



HGMIG 251A

OWNER'S MANUAL



 **WARNING:**

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Safety Rules



“Danger” indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



“Warning!” indicates a possible hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are explained in the text.



“Caution” indicates a possible hazardous situation which, if not avoided, may result in slight or moderate injury.



“Note!” indicates a situation which implies a risk of impaired welding result and damage to the equipment.

“Important!” indicates practical tips and other useful special-message. It is no signal word for a harmful or dangerous situation.



Utilisation for intended purpose only. The machine may only be used for jobs as defined by the “Intended purpose”.

Utilisation for any other purpose, or in any other manner, shall be deemed to be “not in accordance with the intended purpose”. The manufacturer shall not be liable for any damage resulting from such improper use.



Safety signs. All the safety instructions and danger warnings on the machine must be kept in legible condition, not removed, not be covered, pasted or painted cover.



Safety inspection. The owner/operator is obliged to perform safety inspection at regular intervals.

The manufacturer also recommends every 3-6 months for regular maintenance of power sources.



Electric shock can kill. Touching live parts can cause fatal electric shocks or severe burns. When the machine is switched on, the electrode and ground circuit is electrically live. The input power circuit and machine internal circuits are also live when input is on. In MIG/MAG welding, the wire, drive rollers, wire feed housing and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment can be a danger.

Do not touch live parts of the welding circuit, electrodes and wires with your bare skin or wet clothing.

The operator must wear dry hole-free insulating welding gloves and body protection while performs the welding.

Insulate yourself from work and ground using dry insulating protection which can be covered enough to prevent you full area of physical contact with the work or ground.

Connect the primary input cable according to rules. Disconnect input power or stop machine before installing or maintenance.



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If welding must be performed under electrically hazardous conditions as follow: in damp locations or wearing wet clothing; on metal structures such as floors, gratings, or scaffolds; when in cramped positions such as sitting, kneeling, or lying; or in occasion when there is a high risk of unavoidable or accidental contact with the work piece or ground. Must use additional safety precautions: semiautomatic DC constant voltage (wire) welder, DC manual (Stick) welder and AC welder with reduced open-load voltage.

Any maintenance work must be carried out in a good and safe condition. Once found, damaged part must be repaired or replaced immediately.



Electric and magnetic fields (EMF) may be dangerous. If electromagnetic interference is found to be occurring, the operator is obliged to examine any possible electromagnetic problems that may occur on equipment as follow:

- Mains, signal and data-transmission leads
- IT and telecoms equipment
- IT and telecoms equipment
- Wearers of pacemakers

Measures for minimizing or preventing EMC problems:
-Mains supply

If electromagnetic interference still occurs, despite the fact that the mains connection in accordance with the regulations, take additional measures
-Welding cables

Keep these as short as possible.

Connect the work cable to the work piece as close as possible to the area being welded.

Lay them well away from other cables.

Do not place your body between your electrode and work cables.

- Equipotential bonding
- Workpiece grounding (earthing)
- Shielding

Shield the entire welding equipment and other equipment nearby.



ARC rays can burn. Visible and invisible rays from welding processes can burn eyes and skin.

Always wear an approved welding helmet or suitable clothing made from durable flame-resistant material (leather, heavy cotton, or wool) to protect your eyes and skin from arc rays and sparks when welding or watching.

Always use protective screens or barriers to protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or material.



Fumes and gases can be dangerous. Welding may produce fumes and gases, breathing these fumes and gases can be hazardous to your health.

When welding, keep your head out of the fume. If inside, ventilate the area at the arc to keep fumes and gases away from the breathing zone. If ventilation is not good, wear an approved air-supplied respirator.

Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator.

Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.



Welding and cutting sparks can cause fire or explosion. When not welding, make sure the electrode circuit is not touching the work or ground. Accidental contact can cause sparks, explosion, overheating, or fire. Make sure the area is safe before doing any welding.

Welding and cutting on closed containers, such as tanks, drums, or containers, can cause them to blow up. Make sure proper steps have been taken.

When pressure gas is used at the work site, special precautions are required to prevent hazardous situations.

Connect work cable to the work as close to the welding zone as practical to prevent welding current from passing too long and creating fire hazards or overheat.

Wear oil-free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.

Be attention that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas and start a fire. Remove fire hazardous from the welding area, if not possible, cover them thoroughly. Do not weld where flying sparks can strike flammable material and where the atmosphere may contain flammable dust, gas, or liquid vapors (such as gasoline).

Protect yourself and others from flying sparks and hot metal. Remove any combustibles from operator before perform any welding.

Keep a fire extinguisher readily available.

Empty containers, tanks, drums, or pipes which have combustibles before perform welding.

Remove stick electrode from electrode holder or cut off welding wire at contact tip when not in use.

Apply correct fuses or circuit breakers. Do not oversize or bypass them.



Cylinder can explode if damaged. Compressed cylinders are high pressure vessels. Improper operation can cause cylinders explosion. Since gas cylinders are normally part of the welding process, be careful to treat them.

Cylinders should be located away from areas where they may be struck or subjected to physical damage. Use proper equipment, procedures, and sufficient number of persons to lift and move cylinders.

Always keep cylinders in an upright position by securing to a stationary support or cylinder rack to prevent falling over or tipping.

Keep a safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.

No touching cylinder by welding electrode, electrode holder or any other electrically "hot" parts. Do not drape welding cables or welding torches over a gas cylinder.

Use only correct compressed gas cylinders, regulators, hoses, and fittings designed for the process used; maintain them and associated parts in good condition.

Use only compressed gas cylinders containing the correct shielding gas for the properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

Open the cylinder valve slowly and keep your head and face away from the cylinder valve outlet.

Valve protection caps should be kept in place over valve except when the cylinder is in use or connected for use.



Hot parts can burn. Do not touch hot parts with bare hand or skin.

Ensure equipment is cooled down before performing any work.

If touching hot parts is needed, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.



Flying metal or dirt can injure eyes. When welding, chipping, wire brushing, and grinding can cause sparks and flying metal. It can hurt your eyes.

Remember wear appropriate safety glasses with side shields when in welding zone, even under your welding helmet.



Noise can damage hearing. Noise can be from some working equipments or processes, use approved ear protection to protect ears if noise level is high.



Moving parts can injure. Moving parts such as fans, rotors, and belts can cause severe harm to your body.

Be careful to your fingers when operating, stay away from pinch points such as drive rolls.

Keep all doors, panels, covers, and guards closed and securely in place.

Have only qualified persons remove doors, panels, covers, or guards for servicing and maintenance. Reinstall doors, panels, covers, or guards when servicing and maintenance is finished and before reconnecting input power.



Overuse can cause overheating. Overuse can damage the machine, follow duty cycle to use the machine.

Reduce current or reduce duty cycle before starting to weld again.

Allow cooling period.

Do not block the airflow to unit.



Static can damage PCB. Always wear wrist straps before touching PCB or parts. Use proper static-proof bags and package to store or move PCB.



Safety markings. Equipment with CE-markings fulfils the basic requirements of the Low-Voltage and Electromagnetic Compatibility Guideline (e.g. relevant product standards according to EN 60 974).



Equipment with CCC markings meets the requirements of implementations rules for China compulsory certification.



Equipment with CSA -Test Mark meets the requirements made in the standards for Canada and the USA.

Les règles de sécurité



“**Danger**” indique une situation dangereuse imminente qui, si elle n'est pas évitée, entraînera la mort ou des blessures graves.



“**Alerte!**” Indique une situation dangereuse possible qui, si elle n'est pas évitée, pourrait entraîner la mort ou des blessures graves. Les risques possibles sont expliqués dans le texte.



“**Attention**” indique une situation dangereuse qui, si elle n'est pas évitée, peut entraîner des blessures légères ou modérées.



“**Remarque!**” Indique une situation qui implique un risque de perte de résultat de soudure et d'endommagement de l'équipement.



Utilisation uniquement pour le but prévu. La machine ne peut être utilisée que pour les travaux définis par «Objet prévu». L'utilisation à d'autres fins, ou de toute autre manière, est réputée "non conforme à l'objectif prévu". Le fabricant ne sera pas responsable des dommages résultant d'une utilisation inappropriée.



Panneaux de sécurité. Toutes les consignes de sécurité et les avertissements de danger sur la machine doivent être conservés dans un état lisible, non enlevé, ne pas être recouvert, collé ou peint.



Inspection de sécurité. Le propriétaire / l'opérateur est obligé d'effectuer une inspection de sécurité à intervalles réguliers. Le fabricant recommande également tous les 3-6 mois pour la maintenance régulière des sources d'alimentation.



Le choc électrique peut tuer. Toucher les pièces en direct peut causer des chocs électriques mortels ou des brûlures graves. Lorsque la machine est allumée, l'électrode et le circuit de masse sont électriquement en direct. Le circuit de puissance d'entrée et les circuits internes de la machine sont également en direct lorsque l'entrée est activée. Dans le soudage MIG / MAG, le fil, les rouleaux d'entraînement, le boîtier d'alimentation en fil et toutes les pièces métalliques qui touchent le fil de soudure sont électriquement en direct. Des équipements incorrectement installés ou mal branchés peuvent constituer un danger.

Ne touchez pas les parties actives du circuit de soudage, les électrodes et les fils avec votre peau nue ou vos vêtements humides.

L'opérateur doit porter des gants de soudage isolés sans trous secs et une protection du corps tout en effectuant le soudage.

Éliminez-vous du travail et du sol en utilisant une protection isolante sèche qui peut être suffisamment couverte pour vous empêcher de toucher complètement le contact physique avec le sol ou le sol.

Connectez le câble d'entrée principal selon les règles. Débranchez l'alimentation d'entrée ou la machine d'arrêt avant l'installation ou la maintenance.

Si le soudage doit être effectué dans des conditions électriquement dangereuses comme suit: dans des endroits humides ou portant des vêtements humides; sur des structures métalliques telles que des planchers, des grilles ou des échafaudages; quand il se trouve à des positions étroites telles que assis, agenouillé ou couché; ou en cas de risque élevé de contact inévitable ou accidentel avec la pièce ou le sol. Doit utiliser des précautions de sécurité supplémentaires: soudeur de tension constante (fil) semi-automatique, soudage manuel DC (Stick) et soudeuse à courant alternatif avec tension de charge réduite.

Tout travail de maintenance doit être effectué dans un état bon et sûr. Une fois trouvé, la pièce endommagée doit être réparée ou remplacée immédiatement.



Les champs électriques et magnétiques (EMF) peuvent être dangereux.

Si des perturbations électromagnétiques se produisent, l'opérateur est obligé d'examiner les éventuels problèmes électromagnétiques pouvant survenir sur l'équipement comme suit:

- Mines, signaux et transmission de données
- Matériel informatique et télécom
- Appareils de mesure et d'étalonnage
- Porteurs de pacemakers

Mesures pour minimiser ou prévenir les problèmes de compatibilité électromagnétique:
Alimentation secteur

Si des interférences électromagnétiques se produisent encore, malgré le fait que la connexion secteur conformément à la réglementation, prendre des mesures supplémentaires
Câbles de soudure

Gardez ces aussi courts que possible.

Connectez le câble de travail à la pièce de travail le plus près possible de la zone soudée.

Collez-les bien loin des autres câbles.

Ne placez pas votre corps entre votre électrode et vos câbles de travail.

Collage équipotentiel

Mise à la terre de la pièce (mise à la terre)

Blindage

Boucler l'ensemble de l'équipement de soudage et d'autres équipements à proximité.



Les rayons ARC peuvent brûler. Les rayons visibles et invisibles des processus de soudure peuvent brûler les yeux et la peau.

Toujours porter un casque de soudage approuvé ou des vêtements appropriés en matériau résistant à la flamme durable (cuir, coton lourd ou laine) pour protéger vos yeux et votre peau des rayons d'arc et des étincelles lors du soudage ou de l'observation.

Toujours utiliser des écrans de protection ou des barrières pour protéger d'autres membres du personnel à proximité avec un dépistage approprié et non inflammable et / ou les avertir de ne pas regarder l'arc, ni se exposer aux rayons d'arc ou aux spatters ou aux matières chaudes.



Les fumées et les gaz peuvent être dangereux. La soudure peut produire des fumées et des gaz, la respiration de ces fumées et des gaz peut être dangereuse pour votre santé.

Lors du soudage, retirez la tête de la fumée. Si à l'intérieur, ventiler la zone à l'arc pour éviter les fumées et les gaz de la zone de respiration. Si la ventilation n'est pas bonne, portez un respirateur approuvé à l'air.

Travailler dans un espace confiné seulement s'il est bien ventilé, ou en portant un respirateur fourni par l'air.

Les vapeurs et les gaz de soudure peuvent déplacer l'air et abaisser le niveau d'oxygène causant des blessures ou la mort. Toujours utiliser une ventilation suffisante, en particulier dans les zones confinées, pour assurer l'air respirant est sûr.



Les étincelles de soudure et de coupe peuvent provoquer un incendie ou une explosion. Lors de la soudure, assurez-vous que le circuit de l'électrode ne touche pas le travail ou le sol. Un contact accidentel peut provoquer des étincelles, une explosion, une surchauffe ou un incendie. Assurez-vous que la zone est sûre avant toute soudure.

La soudure et la découpe sur des conteneurs fermés, tels que des réservoirs, des bidons ou des conteneurs, peuvent les faire exploser. Assurez-vous que les étapes appropriées ont été prises.

Lorsque des gaz sous pression sont utilisés sur le chantier, des précautions particulières sont nécessaires pour prévenir les situations dangereuses.

Connectez le câble de travail au travail aussi près de la zone de soudure que possible pour éviter que le courant de soudure ne passe trop longtemps et crée des risques d'incendie ou une surchauffe.

Portez des vêtements de protection sans huile tels que des gants en cuir, une chemise lourde, un pantalon sans manchette, des chaussures hautes et un capuchon. Portez des bouchons d'oreille lors du soudage hors position ou dans des endroits confinés. Toujours porter des lunettes de sécurité avec des protections latérales dans une zone de soudure.

Soyez attentif à ce que les étincelles de soudage et les matériaux chauds provenant de la soudure puissent facilement passer par de petites fissures et des ouvertures dans les zones adjacentes et déclencher un incendie. Retirez le feu dangereux de la zone de soudure, si possible, les couvrir complètement. Ne pas souder lorsque les étincelles volantes peuvent enfoncer des matériaux inflammables et où l'atmosphère peut contenir des vapeurs inflammables, des gaz ou des liquides (comme de l'essence).

Protégez-vous et les autres d'étincelles volantes et de métal chaud. Enlevez les combustibles de l'opérateur avant d'effectuer toute soudure.

Gardez un extincteur facilement disponible.

Récipients, réservoirs, bidons ou tuyaux vides qui ont des combustibles avant de procéder au soudage.

Enlevez l'électrode du porte-électrode ou coupez le fil de soudage à la pointe de contact lorsqu'il n'est pas utilisé.

Appliquer les fusibles ou les disjoncteurs corrects. Ne les surdimensionnez pas ou ne les contournez pas.



Le cylindre peut exploser s'il est endommagé. Les bouteilles comprimées sont des récipients à haute pression. Un mauvais fonctionnement peut provoquer une explosion des cylindres. Étant donné que les bouteilles de gaz font normalement partie du procédé de soudage, faites attention de les traiter.

Les cylindres doivent être situés à l'écart des zones où ils peuvent être frappés ou soumis à des dommages physiques. Utiliser l'équipement approprié, les procédures et un nombre suffisant de personnes pour soulever et déplacer des cylindres.

Toujours garder les cylindres dans une position verticale en se fixant sur un support stationnaire ou un support de cylindre pour éviter de tomber ou de basculer.

Gardez une distance sûre des opérations de soudage à l'arc ou de coupe et toute autre source de chaleur, des étincelles ou des flammes.

Pas de cylindre touchant par électrode de soudure, support d'électrode ou toute autre partie électriquement "chaude". Ne pas draguer des câbles de soudure ou des torches de soudage sur une bouteille de gaz.

Utiliser uniquement des bouteilles, des régulateurs, des tuyaux et des raccords de gaz comprimés conçus pour le procédé utilisé, les maintenir et les pièces associées en bon état.

Utiliser uniquement des bouteilles de gaz comprimés contenant le bon gaz de protection pour les régulateurs de fonctionnement appropriés conçus pour le gaz et la pression utilisés. Tous les tuyaux, raccords, etc. devraient être adaptés à l'application et maintenus en bon état.

Ouvrez lentement la soupape de la bouteille et gardez votre tête et votre visage éloignés de la sortie de la soupape du cylindre.

Les capuchons de protection de la soupape doivent être maintenus en place sur la vanne prévue lorsque le cylindre est utilisé ou connecté.



Les pièces chaudes peuvent brûler. Ne touchez pas les pièces chaudes avec la main nue ou la peau. Assurez-vous que l'équipement est refroidi avant d'effectuer tout travail.

Si des pièces chaudes en contact sont nécessaires, utilisez des outils appropriés et / ou utilisez des gants de soudure lourds et isolés et des vêtements pour éviter les brûlures.



Le métal volant ou la saleté peut blesser les yeux. Lorsque le soudage, l'écaillage, le broissage des fils et le broyage peuvent provoquer des étincelles et du métal volant. Cela peut nuire à vos yeux.

N'oubliez pas de porter des lunettes de sécurité appropriées avec des boucliers latéraux en zone de soudure, même sous votre casque de soudure.



Le bruit peut endommager l'audition. Le bruit peut provenir de certains équipements ou procédés de travail, utiliser une protection auditive approuvée pour protéger les oreilles si le niveau de bruit est élevé.



Les pièces en mouvement peuvent blesser. Les pièces mobiles telles que les ventilateurs, les rotors et les ceintures peuvent causer de graves dommages à votre corps.

Faites attention à vos doigts lorsque vous utilisez, restez loin des points de pincement tels que les rouleaux d'entraînement.

Gardez toutes les portes, les panneaux, les couvercles et les gardes fermés et solidement en place.

N'utilisez que des personnes qualifiées pour enlever les portes, les panneaux, les couvercles ou les protections pour l'entretien et la maintenance. Réinstallez les portes, les panneaux, les couvercles ou les protections lorsque l'entretien et la maintenance sont terminés et avant de reconnecter la puissance d'entrée.



Une utilisation excessive peut entraîner une surchauffe. Une utilisation excessive peut endommager la machine, suivre le cycle de service pour utiliser la machine.

Réduisez le courant ou réduisez le cycle de service avant de recommencer à souder.

Permettre la période de refroidissement. Ne bloquez pas le débit d'air à l'unité.



La statique peut endommager les PCB. Toujours porter des poignets avant de toucher des PCB ou des pièces. Utilisez des sacs et un emballage à l'épreuve de la statique pour stocker ou déplacer des PCB.



Marquages de sécurité. L'équipement avec marquage CE répond aux exigences de base de la directive sur la compatibilité basse tension et électromagnétique (par exemple, les normes de produit pertinentes selon EN 60 974).



L'équipement avec les marques CCC répond aux exigences des règles de mise en œuvre pour la certification obligatoire en Chine.



L'équipement avec CSA -Test Mark répond aux exigences établies dans les normes pour le Canada et les États-Unis.

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.

MIG Welder

Description

HGMIG251A is a wheeled mounted professional DC MIG machine capable of welding with solid (with shielding gas) or flux core wire. Power requirements are 230VAC (220V-240V), 60HZ/ with a 50 amp time delayed fuse or circuit breaker. Featured 12 heat/voltage settings, infinite wire speed, over load and thermal protection. For use with or without shielding gas, designed for mild steel, stainless steel and aluminum welding in construction, automotive repair, farming and light industrial. Welds mild steel between 24 gauges to 0.3inch (8mm) in a single pass.



Unpacking

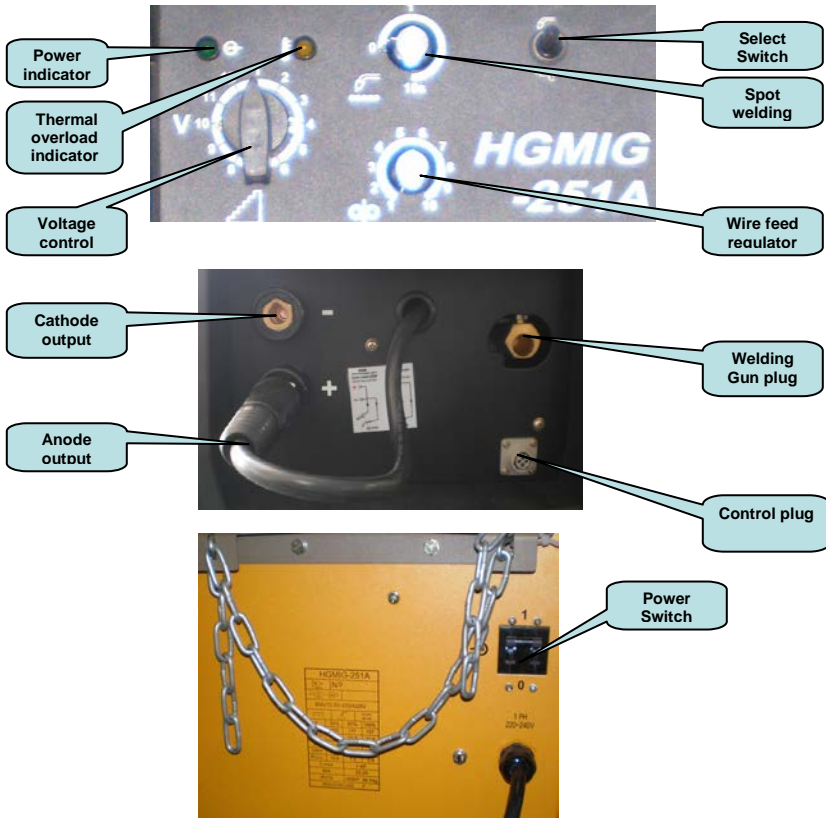
- 1.1 Remove cartons, bags or Styrofoam containing the welder and accessories.
- 1.2 Check the contents with the packing list below.

ITEM	QTY.
MIG Welder	1 unit
MIG torch	1pc
Ground cable/clamp	1pc
Gas hose	1pc
Gas regulator	1 pc
Operator's Manual	1set
'L' Shaped hex wrench	1 pc
Wire roller 0.023/0.030, 0.035/0.040	1 pc/unit
Contact tip 0.030, 0.035, 0.040	1 pc/unit

MIG WELDER CROSS FIRE

Specifications

DESCRIPTION	SPECIFICATIONS
Power supply	1ph-230V-60HZ
No-load voltage	43V
Output Range	30A/15.5V-250A/25V
Duty cycle	30%
Suggested wire	MIG and Flux core wire
Wire Diameter	.023", .030, .035, .040"
Dimension (L x W x H) in	37.4*17.7*28.3
Weight	84. 5KG



MIG WELDER CROSS FIRE

Power Switch

In the "0" position no power is being supplied to the MIG gun. In the "1" position power is supplied to the main transformer and control circuit

Select Switch

You can select use pull Wire welding torch or Push wire welding torch

Spot Welding

Open the switch can reach 1 ~ 15 second's adjustable welding time. Namely setting the torch switch time when the time is over it will stop working.

Thermal overload indicator

When overload using the machine's internal temperature will rise soon. When the indicator light the machine will be in thermal protection, you should stop using and let it rest for 20 minutes before use

Power indicator

The power indicator light meanings the machine has worked.

Voltage control

Adjust the right voltage to achieve the best effect of welding. CAUTION: No adjust is allowed when welding.

Wire feed regulator

Used to adjust the speed of the wire feeder by adjusting welding current

Cathode output/Anode output

General solid wire welding work piece connect to Cathode and MIG gun connect to Anode. General Flux Core welding work piece connect to Anode and MIG gun connect Cathode.

Control plug

Used to control the working state of the machine by connecting plug torch..

Welding Gun plug

Used for connecting welding torch with the gas, electricity, and the output of the wire.

The power cord connects the welder to the 230 /240volt power supply. Plug the 50 amp plug into 230 volt/50Hz 240 volt/60Hz amp receptacles to supply power to the welder.

MIG WELDER CROSS FIRE

Assembly

1. Tools required for assembly: Hexagon wrench (M4).
 2. MIG gun/torch and Ground Cable/Clamp assembly
 3. Retaining groove insert into the Welding Gun plug. Trigger leads insert into the Control plug. So far we have already installed the MIG torch.
 4. Ground cable lead insert into the Cathode output or Anode output.
- See following images for reference



Quick connector



Retaining groove



Ground Clamp

MIG gun connection

Trigger leads

5. The terminals next to the positive (“+”) and negative (“-”) marks are for Quick connector or ground cable lead depending on polarity requirements. When flux core welding, the ground cable lead is connected to “+” and the Quick connector is connected to “-” as show in below illustration. When MIG (solid wire) welding, reverse the connection.



MIG WELDER CROSS FIRE

Installation

Provide the necessary steps for correct installation of the product. Include any illustrations or wiring diagrams that would assist or clarify procedures. Consider the following when preparing your instructions:

1. Power requirement

AC single phase 230v (220-240V), 60HZ with a 50amp time delayed fuse or circuit breaker is required. DO NOT OPERATE THIS UNIT IF THE ACTUAL power source voltage is less than 220 volts ac or greater than 240volts ac.

▲WARNING

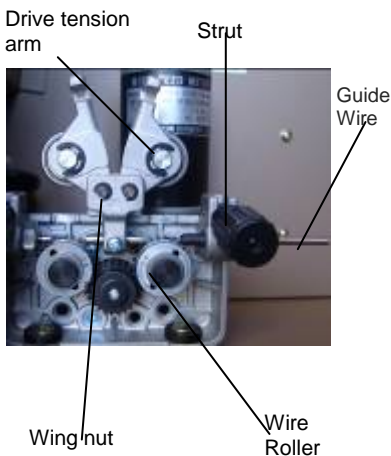
- High voltage danger from power source! Consult a qualified electrician for proper installation of receptacle. This welder must be grounded while in use to protect the operator from electrical shock.
- Do not remove grounding prong or alter the plug in any way. Do not use any adapters between the welder's power cord and the power source receptacle. Make sure the POWER switch is OFF when connecting your welder's power cord to a properly grounded 230Vac, 60Hz, single phase, 50 amp power source.

2. Extension cord

It is strongly recommended that an extension cord should not be used because of the voltage drop it produces. This drop in voltage can affect the performance of the welder. If you need to use an extension cord it must be a #10 gauge cord or larger. Do not use an extension cord over 25 ft. in length.

3. Install the Drive Roller

Before installing any welding wire into the unit, the proper sized groove must be placed into position on the wire drive mechanism. Adjust the drive roller according to the following steps; see following picture steps; see following picture of the wire feed mechanism:



MIG WELDER CROSS FIRE

- 3.1. Open the door to the welder drive compartment.
- 3.2. Push the strut down and let the drive tension arm away from the Drive Roller. See following images for reference
- 3.3. If there is wire already installed in the welder, roll it back onto the wire spool by hand-turning the spool counterclockwise. Be careful not to allow the wire to come out of the rear end of the inlet guide tube without holding onto it or it will unspool itself. Put the end of the wire into the hole on the outside edge of the wire spool and bend it over to hold the wire in place. Remove the spool of wire from the spool hub by removing the drive tensioning wing nut and hardware.
- 3.4. Removal of drive roller.
Loosen by turning milled screw counter-clockwise; Pull the Drive Roller off of the Drive Roller Shaft
See following images for reference

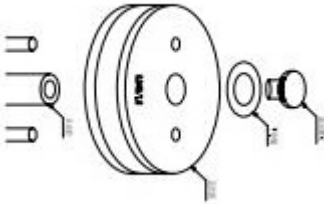


3.5 Based on the wire diameter select the correct groove using the following table:

Wire Diameter	Roller Groove	Contact tip
0.030 inch	0.030 inch	0.030 inch
0.035 inch	0.035 inch	0.035 inch
0.040 inch	0.040 inch	0.040 inch

The drive roller has two wire size grooves. When installing the drive roller, the number stamped on the drive roller for the wire size you are using should face in. This identifies the inside groove the wire will line up with. Assemble the drive roller onto the drive roller shaft and use the “L” shaped hex wrench to tighten (turn clockwise) it in place.

MIG WELDER
CROSS FIRE



3.6 After you select the Drive Roller, we installed it: insert the Drive Roller into the Drive Roller Shaft and then use milled screw locking the Drive Roller. See following images for reference



4. Install the wire

4.1 Selecting the wire

Available wire for this machine

Wire Type	Available
MIG wire .023 inch	Yes
MIG wire .030 inch	Yes
Flux core wire .030 inch	Yes
Flux core wire .035 inch	Yes

MIG wires available are: mild steel, stainless steel or aluminum solid wire and must be used with shielding gas.

8 or 11 inch spools are available.

NOTE:

- Burn through will occur if you attempt to weld mild or stainless steel thinner than 24 gauge.
- Remove all rusted wire; if the whole spool is rusty discard it.

4.2 Install the wire

▲WARNING

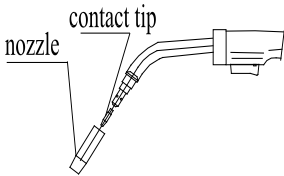
MIG WELDER CROSS FIRE

Electric shock can kill! Always turn the POWER switch OFF and unplug the power cord from the AC power source before installing wire.

NOTE:

- Before installing, make sure that you have removed any old wire from the torch and cable assembly. This will help to prevent the possibility of the wire jamming inside the gun Liner.
- Be careful when removing the welding nozzle. The contact tip on this welder is live when the gun trigger is pulled. Make certain POWER is turned OFF.

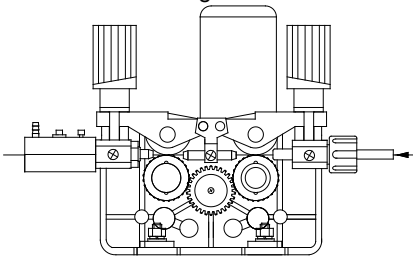
4.2.1 Remove the nozzle and contact tip from the end of the gun assembly. See following images for reference



4.2.2 Make sure the proper groove on the drive roller is in place for the wire installed. If not, change the drive roller as described above.

4.2.3 Remove the packaging from the spool of wire and then identify the leading end of the wire secured in a hole on the edge of the spool. **DO NOT UNHOOK IT AT THIS TIME.**

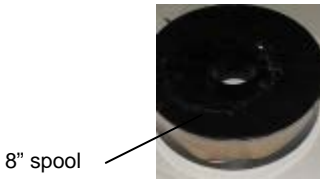
4.2.4 Place the spool on the spool hub with the wire coming off the bottom of the spool. The bottom of the spool aligns with inlet to the drive system for smooth flow of the wire. The total length of wire is about 8 inch. See following figure.



4.2.5 Both 8 and 11 inch spools can be used, please see the following figure about the installation onto the spool hubs: The adjustment knob is designed to adjust the pressure tension of the wire spool.



MIG WELDER CROSS FIRE



8" spool

4.2.6. Setting the wire spool tension:

- a) Turn the spool of wire with one hand.
- b) Increase the spool tension by tightening (turn clockwise) the wing nut while turning the spool. Turn the spool while tightening the wing nut until the spool slows down and operator feels a slight drag. Stop tightening the wing nut; operator may need to repeat these steps until proper spool tension is achieved.

NOTE:

If TOO MUCH tension is applied to the wire spool, the wire will slip on the drive roller or will not be able to feed at all. If TOO LITTLE tension is applied, the spool of wire will want to unspool itself when the trigger is released. Readjust the spool tension using the wing nut as necessary to correct for either problem.

4.2.7. Using a wire cutter, cut the bent end off the leading end of the wire so that only a straight leading end remains.

5.4.2.8. Insert the leading end of the wire into the inlet guide tube. Then push it across the drive roller and into the MIG gun/torch assembly about six inches.

▲ CAUTION

- Make certain that the welding wire is actually going into the torch liner. If not, the wire will jam in the mechanism.

4.2.8 Be sure the wire lines up in the groove of the drive roller then place the drive tension arm back in place above the drive roller.

4.2.9. NOW YOU CAN LET GO OF THE WIRE. And so far we have already installed wire well. See following images for reference



NOTE:

When the gun stopping work, Because of inertia the spool will continue rotating, thus the wire will forward supply .In this time we can adjust the damping screws to Stop this action

MIG WELDER CROSS FIRE

- 4.2.10. Plug in and turn the welder ON. Set the VOLTAGE switch to the voltage (heat) setting recommended for the gauge metal that is to be welded. Refer to the set up chart on the inside of the wire feed compartment door.
- 4.2.11. Set the WIRE SPEED control in the middle of the wire speed range.
- 4.2.12. Straighten the MIG gun cable; pull the trigger on the welding torch to feed the wire through the torch assembly. When at least one inch of the wire sticks out past the end of the torch, release the trigger.
- 4.2.13 Turn the Power Switch to the OFF position.
- 4.2.14 Select a contact tip stamped with the same diameter as the wire being used.

NOTE:

Due to inherent variances in flux-cored welding wire, it may be necessary to use a contact tip one size larger than your flux core wire if wire jams occur.

- 4.2.15. Slide the contact tip over the wire (protruding from the end of the gun). Thread the contact tip into the end of the gun adaptor and tighten securely.
- 4.2.16. Install the nozzle on the gun assembly. To keep spatter from sticking to inside of the nozzle use anti-spatter spray or gel.
- 4.2.17 Cut off the excess wire that extends more than ¼" past the end of the nozzle.

- 4.2.18. Turn the welder ON

5.. Setting the wire tension

▲ WARNING

Arc flash can injure eyes! To reduce the risk of arc flash, make certain that the wire coming out of the end of the torch does not come in contact with work piece, ground clamp or any grounded material during the drive tension setting process or arcing will occur.

- 6.1. Press the trigger on the torch.
- 6.2. Turn the drive tension adjustment knob clockwise, increasing the drive tension until the wire seems to feed smoothly without slipping.

6. Gas installation

▲ WARNING

Shielding gas cylinders and high pressure cylinders can explode if damaged, so treat them carefully.

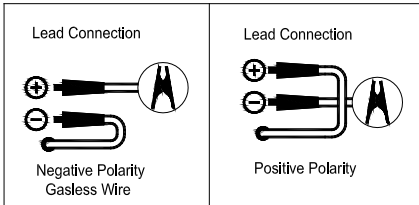
- Never expose cylinders to high heat, sparks, open flames, mechanical shocks or arcs.
- Do not touch cylinder with MIG gun.
- Do not weld on the cylinder.
- Always secure cylinder upright to a cart or stationary object.
- Keep cylinders away from welding or electrical circuits.
- Use the proper regulators, gas hose and fittings for the specific application.

When MIG wire is used, shielding gas is required.

7. Polarity changing:

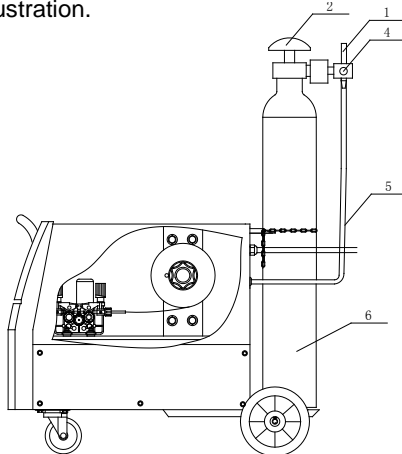
MIG WELDER CROSS FIRE

Factory polarity setting (electrode positive) is for MIG (solid wire) using a shielding gas. The Quick connector is connected to positive (“+”) and the ground lead is connected to the negative (“-”).
 For Flux Core welding (no shielding gas is required), The Quick connector is connected to the negative (“-”) polarity terminal and the ground cable is connected to the positive (“+”) terminal.



7.1 The gas hose, regulator and gas cylinder connections

Connect the gas hose to the gas solenoid valve on the back panel of the welder. Connect the other end to the regulator connected to the shielding gas cylinder. See the following illustration.



- Cylinder valve: Controls GAS CYLINDER flow.
- Cylinder pressure gauge
- Gas flow gauge, set at 20 CFM
- Regulator
- Adjustment knob: Controls gas flow to the welder.
- Gas hose
- Gas cylinder

NOTE:

Slowly open the cylinder valve by turning it counterclockwise until the cylinder pressure gauge registers the cylinder pressure. Turn the adjustment knob

MIG WELDER CROSS FIRE

clockwise slowly to increase gas flow to 20 CFM. To reduce the gas flow turns the adjustment counterclockwise. The gas solenoid valve is on the back panel of the welder. Gas flow can be heard at the end of the gun when the trigger is activated. No gas flow will result in a harsh arc with excessive spatter; a smooth weld bead will not be obtained.

Gas selection:

Different materials require different shielding gas when MIG welding, refer to the set up chart inside the wire feed compartment also.

Mild steel: Use 75% Argon and 25% CO₂ for reduced spatter and reduced penetration for thinner materials. Do NOT USE Argon gas concentrations higher than 75% on steel. The result will be extremely poor penetration, porosity, and brittleness of weld.

Mild Steel: Use CO₂ for deeper penetration but increased spatter.

Stainless steel: Use a mixed gas consisting of Helium, Argon and CO₂.

Aluminum or bronze: Use 100% Argon

Operation

Describe the total operating procedure: starting, running, using accessories, stopping, etc. Provide line drawings that would help explain or clarify procedures. Consider the following when preparing your job: all adjustments that should be made prior to use

▲ WARNING

High voltage danger from power source! Consult a qualified electrician for proper installation of receptacle at the power source. This welder must be grounded while in use to protect the operator from electrical shock. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician. Do not cut off the grounding prong or alter the plug in any way and do not use any adapters between the welder's power cord and the power source receptacle. Make sure the POWER switch is OFF then connect your welder's power cord to a properly grounded 230 VAC (220v-240v), 60Hz, single phase, 50 amp power sources.

1. Main control component

Power switch - The power switch supplies electrical current to the welder.

Whenever the power switch is in the ON position, the welding circuit is activated. ALWAYS turn the power switch to the OFF position and unplug the welder before performing any maintenance.

Voltage selector - The voltage selector controls the welding voltage/heat. This unit has a five step voltage control. Refer to the label inside the welder side door for recommended voltage selector settings for your welding job.

Wire speed control - The wire speed control adjusts the speed at which the wire is fed out of the MIG gun. The wire speed needs to be closely matched (tuned-in) to the rate at which it is being melted off. Some things that affect wire speed selection are the type and diameter of the wire being used, the heat setting selected, and the welding position to be used.

MIG WELDER CROSS FIRE

Note: The wire will feed faster without an arc. When an arc is being drawn, the wire speed will slow down.

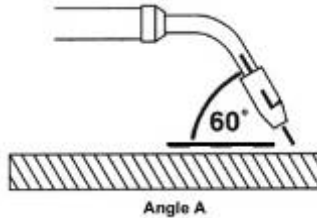
2. Hold the MIG gun

The best way to hold the MIG gun is the way that feels most comfortable to you. While practicing to use your new welder, experiment holding the torch in different positions until you find the one that seems to work best for you.

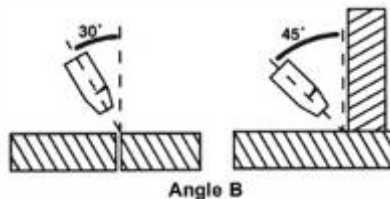
3. Position the MIG gun to the work piece

There are two angles of the MIG gun nozzle in relation to the work piece that must be considered when welding.

3.1. Angle A can be varied, but in most cases the optimum angle will be 60 degrees, the point at which the MIG gun handle is parallel to the work piece. If angle A is increased, penetration will increase. If angle A is decreased, penetration will decrease also.



3.2. Angle B can be varied for two reasons: to improve the ability to see the arc in relation to the weld puddle and to direct the force of the arc.



4. Distance from the work piece

If the nozzle is held off the work piece, the distance between the nozzle and the work piece should be kept constant and should not exceed 1/4 inch or the arc may begin sputtering, signaling a loss in welding performance.

5. Tuning in the wire speed

This is one of the most important parts of MIG welder operation and must be done before starting each welding job or whenever any of the following variables are changed: heat setting, wire diameter, or wire type.

▲ WARNING

EXPOSURE TO A WELDING ARC IS EXTREMELY HARMFUL TO THE EYES AND SKIN!

MIG WELDER CROSS FIRE

Prolonged exposure to the welding arc can cause blindness and burns. Never strike an arc or begin welding until you are adequately protected. Wear flameproof welding gloves, a heavy long sleeved shirt, trousers with out cuffs, high topped shoes, and an ANSI approved welding helmet.

5.1. Connect the Ground Clamp to a scrap piece of the same type of material which you will be welding. It should be equal to or greater than the thickness of the actual work piece, and free of oil, paint, rust, etc.

5.2. Select a heat setting.

8.5.3. Hold the torch in one hand, allowing the nozzle to rest on the edge of the work piece farthest away from you, and at an angle similar to that which will be used when welding. (See HOLDING THE TORCH if you are uncertain of the angle at which you will be welding).

5.4. With your free hand, turn the Wire Speed Dial to maximum and continue to hold onto the knob.

5.5. Lower your welding helmet and pull the trigger on the torch to start an arc, and then begin to drag the torch toward you while simultaneously turning the Wire Speed Dial counter-clockwise.

5.6. LISTEN! As you decrease the wire speed, the sound that the arc makes will change from a sputtering to a high-pitched buzzing sound and then will begin sputtering again if you decrease the wire speed too much. The point on the wire speed adjustment where the high-pitched buzzing sound is achieved is the correct setting. You can use the wire speed control to slightly increase or decrease the heat and penetration for a given heat setting by selecting higher or lower wire speed settings. Repeat this tune-in procedure if you select a new heat setting, a different diameter wire, or a different type of welding wire.

6. Welding Techniques

▲ WARNING

EXPOSURE TO A WELDING ARC IS EXTREMELY HARMFUL TO THE EYES AND SKIN! Prolonged exposure to the welding arc can cause blindness and burns.

Never strike an arc or begin welding until you are adequately protected. Wear flameproof welding gloves, a heavy long sleeved shirt, trousers with out cuffs, high topped shoes and an ANSI approved welding helmet.

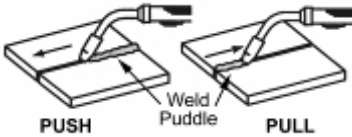
ELECTRIC SHOCK CAN KILL! To prevent ELECTRIC SHOCK, do not perform any welding while standing, kneeling, or lying directly on the grounded work.

6.1 Moving the torch

Torch travel refers to the movement of the torch along the weld joint and is broken into two elements: Direction and Speed. A solid weld bead requires that the welding torch be moved steadily and at the right speed along the weld joint. Moving the torch too fast, too slow, or erratically will prevent proper fusion or create a lumpy, uneven bead.

MIG WELDER CROSS FIRE

Travel direction is the direction the torch is moved along the weld joint in relation to the weld puddle. The torch is either **PUSHED** into the weld puddle or **PULLED** away from the weld puddle.



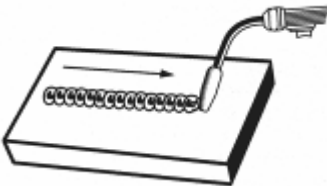
For most welding jobs you will pull the torch along the weld joint to take advantage of the greater weld puddle visibility.

Travel speed is the rate at which the torch is being pushed or pulled along the weld joint. For a fixed heat setting, the faster the travel speed, the lower the penetration and the lower and narrower the finished weld bead. Like wise, the slower the travel speed, the deeper the penetration and the higher and wider the finished weld bead.

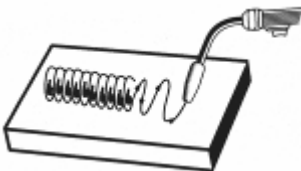
6.2 Types of welding beads

As you become more familiar with your new welder and better at laying some simple weld beads, you can begin to try some different weld bead types.

The **STRINGER BEAD** is formed by traveling with the torch in a straight line while keeping the wire and nozzle centered over the weld joint. See following figure



The **WEAVE BEAD** Used when you want to deposit metal over a wider space than would be possible with a stringer bead. It is made by weaving from side to side while moving with the torch. It is best to hesitate momentarily at each side before weaving back the other way.



6.3 Welding position

FLAT POSITION Is easiest of the welding positions and is most commonly used. It is best if you can weld in the flat position if at all possible as good results are easier to achieve.

MIG WELDER CROSS FIRE



HORIZONTAL POSITION Is performed very much the same as the flat weld except that angle B (see **HOLDING THE TORCH**) is such that the wire, directed more toward the metal above the weld joint is to help prevent the weld puddle from running downward while still allowing slow enough travel speed. A good starting point for angle B is about 30 degrees **DOWN** from being perpendicular to the work piece.



VERTICAL POSITION is easier for many people to pull the torch from top to bottom. It can be difficult to prevent the puddle from running downward. Pushing the torch from bottom to top may provide better puddle control and allow slower rates of travel speed to achieve deeper penetration. When vertical welding, angle B (see **HOLDING THE TORCH**) is usually always kept at zero, but angle A will generally range from 45 to 60 degrees to provide better puddle control.

OVERHEAD POSITION Is the most difficult welding position. Angle A (see **HOLDING THE TORCH**) should be maintained at 60 degrees. Maintaining this angle will reduce the chances of molten metal falling into the nozzle. Angle B should be held at zero degrees so that the wire is aiming directly into the weld joint. If you experience excessive dripping of the weld puddle, select a lower heat setting. Also, the weave bead tends to work better than the stringer.



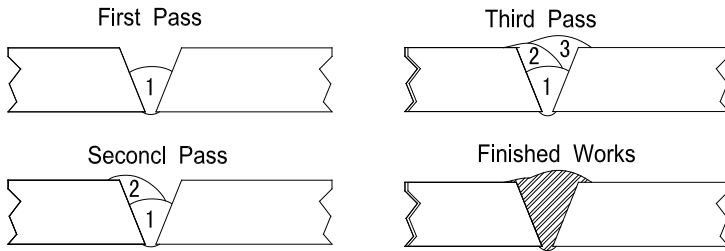
6.4 Multiple passes welding

Butt Weld Joints When butt welding thicker materials; you will need to prepare the edges of the material to be joined by grinding a bevel on the edge of one or both pieces of the metal being joined. When this is done, a "V" is created between the two pieces of metal that will have to be welded closed. In most cases more than one pass or bead will need to be laid into the joint to close the "V".

MIG WELDER CROSS FIRE

Laying more than one bead into the same weld joint is known as a multiple-pass weld.

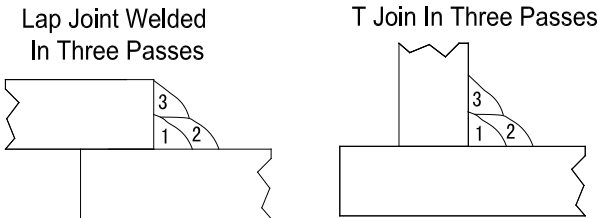
The illustrations in following figure show the sequence for laying multiple pass beads into a single “V” butt joint.



NOTE:

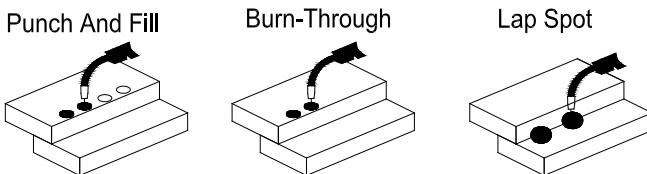
WHEN USING SELF-SHIELDING FLUX-CORE WIRE it is very important to thoroughly chip and brush the slag off each completed weld bead before making another pass or the next pass will be of poor quality.

Fillet Weld Joints: Most fillet weld joints, on metals of moderate to heavy thickness, will require multiple pass welds to produce strong joint. The illustrations in Figure 19 show the sequence of laying multiple pass beads into a T fillet joint and a lap fillet joint.



6.5 Spot welding

There are three methods of spot welding: Burn-Through, Punch and Fill, and Lap. Each has advantages and disadvantages depending on the specific application as well as personal preference.



6.5.1. The BURN-THROUGH METHOD welds two overlapped pieces of metal together by burning through the top piece and into the bottom piece. With the

MIG WELDER CROSS FIRE

burn-through method, larger wire diameters tend to work better than smaller diameters. Wire diameters that tend to work best, with the burn-through method are .035 inch self-shielding flux-core wire. Do not use .030 inch self-shielding flux core wires when using the burn-through method unless the metal is VERY thin or excessive filler metal build-up and minimal penetration is acceptable. Always select the HIGH heat setting with the burn-through method and tune in the wire speed prior to making a spot weld.

8.6.5.2. The PUNCH AND FILL METHOD produces a weld with the most finished appearance of the three spot weld methods. In this method, a hole is punched or drilled into the top piece of metal and the arc is directed through the hole to penetrate into the bottom piece. The puddle is allowed to fill up the hole leaving a spot weld that is smooth and flush with the surface of the top piece. Select the wire diameter, heat setting, and tune in the wire speed as if you were welding the same thickness material with a continuous bead.

8.6.5.3. The LAP SPOT METHOD directs the welding arc to penetrate the bottom and top pieces, at the same time, right along each side of the lap joint seam. Select the wire diameter, heat setting, and tune in the wire speed as if you were welding the same thickness material with a continuous bead.

6.6. SPOT WELDING INSTRUCTIONS

6.6.1. Select the wire diameter and heat setting recommended above for the method of spot welding you intend to use.

6.6.2. Tune in the wire speed as if you were going to make a continuous weld.

6.6.3. Hold the nozzle piece completely perpendicular to and about 1/4 inch off the work piece.

6.6.4. Pull the trigger on the torch and release it when it appears that the desired penetration has been achieved.

6.6.5. Make practice spot welds on scrap metal, varying the length of time you hold the trigger, until a desired spot weld is made.

6.6.6. Make spot welds on the actual work piece at desired locations.

Maintenance

The welder needs the regular maintenance as follows:

Periodically clean dust, dirt, grease, etc. from your welder. Every six months, or as necessary, remove the cover panel from the welder and air-blow any dust and dirt that may have accumulated inside the welder.

Replace power cord, ground cable, ground clamp, or electrode assembly when damaged or worn.

MINOR AND ROUTINE MAINTENANCE

Stored in a clean dry location free from corrosive gas, dust and high humidity.

Temperatures should range from 10°F–120°F and a relative humidity less than 90%.

Major maintenance, service and part replacement

When transporting or storing the welder after use, it is recommended to repack the product as it was received for protection. (Cleaning is required before storage and you must seal the plastic bag in the box for storage)

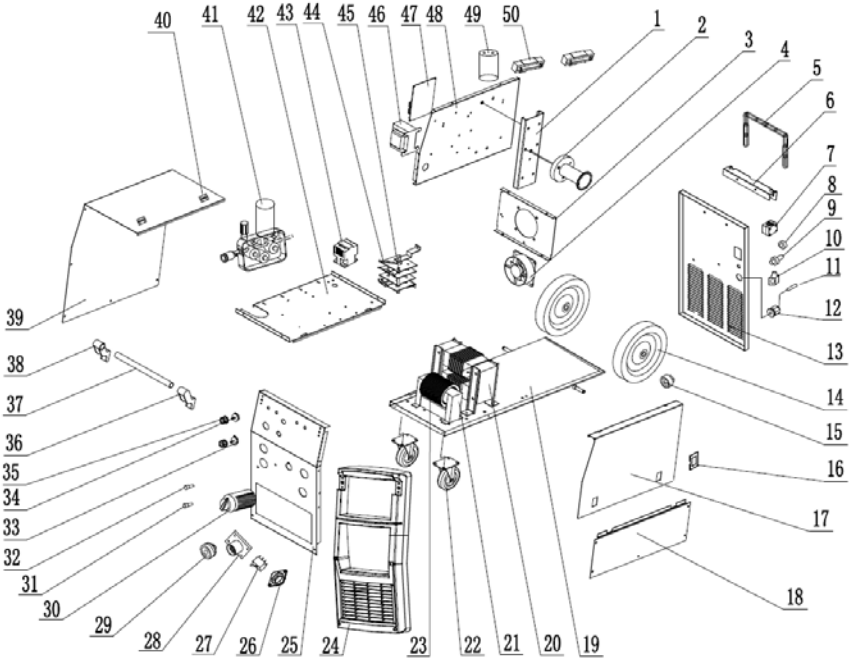
Troubleshooting Chart

**MIG WELDER
CROSS FIRE**

Symptom (s)	Possible Causes(s)	Corrective Action(s)
Welder does not work when the main switch is turned on	<ol style="list-style-type: none"> 1. No power input 2. Power cord or power plug is broken 3. Main switch is broken 4. Transformer is broken 	<ol style="list-style-type: none"> 1. Check circuit or fuse of power source 2. Replace power cord 3. Replace switch 4. Replace the transformer
Will not weld	<ol style="list-style-type: none"> 1. Incorrect power input 2. Inadequate current at output 3. Poor connection of output cable 4. Dirty surfaces 5. Wrong welding wire 	<ol style="list-style-type: none"> 1. Check the power source 2. Check for proper grounding to the work piece. 3. Check output connection 4. Clean surfaces 5. Use correct wire
Blown fuse or tripped circuit breaker	Inadequate fuse or circuit breaker	Check the fuse in power source should be 20amp
Arc is hard to start	<ol style="list-style-type: none"> 1. The wrong wire 2. Base metal not grounded reliable 	<ol style="list-style-type: none"> 1. Use the correct one 2. Make sure the connection is good
Inconsistent arc or wire feed	<ol style="list-style-type: none"> 1. Not enough drive roller pressure 2. Spool hub tension too tight or loose 3. Contact tip worn or wrong size 4. Rusty or corroded wire 	<ol style="list-style-type: none"> 1. Tighten the drive tension adjustor on wire feeder 2. Adjust the wing nut on the spool holder 3. Replace contact tip 8 Replace wire.
Other		Call Tech Help

MIG WELDER CROSS FIRE

Repair Parts List



NO.	CODE	Description	Qty
1	11020012570	Spindle mounting bracket	1
2	20050050516	Wire disc shaft	1
3	12010051322	Fan Plate	1
4	20070890109	Cooling Fan	1
5	20010290007	Chain(ROHS)	0.8
6	11010060110	cylinder support	1
7	20070800289	Power switch	1
8	11020020010	Copper nut	1
9	11020020011	Gas valve connector	1
10	20070550003	Electromagnetic valve	1
11	20030320040	The power cord	1

MIG WELDER CROSS FIRE

12	20040300015	Power corder holder(RoHS)	1
13	11010030832	Back welding plate	1
14	20050070013	Rear wheel	2
15	20060140059	Acorn connector nut	2
16	20080070229	Lock(ROHS)	2
17	11010020523	cavity adaptor plate(1)	1
18	11010020522	cavity adaptor plate(2)	1
19	11010040437	Bottom welding plate	1
20	11040011245	Transformer assembly	1
21	11040030193	Thermo relay(ROHS)	1
22	20050070031	PVC universal wheel	2
23	20070360080	Thermo relay	1
24	20050050504	Plastic plate	1
25	11010032209	Front welding plate	1
26	20070570379	flange	1
27	20070800148	option switch	1
28	20070570171	Four-core plug	1
29	20070570185	Quick connector	2
30	20070800257	Cam	1
31	20070280053	Neon lamp(ROHS)	1
32	20070280055	Neon lamp(ROHS)	1
33	20070100024	Potentiometer(ROHS)	1
34	20070100055	Potentiometer with switch(ROHS)	1
35	20070110007	Potentiometer knob(ROHS)	2
36	20050050053	Handle support (Right)	1
37	11020014915	Handle	1
38	20050050054	Handle support(Left)	1
39	11010020705	Flexible side plate	1
40	20050050089	The plastic hinge	2
41	20070400122	Wire feeder assembly	1
42	11010050109	Middle vertical panel (1)	1
43	20070410056	AC contactor	1
44	20070370021	Rectification assembly	1

**MIG WELDER
CROSS FIRE**

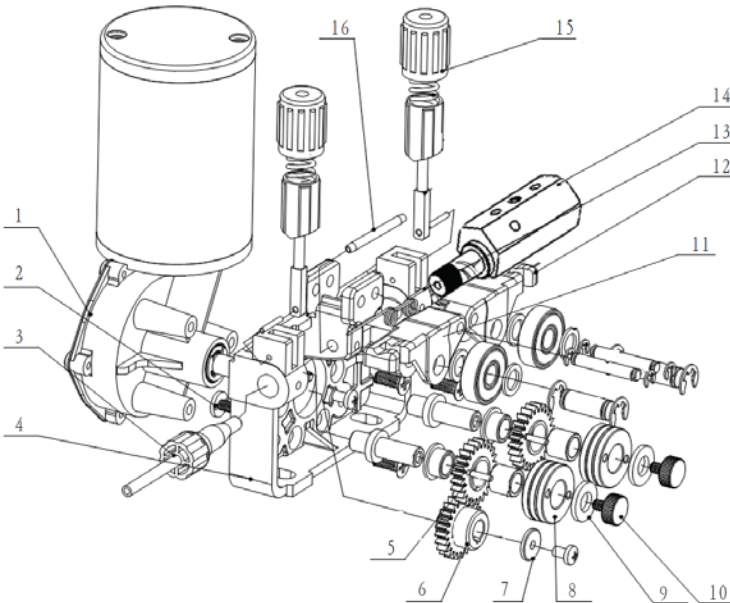
45	20070360059	Thermo relay	1
46	20070250411	Control transformer	1
47	11050020778	Main PCB	1
45	11010050124	Middle vertical panel (2)	1
49	20070130049	electrolytic capacitor(ROHS)	2
50	20070070037	Cement resistance(ROHS)	2

Accessory

Reference number	CODE	Description	Qty
1	20200040056	0.023/0.030 drive rolls	2
2	20200040058	0.035/0.040 drive rolls	2
3	20200010175	0.040'contact tips	1
4	20200010176	0.035'contact tips	1
5	20200010177	0.030'contact tips	1

60ZY02AV WIRE FEEDER FOR HGMIG251A

SPARE PART LIST



**MIG WELDER
CROSS FIRE**

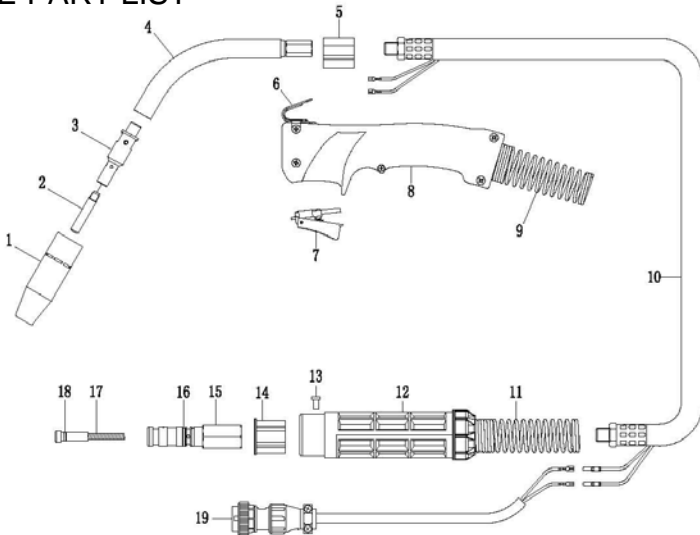
NO	CODE	ITEM ENGLISH	QTY
1	20070400103	motor	1
2	20300030026	bolt	2
3	20300030027	wire guide	1
4	20400080443	dual drive bracket	1
5	20200400144	dual drive wire gear	2
6	20300030030	Main dual drive gear	1
7	20300030032	Main gear washer	1
8	20200040056	Wire roller	2
9	20300030033	Dual wire roller washer	2
10	20400080444	screw	2
11	20300030119	Right pressure gear arm	1
12	20300030120	Left pressure gear arm	1
13	20200400145	Spring	1
14	20200400139	Copper connector	1
15	20300030036	Handle knob	1
16	20300030037	Middle wire guide	1

20200040056	Drive Roller for MIG	0.023-0.030	PCS	2
20200400185	Drive Roller for MIG	0.035-0.045	PCS	2
20200400184	Drive Roller for Flux Core	0.035-0.045	PCS	2

MIG WELDER
CROSS FIRE

MIG TORCH

■ SPARE PART LIST



NO	Code	Description	QTY
1	20200010230	nozzle	1
2	20200010144	contact tip 0.035"/0.9mm	1
3	20200010167	shunt	1
4	20200010096	swan neck 60°	1
5	20200010103	torch support	1
6	20200010117	hook	1
7	20200010118	trigger	1
8	20200010100	torch cover - front	1
9	20200010109	spring jacket - front	1
10	EL2030	cable – 4m	1
11	20200010106	spring jacket - back	1
12	20200010098	torch cover - back	1
13	Q210410B	screw	6
14	20200010105	plinth	1
15	20200010110	conductive contact	1
16	20200010114	O coil, 11.8*1.8	1
17	42-3545-10	guide wire spring	1
18	Q504018	O coil, 4*1.8	1
19	20200010113	four-core connector	1



CROSSFIRE®

LIMITED WARRANTY

Effective April 14, 2018

(This limited warranty supercedes all prior warranties and is exclusive with no other warranties or guarantees implied.)

This warranty applies to the original purchaser and is subject to the terms and conditions listed below. This Limited Warranty is for new equipment sold after the above date, providing coverage for defects in material and workmanship at the time it is shipped from the factory.

Limited to the warranty periods below, Crossfire Equipment or an approved Crossfire Repair Centre will repair or replace the item under warranty that fails due to defects in material and workmanship. Crossfire must be notified within 30 days of the failure, so as to provide instructions on how to proceed with the repair of you welder and warranty claim processing. Warranty period begins at the time the welder is purchased from Crossfire, or 1 year after delivery to a distributor, whichever comes first. **Keep your receipt as proof of purchase.**

1. 3 Years - Parts & Labour

Crossfire Welders and Plasma Cutters including - transformer, reactor, rectifier, solenoid valve, PC Board, switches, controls, gas valve, drive motor, drive system (drive roll excluded), and any other part that requires the removal of sheet metal.

2. 1 Year - Parts & Labour

CG1-Dart Track Cutter (excluding tracks) Welding positioners, turning rollers, Auto darkening lens, PAPR blower & battery, Rheostat, Water Cooling Systems.

3. 90 Days - Parts & Labour

Parts for Crossfire MIG guns, TIG Torches, Plasma Torches, Spool Guns, Regulators & Gauges, welding carts, and welding cabinets. This warranty covers the absence of defective parts or those parts as listed under "Warranty Exclusions".

4. Engine Warranty

The engine on this unit is warranted separately by the engine manufacturer. Please see the engine manual.

5. Warranty Exclusions

This limited warranty shall not apply to: consumables such as; contact tips, nozzles, liners, drive rollers, plasma cutting torch tips and electrodes, welding gloves, auto-darkening helmet outside/inside lens, weld cables, ground clamps, and any crossfire products that fail due to normal wear. Items furnished by Crossfire Welders, but manufactured by others, such as accessories and engines.

6. Voiding Warranty

The limited warranty is void if the Crossfire product has been repaired, changed, or modified by anyone other than Crossfire Welders or an Authorized Crossfire Repair Centre. Equipment that has been improperly installed, misused based on standard operating procedures and industry standards, or has not been reasonably maintained.

ANY AND ALL WARRANTY CLAIM TRANSPORTATION, FREIGHT COST, AND RISKS WILL BE AT THE SOLE RESPONSIBILITY OF THE OWNER.

TO THE EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES OF THE PURCHASER IN RESPECT TO CROSSFIRE PRODUCTS. IN NO EVENT SHALL CROSSFIRE WELDERS BE LIABLE FOR ALL INDIRECT, DIRECT, SPECIAL, INCIDENTAL AND CONSEQUENTIAL DAMAGE, LOSS, EXPENSES OR LOSS OF PROFIT. ANY WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY GUARANTEE OR REPRESENTATION ARE EXCLUDED AND DISCLAIMED BY CROSSFIRE WELDERS.

Warranty Claim

This is a parts and labour warranty. Warranty claim options will be decided at the sole discretion of Crossfire Welders, which exclusively include (1) repair; or (2) replacement; or, if approved (3) cost of repair at an approved Crossfire repair center; or (4) credit (less depreciation). Do not return your unit to the retail or distribution area where it was purchased. Retain your receipt in case a warranty claim is needed. No warranty will be provided without the original receipt from retailer. To make a warranty claim, please contact crossfire@mapcanadald.com. No Crossfire warranty service can begin without a service file number including - Model # - Serial Number - Purchase Date.

HAVE QUESTIONS?

Toll-Free: 1-800-757-4445

Email: Crossfire@mapcanadald.com