to wire feeder instruction booklet).
4. Connect the power cable, gas hose, and switch cord to the wire feeder (see Fig. 2.1)
5. Remove retaining pin on wire feeder connector; insert torch inlet fitting fully; and then reinsert retaining pin to lock fitting in place. Be sure retaining pin is completely pushed in before feeding the wire.
6. Use the inching switch on the wire feeder to inch the wire through the torch.
7. The torch is now ready to operate. Refer to your wire feeder instruction booklet for operating details.

The MT-200 or MT-400 torch is supplied with liner and contact tip for a particular wire size and No. 8, 10 or 12 standard-duty nozzle installed. If desiring to change these components for another wire size as given in Table 1.4.1 through 1.4.3, refer to the Maintenance Section for instructions.

WARNING

The MT-200 is rated to operate up to 300 amps using CO_2; 200 amps using mixed gases (60% duty cycle).

The MT-400 is rated to operate up to 400 amps using CO_2; 250 amps using mixed gases (60% duty cycle).

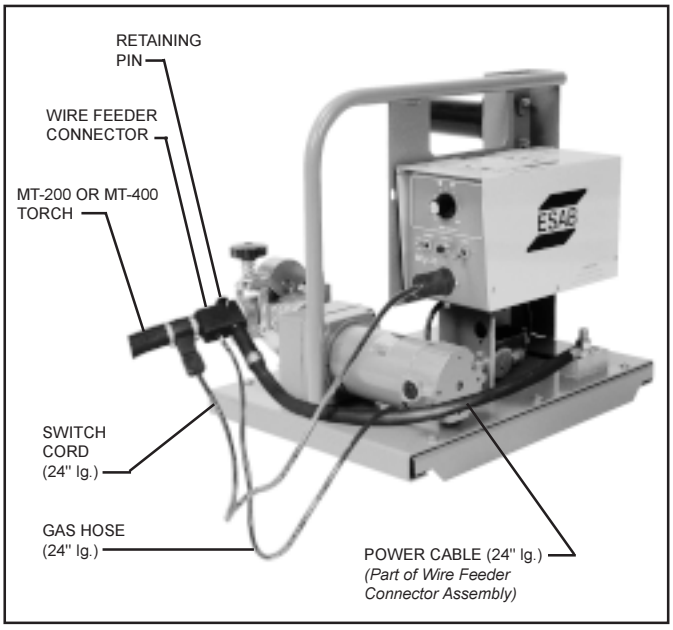


Figure 2.1 - MT-200 or MT-400 Torch and Wire Feed Connector Shown Attached to MIG-35 Wire Feeder

III. OPERATION

WARNING

3.1 OPERATING SAFETY PRECAUTIONS

Comply with all ventilation, fire and other safety requirements for arc welding as established in the SAFETY Section at the front of this manual.

Comply, also, with the following precautions:

a. Whenever welding above 250 amps, a No. 14 filter lens should be worn on your protective helmet. Up to 250 amps, No. 11 or 12 filter lens is recommended.

b. The radiant energy of the arc can decompose chlorinated solvent vapors, such as trichloroethylene

and perchloroethylene, to form phosgene, even when these vapors are present in low concentrations. Do NOT weld where chlorinated solvents are present in atmospheres in or around the arc.

c. Do NOT touch the electrode, contact tip or metal parts in contact with them when power is ON; all are electrically energized (HOT) and can cause a possibly fatal shock. DO NOT allow electrode to touch grounded metal; it will create an arc flash that can injure eyes. It may also start a fire or cause other damage.

d. When working in a confined space, be sure it is safe to enter. The confined space should be tested for adequate oxygen (at least 19%) with an approved oxygen measuring instrument. The confined space should not contain toxic concentrations of fumes or gases. If this cannot be determined, the operator should wear an approved air supplied breathing apparatus.

   Avoid gas leaks in a confined space, as the leaked gas can dangerously reduce oxygen concentration in the breathing air.

   DO NOT bring gas cylinders to confined spaces.

   When leaving a confined space, shut OFF gas supply at the source to prevent gas from leaking into the space. Check the breathing atmosphere in the confined space to be sure it is safe to reenter.

e. Never operate the equipment at currents greater than the rated ampere capacity; over-heating will occur.

f. Never operate equipment in damp, wet or confined areas without suitable insulation for protection against shock. Keep hands, feet and clothing dry at all times.

g. Whenever the equipment is left unattended, turn all control and power source switches and gas supplies OFF and open the main line switch.

h. Wear dark substantial clothing to protect exposed skin from arc burn, sparks and flying hot metal.

i. Turn off welding power before adjusting or replacing electrodes, contact tips, nozzles, or contact tip adaptors.

3.2 PRE-WELD REQUIREMENTS

Before welding, refer to feeder manual for pre-weld requirements and checklist. Also check that:

a. Correct size liner, guide tube, contact tip and nozzle are installed and uncontaminated by dirt or spatter.

b. Wire is properly threaded through gun.

c. Nozzle is free from excessive spatter.

If all pre-weld requirements have been met for feeder and torch, turn on all required power controls and proceed to weld.

IMPORTANT

For argon shield gas applications, copper nozzles should be used in place of brass nozzles.

CAUTION

When the POWER is ON, and torch trigger is depressed, the electrode wire becomes electrically HOT. Do NOT touch the wire as it may cause a possibly fatal shock. Do NOT allow wire to touch grounded metal surfaces other than the work to be welded.

3.3 WELDING PROCEDURE

a. On each new application, weld trial pieces of similar metal to determine any necessary welding adjustments.

b. When the trigger is squeezed, weld wire feeds continuously into the arc and the resulting weld puddle is protected by the shielding gas. Protect the arc from strong drafts which can disrupt shielding gas coverage and cause porous welds.

NOTE

Correct torch position, and coating of an anti-spatter compound on all torch surfaces exposed to spatter, reduces spatter accumulation.

IMPORTANT

Keep hoses, and cables from touching hot metal. Do not lay torch down on hot metal.

c. To stop the arc, release the trigger.

NOTE

Release the trigger, pull torch away from work only far enough to prevent welding wire from freezing in weld puddle. Gas will continue to flow for a short period.

d. When putting torch down, comply with (Step c) and **CAUTION** in next paragraph.

IMPORTANT
Never use torch as a hammer to remove spatter.

3.4 SHUTDOWN PROCEDURE

When welding is completed, shut down the equipment as follows:
a. Shut OFF all power controls.
b. Turn off gas at source.
c. Place torch in safe location.

CAUTION

Do not allow protruding welding wire to touch a grounded metal surface.

d. Coil or drape hose and cable without sharp bends.

IV. SERVICE

4.1 SERVICE PROCEDURE

CAUTION

Always shut OFF all power and gas supplies before attempting inspection, maintenance, or repair unless otherwise instructed here. Remove main line fuses or lock and red tag switches.
If power source is ON, electrode wire becomes electrically HOT when gun trigger is pressed, and drive rolls start. Keep fingers clear of drive rolls. Do NOT touch wire or metal parts contacting it or allow wire to touch grounded metal. It may cause possibly fatal shock, fire or other damage. (See Operating Safety Precautions in preceding section, item 3.1).

Equipment which is not functioning properly should not be used until all required repairs have been completed and the equipment has been tested to ascertain that it is in proper operating condition.

Inspection, troubleshooting, and repair of this equipment as indicated in this manual may ordinarily be undertaken by a competent person having at least general experience in the maintenance and repair of equipment of this nature.

CAUTION

No such maintenance or repair should ever be undertaken by anyone not having such qualifications.

It is recommended that worn parts be replaced with parts manufactured and sold by ESAB Welding & Cutting Products.

Except for inspection, troubleshooting, and repairs indicated in this manual, it is recommended that all other servicing be done by an authorized service facility. Contact the Distributor from whom purchased for assistance.

If so advised, the unit should be sent to the authorized service facility, adequately packaged, in the original shipping container, if possible, and shipped prepaid, with a statement of the observed deficiency. Return transportation charges are to be paid by Buyer. In all cases other than when warranty is applicable, repairs will be made at current list price for the replacement part(s) plus a reasonable labor charge.

4.2 INSPECT AND SERVICE TORCH REGULARLY

a. Clean accumulated dirt from all areas, particularly electrical parts where metallic particles can cause short circuits. Blow out liner with compressed air when changing wire. Compressed air should NOT exceed 30 psig (2.1 bar).

b. Tighten loose hardware including all gas and electrical connections. (Loose power connections overheat during welding).

c. Regularly inspect insulation on equipment for possible damage or wear. Check for frayed and cracked insulation. Before using equipment again, make necessary repairs or replace all worn or damaged insulation, hoses, cables, conduit, and connectors.

WARNING

With any repairs, make sure that metallic parts do not protrude from insulation. Damaged insulation can expose the conductor. If it should touch grounded metal, it would create an arc flash. If it should touch the body, it could cause a fatal shock.

d. Periodically remove any weld spatter or foreign matter which has accumulated around the nozzle orifice and contact tip. To ease spatter removal, spray a thin film of anti-spatter compound on contact tip and nozzle before welding and reapply the compound after cleaning of tip and nozzle.

e. Replace contact tip if worn.

f. Remove any accumulation around trigger that may make it stick, or cause short circuits.

CAUTION

To avoid shock, do not depress trigger while handling contact tip or nozzle parts or while disassembling torch.

4.3 NOZZLES

IMPORTANT

Do not hammer torch or nozzle to remove spatter.

Spatter can be removed from the inside of the nozzle with a hand reamer or file. Adherence of spatter can be minimized and removal made easier by coating the inside of the nozzle with No. 65 Nozzle Anti-Spatter Compound.

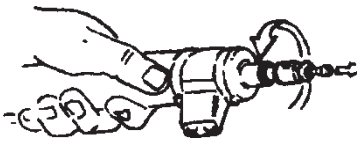
4.4 WIRE FEED LINER (Except 0.023-in liner, see Section 4.4)

To remove liner for cleaning or replacement, proceed as follows:

1. Remove nozzle, contact tip, tip adaptor and front insulator.

2. Loosen the setscrews in the curved wire guide (through hole of front insulator, 999474) and the cable inlet fitting (see Fig. 4) with a 5/64-in. hex-key.

3. Lay the torch cable out relatively straight. Rotate the cable inlet fitting counterclockwise a few turns which should force the liner to slip out of the fitting slightly. You should then be able to grab the end of the liner by hand and pull it out of the torch keeping the cable relatively straight while pulling.



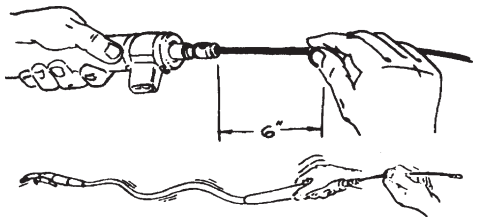
4. Be sure to wear proper eye and face protection. Blow out metallic chips, grit, etc. from the liner and the handle and cable assembly with compressed air.

NOTE: Direct the initial blast of air away from the parts to clear moisture that occasionally accumulates in compressed air lines.

5. Inspect the small gas sealing O-ring on the inlet ferrule. Replace it if damaged. Make sure the O-ring is properly located in the groove.

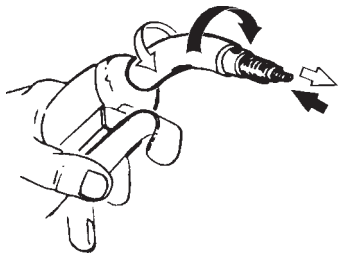
6. Remove all burrs from the O.D. of the liner's bare spring end (particularly if installing a new liner) to prevent snagging while pushing the liner through the cable.

7. With the torch cable laying straight, insert the bare end of the liner into the cable inlet fitting. Then push the liner slowly through the cable. To prevent possible kinking of the liner, it is recommended to push it in no more than 150 mm (6-in.) at a time. An occasional slight whip-snapping of the inlet flex support will also facilitate liner installation is illustrated below.



8. After seating the liner ferrule fully into the cable inlet fitting, lock the liner in place by tightening the setscrew in inlet fitting. If setscrew is not tightened, liner may shift in service causing gas to leak. Do NOT overtighten.

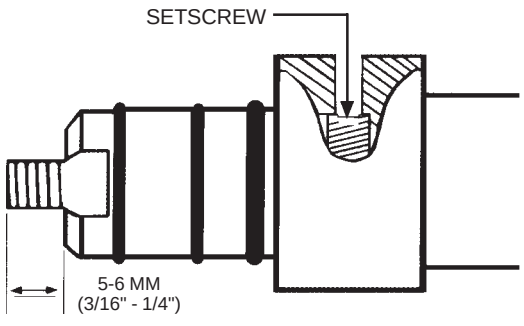
9. If installing a used liner, it should extend beyond the end of the curved wire guide 3/8 to 7/16-in (9 to 11mm). If short rotate the torch handle in the counter clockwise direction as illustrated below (white arrow) to force the liner to extend more. If liner is extending excessively, then rotate the handle in the clockwise direction (dark arrow).



10. If installing a new replacement liner, it should be extending several inches past the curved wire guide. Proceed as follows:

    a. Snip off excess liner with a sharp cutting tool so that the liner extends 3/16-in. to 1/4-in. (5-6mm) from the face of the nozzle adaptor.

    b. Remove any sharp burrs on end (O.D. and I.D.) of the spring liner. Burrs could cause wire to bind during the feeding or the liner to sag during reinstallation into the torch.



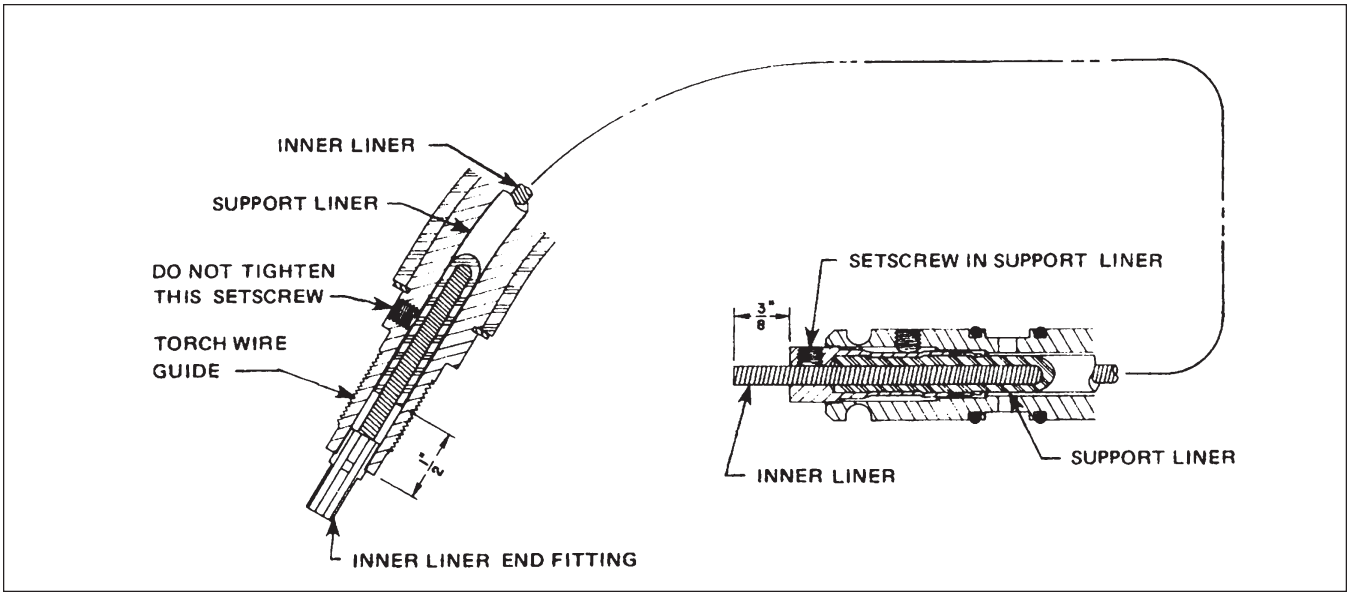


Figure 4.4 - Installing 0.023-in. Inner and Support Liners

11. Install tip adaptor wrench tight to seat the liner. Then tighten the setscrew in the curved wire guide with the supplied 5/64-in. (2mm) hex key. Do NOT overtighten.

12. Install and tighten proper size contact tip with a pair of pliers.

13. Install push-on nozzle. A slight rotating motion will help slide the nozzle past the friction rings and O-ring.

4.5 0.023-IN. WIRE FEED LINERS

To install liner and support liners into the torch, use the following procedure (refer to Figure 4.4):

1. Remove nozzle, contact tip, tip adaptor (999452) and front insulator (999474). **Back out setscrew in wire guide until it is flush with wire guide O.D.** (This setscrew must remain in wire guide to prevent loss of shielding gas.)

2. Lay torch out straight and insert support liner (999797) from inlet end of torch. Seat liner end fitting firmly into torch inlet.

3. Snip off excess support liner protruding from wire guide so that it is flush with end of wire guide.

4. Remove the support liner and cut off an additional 1/2-in. (13mm). Deburr and reinstall in torch. Tighten setscrew in torch inlet fitting. Do not tighten setscrew in wire guide.

5. With torch laying straight, insert inner liner (999743) from torch wire guide end. Push liner in all the way until the small brass liner fitting seats firmly against the end of the wire guide. Reinstall front insulator and tip adaptor.

6. Excess liner should be extending from torch inlet end. Tighten setscrew in the support liner fitting to lock inner liner in place. Leaving 3/8-in. of inner liner extending from support liner fitting, snip off excess and deburr.

7. Install contact tip and tighten with a pair of pliers.

8. Install nozzle. A slight rotating motion may be required for sliding the nozzle past the friction rings and O-ring.

4.6 CURVED WIRE GUIDE

To replace the curved wire guide (21064) proceed as follows:

1. Remove the nozzle, contact tip, tip adaptor, nozzle adaptor, front insulator, liner and shoulder ring.

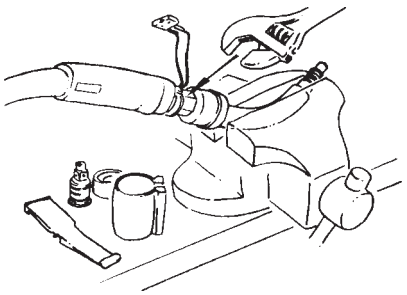
2. Remove the switch housing (998858) (refer to Section 4.6) which will expose a hex-section on the torch body.

3. Remove the handle end cap and wire guide insulator unless the insulator is being replaced. The insulator should be replaced if torch has been in service for an extended period.

4. Place the wire guide in a vise. Using an adjustable wrench, turn the torch body counterclockwise to unscrew the wire guide.

5. Reassemble components in reverse order.

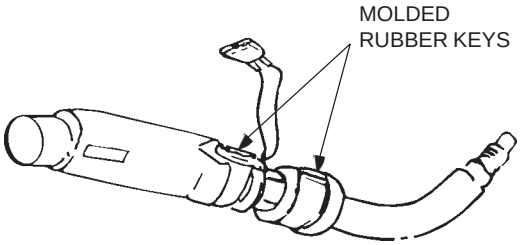
NOTE: When assembling a new curved wire guide, do NOT apply teflon tape or other lubricants on the pipe threads. The threads should be dry since the torch body threads have a film of conductive material already applied. Assemble the torch body to the wire guide by hand, and then use a wrench to tighten to the desired position.



4.7 TORCH SWITCH

IMPORTANT: *During the first switch replacement. The housing should be removed and the switch lead positions observed. When the switch and other switch parts are reassembled, the leads should be returned to the original position.*

To replace switch (2075220), press lever (2075214) down and then remove metal clamp (2075219) from switch housing (998858) by sliding it towards the rear of the torch handle. After lifting the lever away from the handle, remove the switch from the mounting lugs on the underside of the lever. You can then disconnect the leads from the old switch and reconnect to the new switch. Make sure the switch is properly positioned on the mounting lugs of the lever and then reassemble lever and clamp. The switch is properly assembled when you press and release the lever and hear two distinct clicks.



If you desire to have the switch assembly located on the top side of the torch handle for thumb operation of switch, disassemble as described above but you must also remove the plastic housing from the handle and cut off the molded-in rubber keys (located on the underside where illustrated) with a wire cutter or some other sharp instrument. Spread the housing apart so that it can slide upward off the handle. Disconnect the switch and then reconnect on the top side of handle so that the leads can be tucked neatly into the handle cavity. Reassemble the housing from the opposite side. Reassemble switch components as described in the preceding paragraph.

4.8 HANDLE AND CABLE ASSEMBLY (See Figure 5.1)

The handle and cable assembly includes the power cable switch leads, and gas and wire passages. The outer jacket should be examined periodically for signs of minor damage which may be repaired by the customer. If severe damage occurs, causing torch malfunctions, the handle and cable assembly should be replaced.

V. REPLACEMENT PARTS

5.1 GENERAL

All replacement parts are keyed in figure 5.1. Other replacement parts by part number and part name. Do not order by part number alone.

The following illustrations of the equipment identify each replacement part by part number, description and quantity used (in parentheses, if more than one).

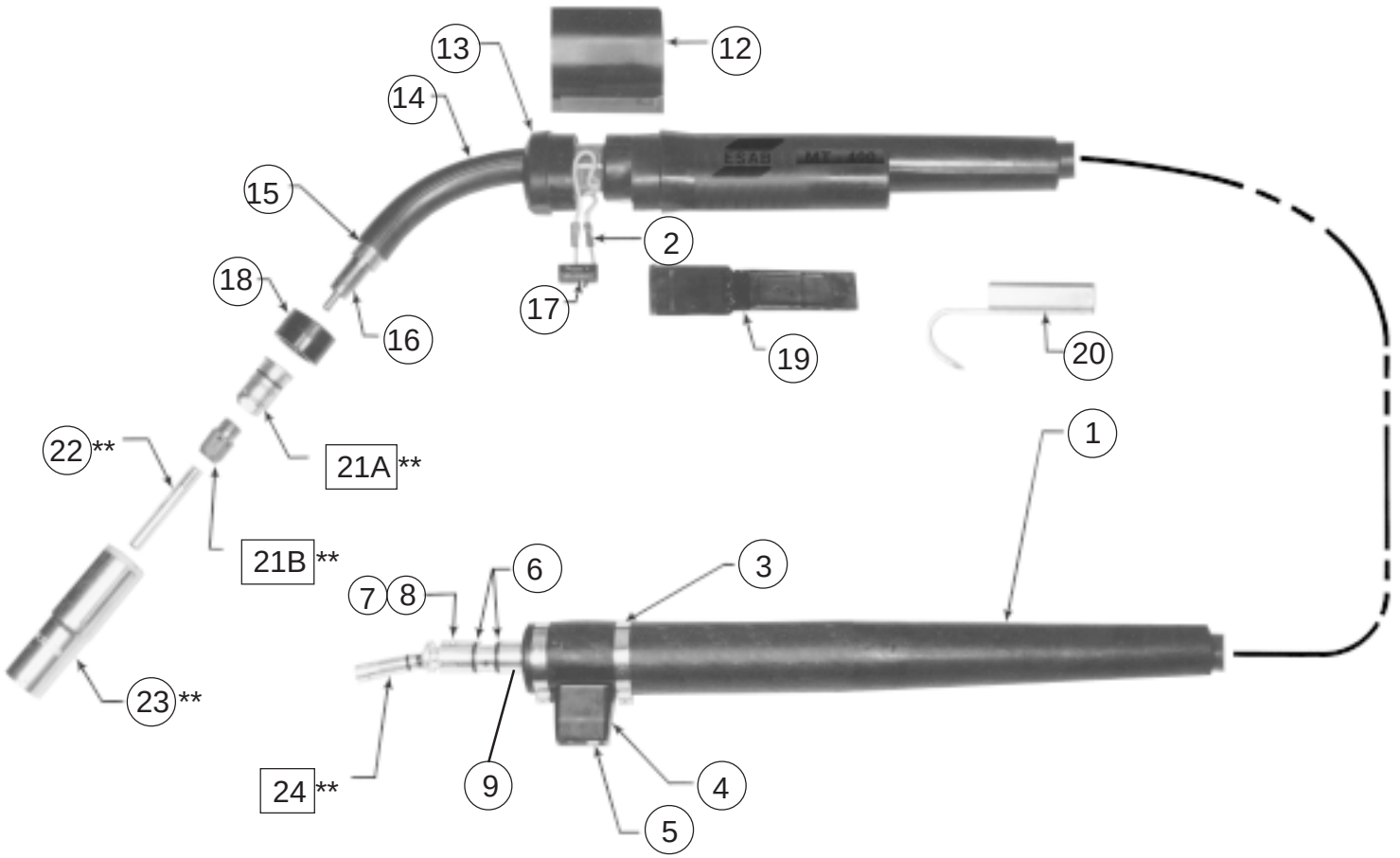
Some assemblies are available as a unit or as individual parts. These parts are listed below such assemblies. When any of the assembly parts is a subassembly, its individual parts are listed below it, indented another space.

Attaching hardware items are listed below the part they attach. They may not be shown. Order them separately.

5.2 ORDERING

To assure proper operation, it is recommended that only genuine ESAB parts be used with this equipment. To order replacement parts:

a. Give the part number, description and quantity of each part required.
b. Give part number and description of equipment on which the parts are to be used.
c. Indicate any special shipping instructions.



** Denotes Items
Not Included With
Basic Torch

Fig. 5.1 - Replacement Parts - MT-200 & MT-400 Basic Torch Assemblies

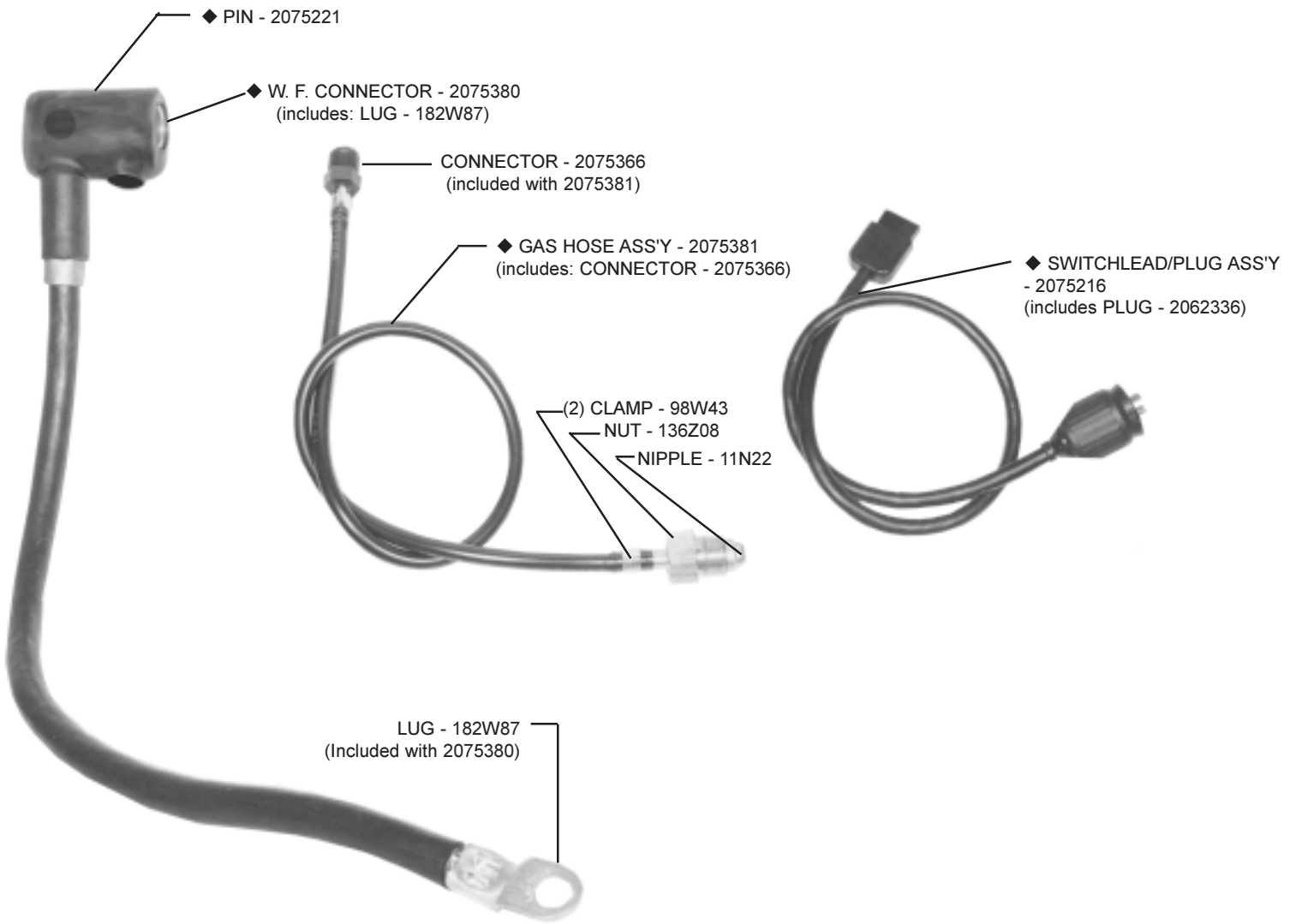
Replacement Parts List for Figure 5.1.

MT-200 Basic Torch Assembly, 10-Ft., 998888
MT-200 Basic Torch Assembly, 12-Ft., 948921
MT-200 Basic Torch Assembly, 15-Ft., 998887

MT-400 Basic Torch Assembly, 10-Ft., 999469
MT-400 Basic Torch Assembly, 12-Ft., 948922
MT-400 Basic Torch Assembly, 15-Ft., 999470
MT-400 Basic Torch Assembly, 25-Ft., 18232

ITEM NO.	QTY. REQ'D.	PART NO.	DESCRIPTION
1	1		Handle and Cable Assembly:
		998890	10-Ft., MT-200 (includes Handle 20829 and Cable 21097)
		17715	12-Ft., MT-200 (includes Handle 20829 and Cable 21098)
		998889	15-Ft., MT-200 (includes Handle 20829 and Cable 21099)
		948075	10-Ft., MT-400 (includes Handle 20948 and Cable 21146)
		17716	12-Ft., MT-400 (includes Handle 20948 and Cable 21147)
		948076	15-Ft., MT-400 (includes Handle 20948 and Cable 21148)
		18233	25-Ft., MT-400 (includes Handle 20948 and Cable 21149)
2	2	2062294*	Terminal, (Supplied in Pkg. of 10)
3	2	950400*	Clamp (Supplied in Pkg of 10)
4	1	948069*	Plug Housing
5	2	2062344*	Plug Terminal (Supplied in Pkg of 10)
6	2	493552*	O-Ring .489ID x .070 Neopr 70A
7	1	*	Setscrew #8-32 x 1/8"
8	1	*	Hex Key 5/64" (Supplied - not shown)
9	1	20883*	Adaptor, Inlet
12	1	998858	Switch Housing, MT-200
	1	2075745	Switch Housing, MT-400
13	1	20885*	End Cap, MT-200
	1	2075215*	End Cap, MT-400
14	1	998892	Wire Guide Insulator, MT-200
	1	999475	Wire Guide Insulator, MT-400
15	1	185W31	Shoulder Ring
16	1	998859	Curved Wire Guide, MT-200 (Includes #8-32 x 3/16"
		999453	Setscrew & a 5/64" Hex Key)
	1	18234	Curved Wire Guide, MT-400 (Includes #8-32 x 3/16" Setscrew & a 5/64" Hex Key)
17	1	2075220	Switch
18	1	999474	Front Insulator
19	1	2075214	Lever
20	1	2075219	Clamp
21A**	1	999452	Nozzle Adaptor (Includes O-Ring & 2-Friction Ring)
21B**	1	17983	Tip Adaptor
22**	1	-	Contact Tip (See Figure 1.4 & Table 1.4.1)
23**	1	-	Nozzle (See Figure 1.4 & Table 1.4.2)
24**	1	-	Liner (See Table 1.4.3) includes:
			O-Ring - 2064068 (Supplied in Pkg of 10)

* Item included with each Handle & Cable Assembly.
** Denotes Items not included with Basic Torch.



◆ Items included with WIRE FEEDER CONNECTOR ASS'Y (ESAB) - 2075378

Figure 5.2 - Replacement Parts - Wire Feeder Connector Assembly (for Mig-35/Digimig Wire Feeders) -- P/N 2075378

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