IM3095
01/2024
REV04

WF24 & WF24S

OPERATOR'S MANUAL

ENGLISH

Lincoln Electric Bester Sp. z o.o.
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12/05

THANKS! For having choosen the QUALITY of the Lincoln Electric products.

- Please Examine Package and Equipment for Damage. Claims for material damaged in shipment must be notified immediately to the dealer.
- For future reference record in the table below your equipment identification information. Model Name, Code & Serial Number can be found on the machine rating plate.

Model Name:	
.....	
Code & Serial number:	
.....	.....
Date & Where Purchased:	
.....	.....

ENGLISH INDEX

Technical Specifications

NAME	INDEX
WF24	**W000403599**
WF24S	**W000403600**
INPUT VOLTAGE	**WIRE FEED SPEED**
34-44 Vac	1.0-20 m/min
RATED OUTPUT AT 40°C	
Duty Cycle (based on a 10 min. period)	Output Current
100% 60%	385 A 500 A
OUTPUT RANGE	
Welding Current Range	Maximum Open Circuit Voltage
20-500 A	113 Vdc or Vac peak

ROLLS / WIRE DIAMETER					
	Drive Rolls	Drive roll diameter	Solid Wires	Cored wires	Aluminium wires
WF24	4	Ø 37 mm	0.6 to 1.6	1.2 to 2.4	1.0 to 1.6
WF24S					

PHYSICAL DIMENSIONS				
	Height	Width	Length	Weight
WF24	440 mm	270 mm	640 mm	17 kg
WF24S				

Protection Rating	Maximum Gas Pressure	Operating Temperature	Storage Temperature
IP23	0,5MPa (5 bar)	from -10°C to +40°C	from -25°C to 55°C

Electromagnetic Compatibility (EMC)

01/11

This machine has been designed in accordance with all relevant directives and standards. However, it may still generate electromagnetic disturbances that can affect other systems like telecommunications (telephone, radio, and television) or other safety systems. These disturbances can cause safety problems in the affected systems. Read and understand this section to eliminate or reduce the amount of electromagnetic disturbance generated by this machine.

This machine has been designed to operate in an industrial area. To operate in a domestic area it is necessary to observe particular precautions to eliminate possible electromagnetic disturbances. The operator must install and operate this equipment as described in this manual. If any electromagnetic disturbances are detected the operator must put in place corrective actions to eliminate these disturbances with, if necessary, assistance from Lincoln Electric.

Before installing the machine, the operator must check the work area for any devices that may malfunction because of electromagnetic disturbances. Consider the following.

- Input and output cables, control cables, and telephone cables that are in or adjacent to the work area and the machine.
- Radio and/or television transmitters and receivers. Computers or computer controlled equipment.
- Safety and control equipment for industrial processes. Equipment for calibration and measurement.
- Personal medical devices like pacemakers and hearing aids.
- Check the electromagnetic immunity for equipment operating in or near the work area. The operator must be sure that all equipment in the area is compatible. This may require additional protection measures.
- The dimensions of the work area to consider will depend on the construction of the area and other activities that are taking place.

Consider the following guidelines to reduce electromagnetic emissions from the machine.

- Connect the machine to the input supply according to this manual. If disturbances occur if may be necessary to take additional precautions such as filtering the input supply.
- The output cables should be kept as short as possible and should be positioned together. If possible connect the work piece to ground in order to reduce the electromagnetic emissions. The operator must check that connecting the work piece to ground does not cause problems or unsafe operating conditions for personnel and equipment.
- Shielding of cables in the work area can reduce electromagnetic emissions. This may be necessary for special applications.

WARNING

EMC classification of this product is class A in accordance with electromagnetic compatibility standard EN 60974-10 and therefore the product is designed to be used in an industrial environment only.

WARNING

The Class A equipment is not intended for use in residential locations where the electrical power is provided by the public low-voltage supply system. There may be potential difficulties in ensuring electromagnetic compatibility in those locations, due to conducted as well as radiated disturbances.

Safety

11/04

WARNING

This equipment must be used by qualified personnel. Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified person. Read and understand this manual before operating this equipment. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or damage to this equipment. Read and understand the following explanations of the warning symbols. Lincoln Electric is not responsible for damages caused by improper installation, improper care or abnormal operation.

	WARNING: This symbol indicates that instructions must be followed to avoid serious personal injury, loss of life, or damage to this equipment. Protect yourself and others from possible serious injury or death.
	READ AND UNDERSTAND INSTRUCTIONS: Read and understand this manual before operating this equipment. Arc welding can be hazardous. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or damage to this equipment.
	ELECTRIC SHOCK CAN KILL: Welding equipment generates high voltages. Do not touch the electrode, work clamp, or connected work pieces when this equipment is on. Insulate yourself from the electrode, work clamp and connected work pieces.
	ELECTRICALLY POWERED EQUIPMENT: Turn off input power using the disconnect switch at the fuse box before working on this equipment. Ground this equipment in accordance with local electrical regulations.
	ELECTRICALLY POWERED EQUIPMENT: Regularly inspect the input, electrode, and work clamp cables. If any insulation damage exists replace the cable immediately. Do not place the electrode holder directly on the welding table or any other surface in contact with the work clamp to avoid the risk of accidental arc ignition.
	ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS: Electric current flowing through any conductor creates electric and magnetic fields (EMF). EMF fields may interfere with some pacemakers and welders having a pacemaker shall consult their physician before operating this equipment.
	CE COMPLIANCE: This equipment complies with the European Community Directives.
	ARTIFICIAL OPTICAL RADIATION: According with the requirements in 2006/25/EC Directive and EN 12198 Standard, the equipment is a category 2. It makes mandatory the adoption of Personal Protective Equipment (PPE) having filter with a protection degree up to a maximum of 15, as required by EN169 Standard.
	FUMES AND GASES CAN BE DANGEROUS: Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. To avoid these dangers the operator must use enough ventilation or exhaust to keep fumes and gases away from the breathing zone.
	ARC RAYS CAN BURN: Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing. Use suitable clothing made from durable flame-resistant material to protect you skin and that of your helpers. Protect other nearby personnel with suitable, non-flammable screening and warn them not to watch the arc nor expose themselves to the arc.

	WELDING SPARKS CAN CAUSE FIRE OR EXPLOSION: Remove fire hazards from the welding area and have a fire extinguisher readily available. Welding sparks and hot materials from the welding process can easily go through small cracks and openings to adjacent areas. Do not weld on any tanks, drums, containers, or material until the proper steps have been taken to insure that no flammable or toxic vapors will be present. Never operate this equipment when flammable gases, vapors or liquid combustibles are present.
	WELDED MATERIALS CAN BURN: Welding generates a large amount of heat. Hot surfaces and materials in work area can cause serious burns. Use gloves and pliers when touching or moving materials in the work area.
	CYLINDER MAY EXPLODE IF DAMAGED: Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. Always keep cylinders in an upright position securely chained to a fixed support. Do not move or transport gas cylinders with the protection cap removed. Do not allow the electrode, electrode holder, work clamp or any other electrically live part to touch a gas cylinder. Gas cylinders must be located away from areas where they may be subjected to physical damage or the welding process including sparks and heat sources.
	MOVING PARTS ARE DANGEROUS: There are moving mechanical parts in this machine, which can cause serious injury. Keep your hands, body and clothing away from those parts during machine starting, operating and servicing.
	SAFETY MARK: This equipment is suitable for supplying power for welding operations carried out in an environment with increased hazard of electric shock.

The manufacturer reserves the right to make changes and/or improvements in design without upgrade at the same time the operator's manual**.**

Installation and Operator Instructions

Read this entire section before installation or operation of the machine.

Location and Environment

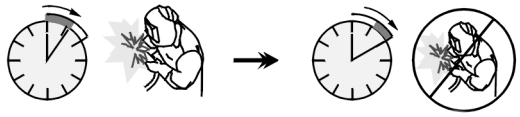
This machine will operate in harsh environments. However, it is important that simple preventative measures are followed to assure long life and reliable operation:

- Do not place or operate this machine on a surface with an incline greater than 15° from horizontal.
- Do not use this machine for pipe thawing.
- This machine must be located where there is free circulation of clean air without restrictions for air movement to and from the air vents. Do not cover the machine with paper, cloth or rags when switched on.
- Dirt and dust that can be drawn into the machine should be kept to a minimum.
- This machine has a protection rating of IP23. Keep it dry when possible and do not place it on wet ground or in puddles.
- Locate the machine away from radio controlled machinery. Normal operation may adversely affect the operation of nearby radio controlled machinery, which may result in injury or equipment damage. Read the section on electromagnetic compatibility in this manual.
- Do not operate in areas with an ambient temperature greater than 40°C.

Duty cycle and Overheating

The duty cycle of a welding machine is the percentage of time in a 10 minute cycle at which the welder can operate the machine at rated welding current.

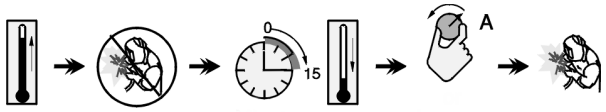
Example: 60% duty cycle:



Welding for 6 minutes. Break for 4 minutes.

Excessive extension of the duty cycle will cause the thermal protection circuit to activate.

The machine is protected from overheating by a thermostat. When the machine is overheated the output of the machine will turn "OFF", and the Thermal Indicator Light (on front panel of wire feeder) will turn "ON". When the machine has cooled to a safe temperature the Thermal Indicator light will go out and the machine may resume normal operation. Note: For safety reasons the machine will not come out of thermal shutdown if the trigger on the welding gun has not been released.



Minutes or decrease duty cycle

Input Supply Connection

Check the input voltage, phase, and frequency of the power source that will be connected to this wire feeder. The allowable input voltage of the power source is indicated on the rating plate of the wire feeder. Verify the connection of grounding wires from the power source to the input source.

Gas Connection

A gas cylinder must be installed with a proper flow regulator. Once a gas cylinder with a flow regulator has been securely installed, connect the gas hose from the regulator to the machine gas inlet connector. Refer to point [8] of the images below. The wire feeder supports all suitable shielding gases including carbon dioxide, argon and helium at a maximum pressure of 5,0 bar.

Output Connections

Refer to point [1] of the images below.

Controls and Operational Features

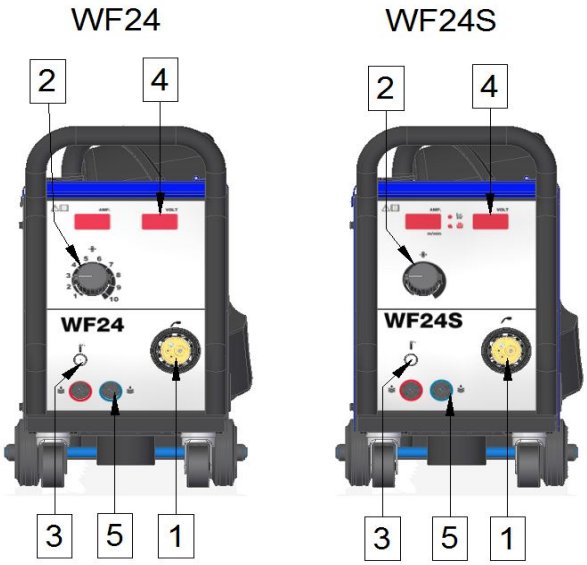


Figure 1.

1. EURO Socket: For connecting welding torch.

2. WFS (Wire Feed Speed) Control Knob: It enables continuous control of wire feeding speed in the range from 1.0 to 20m/min with manual mode or correction of the speed automatically matched by the machine in the range ±50% at synergic mode.

WARNING

Before welding beginning and during Cold Inch Switch using the Wire Feed Slow Run Control Knob [12] has also an influence on the wire feeding speed.

3. Thermal Overload Indicator: This lamp will light up when the machine is overheated and the output has been turned off. Leave the machine on to allow the internal components to cool, when the lamp turns off normal operation is possible.

4. Digital Display Panel.

WF24S:

- Display A: It shows the actual welding current value (in A), and after finishing welding process, it shows the average value of the welding current. When the WFS value is changed [2], the display shows the value of adjusted WFS (in m/min) - for manual mode or correction of the speed automatically matched by the machine, in the range 0.75-1.25 at synergic mode.
- Display V: It shows the actual value of welding voltage (in V), and after finishing welding process, it shows the average value of welding voltage. When the WFS value is changed [2], the display is blank.
- Work Indicators: These lamps shows the work mode of the machine:

SYNERGIC	When lit, the machine works in **Synergic** mode (automatic mode).
	When lit, the machine works in **Manual** mode.

Select the desired work with the "Welding Material and Gas Mix Choice Knob" [11].

WF24:

- Display A: It shows the actual welding current value (in A), and after finishing welding process, it shows the average value of the welding current.
- Display V: It shows the actual value of welding voltage (in V), and after finishing welding process, it shows the average value of welding voltage.

5. Quick Connect Couplings (For water cooled model only): For connecting water cooled torches.

Warm water from torch. 

Cool water to torch. 

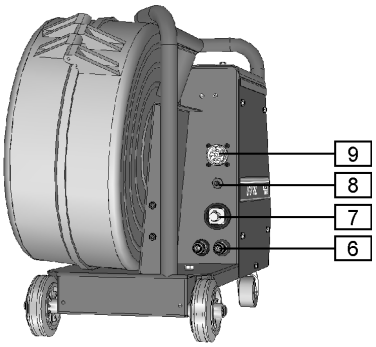


Figure 2.

6. Quick Connect Couplings (For water cooled model only): If water cooled torches are used, connect water lines from water cooler here. Refer to torch and water cooler guidelines for recommended cooling liquid and flow rates.

⚠ WARNING

Max cooling liquid pressure is 4 Bar.

7. Fast-Mate Adapter: Input power connection.

8. Gas Connector: Connection for gas line.

9. Amphenol Connection: 8-Pin connection to power source.

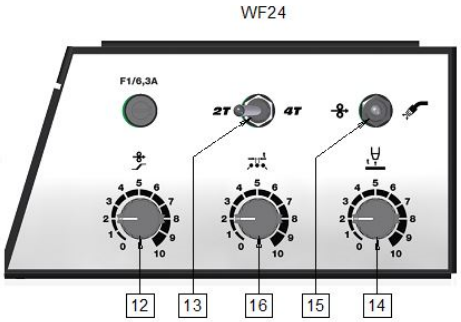


Figure 3.

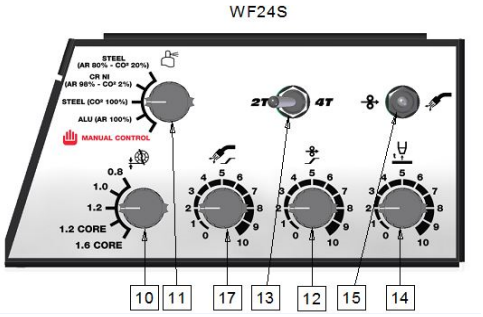


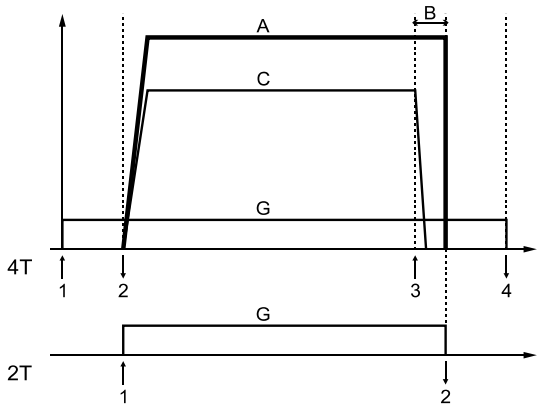
Figure 4.

10. Wire Diameter Knob: It allows the choice of the wire diameter requested for the desired welding process. This feature is available only for the synergic mode.

11. Welding Material and Gas Mix Choice Knob: This knob enables the choice of:
    - The welded material and its appropriate gas mixture.
    - The manual / synergic work mode.

12. Wire Feed Slow Run Control Knob: It enables control of wire feeding speed before welding beginning, in the range from 0.1 to1.0 of the value set by the "Wire Feed Speed Control Knob" [2].

13. Torch Mode Switch: It enables selection of 2-step or 4-step torch mode. The functionality of 2T/4T mode is shown in the picture below:



↑	Trigger pressed
↓	Trigger released
A	Welding current
B	Burnback time
C	WFS
G	Gas

Figure 5.

14. Burnback Time Control Knob: It enables to obtain the desired length of electrode wire, which protrudes from the tip of the torch after ending welding; adjusting range from 8 to 250ms.

15. Cold Inch / Gas Purge Switch: This switch enables wire feeding or gas flow without turning on output voltage.

16. Spot Welding Time Control Knob: It enables time control in the range from 0.2 to 10 s.

17. Gas Preflow: It determine period of time between start of gas and start of current flow, from 0,01 to 1s.

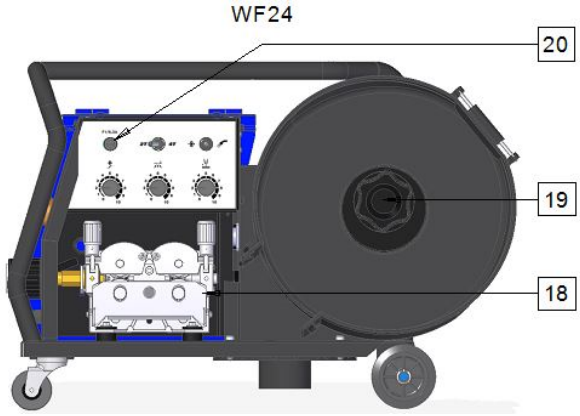


Figure 6.

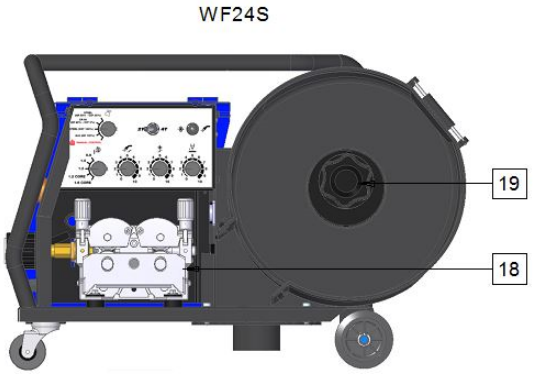


Figure 7.

18. Wire Drive: 4-Roll wire drive compatible with 37mm drive rolls.

19. Wire Spool Support: Maximum 15kg spools. Accepts plastic, steel and fiber spools onto 51mm spindle. Also accepts Readi-Reel® type spools onto included spindle adapter.

20. Fuse F1/4A (only WF24): Circuit breaker for overload protection of the wire drive motor.

⚠ WARNING

The WF wire feeders must be used with the door completely closed during welding.

Not use handle to move the WF during work.

Loading the Electrode Wire

Open the side cover of the machine.

Unscrew the fastening cap of the sleeve.

Load the spool with the wire on the sleeve such that the spool turns clockwise when the wire is fed into the wire feeder.

Make sure that the spool locating pin goes into the fitting hole on the spool.

Screw in the fastening cap of the sleeve.

Put on the wire roll using the correct groove corresponding to the wire diameter.

Free the end of the wire and cut off the bent end making sure it has no burr.

⚠ WARNING

Sharp end of the wire can hurt.

Rotate the wire spool clockwise and thread the end of the wire into the wire feeder as far as the Euro socket.

Adjust force of pressure roll of the wire feeder properly.

Adjustments of Brake Torque of Sleeve

To avoid spontaneous unrolling of the welding wire the sleeve is fitted with a brake.

Adjustment is carried by rotation of its screw M10, which is placed inside of the sleeve frame after unscrewing the fastening cap of the sleeve.

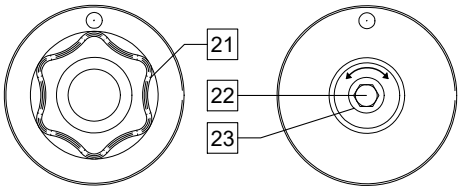


Figure 8.

21. Fastening cap.
22. Adjusting screw M10.
23. Pressing spring.

Turning the screw M10 clockwise increases the spring tension and you can increase the brake torque.

Turning the screw M10 counterclockwise decreases the spring tension and you can decrease the brake torque.

After finishing of adjustment, you should screw in the fastening cap again.

Adjusting of Force of Pressure Roll Force

Pressure force is adjusted by turning the adjustment nut clockwise to increase force, counterclockwise to decrease force.

WARNING

If the roll pressure is too low the roll will slide on the wire. If the roll pressure is set too high the wire may be deformed, which will cause feeding problems in the welding gun. The pressure force should be set properly. Decrease the pressure force slowly until the wire just begins to slide on the drive roll and then increase the force slightly by turning of the adjustment nut by one turn.

Inserting Electrode Wire into Welding Torch

Connect the proper welding torch to the Euro socket, the rated parameters of the torch and of the welding source shall match.

Remove the gas diffuser and contact tip from the welding torch.

Set the wire feeding speed in the position of about 10m/min by the WFS knob [2].

Switch the Cold Inch / Gas Purge switch [15] in the position "Cold Inch" and keep in this position until the electrode wire leaves the contact tip of the welding torch.

WARNING

Take precaution to keep eyes and hands away from the end of the torch while feeding wire.

WARNING

Once the wire has finished feeding through the welding gun turn the wire supply off before replacing to contact tip and gas diffuser.

Welding with MIG / MAG method in Manual mode

To begin welding process with MIG/MAG method in manual mode you should:

- Switch ON the machine which supplies the wire feeder.
- Insert the electrode wire into the torch using "Cold Inch" switch [15].
- Check gas flow with "Gas Purge" switch [15].
- Set knob [11] (only WF24S) in Manual position (verify that the panel [4] has lit the MANUAL mode).
- According to selected welding mode and material thickness set the proper welding voltage and the wire feeding speed with WFS knob [2].
- Obeying the appropriate rules, you can begin to weld.

Welding Source Select (only WF24S)

The wire feeder WF24S can work with below power sources in synergic mode:

- 355S.
- 425S.

The feeder is set for co-operation with 425S (factory default).

If it is necessary to change the power source, you should:

- Switch the supply of the wire feeder off.
- Set the knob of the choice wire diameter selection [10] in "1.6 CORE" position. Set the knob of the choice welded material and gas mixture [11] in "MANUAL" position.
- Switch the supply of the wire feeder on.
- Within 15s switch the knob of the choice wire diameter selection [10] in "0.8" position and the knob of the choice welded material and gas mixture [11] in "STEEL (80%AR 20%CO_2)" position (verify that the display "V" has lit "S").
- Use the knob [2] to set the proper welding source on display:
  - 355 S
  - 425 S
- Save the selected value through switch the knob of the choice wire diameter selection [10] in "1.6 CORE" position – the wire feeder is ready to work.

WARNING

The display "V" lights the selected source number (355S/425S) for 2 seconds after the supply of the wire feeder is switched on.

Welding with MIG / MAG method in Synergic mode (only WF24S)

To begin welding process with MIG/MAG method in synergic mode you should:

- Switch ON the machine which supplies the wire feeder.
- Insert the electrode wire into the torch using "Cold Inch" switch [15].
- Check gas flow with "Gas Purge" switch [15].
- Set the knob of the choice wire diameter selection [10] in the position corresponding to the diameter of the used wire.
- Set the knob of the choice welded material and gas mixture [11] in the position corresponding to the used material.

WARNING

If the selected welding process does not have synergic mode, three horizontal dashes will appear on the display "A".

- According to the selected welding mode and material thickness, set the proper welding voltage on the welding source.

WARNING

For synergic welding mode the machine automatically selects the proper wire feeding speed for each position of the welding source. The automatic speed value can be adjusted in the range of the ±50% by the WFS Control Knob [2].

- Obeying the appropriate rules, you can begin to weld.

Water Cooler Control (only WF24S)

The WF24S wire feeder allows the water cooler to the automatic work with 355S/425S, i.e.:

- When a weld is started, the Cooler is automatically switched on.
- When the weld is stopped, the Cooler continues to run for about 5min., after this time, it is automatically switched off.
- If the weld is restarted in a time lower than 5min., the Cooler continues to run.

The wire feeder has the possibility to switch the automatic work of the water cooler off and set it in continuously work. If it is necessary to change the water cooler kind of work, you should:

- Switch off the machine which supplies the wire feeder.
- Set the knob of the choice wire diameter selection [10] in "1.0" position. Set the knob of the choice welded material and gas mixture [11] in "CRNI (98%AR 2%CO_2)" position.
- Switch the supply of the wire feeder on.
- Within 15s switch the knob of the choice wire diameter selection [10] in "1.2" position and the knob of the choice welded material and gas mixture [11] in "STEEL (100%CO_2)" position – the water cooler has been switched on and the display "V" has lit "on".

If it is necessary to return the automatic work of the water cooler you should do the foregoing actions again (the display “V” has lit " 5" ").

WARNING

The display "V" lights information about work mode of the water cooler (5"/on) for 2 seconds after the supply of the wire feeder is switched on.

Changing Driving Rolls

WARNING

Turn the input power OFF at the welding power source before installation or changing drive rolls and/or guides.

WF24 and **WF24S** are equipped with drive roll V1.0/V1.2 for steel wire.

For others wires sizes, is available the proper drive rolls kit (see "Accessories" chapter) and follow instructions:

- Turn the input power OFF.
- Release the pressure roll levers [24].
- Unscrew the fastening caps [25].
- Open the protection cover [26].
- Change the drive rolls [17] with the compatible ones corresponding to the used wire.

WARNING

Be sure that the gun liner and contact tip are also sized to match the selected wire size.

WARNING

For wires with the diameter larger than 1.6mm, the following parts are to be changed:

- The guide tube of the feeding console [28] and [29].
- The guide tube of the Euro Socket [30].

- Replace and tighten the protection cover [26] to the drive rolls.
- Screw fastening caps [25].
- Manually feed the wire from the wire reel, the wire through the guide tubes, over the roller and through the guide tube of Euro Socket into liner of gun.
- Lock the pressure roll levers [24].

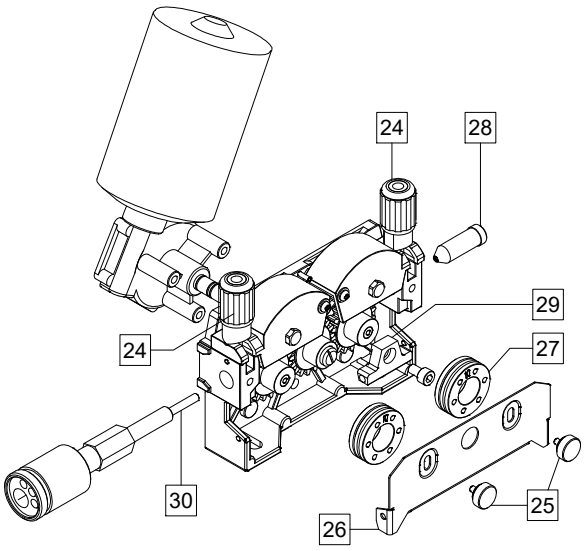


Figure 9.

Gas Connection

WARNING

- CYLINDER may explode if damaged.
- Always fix the gas cylinder securely in an upright position, against a cylinder wall rack or purpose-made cylinder cart.
- Keep cylinder away from areas where it may be damaged, heated, or electrical circuits to prevent possible explosion or fire.
- Keep cylinder away from welding or other live electrical circuits.
- Never lift welder with cylinder attached.
- Never allow welding electrode to touch cylinder.
- Build up of shielding gas may harm health or kill. Use in a well-ventilated area to avoid gas accumulation.
- Close the gas cylinder valves thoroughly when not in use to avoid leaks.

WARNING

The welding machine supports all suitable shielding gases at a maximum pressure of 5,0 bar.

WARNING

Before use, make sure that the gas cylinder contains gas suitable for the intended purpose.

- Turn off input power at the welding power source.
- Install a proper gas flow regulator to the gas cylinder.
- Connect the gas hose to the regulator using the hose clamp.
- The other end of gas hose connect to the Gas Connector [8] located on the rear panel of the machine.
- Turn on input power at the welding power source.
- Turn to open the gas cylinder valve.
- Adjust the shielding gas flow of the gas regulator.
- Check gas flow with Gas Purge Switch [15].

WARNING

To weld GMAW process with CO_2 shielding gas, CO_2 gas heater should be used.

Maintenance

WARNING

For any repair operations, modifications or maintenance, it is recommended to contact the nearest Technical Service Center or Lincoln Electric. Repairs and modifications performed by unauthorized service or personnel will cause the manufacturer's warranty to become null and void.

Any noticeable damage should be reported immediately and repaired.

Routine maintenance (everyday)

- Check condition of insulation and connections of the work leads and insulation of power lead. If any insulation damage exists replace the lead immediately.
- Remove the spatters from the welding gun nozzle. Spatters could interfere with the shielding gas flow to the arc.
- Check the welding gun condition: replace it, if necessary.
- Check condition and operation of the cooling fan. Keep clean its airflow slots.

Periodic maintenance (every 200 working hours but at least once a year)

Perform the routine maintenance and, in addition:

- Keep the machine clean. Using a dry (and low pressure) airflow, remove the dust from the external case and from the cabinet inside.
- If it is required, clean and tighten all weld terminals.

The frequency of the maintenance operations may vary in accordance with the working environment where the machine is placed.

WARNING

Do not touch electrically live parts.

WARNING

Before the case of machine will be removed, the machine has to be turned off and the power lead has to be disconnected from mains socket.

WARNING

Mains supply network must be disconnected from the machine before each maintenance and service. After each repair, perform proper tests to ensure safety.

Customer Assistance Policy

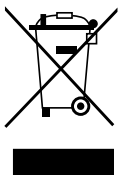
The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

WEEE

07/06



Do not dispose of electrical equipment together with normal waste!
In observance of European Directive 2012/19/EC on Waste Electrical and Electronic Equipment (WEEE) and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative.
By applying this European Directive you will protect the environment and human health!

Spare Parts

12/05

Part List reading instructions

- Do not use this part list for a machine if its code number is not listed. Contact the Lincoln Electric Service Department for any code number not listed.
- Use the illustration of assembly page and the table below to determine where the part is located for your particular code machine.
- Use only the parts marked "X" in the column under the heading number called for in the assembly page (# indicate a change in this printing).

First, read the Part List reading instructions above, then refer to the "Spare Part" manual supplied with the machine, that contains a picture-descriptive part number cross-reference.

Authorized Service Shops Location

09/16

- The purchaser must contact Lincoln Electric or Authorized Service Facility about any defect claimed under warranty period.
- Contact your local Sales Representative for assistance in locating the nearest Authorized Service Facility.

Electrical Schematic

Refer to the "Spare Part" manual supplied with the machine.

Accessories

K10158-1	SPOOL ADAPTER (type: B300)
K14032-1	KIT HD WHEELS
K363P	SPOOL ADAPTER (type: Readi-Reel®)
INTERCONNECTION CABLE	
K10347-PG-xxM	SOURCE/WIRE FEEDER CABLE (GAS). Available in: 2,6/5/10/15/20/25m
K10347-PGW-xxM	SOURCE/WIRE FEEDER CABLE (GAS&WATER). Available in: 2,6/5/10/15/20/25m
LINC GUN™	
W10429-24-3M	LGS2 240 G-3.0M MIG GUN AIR COOLED
W10429-24-4M	LGS2 240 G-4.0M MIG GUN AIR COOLED
W10429-24-5M	LGS2 240 G-5.0M MIG GUN AIR COOLED
W10429-25-3M	LGS2 250 G-3.0M MIG GUN AIR COOLED
W10429-25-4M	LGS2 250 G-4.0M MIG GUN AIR COOLED
W10429-25-5M	LGS2 250 G-5.0M MIG GUN AIR COOLED
W10429-36-3M	LGS2 360 G-3.0M MIG GUN AIR COOLED
W10429-36-4M	LGS2 360 G-4.0M MIG GUN AIR COOLED
W10429-36-5M	LGS2 360 G-5.0M MIG GUN AIR COOLED
W10429-505-3M	LGS2 505 W-3.0M MIG GUN WATER COOLED
W10429-505-4M	LGS2 360 W-4.0M MIG GUN WATER COOLED
W10429-505-5M	LGS2 360 W-5.0M MIG GUN WATER COOLED
Drive rolls to 4 driven rolls	
	Solid wires:
KP14017-0.8	V0.6 / V0.8 Ø37
KP14017-1.0	V0.8 / V1.0 Ø37
KP14017-1.2	V1.0 / V1.2 ØDIA37
KP14017-1.6	V1.0 / V1.6 Ø37
	Aluminum wires:
KP14017-1.2A	U1.0 / U1.2 Ø37
KP14017-1.6A	U1.2 / U1.6 Ø37
	Cored wires:
KP14017-1.1R	VK0.9 / VK1.1 Ø37
KP14017-1.6R	VK1.2 / VK1.6 Ø37
KP14017-2.4R	VK1.6 / VK2.4 Ø37