LOTUS®

Performance, Delivered.™

MIG Welder

LT255MTX

Made in China/Fabriqué en Chine
Lotus Tool Group (Philippines)
www.lotustools.ph

SAFETY INFORMATION

WARNING! The user of this welder is responsible for his own and the safety of others. It is most important to read, learn and respect the rules in this instruction manual. When using this welder, basic safety precautions, including the following, should be followed to reduce the risk of fire, electric shock and personal injury. Make sure that you have read all of these instructions before using this welder. Keep this manual in a safe place for future reference. Persons who are not familiar with this booklet should not use the welder.

1 TRAINING

The operator should be properly trained to use the welding machine safely and should be informed about the risks relating to arc welding procedures. This manual does not attempt to cover welding technique.

Training should be sought from qualified/experienced personnel on this aspect especially for any welds requiring high integrity for safety.

2 SERIOUS FIRE RISK

The welding process produces sparks, droplets off used metal, metal project les and fumes. This constitutes a serious fire risk. Make sure that the area around the workpiece is clear of all inflammable materials. It is advisable to have a fire extinguisher to hand.

3 WORK AREA

Ensure a clear work area with unrestricted movement for the operator. Always maintain easy access to the On/Off switch and the mains supply.

4 WORKPIECE

The workpiece will remain at a high temperature for a relatively long period. Do not touch the weld or the workpiece unless you are wearing welding gloves. Always use pliers or tongs. Never touch the welded material with bare hands until it has been allowed to cool.

5 WELDING SURFACES

Do not weld on containers or pipes that hold or have held, flammable liquids or combustible gases.

Do not weld coated painted or varnished surfaces as the coatings may ignite and or can give off dangerous fumes.

6 VENTILATE THE WORK AREA

Arc welding(especially using fluxed core wire) emits fumes which can be dangerous. Make sure that the work area is well ventilated.

7 AVOID ELECTRICAL CONTACT

Use adequate electrical insulation with regard to the electrode the workpiece and any accessible earthed metal parts in the vicinity. Avoid direct contact with the welding circuit. The no load voltage between the earth clamp and the torch can be dangerous under certain circumstances.

8 FOR ADDITIONAL PROTECTION FROM ELECTRICSHOCK

It is recommended that this tool be used in conjunction with a residual current device(RCD) with a rated residual current of 30mA or less.

9 EXTENSION LEADS
In general these are best avoided. If used however make sure that the extension lead used with the welder is of a suitable current rating and has an earth connection. If using the welder outdoors make sure that the extension cable is suitable for outdoor use. Always keep cables and extension leads away from the welding zone and any hot materials.

10 CONSIDER THE WORKING AREA ENVIRONMENT
Do not expose the welder to rain. Do not use it in damp, or wet locations. Keep the work area well lit.

11 DRESS PROPERLY
Use protective gloves and fire resistant protective clothing when using the welder. Avoid exposing skin to the ultraviolet rays produced by the arc.

12 ALWAYS USE THE WELDING MASK
Under no circumstances should the welder be operated unless the welding mask is protecting the eyes and face. There is a serious risk of eye damage if the mask is not used. Sparks and metal projectiles can cause serious damage to the eyes and face. The light radiation produced by the arc can cause damage to eyesight and burns on the skin. Never remove the welding mask whilst welding. Release the trigger switch and move the torch away from the workpiece before removing the welding mask.

13 BYSTANDERS
Ensure that other persons are screened from the welding arc and are atleast 15 metres away from the workpiece. Always ensure that the welding arc is screened from onlookers, or people just passing by. Use screens if necessary, or non reflecting curtains.

14 KEEP CHILDREN AND ANIMALS AWAY
Do not let children or animals have access to the welding equipment or to the work area.

15 SWITCH OFF
When you have finished welding switch off the welder. Do not put the torch down with the welder switch On and with the wire fitted. When leaving the welder unattended, move the On/Off switch to the Off position and disconnect the welder from the mains supply. Do not leave hot material unattended after welding.

16 WELDING CABLES
Keep the welding cables, earth clamp and torch in good condition. Failure to can result in poor welding quality and could be dangerous in structural situations.

17 CHECK DAMAGED PARTS
Before further use of the welder, any part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for breakage of parts and any other conditions that may affect its operation. Any part that is damaged should be properly repaired, or replaced by an authorised service centre.

18 IMPROPER USE
Do not use this welder for pipe thawing.

19 HANDLING
Ensure the handle is correctly fitted and always use safe lifting practices when lifting.

20 WELDING OPERATIONS

• In environments with increased risk of electric shock
• In confined spaces
• In the presence of flammable or explosive materials

MUST BE evaluated in advance by an “expert supervisor” and must always be carried out in the presence of other people trained to intervene in emergencies.

21 POSITION AND HANDLING

Position the welding machine on a horizontal surface that is able to support the weight, otherwise (e.g.inclined or uneven floors etc.) there is danger of overturning. The welder MUST NOT be supported by the operator (e.g using belts). The operator MUST NOT BE ALLOWED to weld in raised positions unless safety platforms are used.

22 IMPROPER USE

It is hazardous to use the welding machine for any work other than that for which it was designed. Example do not use this welder for pipe thawing. The safety guards and moving parts of the covering of the welding machine and of the wire feeder should be in their proper positions before connecting the welding machine to the power supply.

23 SETTING UP AND CLEANING

Any manual operation carried out on the moving parts of the wire feeder, for example:

• Replacing rollers and/or the wire guide
• Inserting wire in the rollers
• Loading the wire reel
• Cleaning the rollers and the area underneath them

Should be carried out with the welding machine switched off and disconnected from the power supply outlet. Never lift the welding machine when connected to the mains supply.

24 SERVICE

Have your welder services by a qualified repair person using only identical replacement parts. This will ensure that the safety of the welder is maintained.

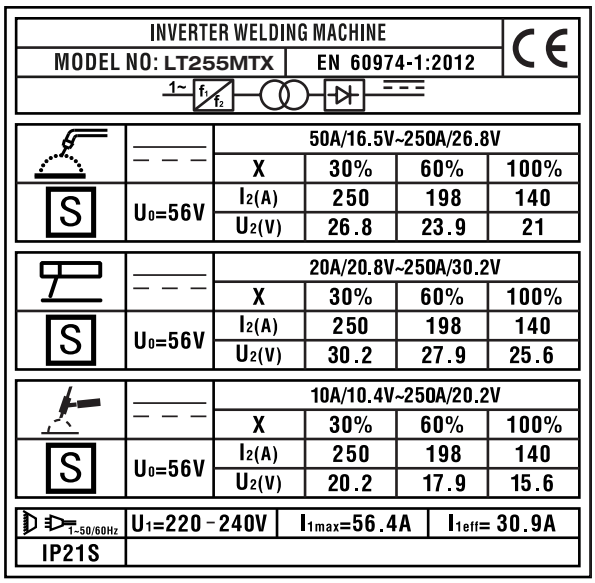
SYMBOLS

Symbols are used in this manual and/or on the product to attract your attention to possible risks. These symbols and the explanations that accompany them must be understood.

	WARNING! or CAUTION! This symbol before a safety comment indicates a precaution, warning or danger. Ignoring these warnings can lead to an accident for yourself or for others. To limit the risk of injury, fire, or electrocution always follow the recommendations indicated.
	Read this Instruction manual carefully before using the welder and keep it in a safe place for future reference.

	When using this welder, avoid direct contact with the welding circuit. The no-load voltage supplied by the welding machine can be dangerous in certain circumstances.
	When using this welder, provide adequate ventilation or facilities for the removal of welding fumes near the arc, a systematic approach is needed in evaluating the exposure limits for the welding fumes, which wil depend on their composition, concentration and the length of the exposure itself. Do not operate on materials cleaned with chlorinated solvents or near such substances. Remove all flammable materials(e.g.wood, paper, rags etc.) from the working area.
	Do not weld on containers or piping that contains or has contained flammable liquids or gaseous products. Do not weldon containers under pressure.
	When using this welder, always use a welding helmet.Use special fire resistant protective clothing and do not allow the skin to be exposed to the ultraviolet and infrared rays produced by the arc, other people in the vicinity of the arc should be protected by shields of non-reflecting curtains.
	Do not use in rain or store in locations affected by rain.
	Recycle/dispose of packaging materials in accordance to the regulations and requirement of your local council.

RATING INFORMATION



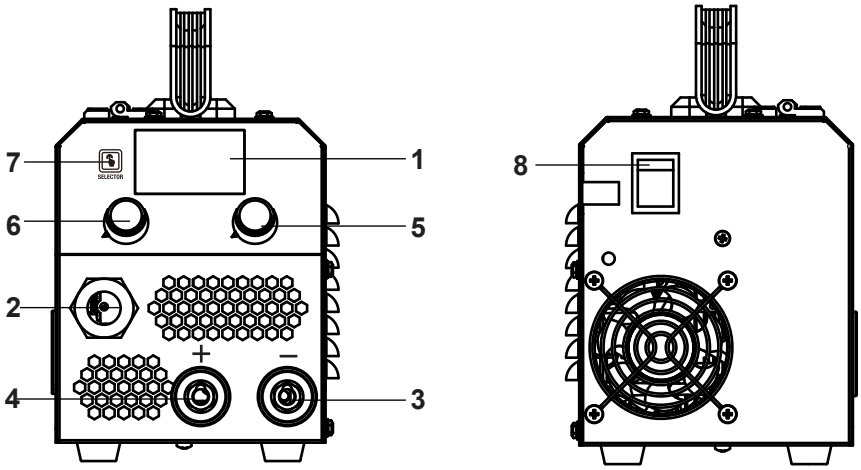
INVERTER WELDING MACHINE					
MODEL NO: LT255MTX	EN 60974-1:2012				
1~ f_1/f_2 — ⎓					
		50A/16.5V~250A/26.8V			
		X	30%	60%	100%
S	U_0=56V	I_2(A)	250	198	140
		U_2(V)	26.8	23.9	21
		20A/20.8V~250A/30.2V			
		X	30%	60%	100%
S	U_0=56V	I_2(A)	250	198	140
		U_2(V)	30.2	27.9	25.6
		10A/10.4V~250A/20.2V			
		X	30%	60%	100%
S	U_0=56V	I_2(A)	250	198	140
		U_2(V)	20.2	17.9	15.6
1~50/60Hz	U_1=220－240V	I_{1max}=56.4A		I_{1eff}= 30.9A	
IP21S					

	Flux cored self shielded arc welding		MMA Welding
	LIFT TIG Welding	U_0	Rated no-load voltage
1 ~ 50/60Hz	Supply circuit, single phase，alternating current and 50/ 60 Hz	U_1	Rated supply voltage
X	Duty cycle	U_2	Conventional welding voltage
I_{1max}	Rated maximum supply current	I_{1eff}	Maximum effective supply current
I_2	Conventional welding current	IP21S	Degree of protection
1~ f_1/f_2 — ⎓	Single phase frequency conversion and rectfier		

INTENDED USE

This welder is a power source for Gasless MIG, MMA and TIG welding. It can weld carbon and mild steels up to 6mm thickness.
The machine is suitable for a range of different purposes and the possibility in various sites. It is also suitable for generator use on construction sites.

PARTS DESCRIPTION



1.Color LCD Display
2.MIG welding torch
3.Machine output positive pole "-"
4.Machine output positive pole "+"
5.MIG welding speed adjusting & MMA current adjusting knob
6.MIG welding voltage compensation adjusting knob
7.TIG/MMA/Flux cored0.8/Flux cored1.0 Switch function
8.ON/OFF Switch

PACKAGE CONTENT

1. Protective Mask
2. Cleaning Brush
3. 1.4m Cable With Earth Clamp
4. 1.6m Cable With Electrode Holder

OPERATION

WARNING! Before setting up the welder make sure the power is switched off and has been unplugged from the mains supply.

KNOW THE CONTROL PANEL

Overload Indicator
If welding a long time, the duty cycle may be exceed, the red overlaod indicator will light, and the machine will stop working until the unit has cooled.

VRD Indicator
When welding, VRD indicator will light and work to protect you from electric shock

Function Slector
Press this button to select the function you want.

Fan Cooling

Current Meter
The sector will light according to different current

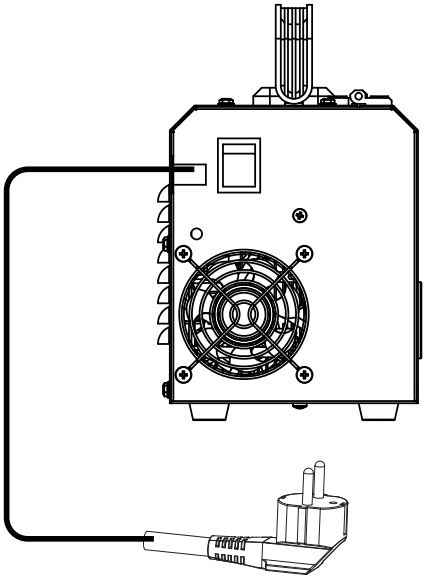
Current Meter
Show the digital output current

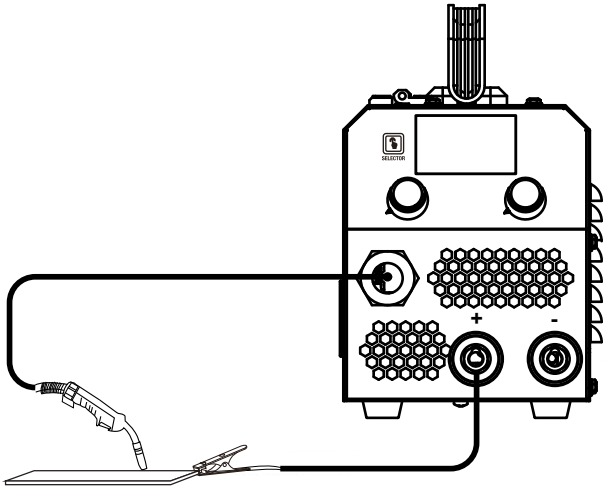
USING THE WELDER

Select the TIG/MMA/Flux cored 0.8/Flux cored 1.0 fucntion as you need.
Adjust the required welding voltage and wire feed/current to the the proper position according to the thickness and materials of workpiece to be welded.
When finished welding, set the ON /OFF switch to the OFF position.
Allow the weld to cool, the slag can be removed by tapping it lightly with the cleaning brush.

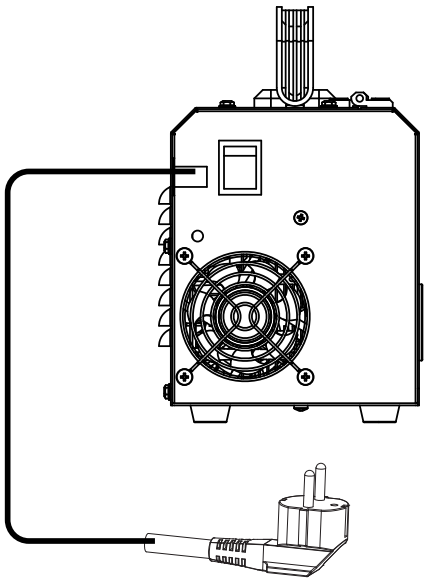
WARNING! Ensure that you have protective gloves and clothes to cover your hands and arms. Do not start welding before your eyes are properly protected by the hand held welding mask or welding helmet.

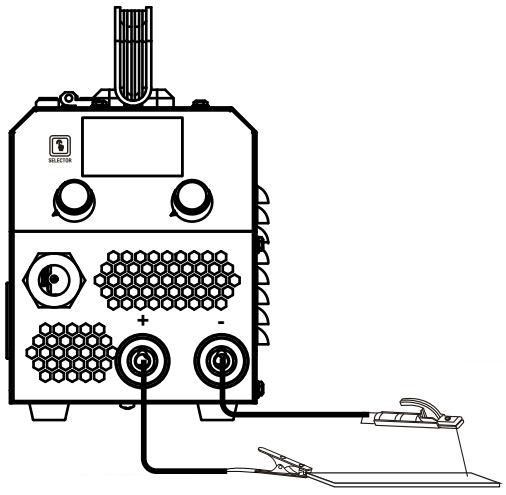
MIG WELDING(Flux 0.8/Flux 1.0)



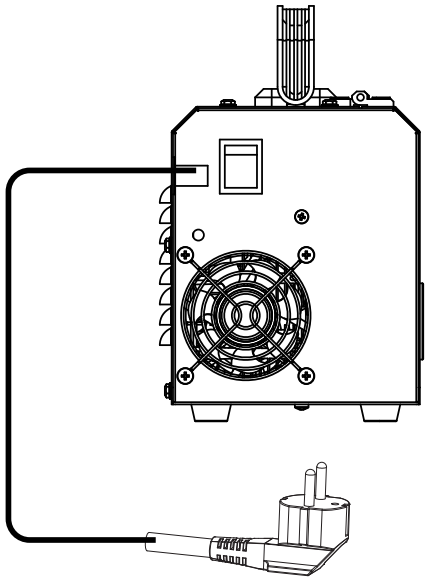


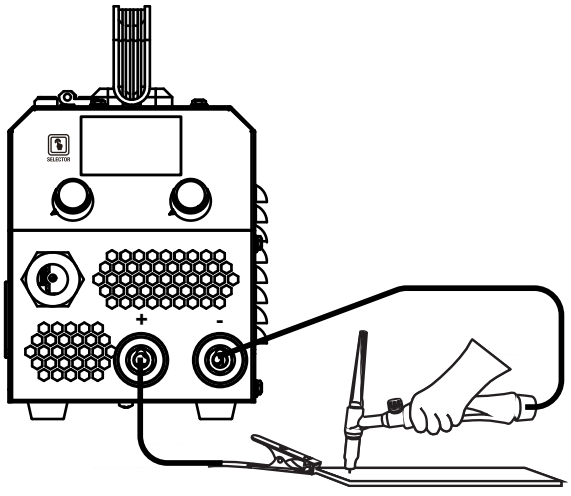
MMA WELDING





TIG WELDING(TIG torch is not supplied)





MAINTENANCE

WARNING! Before starting any cleaning, or maintenance procedures on the welder, make sure that it is switched off and disconnected from the mains supply.

Note: There are no user serviceable parts inside the welder. Refer to a qualified service personnel if any internal maintenance is required. Please contact our after sales support.

- Before each use check for wear and correct assembly of the consumable parts at the end of the torch, swan neck, nozzle, contact tip. Clean and replace as necessary.
- Make sure that the earth clamp and electrode holder is kept clean and in good working order.
- Keep wire feeder clean and in good condition. Replace as necessary.
- After use, allow the welder to cool down, then store the equipment and accessories out of children's reach in a warm and dry place. If possible store the welder in original packaging.

TROUBLESHOOTING

PROBLEM	CAUSE
The wire does not move or wire feed entangles	Feed rolls, wire conduit or contact tips are defective • Check that feed rolls are not too tight or too loose. • Check that feed roll groove is not too worn. • Check that the wire conduit is not blocked. • Check that there are no spatters on the conduit. tip and that the hole is not cramped or worn loose.
Main switch indicator light does not switch on	The machine has no supply voltage • Check supply voltage fused • Check supply voltage cable and plug
Machine welds badly	Welding outcome is influenced by several factors • Check the trimming setting of welding power control and arc length. • Check that the earth clamp is fixed properly, fixing point is clean, and both cable and its connections are damaged. • Check the flow of shielding gas from the tip of the welding gun. Supply voltage is uneven, tool low or too high.
Over-heating indicator light swithes on	The machine over heat • Check that cooling air can flow without obstructions • Machine's volume-capacity ratio has been exceed, wait for the indicator light to switch off.

TECHNICALDATA

ITEM \ MODEL	LT255MTX
Input Voltage(V)	1PH 220-240
Frequency(Hz)	50/60
Rated Input Capacity(KVA)	4.3K
No-load Voltage(V)	56
Duty Cycle(%)	60
Current Range(A)	MIG 50-250A MMA 20-250A TIG 10-250A
Power Factor	0.73
Insulation Class	H
Protection Degree	IP21