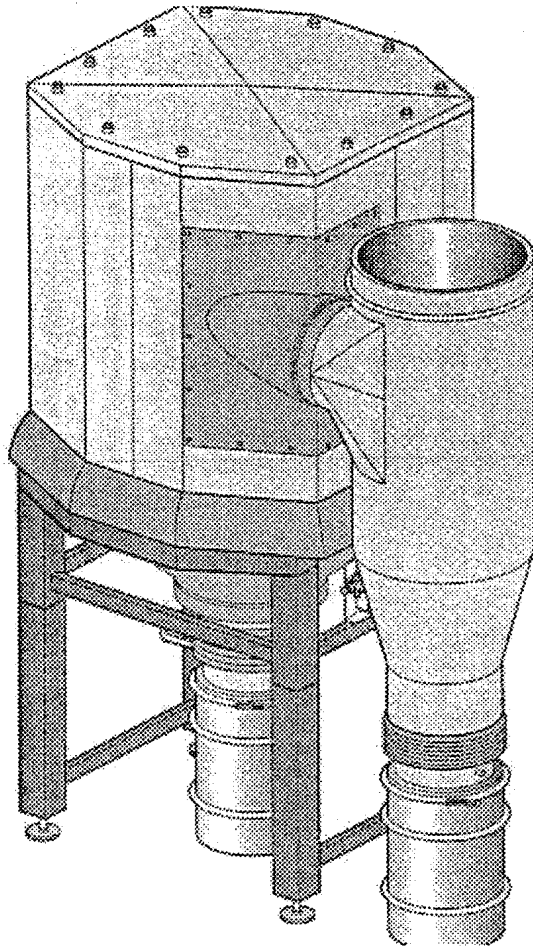


Safety Depends on You

Lincoln arc welding and cutting equipment is designed and built with safety in mind. However, your overall safety can be increased by proper installation ... and thoughtful operation on your part. **DO NOT INSTALL, OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL AND THE SAFETY PRECAUTIONS CONTAINED THROUGHOUT.** And, most importantly, think before you act and be careful.



OPERATOR'S MANUAL

LINCOLN®
ELECTRIC

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•World's Leader in Welding and Cutting Products
•Sales and Service through Subsidiaries and Distributors Worldwide
Cleveland, Ohio 44117-1199 U.S.A. TEL: 216.481.8100 FAX: 216.486.1751 WEB SITE: www.lincolnelectric.com

⚠ WARNING

⚠ CALIFORNIA PROPOSITION 65 WARNINGS ⚠

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

The Above For Diesel Engines

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

The Above For Gasoline Engines

ARC WELDING CAN BE HAZARDOUS. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

Read and understand the following safety highlights. For additional safety information, it is strongly recommended that you purchase a copy of "Safety in Welding & Cutting - ANSI Standard Z49.1" from the American Welding Society, P.O. Box 351040, Miami, Florida 33135 or CSA Standard W117.2-1974. A Free copy of "Arc Welding Safety" booklet E205 is available from the Lincoln Electric Company, 22801 St. Clair Avenue, Cleveland, Ohio 44117-1199.

BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.



FOR ENGINE powered equipment.

1.a. Turn the engine off before troubleshooting and maintenance work unless the maintenance work requires it to be running.



1.b. Operate engines in open, well-ventilated areas or vent the engine exhaust fumes outdoors.



1.c. Do not add the fuel near an open flame welding arc or when the engine is running. Stop the engine and allow it to cool before refueling to prevent spilled fuel from vaporizing on contact with hot engine parts and igniting. Do not spill fuel when filling tank. If fuel is spilled, wipe it up and do not start engine until fumes have been eliminated.

1.d. Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.

1.e. In some cases it may be necessary to remove safety guards to perform required maintenance. Remove guards only when necessary and replace them when the maintenance requiring their removal is complete. Always use the greatest care when working near moving parts.



1.f. Do not put your hands near the engine fan. Do not attempt to override the governor or idler by pushing on the throttle control rods while the engine is running.

1.g. To prevent accidentally starting gasoline engines while turning the engine or welding generator during maintenance work, disconnect the spark plug wires, distributor cap or magneto wire as appropriate.



1.h. To avoid scalding, do not remove the radiator pressure cap when the engine is hot.



ELECTRIC AND MAGNETIC FIELDS may be dangerous

2.a. Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines

2.b. EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.

2.c. Exposure to EMF fields in welding may have other health effects which are now not known.

2.d. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

2.d.1. Route the electrode and work cables together - Secure them with tape when possible.

2.d.2. Never coil the electrode lead around your body.

2.d.3. Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.

2.d.4. Connect the work cable to the workpiece as close as possible to the area being welded.

2.d.5. Do not work next to welding power source.

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ELECTRIC SHOCK can kill.

- 3.a. The electrode and work (or ground) circuits are electrically "hot" when the welder is on. Do not touch these "hot" parts with your bare skin or wet clothing. Wear dry, hole-free gloves to insulate hands.
- 3.b. Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.
- In addition to the normal safety precautions, if welding must be performed under electrically hazardous conditions (in damp locations or while wearing wet clothing; on metal structures such as floors, gratings or scaffolds; when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with the workpiece or ground) use the following equipment:**
- Semiautomatic DC Constant Voltage (Wire) Welder.
 - DC Manual (Stick) Welder.
 - AC Welder with Reduced Voltage Control.
- 3.c. In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically "hot".
- 3.d. Always be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.
- 3.e. Ground the work or metal to be welded to a good electrical (earth) ground.
- 3.f. Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.
- 3.g. Never dip the electrode in water for cooling.
- 3.h. Never simultaneously touch electrically "hot" parts of electrode holders connected to two welders because voltage between the two can be the total of the open circuit voltage of both welders.
- 3.i. When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
- 3.j. Also see Items 6.c. and 8.



ARC RAYS can burn.

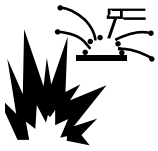
- 4.a. Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Headshield and filter lens should conform to ANSI Z87. 1 standards.
- 4.b. Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.
- 4.c. 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 metal.



FUMES AND GASES can be dangerous.

- 5.a. Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone. **When welding with electrodes which require special ventilation such as stainless or hard facing (see instructions on container or MSDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and below Threshold Limit Values (TLV) using local exhaust or mechanical ventilation. In confined spaces or in some circumstances, outdoors, a respirator may be required. Additional precautions are also required when welding on galvanized steel.**
- 5.b. Do not weld in locations near chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays of the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.
- 5.c. Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.
- 5.d. Read and understand the manufacturer's instructions for this equipment and the consumables to be used, including the material safety data sheet (MSDS) and follow your employer's safety practices. MSDS forms are available from your welding distributor or from the manufacturer.
- 5.e. Also see item 1.b.

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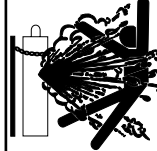


WELDING SPARKS can cause fire or explosion.

6.a. Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire.

Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines. Have a fire extinguisher readily available.

- 6.b. Where compressed gases are to be used at the job site, special precautions should be used to prevent hazardous situations. Refer to "Safety in Welding and Cutting" (ANSI Standard Z49.1) and the operating information for the equipment being used.
- 6.c. When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
- 6.d. Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside. They can cause an explosion even though they have been "cleaned". For information, purchase "Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping That Have Held Hazardous Substances", AWS F4.1 from the American Welding Society (see address above).
- 6.e. Vent hollow castings or containers before heating, cutting or welding. They may explode.
- 6.f. Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes and a cap over your hair. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.
- 6.g. Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.
- 6.h. Also see item 1.c.



CYLINDER may explode if damaged.

7.a. 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. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

- 7.b. Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.
- 7.c. Cylinders should be located:
 - Away from areas where they may be struck or subjected to physical damage.
 - A safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.
- 7.d. Never allow the electrode, electrode holder or any other electrically "hot" parts to touch a cylinder.
- 7.e. Keep your head and face away from the cylinder valve outlet when opening the cylinder valve.
- 7.f. Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.
- 7.g. Read and follow the instructions on compressed gas cylinders, associated equipment, and CGA publication P-1, "Precautions for Safe Handling of Compressed Gases in Cylinders," available from the Compressed Gas Association 1235 Jefferson Davis Highway, Arlington, VA 22202.



FOR ELECTRICALLY powered equipment.

- 8.a. Turn off input power using the disconnect switch at the fuse box before working on the equipment.
- 8.b. Install equipment in accordance with the U.S. National Electrical Code, all local codes and the manufacturer's recommendations.
- 8.c. Ground the equipment in accordance with the U.S. National Electrical Code and the manufacturer's recommendations.

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PRÉCAUTIONS DE SÛRETÉ

Pour votre propre protection lire et observer toutes les instructions et les précautions de sûreté spécifiques qui paraissent dans ce manuel aussi bien que les précautions de sûreté générales suivantes:

Sûreté Pour Soudage A L'Arc

1. Protégez-vous contre la secousse électrique:
 - a. Les circuits à l'électrode et à la pièce sont sous tension quand la machine à souder est en marche. Eviter toujours tout contact entre les parties sous tension et la peau nue ou les vêtements mouillés. Porter des gants secs et sans trous pour isoler les mains.
 - b. Faire très attention de bien s'isoler de la masse quand on soude dans des endroits humides, ou sur un plancher métallique ou des grilles métalliques, principalement dans les positions assis ou couché pour lesquelles une grande partie du corps peut être en contact avec la masse.
 - c. Maintenir le porte-électrode, la pince de masse, le câble de soudage et la machine à souder en bon et sûr état de fonctionnement.
 - d. Ne jamais plonger le porte-électrode dans l'eau pour le refroidir.
 - e. Ne jamais toucher simultanément les parties sous tension des porte-électrodes connectés à deux machines à souder parce que la tension entre les deux pinces peut être le total de la tension à vide des deux machines.
 - f. Si on utilise la machine à souder comme une source de courant pour soudage semi-automatique, ces précautions pour le porte-électrode s'appliquent aussi au pistolet de soudage.
2. Dans le cas de travail au dessus du niveau du sol, se protéger contre les chutes dans le cas où on reçoit un choc. Ne jamais enrouler le câble-électrode autour de n'importe quelle partie du corps.
3. Un coup d'arc peut être plus sévère qu'un coup de soleil, donc:
 - a. Utiliser un bon masque avec un verre filtrant approprié ainsi qu'un verre blanc afin de se protéger les yeux du rayonnement de l'arc et des projections quand on soude ou quand on regarde l'arc.
 - b. Porter des vêtements convenables afin de protéger la peau de soudeur et des aides contre le rayonnement de l'arc.
 - c. Protéger l'autre personnel travaillant à proximité au soudage à l'aide d'écrans appropriés et non-inflammables.
4. Des gouttes de laitier en fusion sont émises de l'arc de soudage. Se protéger avec des vêtements de protection libres de l'huile, tels que les gants en cuir, chemise épaisse, pantalons sans revers, et chaussures montantes.
5. Toujours porter des lunettes de sécurité dans la zone de soudage. Utiliser des lunettes avec écrans latéraux dans les

zones où l'on pique le laitier.

6. Eloigner les matériaux inflammables ou les recouvrir afin de prévenir tout risque d'incendie dû aux étincelles.
7. Quand on ne soude pas, poser la pince à un endroit isolé de la masse. Un court-circuit accidentel peut provoquer un échauffement et un risque d'incendie.
8. S'assurer que la masse est connectée le plus près possible de la zone de travail qu'il est pratique de le faire. Si on place la masse sur la charpente de la construction ou d'autres endroits éloignés de la zone de travail, on augmente le risque de voir passer le courant de soudage par les chaînes de levage, câbles de grue, ou autres circuits. Cela peut provoquer des risques d'incendie ou d'échauffement des chaînes et des câbles jusqu'à ce qu'ils se rompent.
9. Assurer une ventilation suffisante dans la zone de soudage. Ceci est particulièrement important pour le soudage de tôles galvanisées plombées, ou cadmiées ou tout autre métal qui produit des fumées toxiques.
10. Ne pas souder en présence de vapeurs de chlore provenant d'opérations de dégraissage, nettoyage ou pistolage. La chaleur ou les rayons de l'arc peuvent réagir avec les vapeurs du solvant pour produire du phosgène (gas fortement toxique) ou autres produits irritants.
11. Pour obtenir de plus amples renseignements sur la sûreté, voir le code "Code for safety in welding and cutting" CSA Standard W 117.2-1974.

PRÉCAUTIONS DE SÛRETÉ POUR LES MACHINES À SOUDER À TRANSFORMATEUR ET À REDRESSEUR

1. Relier à la terre le châssis du poste conformément au code de l'électricité et aux recommandations du fabricant. Le dispositif de montage ou la pièce à souder doit être branché à une bonne mise à la terre.
2. Autant que possible, l'installation et l'entretien du poste seront effectués par un électricien qualifié.
3. Avant de faire des travaux à l'intérieur de poste, la débrancher à l'interrupteur à la boîte de fusibles.
4. Garder tous les couvercles et dispositifs de sûreté à leur place.

Mar. '93

Thank You

for selecting a **QUALITY** product by Lincoln Electric. We want you to take pride in operating this Lincoln Electric Company product
 ••• as much pride as we have in bringing this product to you!

Please Examine Carton and Equipment For Damage Immediately

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. Consequently, Claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

Please record your equipment identification information below for future reference. This information can be found on your machine nameplate.

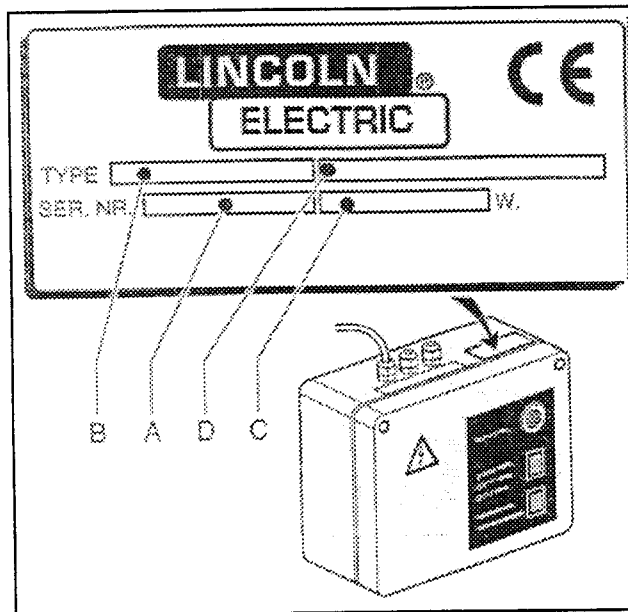
Model Name & Number _____

Code & Serial Number _____

Date of Purchase _____

Whenever you request replacement parts for or information on this equipment always supply the information you have recorded above.

Read this **Operators Manual completely** before attempting to use this equipment. Save this manual and keep it handy for quick reference. Pay particular attention to the safety instructions we have provided for your protection. The level of seriousness to be applied to each is explained below:



- A Serial Number
- B Product Name
- C Power
- D Supply voltage power and Frequency

⚠ WARNING

This statement appears where the information **must** be followed **exactly** to avoid **serious personal injury** or **loss of life**.

⚠ CAUTION

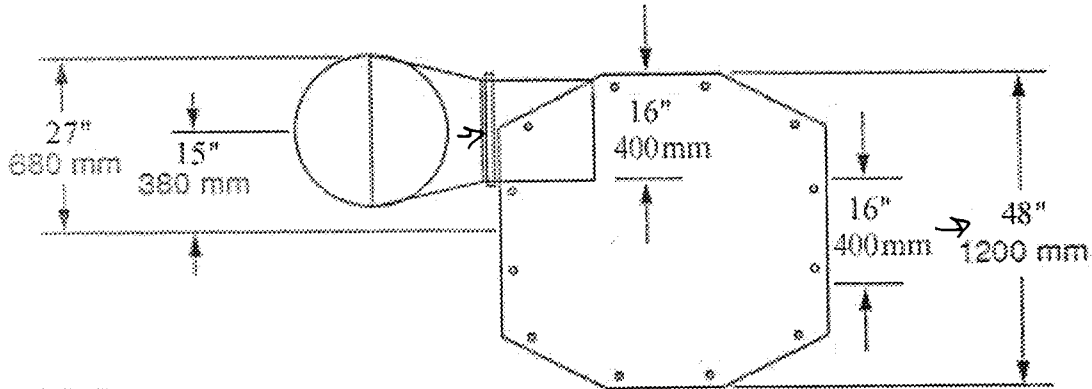
This statement appears where the information **must** be followed to avoid **minor personal injury** or **damage to this equipment**.

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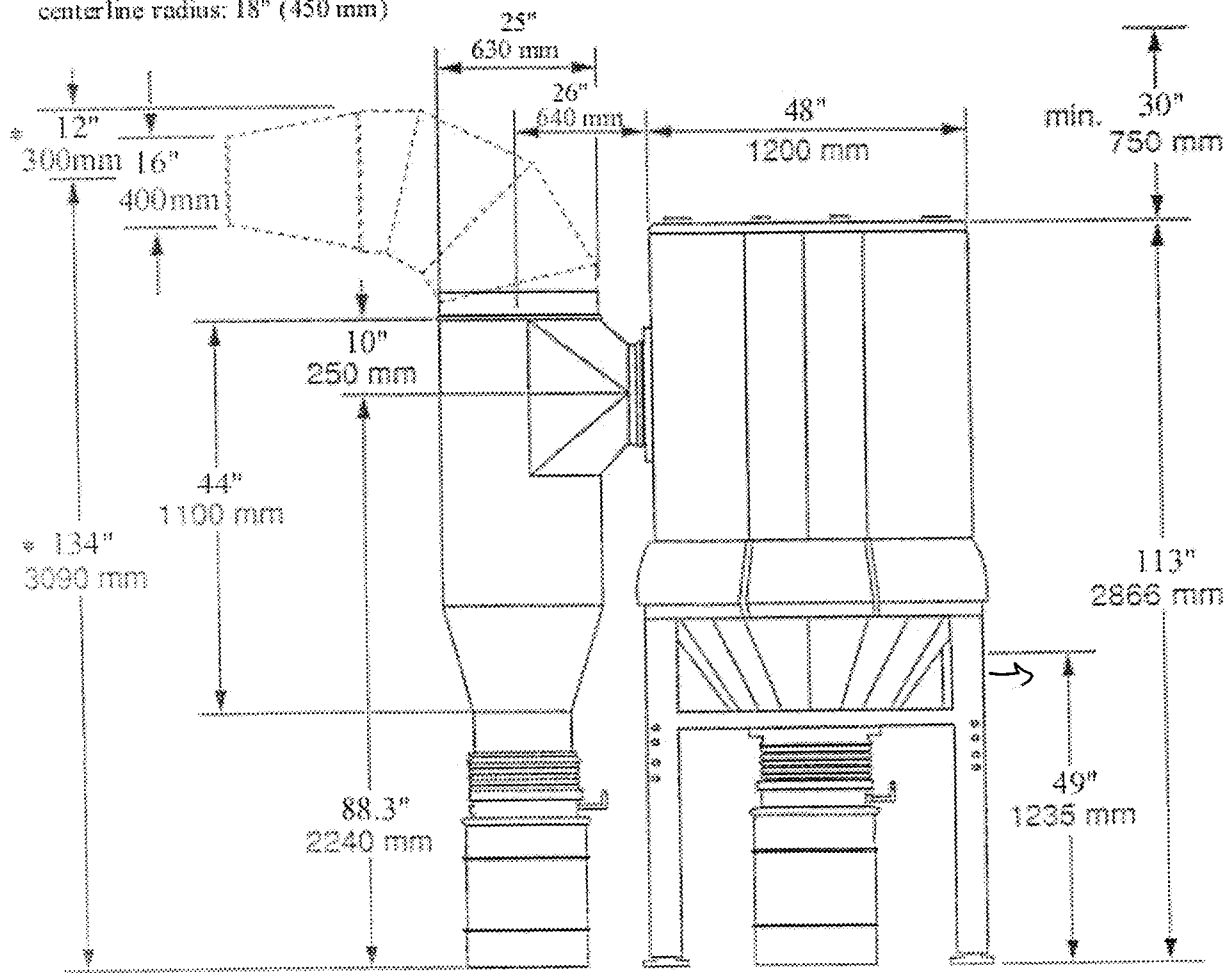
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Technical Specifications-

	Statiflex 6000-MS	Preseparator
NET Weight:	550 lb (250 kg)	110 lb (50 kg)
Maximum Airflow:	3,750 CFM (6,400 m ³ /h)	
Filter Surface Area:	1,400 ft ² total (130m ²)	
Compressed air:	90 - 105 psi (6 - 7 bar)	
	6 SCFM (150 nl/min)	



* Assuming 24" elbow,
centerline radius: 18" (450 mm)



NOTE: Technical Specifications are subject to change without prior notice. Specifications and guarantees are valid only when specified spare parts and filters are used.

STATIFLEX 6000-MS



Read this entire installation section before you start installation.

SAFETY PRECAUTIONS

Do not attempt to use this equipment until you have thoroughly read all installation, operating and maintenance information supplied with your equipment. They include important safety precautions and detailed operating and maintenance instructions.

WARNING



ELECTRIC SHOCK can kill.

- Do not touch electrically live parts such as internal wiring.
- Turn the input power off at the fuse box before working on this equipment.
- Have a qualified person install and service this equipment.



MOVING PARTS can injure.

- Do not operate with covers open or filter removed.
- Keep away from moving parts.

FIRE HAZARD!!

- Never use this product for filtering flammable, glowing or burning particles or liquids. Never use this product for filtering aggressive vapors (such as hydrochloric acid)

For safety reasons, most welding applications require the installation of the preseparator along with a Statiflex 6000-MS. This Preseparator will reduce the risk of fire. Verify with a qualified engineer that the complete system is properly designed to remove hot particles from the airstream prior to the preseparator.

Only qualified personnel should install, use or service this equipment.

GENERAL DESCRIPTION

The Statiflex 6000-MS is a filtration system for low vacuum, high volume extraction systems. This filter system is often used in conjunction with Lincoln SF2400 Fan units, maximum of 5 in operation at one time, for a maximum capacity of 3,750 CFM (6,400 m³/h). The Statiflex 6000-MS features two large cellulose filter cartridges which provide 99.8% filtration with

1,400 ft² of surface area (130m²).

Dirty air enters through the preseparator, which separates out larger particles, then into the inlet of the Statiflex 6000-MS, through the outside of the filter cartridges and out the outlet.

The Statiflex 6000-MS uses an automatic filter cleaning system to maintain the filter and reduce maintenance costs. Fume collected on the outside of the filter is knocked off by a blast of compressed air from the cleaning system. Fume then drops into the dust collection drum at the bottom of the unit.

When the pressure drop across the filter reaches a set point due to an increase in fume on the outside of the filter, a solenoid releases air from a compressed air reservoir tank mounted inside the filter cartridge. This air goes through several holes in the cleaning tube, cleaning one section of the filter with multiple air jets. The cleaning tube then shifts to the next section of the filter until the pressure drop again reaches the set point, triggering the next cleaning pulse.

A manual cleaning cycle is initiated by pressing the button on the face of the control box. The system pauses between sections of the filter, allowing the air tank to repressurize. The Statiflex 6000-MS requires 90 - 105 psi of clean, dry compressed air to function properly.

A timer in the control box can also set preset times for automatic filter cleaning, on-line or off-line.

INSTALLING THE STATIFLEX 6000-MS

WARNING

The installer is responsible for following local safety codes and regulations.

Before drilling, verify locations of existing gas, water, or electrical conduits.

This section describes installation of the Statiflex 6000-MS and preseparator only. For information regarding the installation of wall mounted arms or SF2400 Fans, consult the manuals packed with these items. When using individual station fans, such as the SF2400 fan, a K1743-1, 6" backdraft damper, should be used at the outlet of each fan. This will prevent dirty air from passing through idle fans and into the room.

STATIFLEX 6000-MS



The Statiflex 6000-MS Filter Unit Includes:

- Central Filter cabinet with cleaning system, filter cartridges, inlet flange and control box all installed.
- Two (2) leg assemblies with mounting hardware.
- Drum with flange, valve and coupler

The Preseparator Includes:

- Preseparator ductwork
- Drum with flange, valve and coupler

Mount the Statiflex where there is sufficient space overhead to change the filter cartridges (30 inches (750mm) of clearance or 12 ft (3.66m) floor to ceiling height). Refer to the dimensional drawings on page A-1 for other spacing requirements.

Using a fork lift, raise the filter cabinet and install the two leg assemblies as shown.

Mount the coupler on top of the drum and position underneath the Statiflex Filter Cabinet. Using a hose clamp, connect the coupler to the filter unit and seal. Be sure that the valve in the lid is in the open (vertical) position.

Installing the Preseparator

Connect the preseparator outlet to the inlet of the Statiflex 6000-MS. Mount the coupler on top of the drum and position underneath the preseparator. Using a hose clamp, connect the coupler to the preseparator and seal. Be sure that the valve in the lid is in the open (vertical) position.

Compressed Air

Connect 90 - 105 psi (6-7 bar) of clean, dry compressed air to the regulator mounted on the filter unit next to the control box. **DO NOT INITIATE A CLEANING CYCLE DURING THE FIRST TEN HOURS OF OPERATION!!!** This allows the precoating powder to get established on the surface of the filter. If a cleaning cycle is initiated during this initial period, the precoating powder may not be well established on the cartridge and will result in lower efficiency and shorter life.

ELECTRICAL INSTALLATION**⚠ WARNING****ELECTRIC SHOCK can kill.**

- Do not touch electrically live parts such as internal wiring.
- Turn the input power off at the fuse box before working on this equipment.
- Have a qualified person install and service this equipment.

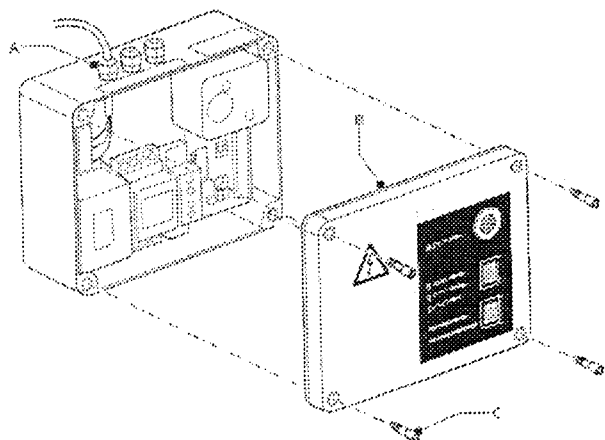
All local codes and standards supercede any of the following installation instructions.

Only a qualified electrician should electrically connect the Statiflex 6000-MS.

Connect grounded 110V AC to the control box as shown in the wiring diagram. Be sure that the transformer is connected for 110V input power and that the input power is properly connected with the strain relief.

The control box is not suitable for outdoor installation. If the filter unit must be installed outdoors, the control box must be removed from the filter unit and remotely mounted indoors. This should be performed by a qualified electrician and done to all applicable codes and standards.

230V supply power is not necessary for the clock timer; the transformer will supply sufficient 230V control power for its operation. The only input needed is 115V AC.



STATIFLEX 6000-MS



Read and understand this entire section before operating your Statiflex 6000-MS Filter Unit.

SAFETY INSTRUCTIONS

Do not attempt to use this equipment until you have thoroughly read all operating and maintenance manuals supplied with your equipment and any related welding machine it will be used with. They include important safety precautions, operating and maintenance instructions and parts lists.

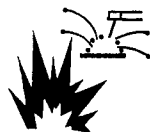
ELECTRIC SHOCK can kill.

WARNING



- Do not touch electrically live parts such as output terminals or internal wiring.
- Insulate yourself from the work and ground.
- Always wear dry insulating gloves.

WELDING SPARKS can cause fire or explosion.



- Keep flammable material away.
- Do not weld upon containers which have held combustibles.

ARC RAYS can burn.



- Wear eye, ear and body protection.

FUMES AND GASES can be dangerous.



- Although the removal of the particulate matter from welding smoke may reduce the ventilation requirement, concentrations of the clear exhausted fumes and gases may still be hazardous to health. Avoid breathing concentrations of these fumes and gases. Use adequate ventilation when welding. See ANSI Z49.1, "Safety in Welding and Cutting", published by the American Welding Society.

Only qualified personnel should operate this equip-

ment.

ADDITIONAL SAFETY PRECAUTIONS

Always operate this equipment with the filter and arm installed and all covers in place as these provide maximum protection from moving parts and insure proper vacuum operation and cooling air flow.

OPERATING INSTRUCTIONS

The operation of fans and extraction arms is covered under manuals shipped with that equipment. The following instructions refer primarily to the filter cleaning system of the Statiflex 6000-MS

The inlet of the Statiflex 6000-MS is the upper connection on the corner of the unit. The outlet is in the middle, at the bottom. Dirty air enters the inlet (usually through the preseparator to remove the larger particles), passes around the baffle and through the filter cartridges. The standard cartridges are cellulose (paper); polyester replacements are available. The clean air passes through the inside of the cartridges, downward and through the outlet. The filter cartridges filter out 99.8% of the particles, but do not remove gases. While typically not produced in large quantities in the arc welding environment, the build-up of these gases should be avoided. Plasma cutting commonly produces noticeable amounts of gases such as oxides of Nitrogen (NOx). Exhaust air from plasma cutting (after filtering) should be exhausted outside where applicable.

A preseparator is strongly recommended for most applications and is mandatory for cutting applications. Lincoln Electric should review the system design of any system used for cutting to verify best protection against risk of fire in the filter cartridges.

As the filters collect fume on their surfaces, the pressure drop will increase and airflow will decrease. A filter cleaning system is installed to keep the pressure drop at a reasonable and stable level. This system operates automatically due to pressure drop and/or preset times, or manually. Compressed air from the reservoir tank blows through several holes in the cleaning tube, knocking dust and fume from one section of the filter cartridges. The cleaning tube then rotates to the next section of the filters and waits while

STATIFLEX 6000-MS



the tank refills with compressed air.

Automatic cleaning due to pressure drop

The cleaning system will automatically signal a cleaning pulse due to increased pressure drop. When the pressure drop across the filters reaches a set point, one cleaning pulse is signalled. The system then waits for further signals. During normal operation, the indicator light will blink quickly. During the cleaning cycle, the indicator light will be on all the time. If the cleaning pulse does not reduce the pressure drop below the set point, the system will continue to pulse. If the pressure drop is not reduced below the set point after 240 pulses (approximately 4 hours), the indicator light will blink slowly and the alarm buzzer will sound.

To deactivate the alarm buzzer and alarm status of the indicator light, press the start/reset button on the control box. Work can continue while the cause of the alarm is determined. The cleaning system will continue to attempt to lower the pressure drop below the set point for another 240 pulses.

Automatic cleaning with the timer

In addition to the pressure drop cleaning, preset cleaning times can be established. These times will signal cleaning whether the fans are in operation or not. This allows for off-line cleaning as well as maintenance of filters during low-airflow operation. When there is low airflow (only one or two arms in operation), the pressure drop will be naturally low, even though dust accumulates on the surface. When higher airflow is used (all five arms are in use), this residual dust may cause a higher pressure drop and result in an alarm condition. In applications where this variability may happen, as well as cutting operations, timed cleaning is recommended.

DO NOT USE THE TIMER CLEANING DURING THE FIRST TEN HOURS OF OPERATION!! This allows the precoating powder to get established on the surface of the filter. If a cleaning cycle is initiated during this initial period, the precoating powder may not be well established on the cartridge and will result in lower efficiency and shorter life.

Timers can be set on the timer clock located in the control box. The cleaning cycle will run continuously (factory set at one pulse per minute) during the on time. The one minute interval can be lengthened by adjusting the timer relay to the right of the clock timer (off-time). One full revolution of the filters takes approximately 60 pulses.

Adjusting the cleaning and pause time.

The cleaning and pause times for the pressure-drop acti-

vated cleaning cycle are preprogrammed into the PC board software. The times for the clock-timer operated cleaning, however, are adjustable using the timer relay to the right of the clock timer. The cleaning pulse time (upper dials) is pre-set to 1 second. This should not be adjusted. The pause time has a minimum one minute, but can be increased using the lower dials. For off-line cleaning, longer pause times allow the fine dust to settle to the drum.

Manual Cleaning

DO NOT INITIATE A CLEANING CYCLE DURING THE FIRST TEN HOURS OF OPERATION!! This allows the precoating powder to get established on the surface of the filter. If a cleaning cycle is initiated during this initial period, the precoating powder may not be well established on the cartridge and will result in lower efficiency and shorter life.

A full cleaning cycle (one complete revolution around the filter) can be initiated by pressing the start/reset button on the control box. During this time, the cleaning pulse will fire, the tank will refill during a pause time, then the next section of the filter will be cleaned. This will continue until the complete filter has been cleaned. During the entire revolution, the indicator will light continuously. The cycle can be stopped at any time by pressing the start/reset button.

ROUTINE MAINTENANCE

Every six months, check the filter cartridges for damage, clogging or over-build-up of dust. Every month, check the drums and seals of the drums for both the filter unit and preseparator. Depending upon the application, check the dust level in the drums weekly.

CHANGING THE DUST BAG (where used)

⚠ WARNING

The particulate matter collected may be dangerous to your health. Take necessary precautions so that you and your fellow workers do not breathe the dust and particulate. Wear a suitable respirator when disposing of the particulate.

Check with local authorities for regulations governing the disposal of this material.

Turn off all fans before opening or inspecting the drums or filters.

Move the lever on the drum valve into the closed (horizontal) position to avoid dust dropping down from the inside of the filter unit during serviceing. Open the drum seal and slide the drum from underneath the filter unit (or preseparator). Tie off the opening of the bag before removing from the drum; slowly remove the bag. SEE WARNING ABOVE. Install a new bag, replace the drum, seal tightly, and open the drum valve.

Check with local authorities for regulations governing the disposal of this material. SEE WARNINGS ABOVE.

REPLACING THE FILTER CARTRIDGES

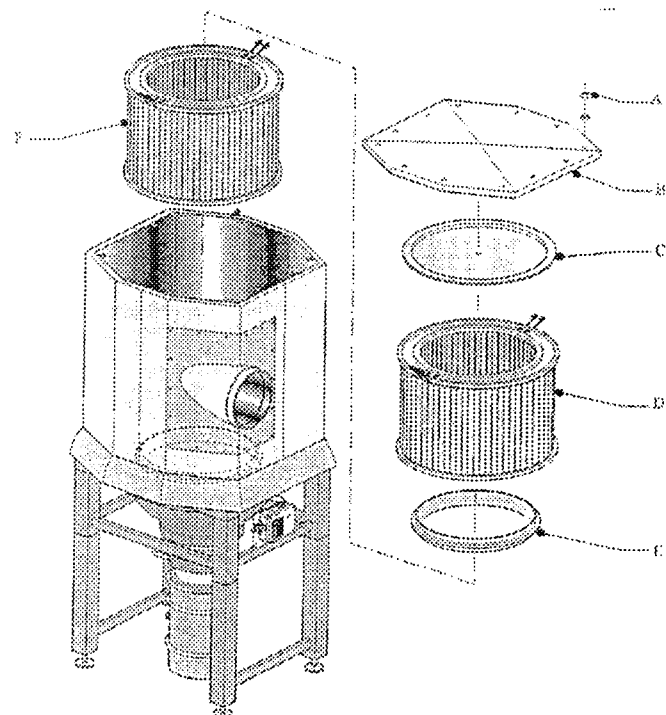
Replace the filter cartridges when they have been damaged or when the indicator shows that the filter is clogged. The filter indicator will flash slowly and the alarm buzzer will sound if the cleaning function does not reduce the pressure drop below the set point after 240 pulses (~4 hours). This could be due to a saturated filter, lack of compressed air, low air pressure, cleaning equipment malfunction or dirt, oil or moisture in the compressed air. Oil or moisture in the inlet airstream will also greatly reduce the life of the filter.

⚠ WARNING

The particulate matter collected may be dangerous to your health. Take necessary precautions so that you and your fellow workers do not breathe the dust and particulate. Wear a suitable respirator when disposing of the particulate.

Check with local authorities for regulations governing the disposal of this material.

1. Turn off all fans connected to the system.
2. Remove the top lid of the Statiflex 6000-MS (B) and remove the filter cover (C).
3. Remove the top filter (D) by pulling up on the two straps on the filter.
4. Remove the intermediate ring that seals the two filters together (E).
5. Remove the second filter by pulling up on the two straps (F).
6. When unpacking a new filter, notice that the filter has been treated with precoating powder. Some of this powder may have settled to the bottom of the packaging.
7. Install a new filter, the intermediate ring and a new filter on top of the intermediate ring.
8. Replace the filter cover and lid. Be sure that all components are properly seated and sealed.
9. Do not use the cleaning system during the first 10 hours of operation to allow the precoating powder to establish on the filter surface. Excess powder found in the packaging can be added to the airstream when the filters are installed.



ENGLISH

The Company cannot accept any responsibility for any resulting damage or consequential loss arising from the incorrect installation or operation of this unit.

Thank you for purchasing this DIN rail accessory product. The item has been designed to be user friendly, however we recommend that you should spend a short time familiarizing yourself with the functions of the 4 operating push buttons, by following the instructions contained in this leaflet. Please retain this leaflet for future reference.

TECHNICAL CHARACTERISTICS

All models are in accordance with EN 60730.

Power supply: 230V~ +/- 10%.

Frequency: 50/60 Hz.

Running reserve: 25 h.

Electronic apparatus.

Environmental pollution - normal.

Type of automatic action: 1B-S-T-U.

Time accuracy: +/- 15 seconds/month at 25°C.

Ambient operating temperature: min. -20°C; max 55°C

Minimum programmable interval: 1 minute.

Maximum programmable interval: 23 hours.

Memory capacity: 16 (8 ON + 8 OFF) or 52 (26 ON + 26 OFF) also able

to be combined in day blocks.

Isolation class: CL II according to VDE 0633.

Protection: IP20.

Wiring terminal capacity: 2x2,5 mm² each.

Changeover contacts (volt free).

A.C. switching capacity:

1 Channel versions: 16A 250V~ resistive load

2A 250V~ inductive load

2 Channel versions: 2x10A 250V~ resistive load

2x1A 250V~ inductive load

Modular device to be mounted on DIN rail 35 mm according to EN 50022.

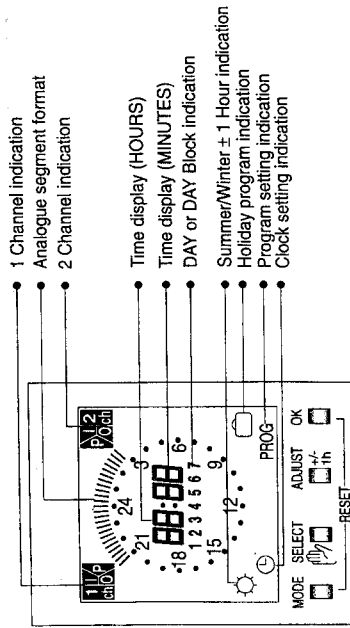
Daily 8 ON + 8 OFF

Weekly 8 ON + 8 OFF

Weekly 26 ON + 26 OFF

Weekly 8 ON + 8 OFF

Weekly 26 ON + 26 OFF



MODE: choice of function or return to normal operation.

SELECT: selection of field of operation or manual contact operation.

ADJUST: insertion or field modification or summer hour.

OK: operation confirmed.

NOTE: in the 2 channels version, this button permits visualization of 1° and 2° channel programs.

RESET: Complete resetting of the installed programs.

Depressing buttons "MODE" and "OK" simultaneously for at least 2 seconds will cancel all entered data.

2 channels version

2x10 (1)A 250V~

230V~

50 Hz

N

5

6

7

8

ch2

1

2

3

4

L

ch1

1 channel version

16 (2)A 250V~

230V~

50 Hz

N

5

6

7

8

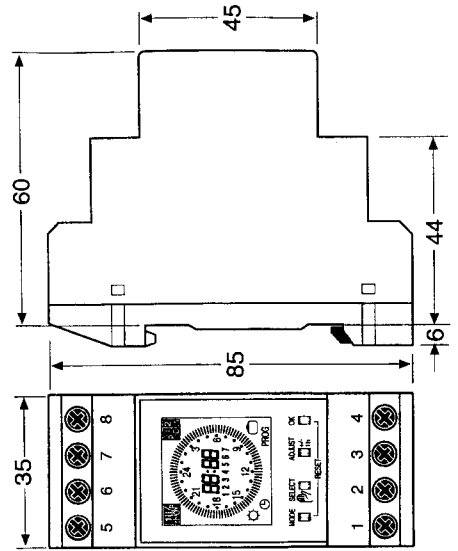
L

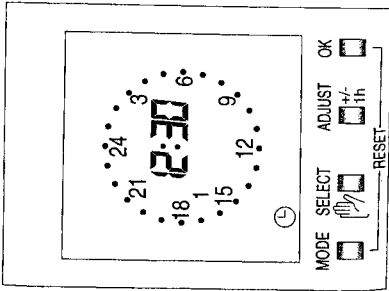
1

2

3

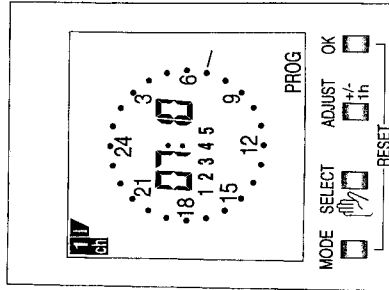
4





PROGRAMMING FOR REAL TIME DAY/HOUR/MINUTE

- PRESS:
- 1) **MODE** (until \odot appears).
 - 2) **SELECT** (1st operation will flash day number 1...7 where 1=Monday).
 - 3) **ADJUST** (until correct day No. appears). Repeat steps 2) +3) for hours and minutes.
 - 4) **OK** (when all parameters are correct).



PROGRAM SELECTION

It is possible to select the desired program with a minimum duration of 1 minute and max duration of 23 hours, in addition the program can terminate the following day.

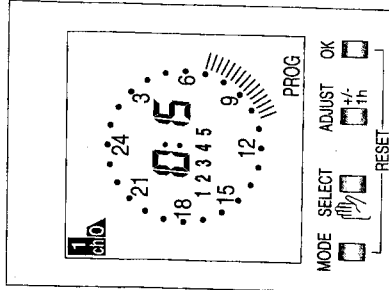
HOUR ON (i.e. 07:10 for monday...friday).

- PRESS:
- 1) **MODE** (until **PROG** appears). You will note the digital time display now shows a number (in the minutes position) which indicates the number of available switching functions (i.e. 16 would mean a maximum availability of 8 ON + 8 OFF).
 - 2) **OK** (note: 1 channel I, contact in "ON" position, and day block 1234567 appears).
 - 3) **SELECT** (day block flashes).
 - 4) **ADJUST** (until desired day block or individual day appears). Repeat steps 3) + 4) until desired hours and minutes are selected.

DAY OR BLOCK DAYS AVAILABLE

Monday	1	2	3	4	5	6	7	All days
Tuesday	1	2	3	4	5	6		From Monday to Saturday
Wednesday	1	2	3	4	5			From Monday to Friday
Thursday	1	2	3	4				From Monday to Thursday
Friday	1	2	3					From Friday to Sunday
Saturday								Only Saturday and Sunday
Sunday								

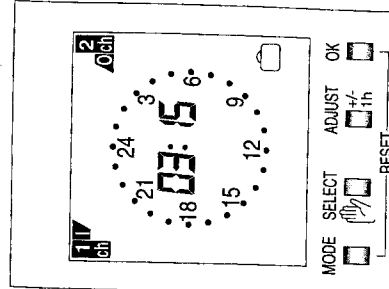
After 3 minutes from the last programming function, the actual time appears automatically on the display.



- 5) **OK** (note: selected "ON" period will now be shown in analogue " / " format on clock face and 1Ch I indication changes to O). The next 2 steps will determine the "OFF" period for the day blocks or days selected in 3) + 4).

HOUR OFF (i.e. 10:15 for monday...friday).

- 6) **SELECT**
- 7) **ADJUST** (until desired "OFF" appears). Repeat steps 6) + 7) to select desired minutes.
- 8) **OK** (completion of ON + OFF times for selected day or block). If additional programs are required for different days or day blocks repeat the operation from step 3. Note: if data are incorrectly inserted the word "ERR" will appear. (Insert correct data after 5 seconds).



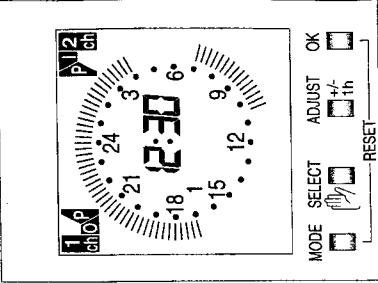
HOLIDAY PROGRAMMING

(Example shows 3 days prior to start of holiday with a 15 days vacation period. Position: contact 1 closed; contact 2 open).

PRESS:

- 1) **MODE** (until \square appears and "hour" 00 flashes). If the vacation is set in advance:
- 2) **ADJUST** (this will set the 1 to 14 days before holiday starts)
- 3) **SELECT** ("minute" 00 flashes)
- 4) **ADJUST** (until desired length of holiday 1-99 days is reached)
- 5) **SELECT** (contact position "ON" or "OFF" in channel 1 (or 2 depending on model) during holiday period).
- 6) **ADJUST** (to fix the O or I for either/both channels). Note: in 2 channel versions a different contact position "ON" or "OFF" can be selected for each channel
- 7) **OK**

Holiday program will begin at zero hour (i.e. 00:01) of the day selected, and it will finish at midnight of the last day programmed.



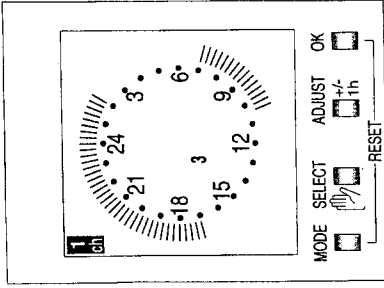
MANUAL OPERATION OF CONTACTS

PERMANENT COMMAND OF CONTROLS

- PRESS:
- 1) **SELECT** Until the symbol **P** appears with the symbol **O** (contact permanently open) or with the symbol **I** (contact permanently closed).
 - 2) **SELECT** (the symbol **P** disappears and the timer resumes the function previously programmed).

MOMENTARY VARIATION OF CONTACTS

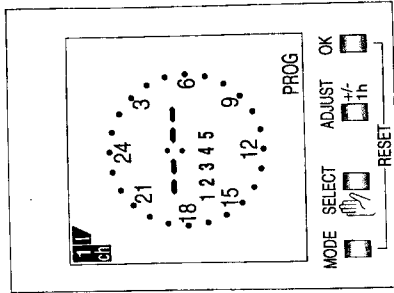
- PRESS:
- 1) **SELECT** (for at least 3 seconds, to changeover the contact position, the symbol **I** or **O** will flash).



PROGRAM CHECK

TO CHECK INSTALLED PROGRAMS PRESS:

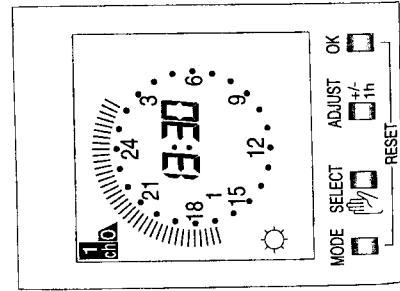
- 1) **MODE** (until **O** appears).
- 2) **OK**
- 3) **OK** (visual display of day by day installed programs) In 2 channel models the display will firstly show the programs installed on the channel currently displayed.



TO CANCEL A PROGRAM

PRESS:

- 1) **MODE** (until **PROG** and available switching functions appear).
- 2) **OK** (1 **CH I** appears- continue to press until visual display of program to be cancelled appears)
- 3) **SELECT** (until "hour" flashes)
- 4) **ADJUST** (keep button depressed until hour/minute becomes -:-:-)
- 5) **OK** ("PROG" and No. the number of available switching functions ON-OFF appears).



SUMMER/ WINTER +/- 1 HOUR SELECTION

TO ADD 1 HOUR (SUMMER)

- PRESS:
- 1) **ADJUST** (for at least 3 seconds until **O** appears and clock time will advance by 1 hour).

TO SUBSTRACT 1 HOUR (WINTER)

- 2) **ADJUST** (for at least 3 seconds until **I** disappears and clock time returns by 1 hour).

Observe all Safety Guidelines detailed throughout this manual

SYMPTOM	PROBLEM	SOLUTION
Poor suction.	Leakage. Outlet blocked. Air path in arm blocked. Filter blocked. Too much airflow (too many fans running at one time) Blower fan blocked. Fan seal damaged.	Check hose connections and integrity Remove obstructions from outlet grid. Remove obstructions from arm. Replace filter. Reduce airflow (use fewer fans) Clean excess fume or spatter from fan. Check or replace sealing material of fan.
Dust or smoke coming out of outlet.	Filter damaged, or not seated correctly.	Replace the filter or reseal it.
Alarm buzzer sounds Note: To reset alarm, press Clean/reset button next to the indicator light.	Filter Saturated Cleaning System not working properly: --Compressed air not connected --Compressed air pressure too low --Damaged valve or solenoid --damaged PC board, or pressure switch	Replace Filter Connect compressed air: 90 - 100 psi clean & dry. Connect 90 - 100 psi of clean, dry compressed air Replace valve-solenoid assembly Replace PC Board or pressure switch
Pressure relief valve opened on air tank.	Air Pressure too high	Regulate compressed air down to 90 - 100 psi.
Indicator light does not shine Refer to SF2400 Stationary Fan, and appropriate arm manual for more troubleshooting.	No power or defective light or circuit	Check circuit for voltage all the way to the light. Replace defective component.

⚠ CAUTION

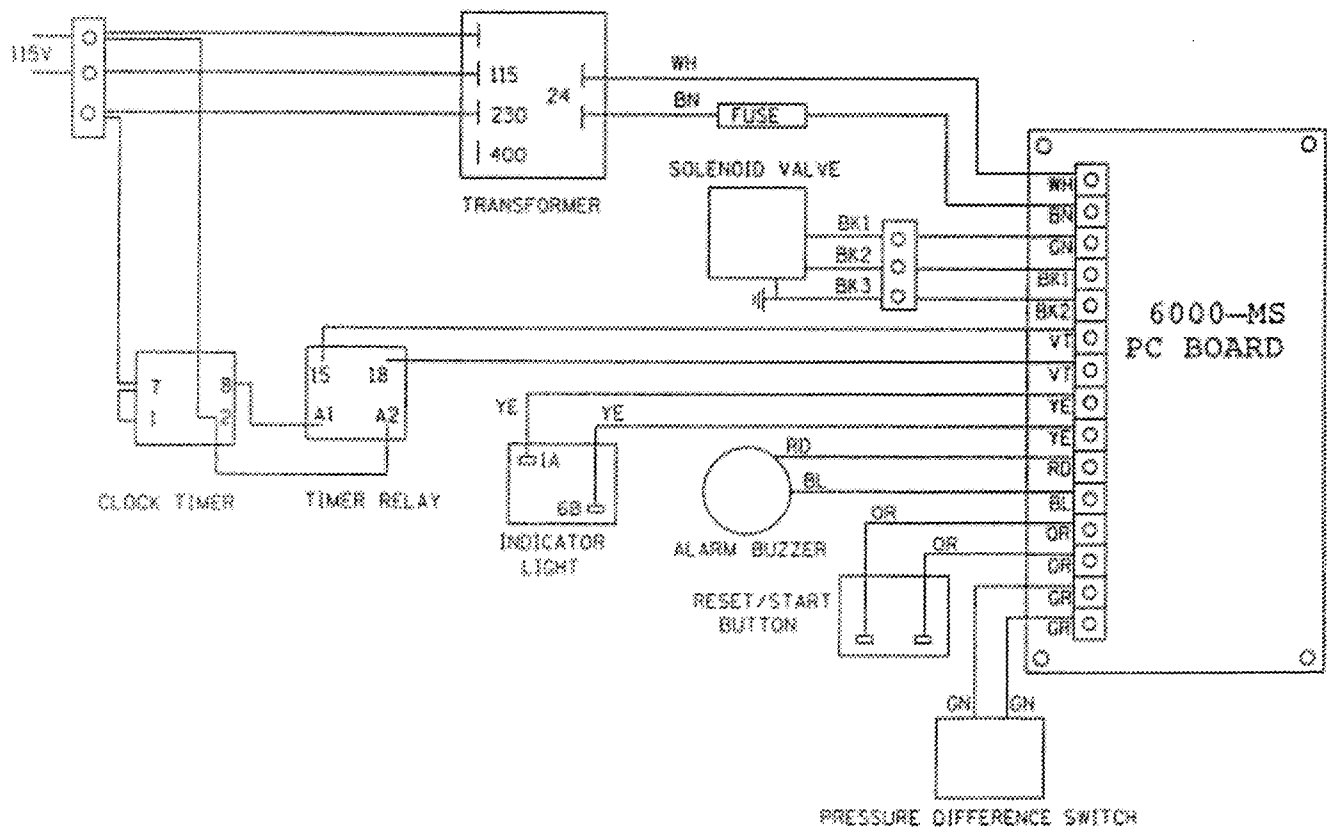
If for any reason you do not understand the test procedures or are unable to perform the tests/repairs safely, contact your **Local Lincoln Authorized Field Service Facility** for technical troubleshooting assistance before you proceed.

STATIFLEX 6000-MS



WIRE COLOR CONVENTIONS

L	-	Black
N	-	White
BN	-	Brown
BL	-	Blue
BK	-	Black
GN	-	Green
WH	-	White
GND	-	Green or Green/Yellow
YE	-	Yellow
OR	-	Orange
VT	-	VIOLET



REF: LI0393-2 (STATIFLEX 6000-MS)

STATIFLEX 6000-MS

STATIFLEX 6000-MS



PARTS LIST FOR

Statiflex 6000-MS

This parts list is provided as an informative guide only.

This information was accurate at the time of printing. However, always check with the Lincoln Automation Division for the latest parts information.

STATIFLEX 6000-MS



Statiflex 6000-MS

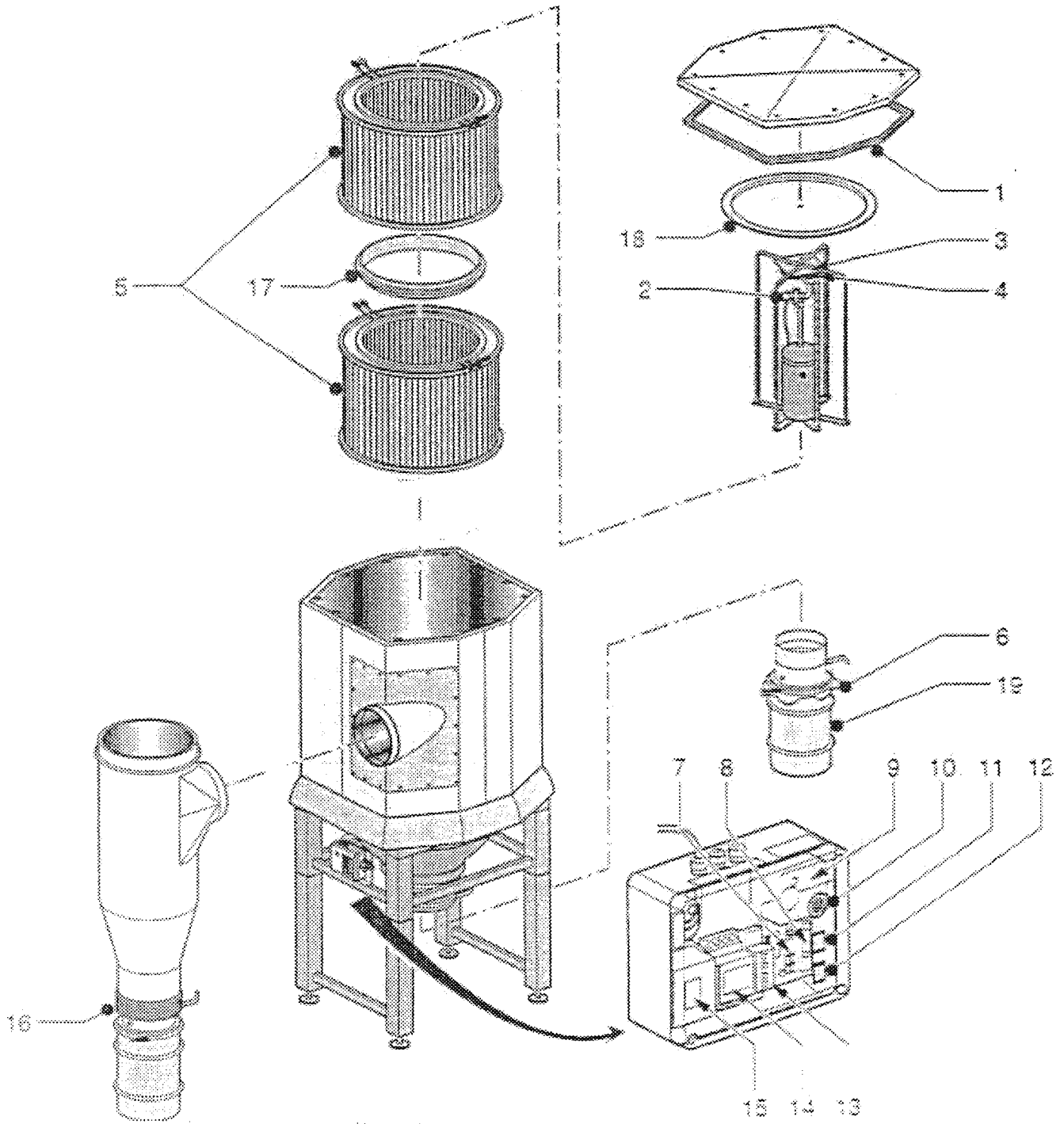
Do Not use this Parts List for a machine if its code number is not listed. Contact the Service Department for any code numbers not listed.

Use the Illustration of Sub-Assemblies page and the table below to determine which sub assembly page and column the desired part is located on for your particular code machine.

Sub Assembly Item No. ↔									
SUB ASSEMBLY PAGE NAME ↔	Statiflex 6000-MS Assembly and preseparator								
PAGE NO. →									
CODE NO. ↓									
L10393-2	1								
M18440-1	1								



Statiflex 6000-MS Assembly



STATIFLEX 6000-MS

4-23-99



Indicates a change this printing.

Use only the parts marked "X" in the column under the heading number called for in the model index page.

Recommended Spare Parts are Highlighted in Bold

ITEM	DESCRIPTION	PART NO.	QTY.	1	2	3	4	5	6	7	8	9
1	Gasket, Statiflex 6000-MS lid	S23385-1	1	X								
2	Air Valve & Solenoid, 6000-MS	S23385-2	1	X								
3	Seal for cleaning system, 6000-MS	S23385-3	1	X								
4	Spring, filter cleaning system, 6000-MS	S23385-4	1	X								
5	Filter (qty 1 = set of two), 6000-MS, paper	S23385-5	1	X								
7	Control PC Board, 6000-MS	S23385-6	1	X								
9	Adjustable pressure difference switch, 6000-MS	S23385-7	1	X								
10	Alarm buzzer, 6000-MS	S23385-8	1	X								
11	Indicator light	S23281-32	1	X								
12	Start/Reset button	S23281-33	1	X								
13	Timer relay (pulse/pause), 6000-MS	S23385-9	1	X								
14	Timer clock, 6000-MS	S23385-10	1	X								
15	Transformer	S23284-4	1	X								
16	Drum Coupling	S23385-11	1	X								
	Drum Flange	S23385-12	1	X								
	Drum Coupler Valve	S23385-13	1	X								
17	Cartridge Sealing Ring, 6000-MS	S23385-14	1	X								
18	Filter Cap, 6000-MS	S23385-15	1	X								
19	Drum with wheels	S23385-16	1	X								
	Parts for the preseparator:											
	Complete Preseparator assembly (w/drum)	M18440-1										
	includes:											
	Drum Coupling	S23385-11	1	X								
	Drum Flange	S23385-12	1	X								
	Drum Coupler Valve	S23385-13	1	X								
	Drum with wheels	S23385-16	1	X								

NOTES

STATIFLEX 6000-MS



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Welding Preheat Calculator	\$3.00	WC-8		
Pipe Welding Charts	\$4.50	ED-89		
SUB TOTAL				
Additional Shipping Costs if any				
TOTAL COST				

WARNING	<ul style="list-style-type: none"> ● Do not touch electrically live parts or electrode with skin or wet clothing. ● Insulate yourself from work and ground. 	<ul style="list-style-type: none"> ● Keep flammable materials away. 	<ul style="list-style-type: none"> ● Wear eye, ear and body protection.
Spanish AVISO DE PRECAUCION	<ul style="list-style-type: none"> ● No toque las partes o los electrodos bajo carga con la piel o ropa mojada. ● Aíslese del trabajo y de la tierra. 	<ul style="list-style-type: none"> ● Mantenga el material combustible fuera del área de trabajo. 	<ul style="list-style-type: none"> ● Protéjase los ojos, los oídos y el cuerpo.
French ATTENTION	<ul style="list-style-type: none"> ● Ne laissez ni la peau ni des vêtements mouillés entrer en contact avec des pièces sous tension. ● Isolez-vous du travail et de la terre. 	<ul style="list-style-type: none"> ● Gardez à l'écart de tout matériel inflammable. 	<ul style="list-style-type: none"> ● Protégez vos yeux, vos oreilles et votre corps.
German WARNUNG	<ul style="list-style-type: none"> ● Berühren Sie keine stromführenden Teile oder Elektroden mit Ihrem Körper oder feuchter Kleidung! ● Isolieren Sie sich von den Elektroden und dem Erdboden! 	<ul style="list-style-type: none"> ● Entfernen Sie brennbares Material! 	<ul style="list-style-type: none"> ● Tragen Sie Augen-, Ohren- und Körperschutz!
Portuguese ATENÇÃO	<ul style="list-style-type: none"> ● Não toque partes elétricas e electrodos com a pele ou roupa molhada. ● Isole-se da peça e terra. 	<ul style="list-style-type: none"> ● Mantenha inflamáveis bem guardados. 	<ul style="list-style-type: none"> ● Use proteção para a vista, ouvido e corpo.
Japanese 注意事項	<ul style="list-style-type: none"> ● 通電中の電気部品、又は溶材にヒフやぬれた布で触れないこと。 ● 施工物やアースから身体が絶縁されている様にして下さい。 	<ul style="list-style-type: none"> ● 燃えやすいものの側での溶接作業は絶対にしてはなりません。 	<ul style="list-style-type: none"> ● 目、耳及び身体に保護具をして下さい。
Chinese 警告	<ul style="list-style-type: none"> ● 皮膚或濕衣物切勿接觸帶電部件及鎢條。 ● 使你自已與地面和工件絕緣。 	<ul style="list-style-type: none"> ● 把一切易燃物品移離工作場所。 	<ul style="list-style-type: none"> ● 佩戴眼、耳及身體勞動保護用具。
Korean 위험	<ul style="list-style-type: none"> ● 전도체나 용접봉을 젖은 헝겊 또는 피부로 절대 접촉치 마십시오. ● 모재와 접지를 접촉치 마십시오. 	<ul style="list-style-type: none"> ● 인화성 물질을 접근시키지 마십시오. 	<ul style="list-style-type: none"> ● 눈, 귀와 몸에 보호장구를 착용하십시오.
Arabic تحذير	<ul style="list-style-type: none"> ● لا تلمس الاجزاء التي يسري فيها التيار الكهربائي أو الألكترود بجسد الجسم أو بالملابس المبللة بالماء. ● ضع عازلا على جسمك خلال العمل. 	<ul style="list-style-type: none"> ● ضع المواد القابلة للاشتعال في مكان بعيد. 	<ul style="list-style-type: none"> ● ضع أدوات وملابس واقية على عينيك وأذنيك وجسمك.

READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION FOR THIS EQUIPMENT AND THE CONSUMABLES TO BE USED AND FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

SE RECOMIENDA LEER Y ENTENDER LAS INSTRUCCIONES DEL FABRICANTE PARA EL USO DE ESTE EQUIPO Y LOS CONSUMIBLES QUE VA A UTILIZAR, SIGA LAS MEDIDAS DE SEGURIDAD DE SU SUPERVISOR.

LISEZ ET COMPRENEZ LES INSTRUCTIONS DU FABRICANT EN CE QUI REGARDE CET EQUIPMENT ET LES PRODUITS A ETRE EMPLOYES ET SUIVEZ LES PROCEDURES DE SECURITE DE VOTRE EMPLOYEUR.

LESEN SIE UND BEFOLGEN SIE DIE BETRIEBSANLEITUNG DER ANLAGE UND DEN ELEKTRODENEINSATZ DES HERSTELLERS. DIE UNFALLVERHÜTUNGSVORSCHRIFTEN DES ARBEITGEBERS SIND EBENFALLS ZU BEACHTEN.

			
<ul style="list-style-type: none"> ● Keep your head out of fumes. ● Use ventilation or exhaust to remove fumes from breathing zone. 	<ul style="list-style-type: none"> ● Turn power off before servicing. 	<ul style="list-style-type: none"> ● Do not operate with panel open or guards off. 	WARNING
<ul style="list-style-type: none"> ● Los humos fuera de la zona de respiración. ● Mantenga la cabeza fuera de los humos. Utilice ventilación o aspiración para gases. 	<ul style="list-style-type: none"> ● Desconectar el cable de alimentación de poder de la máquina antes de iniciar cualquier servicio. 	<ul style="list-style-type: none"> ● No operar con panel abierto o guardas quitadas. 	Spanish AVISO DE PRECAUCION
<ul style="list-style-type: none"> ● Gardez la tête à l'écart des fumées. ● Utilisez un ventilateur ou un aspirateur pour ôter les fumées des zones de travail. 	<ul style="list-style-type: none"> ● Débranchez le courant avant l'entretien. 	<ul style="list-style-type: none"> ● N'opérez pas avec les panneaux ouverts ou avec les dispositifs de protection enlevés. 	French ATTENTION
<ul style="list-style-type: none"> ● Vermeiden Sie das Einatmen von Schweißrauch! ● Sorgen Sie für gute Be- und Entlüftung des Arbeitsplatzes! 	<ul style="list-style-type: none"> ● Strom vor Wartungsarbeiten abschalten! (Netzstrom völlig öffnen; Maschine anhalten!) 	<ul style="list-style-type: none"> ● Anlage nie ohne Schutzgehäuse oder Innenschutzverkleidung in Betrieb setzen! 	German WARNUNG
<ul style="list-style-type: none"> ● Mantenha seu rosto da fumaça. ● Use ventilação e exaustão para remover fumo da zona respiratória. 	<ul style="list-style-type: none"> ● Não opere com as tampas removidas. ● Desligue a corrente antes de fazer serviço. ● Não toque as partes elétricas nuas. 	<ul style="list-style-type: none"> ● Mantenha-se afastado das partes moventes. ● Não opere com os painéis abertos ou guardas removidas. 	Portuguese ATENÇÃO
<ul style="list-style-type: none"> ● ヒュームから頭を離すようにして下さい。 ● 換気や排煙に十分留意して下さい。 	<ul style="list-style-type: none"> ● メンテナンス・サービスに取りかかる際には、まず電源スイッチを必ず切ってください。 	<ul style="list-style-type: none"> ● パネルやカバーを取り外したまま機械操作をしないで下さい。 	Japanese 注意事項
<ul style="list-style-type: none"> ● 頭部遠離煙霧。 ● 在呼吸區使用通風或排風器除煙。 	<ul style="list-style-type: none"> ● 維修前切斷電源。 	<ul style="list-style-type: none"> ● 儀表板打開或沒有安全罩時不準作業。 	Chinese 警告
<ul style="list-style-type: none"> ● 얼굴로부터 용접가스를 멀리하십시오. ● 호흡지역으로부터 용접가스를 제거하기 위해 가스제거기나 통풍기를 사용하십시오. 	<ul style="list-style-type: none"> ● 보수전에 전원을 차단하십시오. 	<ul style="list-style-type: none"> ● 판넬이 열린 상태로 작동치 마십시오. 	Korean 위험
<ul style="list-style-type: none"> ● ابعء رأسك بعيداً عن الدخان. ● استعمل التهوية أو جهاز ضغط الدخان للخارج لكي تبعد الدخان عن المنطقة التي تتنفس فيها. 	<ul style="list-style-type: none"> ● أقطع التيار الكهربائي قبل القيام بأية صيانة. 	<ul style="list-style-type: none"> ● لا تشغيل هذا الجهاز اذا كانت الاغطية الحديدية الواقية ليست عليه. 	Arabic تحذير

LEIA E COMPREENDA AS INSTRUÇÕES DO FABRICANTE PARA ESTE EQUIPAMENTO E AS PARTES DE USO, E SIGA AS PRÁTICAS DE SEGURANÇA DO EMPREGADOR.

使う機械や溶材のメーカーの指示書をよく読み、まず理解して下さい。そして貴社の安全規定に従って下さい。

請詳細閱讀並理解製造廠提供的說明以及應該使用的銀焊材料，並請遵守貴方的有閣勞動保護規定。

이 제품에 동봉된 작업지침서를 숙지하시고 귀사의 작업자 안전수칙을 준수하시기 바랍니다.

اقرأ بتمعن وافهم تعليمات المصنع المنتج لهذه المعدات والمواد قبل استعمالها واتبع تعليمات الوقاية لصاحب العمل.



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