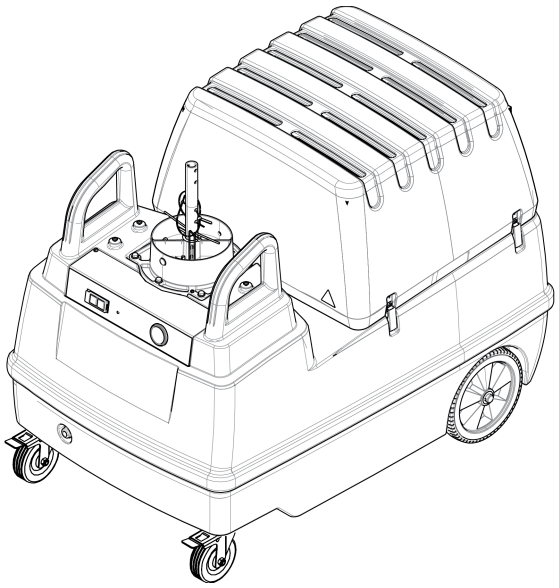
INSTRUCTION MANUAL

PRISM® MOBILE



For use with Product/Code Numbers:

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THE LINCOLN ELECTRIC COMPANY
22801 St. Clair Avenue • Cleveland, OH • 44117-1199 • U.S.A.
www.lincolnelectric.com

Contents

SAFETY INFORMATION

SAFETY DEPENDS ON YOU

Lincoln 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.

⚠ DANGER

This statement indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

This statement indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

This statement indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

Notice: This statement indicates the possibility of damage to equipment if the potential risk is not avoided.

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.

KEEP YOUR HEAD OUT OF THE FUMES

- **DON'T** get too close to the weld. Use corrective lenses if necessary to stay a reasonable distance away from the weld.
- **USE ENOUGH VENTILATION** or exhaust at the weld, or both, to keep the fumes and gases from your breathing zone and the general area.
- **IN A LARGE ROOM OR OUTDOORS** , natural ventilation may be adequate if you keep your head out of the fumes.
- **USE NATURAL DRAFTS** or fans to keep the fumes away from your face.
- **READ** and obey the Safety Data Sheet (SDS) and the warning label that appears on all containers of welding materials.

If you develop unusual symptoms, see your supervisor. Perhaps the welding atmosphere and ventilation system should be checked.

WEAR CORRECT EYE, EAR AND BODY PROTECTION

- **PROTECT** your eyes and face with properly fitted and with proper grade of filter plate (See ANSI Z49.1).
- **PROTECT** your body from welding spatter and arc flash with protective clothing including woolen clothing, flame-proof apron and gloves, leather leggings, and high boots.
- **PROTECT** others from spatter, flash, and glare with protective screens or barriers.
- **PROTECT** your eyes and face with welding helmet
- **IN SOME AREAS**, protection from noise may be appropriate.
- **BE SURE** protective equipment is in good condition.

- **AT ALL TIMES**, wear safety glasses in work area.

- **DO NOT WELD OR CUT** containers or materials which previously had been in contact with hazardous substances unless they are properly cleaned. This is extremely dangerous.

- **DO NOT WELD OR CUT** painted or plated parts unless special precautions with ventilation have been taken. They can release highly toxic fumes or gases.
- **PROTECT** compressed gas cylinders from excessive heat, mechanical shocks, and arcs; fasten cylinders so they cannot fall.
- **BE SURE** cylinders are never grounded or part of an electrical circuit.
- **REMOVE** all potential fire hazards from welding area.

- **ALWAYS HAVE FIRE FIGHTING EQUIPMENT READY FOR IMMEDIATE USE AND KNOW HOW TO USE IT.**

CALIFORNIA PROPOSITION 65 WARNINGS

⚠ WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.

Always start and operate the engine in a well-ventilated area.

If in an exposed area, vent the exhaust to the outside.

Do not modify or tamper with the exhaust system.

Do not idle the engine except as necessary.

⚠ WARNING

This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code § 25249.5 et seq.)

For more information go to https://www.p65warnings.ca.gov

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. 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

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

- 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.

- 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.

- 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.
- **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.
- 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.

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

- Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.
- Using a generator indoors **CAN KILL YOU IN MINUTES**.
- **NEVER** use inside a home or garage, EVEN IF doors and windows are open.

- **ONLY** use **OUTSIDE** and far away from windows, doors and vents.
- Avoid other generator hazards. **READ MANUAL BEFORE USE**.

ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS

- Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines.
- EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.
- Exposure to EMF fields in welding may have other health effects which are now not known.

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

- Route the electrode and work cables together - Secure them with tape when possible.
- Never coil the electrode lead around your body.
- 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.
- Connect the work cable to the workpiece as close as possible to the area being welded.
- Do not work next to welding power source.

ELECTRIC SHOCK CAN KILL

- 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.
- 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.
- In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically “hot”.
- 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.
- Ground the work or metal to be welded to a good electrical (earth) ground.
- Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.
- Never dip the electrode in water for cooling.

- 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.
- When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
- **Also see** WELDING AND CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION **and** FOR ELECTRICALLY POWERED EQUIPMENT

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 open arc welding. Headshield and filter lens should conform to ANSI Z87.1 standards.
- Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.
- 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

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 hardfacing (see instructions on container or SDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and within applicable OSHA PEL and ACGIH TLV limits using local exhaust or mechanical ventilation unless exposure assessments indicate otherwise. In confined spaces or in some circumstances, outdoors, a respirator may also be required. Additional precautions are also required when welding on galvanized steel.**
- The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.
- 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.
- Shielding gases used for welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.
- Read and understand the manufacturer’s instructions for this equipment and the consumables to be used, including the Safety Data Sheet (SDS) and follow your employer’s safety practices. SDS forms are available from your welding distributor or from the manufacturer.
- Also see FOR ENGINE POWERED EQUIPMENT

WELDING AND CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION

- 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.
- 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.

- 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.
- Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to ensure 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.
- Vent hollow castings or containers before heating, cutting or welding. They may explode.
- Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuff-less 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.
- 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.
- **Read and follow NFPA 51B** “Standard for Fire Prevention During Welding, Cutting and Other Hot Work”, available from NFPA, 1 Batterymarch Park, PO box 9101, Quincy, MA 022690-9101.
- **DO NOT** use a welding power source for pipe thawing.

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. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.
- Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.

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.
- Never allow the electrode, electrode holder or any other electrically “hot” parts to touch a cylinder.
- Keep your head and face away from the cylinder valve outlet when opening the cylinder valve.
- Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.
- Read and follow the instructions on compressed gas cylinders, associated equipment, and CGA publication P-l, “Precautions for Safe Handling of Compressed Gases in Cylinders,” available from the Compressed Gas Association, 14501 George Carter Way Chantilly, VA 20151.

FOR ELECTRICALLY POWERED EQUIPMENT

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

BATTERY HANDLING, STORAGE, AND DISPOSAL

Batteries can be flammable substances such as lithium or other organic solvents, which may result in overheating, rupture, or combustion. Failure to follow the battery manufactures instructions may result in fire, personal injury, and damage to property if used improperly.

- DO NOT short circuit, disassemble, deform, or heat batteries.
- DO NOT attempt to recharge batteries unless they are specifically marked as "rechargeable".
- DO NOT use or charge the battery if it appears to be leaking, deformed or damaged in any way.
- Store in a cool location. Keep batteries away from direct sunlight, high temperature, and high humidity.
- Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way.
- Keep batteries out of reach of children, should a child swallow a battery, consult a physician immediately.
- Recycle or dispose of batteries in accordance with local and federal laws.

FOR LASER EMITTING EQUIPMENT

- Hazardous Class 4 (IV) laser products emit invisible, infrared laser radiation which can permanently damage the eye's retina and/or cornea, burn skin, and pose a fire risk. End users shall assign a qualified Laser Safety Officer (LSO) who has the certifications required by applicable law/standards, have a documented Laser Safety Program and have a Laser Controlled Area (LCA) that confirms to ANSI Z136.1 & Z136.9.
- Do not operate laser before end user's LSO has completed a risk assessment and all the prescribed Risk Mitigations measures have been fully implemented. Ensure the laser is operated/ demonstrated safely by trained personnel and that the environment surrounding the laser welding cell or laser-controlled area is safe for people nearby when the laser is in operation.
- Never point the laser at yourself or others. Never look directly into a laser aperture, even if wearing full eye protection.
- All persons inside LCA must wear proper PPE to avoid eye or skin exposure to laser radiation. The end user's LSO shall select proper PPE including, but not limited to, heat-resistant gloves, flame-resistant clothing, laser safety eye wear and laser-safe helmets that conform to ANSI Z136.1 Optical Density requirements for the wavelength and output power of the laser in use. Standard safety glasses and welding helmets DO NOT provide adequate protection from laser beam hazards. Always inspect PPE for damage or improper fit before use.
- Only qualified persons shall install, operate or service this unit per ANSI Z136.1 standards and your LSO's instruction. Read and follow all labels and manuals before installing, operating, or servicing hand held any laser welding equipment.
- Do not operate outside of a LCA, or if the laser protective housing is modified or damaged, or if safety interlocks have been bypassed or otherwise defeated. Inspect all equipment and LCA for damage or tampering prior to use.
- Reflected beams from the laser can damage eyes and skin and can pose a fire risk. Prior to use, the LCA should be assessed by the LSO to understand the surfaces where hazardous reflected beams can exist. Never position yourself or flammable material in the anticipated laser beam path and take extra precautions when working on reflective materials like aluminum and stainless steel.
- Follow all standards, individual facility or building regulations, and national, state, and local codes.

DEALER LOCATOR & PRODUCT REGISTRATION

Register your machine:

https://www.lincolnelectric.com/register

Authorized Service and Distributor Locator:

https://www.lincolnelectric.com/locator

ADDITIONAL SAFETY INFORMATION

Refer to http://www.lincolnelectric.com/safety for additional safety information

INSTALLATION

TECHNICAL SPECIFICATIONS - PRISM® MOBILE

PRISM® MOBILE Filter Base Unit W / MERV 14 filter (120/1/60) - K1653-4

PRISM® MOBILE Filter Base Unit W / MERV 16 filter (120/1/60) - K1653-5

PRISM® MOBILE Filter Base Unit W / MERV 14 filter (230/1/50) - K2497-12

PRISM® MOBILE Filter Base Unit W / MERV 14 filter (230/1/60) - K2497-15

PRISM® MOBILE Filter Base Unit W / HEPA filter (120/1/60) - K1653-6

PRISM® MOBILE Filter Base Unit W / HEPA filter (230/1/50) - K2497-20

GENERAL	
INPUT	K1653-4, K1653-5, K1653-6: 120V/1~/60HZ 6.1A K2497-12, K2497-20: 230V/1~/50HZ 3.7A K2497-15: 230 V / 1 ~ / 60 HZ 3.7 A
MOTOR POWER	0.75 KW (1 HP)

PHYSICAL DIMENSIONS	
LENGTH (A)	47.6 IN. (1,210 mm)
WIDTH (B)	31.9 IN. (810 mm)
HEIGHT (C)	36.5 IN. (927 mm)
NET WEIGHT	PRISM® MOBILE W / MERV 14 FILTER: 200 LBS. (91 KGS) PRISM® MOBILE W / MERV 16 FILTER: 209 LBS. (95 KGS) PRISM® MOBILE w/ HEPA FILTER: 209 LBS. (95 KGS)

OPERATING CAPACITY	
EXTRACTOR TYPE	LOW VACUUM; HIGH VOLUME
AIRFLOW RATE	MAX. 800 CFM (1,360 M^3 / H)

SOUND LEVEL	
120 V & 230 V	69 DB(A), (ACCORDING TO ISO 3746)

INPUT POWER CABLE
20 FT. (6 M)

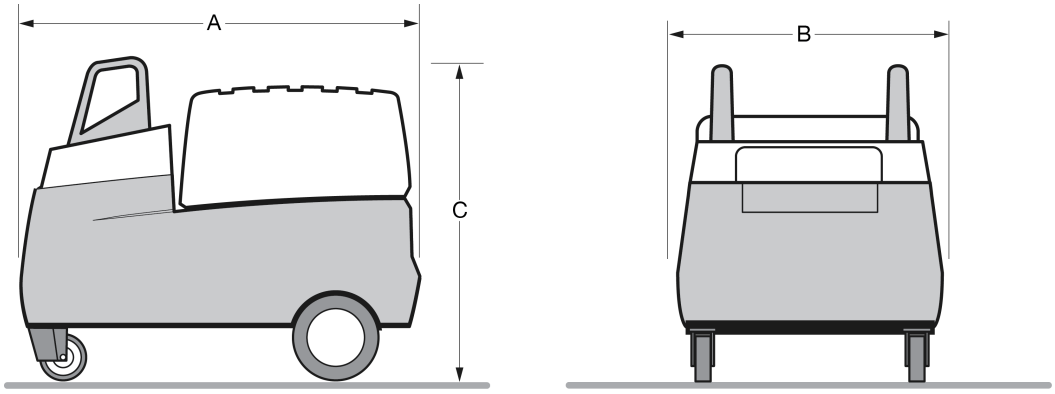
FILTER TYPE	
PRISM® MOBILE W / MERV 14 FILTER	DISPOSABLE CELLULOSE LONGLIFE FILTER CARTRIDGE WITH PRE-COAT
PRISM® MOBILE W / MERV 16 FILTER	DISPOSABLE CELLULOSE / POLYESTER BLEND LONGLIFE FILTER CARTRIDGE
PRISM® MOBILE W/ HEPA FILTER	PHENOL IMPREGNATED CELLULOSE / EN1822 HEPA ePTFE H13 MEDIA

FILTER CLASS (ACCORDING TO ASHRAE 52.2)	
PRISM® MOBILE UNTREATED	MERV 11
PRISM® MOBILE TREATED *	MERV 14
PRISM® MOBILE	MERV 16
PRISM® MOBILE w/ HEPA	HEPA H13 (EN-1822)

* Shipped with standard unit

FILTER SURFACE AREA
538 FT^2 (50 M^2)
HEPA 455 FT2 (42 M2)

AMBIENT CONDITIONS	
MINIMUM TEMPERATURE	41° F (5° C)
MAXIMUM TEMPERATURE	113° F (45° C)
MAXIMUM RELATIVE HUMIDITY	80%



TECHNICAL SPECIFICATIONS - PRISM® MOBILE WITH MECHANIZED CLEANING

PRISM® MOBILE WITH MECHANIZED CLEANING Filter Base Unit with MERV 14 filter and self-cleaning filter cartridge (115/1/60) - K1741-3

PRISM® MOBILE WITH MECHANIZED CLEANING Filter Base Unit with MERV 16 filter and self-cleaning filter cartridge (115/1/60) - K1741-4

PRISM® MOBILE WITH MECHANIZED CLEANING Filter Base Unit with MERV 14 filter and self-cleaning filter cartridge (230/1/50) - K2497-14

PRISM® MOBILE WITH MECHANIZED CLEANING Filter Base Unit with MERV 14 filter and self-cleaning filter cartridge (230/1/60) - K2497-16

GENERAL	
INPUT	K1741-3, K1741-4: 115 V / 1 ~ / 60 HZ 7.6 A K2497-14: 230 V / 1 ~ / 50 HZ 3.8 A K2497-16: 230V / 1 ~ / 60 HZ 3.8 A
MOTOR POWER	0.75 KW (1 HP)

PHYSICAL DIMENSIONS	
LENGTH (A)	48.0 IN. (1,219 mm)
WIDTH (B)	32.1 IN. (816 mm)
HEIGHT (C)	40.9 IN. (1,038 mm)
NET WEIGHT	PRISM® MOBILE WITH MECHANIZED CLEANING W / MERV 14 FILTER: 220 LBS. (100 KGS) PRISM® MOBILE WITH MECHANIZED CLEANING W / MERV 16 FILTER: 229 LBS. (104 KGS)

OPERATING CAPACITY	
EXTRACTOR TYPE	LOW VACUUM; HIGH VOLUME
AIRFLOW RATE	MAX. 735 CFM (1,250 M^3 / H)

SOUND LEVEL	
120 V & 230 V	69 DB(A), (ACCORDING TO ISO 3746)

INPUT POWER CABLE
20 FT. (6 M)

FILTER TYPE	
PRISM® MOBILE WITH MECHANIZED CLEANING W / MERV 14 FILTER	SELF-CLEANING CELLULOSE / POLYESTER BLEND LONGLIFE FILTER CARTRIDGE WITH PRE-COAT
PRISM® MOBILE WITH MECHANIZED CLEANING W / MERV 16 FILTER	SELF-CLEANING CELLULOSE / POLYESTER BLEND LONGLIFE FILTER CARTRIDGE

FILTER CLASS (ACCORDING TO ASHRAE 52.2)	
PRISM® MOBILE WITH MECHANIZED CLEANING UNTREATED	MERV 11

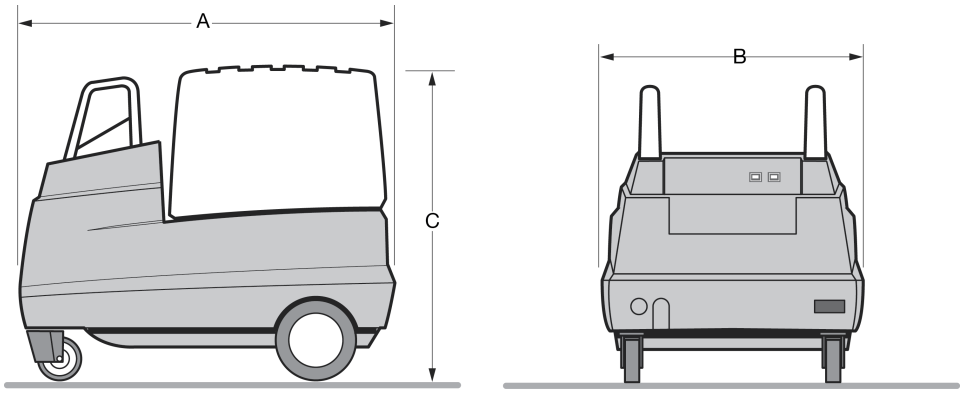
FILTER CLASS (ACCORDING TO ASHRAE 52.2)	
PRISM® MOBILE WITH MECHANIZED CLEANING TREATED *	MERV 14
PRISM® MOBILE WITH MECHANIZED CLEANING	MERV 16

* Shipped with standard unit

FILTER SURFACE AREA
325 FT^2 (30 M^2)

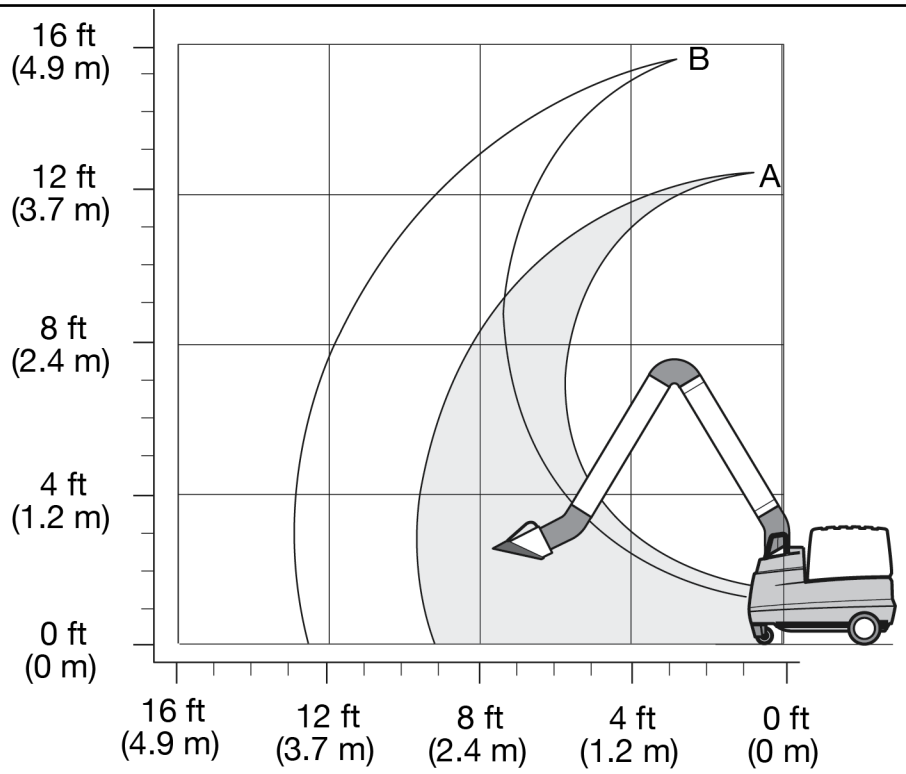
AMBIENT CONDITIONS	
MINIMUM TEMPERATURE	41° F (5° C)
MAXIMUM TEMPERATURE	113° F (45° C)
MAXIMUM RELATIVE HUMIDITY	80%

COMPRESSED AIR CONNECTION	
COMPRESSED AIR CONNECTION SUPPLY	70-120 PSI (5-8 BAR), REGULATED DOWN VIA SUPPLIED REGULATOR (FACTORY SET) TO 65-70 PSI (4.5-5 BAR)
REQUIRED COMPRESSED AIR QUALITY	DRY AND OIL-FREE ACCORDING TO ISO 8573-3 CLASS 6
COMPRESSED AIR CONSUMPTION	MAX. 2.1 SCFM (60 NL / MIN.) (DEPENDING ON THE DEGREE OF SATURATION OF THE FILTER)
CLEANING CYCLE TIME	60 MIN.



TECHNICAL SPECIFICATIONS - PRISM® MOBILE FUME ARM 10/13 FT EXTRATION ARMS

PRISM® MOBILE FUME ARM 10/13 FT EXTRACTION ARMS



MODEL	PRODUCT NUMBER	ARM LENGTH	REACH	NET WEIGHT	DIAMETER	LAMP & ARC SENSOR KIT
PRISM® MOBILE FUME ARM 10 FT Mobile Manual	K2633-5	10 FT. (3 M)	SEE FIGURE ABOVE, (A)	32.8 LBS. (14.9 KG)	Ø 8 IN. (203 MM)	NOT APPLICABLE
PRISM® MOBILE FUME ARM 13 FT Mobile Manual	K2633-7	13 FT. (4 M)	SEE FIGURE ABOVE, (B)	37.3 LBS. (16.9 KG)	Ø 8 IN. (203 MM)	NOT APPLICABLE
PRISM® MOBILE FUME ARM 10 FT Mobile Automatic	K2633-6	10 FT. (3 M)	SEE FIGURE ABOVE, (A)	33.5 LBS. (15.2 KG)	Ø 8 IN. (203 MM)	INTEGRATED
PRISM® MOBILE FUME ARM 13 FT Mobile Automatic	K2633-8	13 FT. (4 M)	SEE FIGURE ABOVE, (B)	38 LBS. (17.2 KG)	Ø 8 IN. (203 MM)	INTEGRATED

SAFETY PRECAUTIONS

Read entire installation section before starting installation.

⚠ WARNING

ELECTRIC SHOCK can kill.

Only qualified personnel should perform this installation.

Turn the input power OFF and unplug the machine from the receptacle before working on this equipment.

Insulate yourself from the work and ground.

Always connect the machine to a power supply grounded according to the National Electrical Code and local codes.

⚠ CAUTION

TIPPING Hazard

Unit is to be used on flat surface only.

The extraction arm must be fastened in an upright and folded position during transport of the unit.

GENERAL DESCRIPTION

This instruction manual describes eight base units and four types of extraction arms:

- **K1653-4, K2497-12 & K2497-15 PRISM® MOBILE Base Unit** (mobile filter unit with disposable filter cartridge - filter class MERV 11 (untreated); MERV 14 (treated).
- **K1653-5 PRISM® MOBILE Base Unit** (mobile filter unit with high efficiency disposable filter cartridge - filter class MERV 16).
- **K1653-6 & K2497-20** PRISM® MOBILE Base Unit (mobile filter unit with disposable filter cartridge - filter class HEPA).
- **K1741-3, K2497-14 & K2497-16 PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit** (mobile filter unit with self-cleaning filter cartridge - filter class MERV 11 (untreated); MERV 14 (treated).
- **K1741-4 PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit** (mobile filter unit with self-cleaning filter cartridge - filter class MERV 16).
- **K2633-5 PRISM® MOBILE FUME ARM 10 ft. Manual** (10 ft. extraction arm).
- **K2633-7 PRISM® MOBILE FUME ARM 13 ft. Manual** (13 ft. extraction arm).
- **K2633-6 PRISM® MOBILE FUME ARM 10 ft. Automatic** (10 ft. extraction arm with integrated Lamp & Arc Sensor Kit).
- **K2633-8 PRISM® MOBILE FUME ARM 13 ft. Automatic** (13 ft. extraction arm with integrated Lamp & Arc Sensor Kit).

PRISM® MOBILE Base Unit W / MERV 14 Filter

The K1653-4, K2497-12 & K2497-15 PRISM® MOBILE Base Unit are mobile filter units with integrated fan that provide extraction and filtration for use with a flexible extraction arm or (optional) hose.

The PRISM® MOBILE Base Unit features an aluminum pre-filter and a square disposable cellulose LongLife filter cartridge. The LongLife filter cartridge is provided with a pre-coat (ExtraCoat) to extend the lifespan and increase initial operating efficiency of the filter.

The PRISM® MOBILE Base Unit is a portable unit suitable for use in relatively small facilities or near sources of welding fume without a fixed location.

The PRISM® MOBILE Base Unit with Flexible Extraction Arm is used for extraction of fume and particulate which is released during the most common welding processes, such as:

- MIG / MAG solid wire (GMAW)
- MIG / MAG flux cored wire (FCAW)
- TIG (GTAW) welding
- Stick welding (MMA or SMAW)

The PRISM® MOBILE Base Unit is designed for light to medium duty, intermittent welding applications as indicated above. The PRISM® MOBILE filter is recommended for consumable use of approximately *:

- 1,500 lbs (700 kg) GMAW or GTAW
- 1,100 lbs (500 kg) MMA or SMAW or FCAW

* Variables such as coatings (e.g. oil), base material, weld process, humidity and procedures can affect filter life and performance.

PRISM® MOBILE Base Unit W / MERV 16 or HEPA Filter

The K1653-5, K1653-6 & K2497-20 PRISM® MOBILE Base Unit is a mobile filter unit with integrated fan that provides extraction and filtration for use with a flexible extraction arm or (optional) hose.

The PRISM® MOBILE Base Unit features an aluminum pre-filter and a high efficiency disposable cellulose / polyester blend LongLife filter cartridge.

The PRISM® MOBILE is a portable unit suitable for use in relatively small facilities or near sources of weld fume without a fixed location.

The PRISM® MOBILE Base Unit with Flexible Extraction Arm is used for extracting and filtering fume which is released during the most common welding processes, such as:

- MIG / MAG solid wire (GMAW)
- MIG / MAG flux cored wire (FCAW)
- TIG (GTAW) welding
- Stick welding (MMA or SMAW)

The PRISM® MOBILE is designed for light to medium duty, intermittent welding applications as indicated above. The PRISM® MOBILE filter is recommended for consumable use of approximately *:

- 1,500 lbs (700 kg) GMAW or GTAW
- 1,100 lbs (500 kg) MMA or SMAW or FCAW

* Variables such as coatings (e.g. oil), base material, weld process and procedures can affect filter life and performance.

PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit W / MERV 14 filter

The K1741-3, K2497-14 & K2497-16 PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit is a mobile filter unit with integrated fan that provides extraction and filtration for use with a flexible extraction arm or optional hose.

The PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit features a steel mesh pre-filter and a round cellulose LongLife filter cartridge. This LongLife filter cartridge is provided with a pre-coat (ExtraCoat) to

extend the lifespan and increase initial operating efficiency of the filter. A separate MSDS sheet for the ExtraCoat is included with the instruction manual package.

The PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit is provided with a RotaPulse system for automatic cleaning of the LongLife filter cartridge.

The PRISM® MOBILE WITH MECHANIZED CLEANING is a portable unit suitable to be used in relatively small facilities or near sources of pollution without a fixed location.

The PRISM® MOBILE WITH MECHANIZED CLEANING Base Unit with Flexible Extraction Arm is used for extracting and filtering fume which is released during the most common welding processes, such as:

- MIG / MAG solid wire (GMAW)
- MIG / MAG flux cored wire (FCAW)
- TIG (GTAW) welding
- stick welding (MMA or SMAW)
- autogenous welding

The PRISM® MOBILE WITH MECHANIZED CLEANING is designed for intermittent or continuous welding applications as indicated above.

The PRISM® MOBILE WITH MECHANIZED CLEANING filter is recommended for annual consumable use of approximately *:

- 6,000 lbs (2,750 kg) GMAW or FCAW or GTAW
- 4,000 lbs (1,800 kg) MMA or SMAW or autogenous

* Variables such as coatings (e.g. oil), base material, weld process, humidity and procedures can affect filter life and performance.

PRISM® MOBILE WITH MECHANIZED CLEANING / HE Base Unit W / MERV 16 filter

The K1741-4 PRISM® MOBILE WITH MECHANIZED CLEANING / HE Base Unit is a mobile filter unit with integrated fan that provides extraction and filtration for use with a flexible extraction arm or optional hose.

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE Base Unit features a steel mesh pre-filter and a high efficiency round cellulose / polyester blend LongLife filter cartridge.

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE Base Unit is provided with a RotaPulse system for automatic cleaning of the LongLife filter cartridge.

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE is a portable unit suitable to be used in relatively small facilities or near sources of pollution without a fixed location.

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE Base Unit with Flexible Extraction Arm is used for extracting and filtering fume which is released during the most common welding processes, such as:

- MIG / MAG solid wire (GMAW)
- MIG / MAG flux cored wire (FCAW)
- TIG (GTAW) welding
- stick welding (MMA or SMAW)
- autogenous welding

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE is designed for intermittent or continuous welding applications as indicated above.

The PRISM® MOBILE WITH MECHANIZED CLEANING / HE filter is recommended for annual consumable use of approximately *:

- 6,000 lbs (2,750 kg) GMAW or FCAW or GTAW
- 4,000 lbs (1,800 kg) MMA or SMAW or autogenous

* Variables such as coatings (e.g. oil), base material, weld process and procedures can affect filter life and performance.

PRISM® MOBILE FUME ARM 10/13 FT Mobile Manual / Automatic

The **PRISM® MOBILE FUME ARM 10/13 FT** Mobile Manual and Mobile Automatic Extraction Arms are flexible fume extraction arms with a 360° rotatable hood. Incorporated into the arm's hood is a throttle valve that can be fully opened, partially opened or completely closed to control airflow at hood opening. The hood features an airflow focus vane, which directs the air into the hood.

The arms' balance system increases their durability and stability. When the arms are raised, they are free to move in any direction. Once the arms are positioned, they are fixed into place. This makes repositioning the arms simple, easy and effortless.

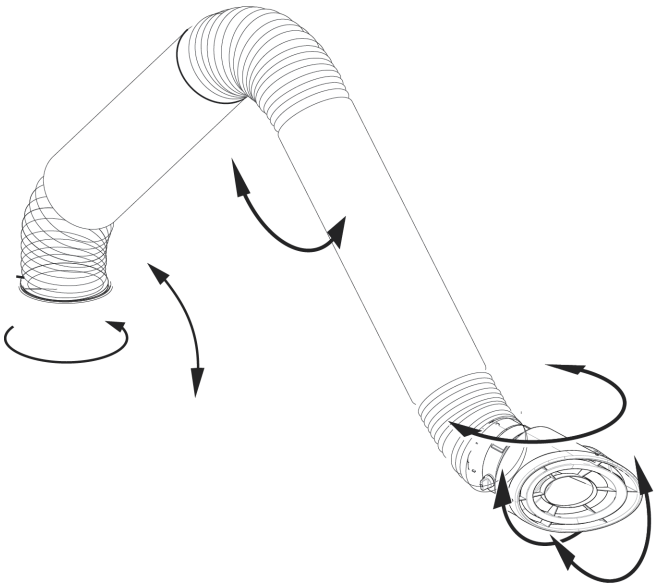
The extraction arms are made of solid, lightweight, 8 in. (203 mm) diameter dent and scratch resistant tubes. The arms are provided with a spring balance system for ultra-light, user friendly positioning.

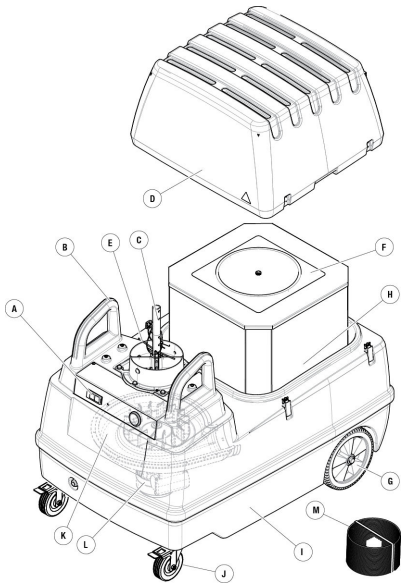
The K2633-6 and K2633-8 **PRISM® MOBILE FUME ARM 10/13 FT** Mobile Automatic arms contain an integrated Lamp & Arc Sensor Kit in the hood. The 24 V / 35 W halogen lamp provides additional light to the workpiece. With the use of a delayed arc sensor, the extraction fan will operate automatically. The automatic start / stop utilizes a 20 second auto stop to help conserve energy and reduce noise level.

COMPONENTS

PRISM® MOBILE BASE UNIT

The **PRISM® MOBILE Base Unit** consists of the following components: (See Figures Below)





A. Control Panel
B. Handles
C. Connection For Extraction Arm
D. Filter Cover With Outlet Grid
E. Base Swivel Mount
F. Pre-filter (inside LongLife filter cartridge)
G. Transport Wheels
H. **PRISM® MOBILE** W / MERV 14 FILTER: LongLife filter cartridge MERV 14; or **PRISM® MOBILE** W / MERV 16 FILTER: LongLife filter cartridge MERV 16 or HEPA filter
I. Base
J. Swivel Locking Casters
K. Fan Housing
L. Extraction Fan
M. Flexible Hose

PRISM® MOBILE WITH MECHANIZED CLEANING (/ HE) BASE UNIT

The **PRISM® MOBILE WITH MECHANIZED CLEANING** (/ HE) Base Unit consists of the following components: (See Figure Below)

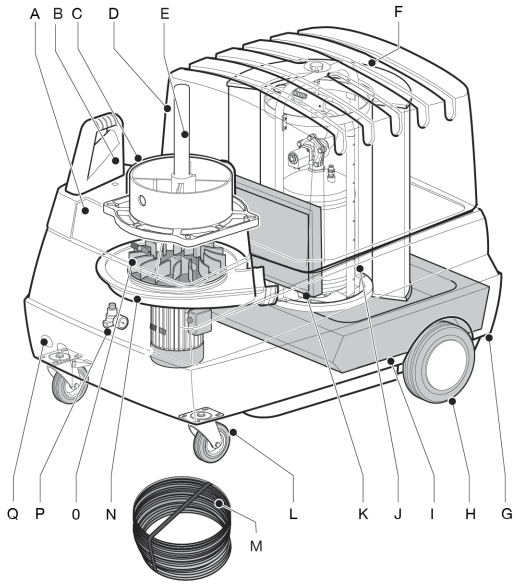


Figure 1 : PRISM® MOBILE WITH MECHANIZED CLEANING (/ HE) BASE UNIT

A. Control Panel
B. Handles
C. Connection For Extraction Arm
D. Filter Cover With Outlet Grid
E. Base Swivel Mount
F. **PRISM® MOBILE WITH MECHANIZED CLEANING**: LongLife Filter Cartridge Fcc 30; or **PRISM® MOBILE WITH MECHANIZED CLEANING** / HE: Long life Filter Cartridge Fcc 30-HE
G. Base
H. Transport Wheels
I. Dust Tray
J. Rotating And Pulsing Automatic Filter Cleaning System
K. Pre-filter
L. Locking Swivel Casters
M. Flexible Hose
N. Fan Housing
O. Extraction Fan
P. Pressure Reducing Valve
Q. Compressed Air Connection 1/4 In. Npt Female

UNPACKING

Check that the product package is complete. The package should contain:

PRISM® MOBILE Base Unit

- (1) **PRISM® MOBILE** Base Unit with input power cord (20 ft)
- (1) Flexible Hose 2 ft. (65 cm)
- (1) Instruction Manual

PRISM® MOBILE FUME ARM 10/13 FT Mobile Manual / Automatic Extraction Arm

- (1) **PRISM® MOBILE FUME ARM 10/13 FT** Extraction Arm
- (2) Bolt 5/16-18 UNC x 2.00” HHCS
- (2) Self-locking Nut 5/16-18 UNC
- (2) Washer

If parts are missing or damaged, contact Lincoln Electric 888-935-3877.

INSTALLATION

PRISM® MOBILE BASE UNIT

The base swivel mount on top of the machine contains two tie wraps. A split pin has been attached to the upper one.

Installation Steps:

See Figure to the right for steps 1-6.

1. Cut through the upper tie wrap (A) to release the split pin.

ATTENTION

Make sure the tie wrap and the split pin do not fall into the fan. If it falls into the fan, it must be removed prior to turning the base unit on.

⚠ WARNING

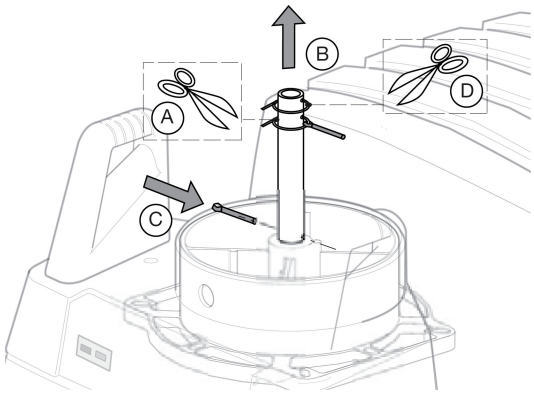
MOVING PARTS can injure.

Do not operate with doors open or guards off.

Turn the unit off and unplug before servicing.

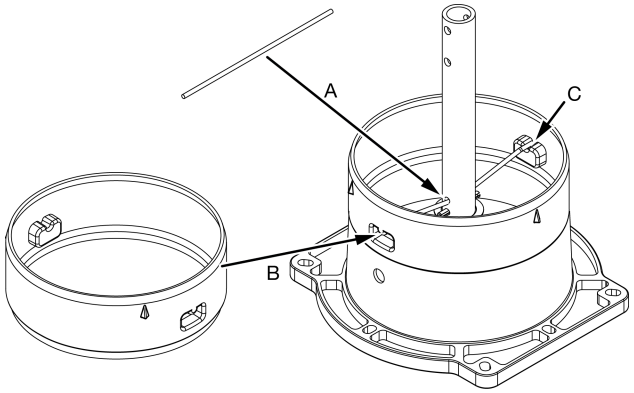
Only qualified personnel should install, use or service this equipment.

Keep away from moving parts.



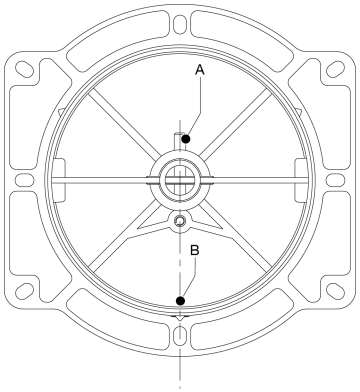
2. Lift the post of the base swivel mount by the lower tie wrap (B). (See Figure to the right.)
3. Put the split pin through the lowest hole in the post (C) and bend it around. (See Figure to the right.)
4. Remove the lower tie wrap (D) and let down the post. (See Figure to the right.)
5. Remove clamping pin from under rubber seal of the base swivel mount.
6. Fold down the rubber seal and remove the red plastic ring.

See Figure to the right for steps 7-8.



7. Insert the clamping pin (A) through the hole in the post located above the split pin.
8. Position the red plastic ring (B) and place the clamping pin into the ridges (C). Rotating the red plastic ring may be necessary.

See Figure to the right for steps 9-12.



9. Turn the base swivel mount so, that the stop pin (A) is in line with the cable lead-through hole (B).
10. Remove the wrapping on the flexible hose.
11. Place the hose over the red plastic ring on the base of the swivel mount. To secure the hose, at least one metal ring of the hose should be applied over the ridges at the red plastic ring.
12. Fold back the rubber seal and place it over the hose. The underside of the rubber seal should cover the red plastic ring 0.5-1 in.

PRISM® MOBILE FUME ARM 10/13 FT Mobile Manual

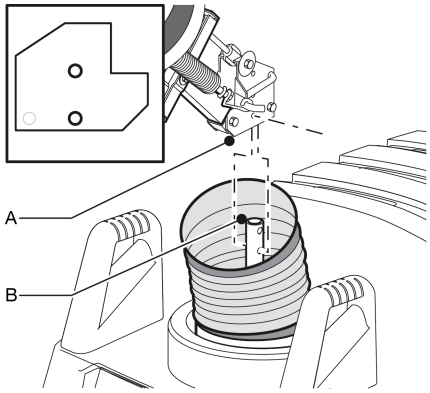
The supply cable inside the base swivel mount of the **PRISM® MOBILE** Base Unit is not used when mounting a K2633-5 or K2633-7 **PRISM® MOBILE FUME ARM 10/13 FT** Mobile Manual arm.

ATTENTION	
	Do not remove the yellow tape attaching both arm sections.

ATTENTION	
	The supply cable inside the base swivel mount should hang down vertically. Do not remove the wire bridge.

See Figure to the right for steps 1-2.

1. Mount the extraction arm PRISM® MOBILE FUME ARM 10/13 FT Mobile Manual (A) on the post (B) using the two bolts 5/16-18 and two self-locking nuts 5/16-18 with washers.
2. Remove the yellow tape from both arm sections.
3. Proceed to **Balance Check**.



PRISM® MOBILE FUME ARM 10/13 FT Mobile Automatic

The K2633-6 or K2633-8 **PRISM® MOBILE FUME ARM 10/13 FT** Mobile Automatic extraction arm contains an integrated Lamp & Arc Sensor Kit.

ATTENTION	
⚠	Do not remove the yellow tape attaching both arm sections.

Installation Steps:

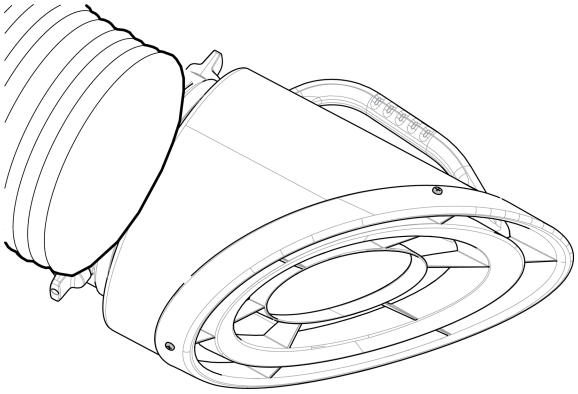
See Figure above for steps 1-5.

1. Mount the extraction arm **PRISM® MOBILE FUME ARM 10/13 FT** Mobile Automatic (A) on the post (B) using the two bolts 5/16-18 and two self-locking nuts 5/16-18 with washers.
2. For **PRISM® MOBILE** only: Remove the wire bridge from the supply cable inside the base swivel mount.
3. Connect the supply cables of the **PRISM® MOBILE** Base Unit to the extraction arm.
4. Remove the yellow tape from both arm sections.
5. Turn the extraction arm 359° and check whether the supply cable is long enough. If necessary, pull the supply cable of the **PRISM® MOBILE** Base Unit to a sufficient length.

BALANCE CHECK

The extraction arms have been pre-balanced in the factory for optimal balance and positioning. However, they sometimes need adjustment. To check and adjust the balance system, proceed as follows.

1. Bring the extraction hood to a horizontal position. The hood should stay in this position. See Figure to the right.

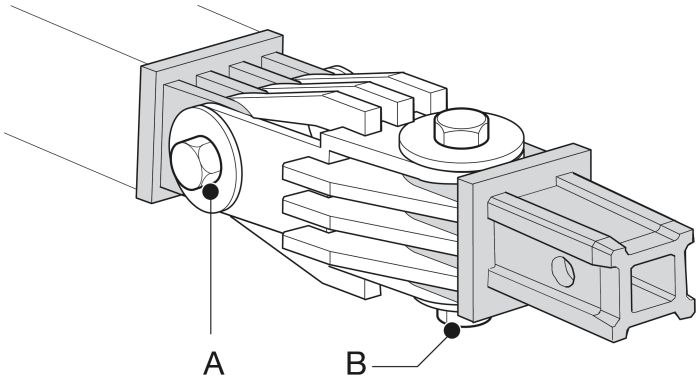


If the extraction hood falls on its own: (See Figure to the right).

- Cut the tie wrap of the rubber protection cover which is applied over the hood hinge.
- Pull down the protection cover.
- Turn bolt (A) in the hood hinge clockwise to tighten extraction hood.
- Replace the protection cover and secure it with the spare tie wrap supplied.

If the extraction hood does not maintain a horizontal position (left / right). (See Figure to the right).

- Cut the tie wrap of the rubber protection cover applied over the hood hinge.
- Pull down the protection cover.
- Turn bolt (B) in the hood hinge clockwise to tighten horizontal movement.
- Replace the protection cover and secure it with the spare tie wrap supplied.



1. Bring the arm (including extraction hood) to a horizontal position. The arm should maintain this position. See Top Figure to the right.

If the entire arm falls on its own:

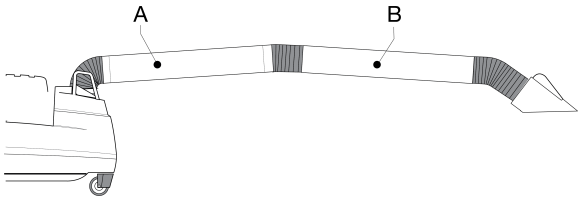
(See Top Figure to the right, items A and B)

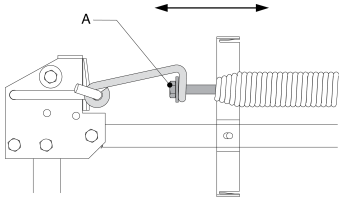
- Tighten bolt (A) on the hinge fan side to increase spring tension. Ensure spring does not turn as you tighten. See Middle Figure to the right.

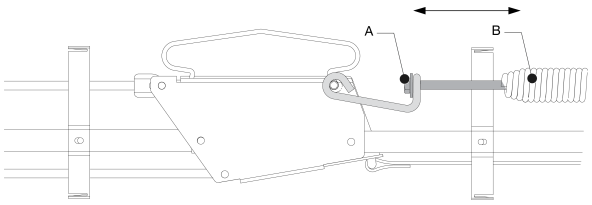
If the hood section of the arm falls on its own:

(See Top Figure to the right, item B)

- Tighten bolt (A) in middle hinge to increase spring (B) tension. Ensure spring does not turn as you tighten. See Bottom Figure to the right.



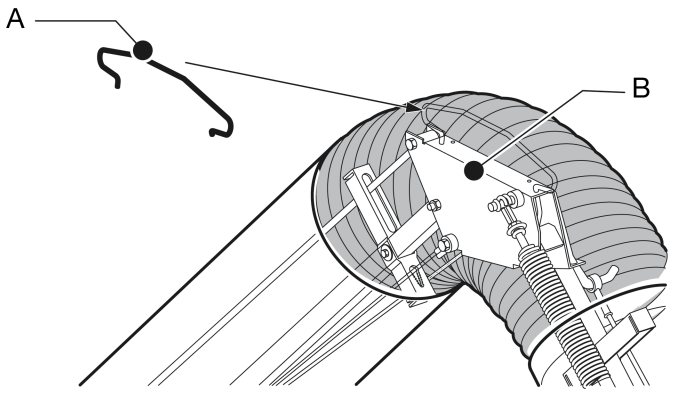




PRISM® MOBILE FUME ARM 10/13 FT Mobile Manual / Automatic

A hose running guard is attached to the middle hinge of the extraction arm by a piece of tape.

See Figure to the right.



1. Take the hose running guard (A) and snap it into place at the middle hinge (B).
2. Fold back 2/3 of both rubber seals.
3. Remove the wrap of the flexible hose.
4. Place the flexible hose over both arm sections. To secure the hose, at least one metal rings of the hose should be applied over the ridges at each arm section.
5. Fold back the rubber seals and place them over the hose. The rubber seal should cover the arm section 0.5-1 in.

Now mount the flexible hose at the hood side.

6. Fold back 2/3 of both rubber seals.
7. Remove the wrap of the flexible hose hood side.
8. Place the flexible hose over the hood and the arm section hood side. To secure the hose, at least one metal rings of the hose should be applied over the ridges.
9. Fold back the rubber seals and place them over the hose. The rubber seals should cover the hood and the arm section 0.5-1 in.

K1668-3 Hose and Hood Set (option)

The **PRISM® MOBILE** Base Unit can be equipped with a Hose and Hood Set instead of a flexible extraction arm.

OPERATION

SAFETY PRECAUTIONS

Read and understand this entire section before operating your PRISM MOBILE.

⚠ CAUTION

This product is intended for commercial use only.

⚠ WARNING

FUMES and GASES can be dangerous.

Use in open, well ventilated areas or vent exhaust outside.

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable federal, state and / or local regulations and guidelines (i.e. OSHA PEL and ACGIH TLV limits in the U.S.).

⚠ WARNING

Only use the product for the welding processes described in the General Description. Never use the product for extracting and / or filtering fumes and gases which are released during the following processes:

oxy-fuel cutting or welding

aluminum laser cutting

oil-treated metal

arc-air gouging

oil mist

paint mist

heavy oil mist in welding fume

hot gases (more than 40° C / 100° F continuously)

aggressive gases (e.g. from acids)

plasma cutting

grinding aluminum and magnesium

flame spraying

extraction of cement, saw dust, wood dust etc.

sucking cigarettes, cigars, oiled tissues and other burning particles, objects and acids

in all situations where explosions can occur

(This list is not comprehensive.)

If the product is used in above situations it could result in potential fire hazard, non-compliance with local regulations and reduction in product performance and life.

⚠ WARNING

Avoid using the product for filtering dust particles which are released when welding surfaces treated with primer.

Never use the product without pre-filter and LongLife filter cartridge.

INTENDED USE

The product has been designed exclusively for extracting and filtering fume which is released during common weld processes. Using the product for other purposes is considered contrary to its intended use. The manufacturer accepts no liability for any damage resulting from such use.

Only use the product in mechanically sound condition in accordance with its intended use and the instructions set forth in the user manual.

MODIFICATIONS

Modifications of this product, other than those specified in this manual, are not allowed. Any unauthorized modification will void the product warranty.

Do not tamper with the user-operated controls, or any of the safety devices of the PRISM® MOBILE.

GENERAL SAFETY

The manufacturer does not accept any liability for damage to the product caused by a failure to follow the safety and other instructions in this manual, modifications made to equipment or by negligence during installation, use, maintenance and repair of the product mentioned on the cover of this document and any corresponding accessories.

Specific working conditions or used accessories may require additional safety instructions. Immediately contact your supplier if you detect a potential hazard when using the product.

PRODUCT COMBINATIONS

In order to operate the **PRISM® MOBILE** Base Unit, selection of following product is required:

- K2633-5 (1) **PRISM® MOBILE FUME ARM 10 FT** Mobile Manual (10 ft. extraction arm); or
- K2633-7 (1) **PRISM® MOBILE FUME ARM 13 FT** Mobile Manual (13 ft. extraction arm); or
- K2633-6 (1) **PRISM® MOBILE FUME ARM 10 FT** Mobile Automatic (10 ft. extraction arm with integrated Lamp & Arc Sensor Kit); or
- K2633-8 (1) **PRISM® MOBILE FUME ARM 13 FT** Mobile Automatic (13 ft. extraction arm with integrated Lamp & Arc Sensor Kit); or
- K1668-3 (1) Hose and Hood Set instead of extraction arm

OPERATION

The air which contains welding fume is captured, extracted, and filtered, before being recirculated back into the work environment. First, the welding fume is extracted through an adjustable fume extraction arm by the internal extraction fan.

Second, as the welding fume enters the Base Unit, it passes through the pre-filter. The pre-filter separates larger particles, debris and most sparks prior to the welding fume entering the LongLife filter. Third, the air passes through the LongLife filter cartridge. Fourth, after passing through the LongLife filter, the filtered air exits the **PRISM® MOBILE** Base Unit via the outlet grid at top of the filter housing.

ATTENTION

Never use the PRISM® MOBILE Base Unit without extraction arm or Hose and Hood Set.

⚠ WARNING

Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable federal, state and / or local regulations and guidelines (i.e. OSHA PEL and ACGIH TLV limits in the U.S.).

PRISM® MOBILE:

The control panel contains the following controls:

See Figure to the right.

A. Power switch OFF
B. Power switch ON
C. Filter Maintenance Indicator (“FILTER CLOGGED”)

- Use the handles to move the **PRISM® MOBILE** to the workplace.
- Lock the swivel casters.
- Carefully apply the correct input power.

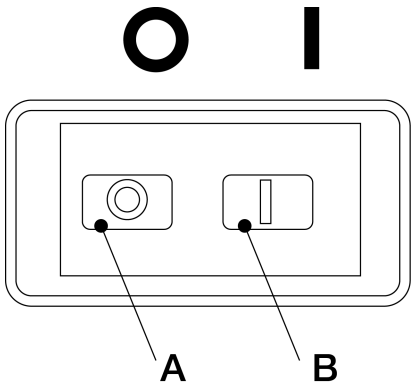


Figure 2 : PRISM® MOBILE CONTROL PANEL

PRISM® MOBILE WITH MECHANIZED CLEANING:

The control panel contains the following controls:

See Figure to the right.

A. Power switch OFF
B. Power switch ON
C. FAN ON / OFF switch
D. Control light (orange)
- “CLEANING”: the control light is on indicating that the machine is busy performing the (self-) cleaning process
- “ALARM”: the control light blinks indicating that the filter is saturated and cannot be cleaned sufficiently in the automatic cleaning mode
E. Filter cleaning ON / OFF - RESET button for off-line cleaning and reset

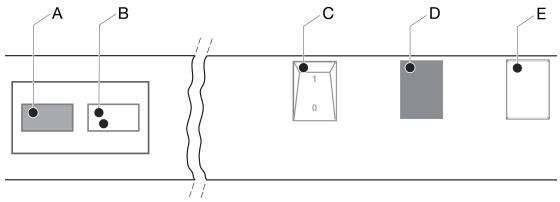


Figure 3 : MECHANIZED CLEANING CONTROL PANEL

- Use the handles to move the **PRISM® MOBILE WITH MECHANIZED CLEANING** (/ HE) to the workplace.
- Lock the right swivel caster.
- Apply input power.
- Connect the **PRISM® MOBILE WITH MECHANIZED CLEANING** (/ HE) Base Unit to compressed air (refer to Figure 1 : PRISM MOBILE WITH MECHANIZED CLEANING (/ HE) BASE UNIT on page A-11 , item Q).
- Make sure the FAN ON / OFF switch (refer to Figure to the right, item C) is in the OFF position.

⚠ WARNING

The position of the hood should be approx. 6-12 in. (15-30 cm) in front of the welding arc. Performance depends on factors such as part vs. operator and weld position, airflow (CFM and velocity level), ambient conditions and maintenance. Reposition hood as needed to maintain efficient fume capture.

PRISM® MOBILE & PRISM® MOBILE FUME ARM 10/13 FT MOBILE MANUAL

The hood of the extraction arm is provided with a handle for easy positioning and a throttle valve for adjustment of the airflow.

See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 and Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 .

- Using the handle (See Figure to the right, item A), position the hood of the extraction arm in the desired location at approximately, 6-12 in. (15-30 cm) from the source of fume.
- Open the throttle valve (See Figure to the right, item A).
- Press the power switch ON (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item B, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item B & C) to start the machine.
- Start welding.
- Press the power switch OFF (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item A, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item C) approximately 20 seconds after welding completion.

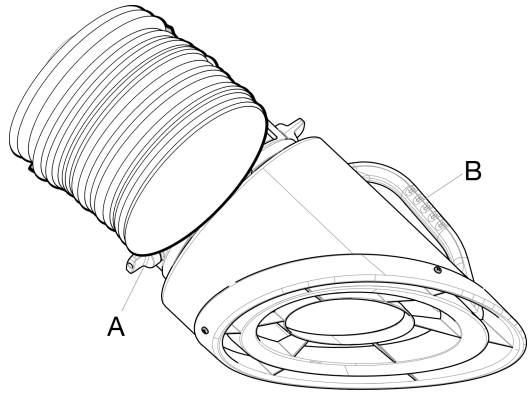


Figure 4 : HOOD HANDLE AND POWER SWITCH

PRISM® MOBILE & PRISM® MOBILE FUME ARM 10/13 FT MOBILE AUTOMATIC

See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 and Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 .

- Press the power switch ON (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item B, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item B & C) to activate power supply.
- Using the handle (See Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A), position the hood of the extraction arm in the desired location at approx. 6-12 in. (15-30 cm) from the source of fume.
- If desired: turn on the halogen lamp using on / off switch.
- Open the throttle valve (See Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A).
- Start welding.

Due to the built-in Arc Sensor, the machine will start automatically. After welding completion, the machine will automatically stop after approximately 60 seconds.

- Press the power switch OFF (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item A, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item A) to interrupt power supply.

PRISM® MOBILE & PRISM® MOBILE FUME ARM 10/13 FT MOBILE AUTOMATIC (MANUAL START)

Manual start of the Lamp & Arc Sensor Kit is recommended for TIG welding * in case the Arc Sensor is unable to detect the arc due to weld position.

* UV from TIG welding is less than other weld processes resulting in arc sensor perhaps not detecting weld.

See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 and Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 .

- Press the power switch ON (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item B, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item B).
- Using the handle (See Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A), position the hood of the extraction arm in the desired position at approx. 6-12 in. (15-30 cm) from the source of fume.
- If desired: turn on the halogen lamp using on / off switch.
- Open the throttle valve (See Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A).
- Turn on the machine using the Manual / Automatic toggle switch located on the hood of the extraction arm
- Start welding.
- Turn off the machine approx. 20 seconds after welding completion by using the Manual / Automatic toggle switch located on the hood of the extraction arm.
- Press the power switch OFF (See Figure 2 : PRISM MOBILE CONTROL PANEL on page B-4 , item A, or Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item A) to interrupt power supply.

ATTENTION

Due to the parallel connection, on / off can be arranged in two different ways:

Automatically by Arc Sensor.

Manually by manual / automatic toggle switch at the hood of the extraction arm.

PRISM® MOBILE WITH MECHANIZED CLEANING has a third on-off option: Manually by rocker switch on the base of the machine.

PRISM® MOBILE FILTER MAINTENANCE INDICATOR

See Figure to the right.

The **PRISM® MOBILE** Base Unit is provided with a Filter Maintenance Indicator “FILTER CLOGGED” (A). When using the machine, regularly check the Filter Maintenance Indicator. The indicator slowly moves from green to red as filter cartridge becomes saturated or clogged.

ATTENTION

The Filter Maintenance Indicator only functions when the fan is in operation and the system is properly configured.

⚠ WARNING

Saturation or clogging of the filter cartridge results in a decrease of the extraction capacity which could result in reduced extraction of welding fumes.

- When the Filter Maintenance Indicator is red, replace the LongLife filter cartridge. See PRISM MOBILE FILTER REPLACEMENT on page B-11 for description.

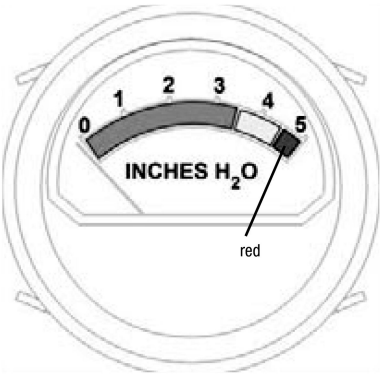


Figure 5 : FILTER MAINTENANCE INDICATOR

PRISM® MOBILE WITH MECHANIZED CLEANING AUTOMATIC FILTER CLEANING SYSTEM

Control light: CLEANING

During normal operation (i.e. with a clean, non-saturated filter cartridge), the **PRISM® MOBILE WITH MECHANIZED CLEANING** (/ HE) functions fully automatically. As soon as a minimum airflow has been reached as a result of the clogging, the pressure difference switch activates the rotating and pulsating compressed air cleaning system which subsequently cleans the filter using controlled jets of compressed air. The particulate then falls into the dust tray.

During the automatic cleaning process the control light (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item D) is on (“CLEANING”). The cleaning system stops when the airflow is sufficient again.

This procedure is called online cleaning.

When no welding takes place during the automatic cleaning process, the fan will start running during 30 seconds after every four compressed air jets to check the pressure difference. This happens max. 15 times.

When the airflow hasn’t reached the required airflow rate after 60 compressed air jets, the control light will change into the “ALARM” mode.

- In this case, proceed with section 5.2.2.

Control light: ALARM

When the control light (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item D) blinks (“ALARM”), proceed as follows.

- Stop welding.
- Press filter cleaning ON / OFF - RESET button (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item E) to stop the control light from blinking.
- Make sure the FAN ON / OFF switch (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item C) is off.
- Close throttle valve in extraction hood (refer to Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A).
- Press filter cleaning ON / OFF - RESET button again (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item E) to start off-line cleaning.

During the off-line cleaning cycle the entire filter cartridge is cleaned systematically by compressed air jets. This cycle takes approx. one hour.

After the cleaning cycle is finished, system operation can be continued.

When you continue welding and the control light starts blinking again immediately or shortly after the cleaning cycle is finished, the LongLife filter cartridge is saturated and should be replaced.

Off-line cleaning

Run a manual off-line cleaning routine minimum twice a week. The most convenient cleaning interval is a matter of experience.

To carry out an off-line cleaning cycle, proceed as follows.

- Make sure the FAN ON / OFF switch (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item C) is off.

- Close throttle valve in extraction hood (refer to Figure 4 : HOOD HANDLE AND POWER SWITCH on page B-6 , item A).
- Press filter cleaning ON / OFF - RESET button (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5 , item E) to start off-line cleaning.

During the off-line cleaning cycle the entire filter cartridge is cleaned systematically by compressed air jets. This cycle takes approx. one hour.

ATTENTION

Do not use the machine during the off-line cleaning cycle.

If desired, the off-line cleaning cycle can be interrupted by pressing the filter cleaning ON / OFF - RESET button (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5).

⚠ WARNING

Saturation or clogging of the filter cartridge results in a decrease of the extraction capacity which could result in a reduced extraction of welding fumes. Therefore, stop welding immediately when the machine enters the ALARM phase.

ATTENTION

For more efficient filter cleaning, it is recommended to carry out an off-line cleaning cycle on a regular basis.

Run a manual off-line cleaning routine minimum twice a week. The most convenient cleaning interval is a matter of experience.

ATTENTION

For off-line cleaning after working hours, make sure compressed air is connected and available.

ATTENTION

The off-line cleaning cycle takes approx. one hour. Do not use the machine during the off-line cleaning cycle.

If desired, the off-line cleaning cycle can be interrupted by pressing the filter cleaning ON / OFF - RESET button (refer to Figure 3 : MECHANIZED CLEANING CONTROL PANEL on page B-5).

PRISM® MOBILE FILTER REPLACEMENT

⚠ WARNING

Take necessary precautions so that you and your fellow workers are not over-exposed to particulate. Wear suitable personal protection equipment, such as gloves, respirator, eye glass and protective clothing when disposing of the filter and particulate.

Check with local waste management (or local agencies) for assistance in the disposal of filter. If filter has collected certain types of particulate which local agencies define as hazardous waste, filter may be classified as hazardous waste and will need to be disposed in accordance with federal, state and local regulations - which could vary from state to state, and between local municipalities within the state.

PRISM® MOBILE LongLife Filter Cartridge

Replace the LongLife filter cartridge:

- When the Filter Maintenance Indicator (See Figure 5 : FILTER MAINTENANCE INDICATOR on page B-8) shows that the filter cartridge is saturated or clogged; or
- When the airflow is reduced to the point that extraction performance is no longer satisfactory; or
- When it has been damaged.

Replacement Steps:

See Figure to the right.

1. Turn off the machine and disconnect it from the input power.
2. Release the four latches (A) and remove the filter cover (B).

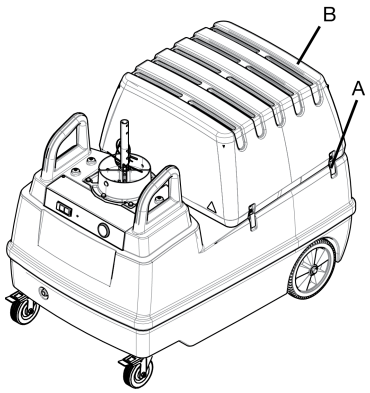
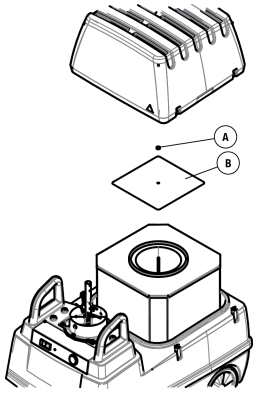


Figure 6 : LATCHES AND FILTER COVER LOCATION

3. Unscrew the knurled nut (A) and remove the filter cover plate (B). See Figure to the right.



See Figure to the right.

4. Lift the LongLife filter cartridge (A) up and out of the base. It is not necessary to remove the pre-filter (B) unless it needs replacement.
5. If required by federal, state and / or local regulations and guidelines, place filter in appropriate bag, e.g. plastic bag.
6. Clean the pre-filter with a power washer and filter compartment with an industrial vacuum cleaner that meets OSHA guidelines for Cr6 housekeeping.
7. Install a new LongLife filter cartridge.
8. Replace the previously removed parts in reverse order.

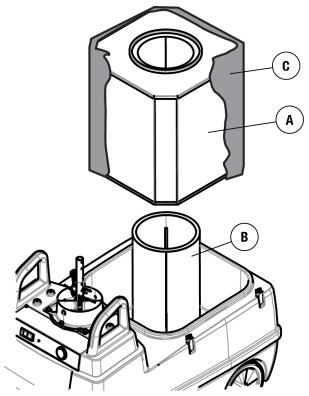


Figure 7 : FILTER COMPONENTS

Prefilter

Replace the pre-filter (See Figure 7 : FILTER COMPONENTS on page B-12 , item B).

- When it is saturated or clogged and can't be cleaned using a vacuum cleaner; or
- When it has been damaged.

ATTENTION	
⚠	In case the pre-filter has been damaged, it is recommended to also replace the LongLife filter cartridge.

Activated Carbon Filter (option)

Replace the Activated Carbon Filter:

- When detecting odors and smells; or
- When it has been damaged.

Replacement Steps:

See Figure 6 : LATCHES AND FILTER COVER LOCATION on page B-11 .

1. Turn off the machine and disconnect it from input power.
2. Release the four latches (A) and remove the filter cover (B). See Figure 7 : FILTER COMPONENTS on page B-12 .
3. Remove the Activated Carbon Filter (C) from the LongLife filter cartridge. It is not necessary to take out the LongLife filter.
4. Install a new Activated Carbon Filter.
5. Replace the filter cover and secure the latches.

PRISM® MOBILE WITH MECHANIZED CLEANING

FILTER REPLACEMENT LongLife filter cartridge

Replace the LongLife filter cartridge:

- when the control light keeps blinking (shortly) after an offline cleaning cycle; or
- when the airflow is reduced to the point that extraction performance is no longer satisfactory; or
- when it has been damaged.

Replacement Steps:

ATTENTION

Always wear face mask and gloves during emptying of the tray.

⚠ WARNING

Never open the dust Tray while the motor is running.

1. Turn off the machine and disconnect it from input power and compressed air.
2. Release the four latches (A) and remove the filter cover (B). See Figure 6 : LATCHES AND FILTER COVER LOCATION on page B-11 .
3. Lift the LongLife filter cartridge (A) up and out of the base. See Figure 8 : FILTER CARTRIDGE AND PREFILTER on page B-14 .
4. If required by federal, state and / or local regulations and guidelines, conceal filter in appropriate bag, e.g. plastic bag.
5. Clean the pre-filter (B) with a power washer and filter compartment (C) with an industrial vacuum cleaner that meets OSHA guidelines for Cr6 housekeeping.
6. Install a new LongLife filter cartridge.
7. Replace the dismounted parts in reverse order.

Pre-filter

Replace the pre-filter (Figure 8 : FILTER CARTRIDGE AND PREFILTER on page B-14 , item B):

- when it is clogged or saturated and cannot be cleaned using a power washer; or
- when it has been damaged.

Emptying the dust tray.

See Figure 9 : DUST TRAY AND STAR KNOB on page B-14 .

Dust and dirt particles from the main filter end up in the dust tray underneath the machine. To avoid the dust tray to overflow thus polluting the workshop, it needs to be emptied on a regular basis. Refer to maintenance section for the frequency of emptying.

1. Loosen the star knob (B), which is accessible from the underside at the back of the machine.
2. Carefully take out the dust tray (A).

The dust tray can be emptied in different ways:

- using an industrial vacuum cleaner (preferred way); or
- empty it in a plastic bag.

3. Empty the dust tray. In case of emptying it in a plastic bag, make sure to seal the bag firmly.
4. Slide the dust tray back into the machine.
5. Carefully tighten the star knob making sure that the dust tray is sealed airtight.

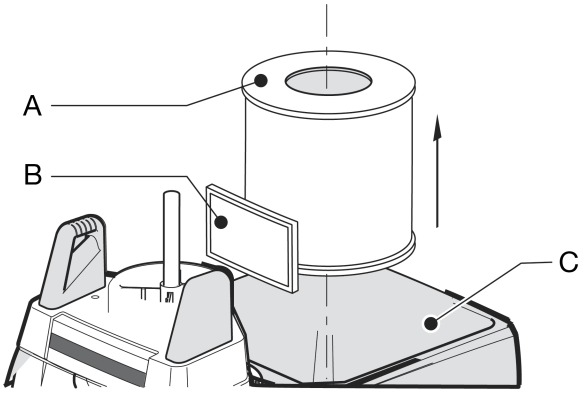


Figure 8 : FILTER CARTRIDGE AND PREFILTER

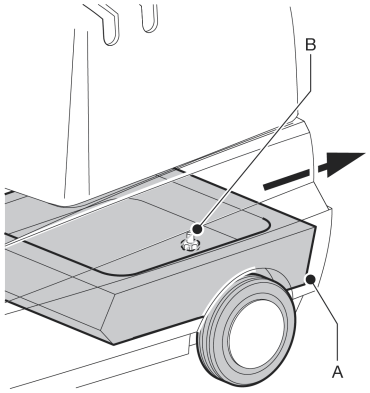


Figure 9 : DUST TRAY AND STAR KNOB

ACCESSORIES AND OPTIONS

OPTIONS

The following products can be obtained as an option:

K1852-1 Activated Carbon Filter (option) - PRISM® MOBILE only

K1668-3 Hose and Hood Set (option)

The **PRISM® MOBILE** Base Unit can be equipped with a Hose and Hood Set instead of a flexible extraction arm.

MAINTENANCE

SAFETY PRECAUTIONS

⚠ WARNING

Service and Repair should only be performed by Lincoln Electric Factory Trained Personnel. Unauthorized repairs performed on this equipment may result in danger to the technician and machine operator and will invalidate your factory warranty. For your safety and to avoid Electrical Shock, please observe all safety notes and precautions detailed throughout this manual.

Have qualified personnel do the maintenance work. Turn the unit off before working inside the machine. 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.

Do not put your hands near the cooling blower fan. If a problem cannot be corrected by following the instructions, take the machine to the nearest Lincoln Field Service Shop.

⚠ WARNING

ELECTRIC SHOCK can kill.

Do not touch electrically live parts or electrode with skin or wet clothing.

Insulate yourself from work and ground.

Always wear dry insulating gloves.

⚠ WARNING

FUMES and GASES can be dangerous.

Use in open, well ventilated areas or vent exhaust outside.

⚠ WARNING

MOVING PARTS can injure.

Do not operate with doors open or guards off.

Stop before servicing.

Keep away from moving parts.

⚠ WARNING

Use of equipment with clogged filters can cause fire.

When fume extractor is not in use, wrap cord and place in the handle opening. Store fume extractor in a dry place.

When fume extractor is in use, take precaution that the cord is protected from damage and not a tripping hazard.

⚠ WARNING

Electric shock can kill.

Always switch OFF the machine and remove input power before carrying out the maintenance activities below.

ATTENTION

Do not use compressed air or high pressure water sprayer to clean LongLife filter cartridge, pre-filter or optional Activated Carbon Filter.

The product has been designed to function with minimal maintenance. In order to guarantee optimal performance level, periodic maintenance and cleaning activities are required and described in this section.

Maintenance intervals can vary depending on the specific working conditions, such as ambient conditions, welding consumables and process(es), base material, coatings on base material and operator procedure. Therefore, it is required that regular inspection of the entire system is carried out. It is recommended a thorough inspection of the system occurs at least once every year.

PERIODIC MAINTENANCE

The maintenance activities in the following tables indicated by [*] can be carried out by the user; other activities are strictly reserved for well trained and authorized service personnel.

⚠ WARNING

When cleaning equipment or replacing filter use personal protection equipment (PPE) such as gloves, respirators and protective clothing to protect against overexposure to particulate. It is recommended that a vacuum cleaner or wet methods be used to clean up any loose particulate that is present in the extraction arm. It is necessary to use a vacuum cleaner with HEPA rated filtration.

Table 1 :PERIODIC MAINTENANCE PRISM® MOBILE BASE UNIT

COMPONENT	ACTION	EVERY MONTH	EVERY 6 MONTHS	EVERY 12 MONTHS
Filter Maintenance Indicator	Unless LongLife filter cartridge is clean, check if indicator moves right upon starting machine. If not, See Troubleshooting Section.	X [*]		
Pre-filter, LongLife filter cartridge and optional Activated Carbon Filter	Check for damage, clogging and saturation. If damaged, clogged or saturated, See PRISM MOBILE FILTER REPLACEMENT on page B-11 .	X		
Base and filter cover	Clean inside with an industrial vacuum cleaner that meets OSHA guidelines for Cr6 housekeeping and remove the dust from the filter compartment.	X [*]		
	Clean outside with a mild detergent.		X [*]	
	Check for cracks or holes. If damaged, See Troubleshooting Section.	X [*]		
Fan	Check the extraction fan and the extraction fan housing for encrusted particulate. Clean if necessary.			X
	Check the sealing material of the extraction fan. Replace if necessary.			X
Pre-filter	Replace every filter. Change or clean with an industrial vacuum cleaner that meets OHSA guidelines for Cr6 housekeeping.	X [*]		
Flexible Hose	Check for cracks, holes or deformities. Replace if necessary.	X [*]		
Input power cord	Check the input power cord for damage.	Before every use [*]		

Table 2 :PERIODIC MAINTENANCE PRISM® MOBILE WITH MECHANIZED CLEANING (/ HE) BASE UNIT

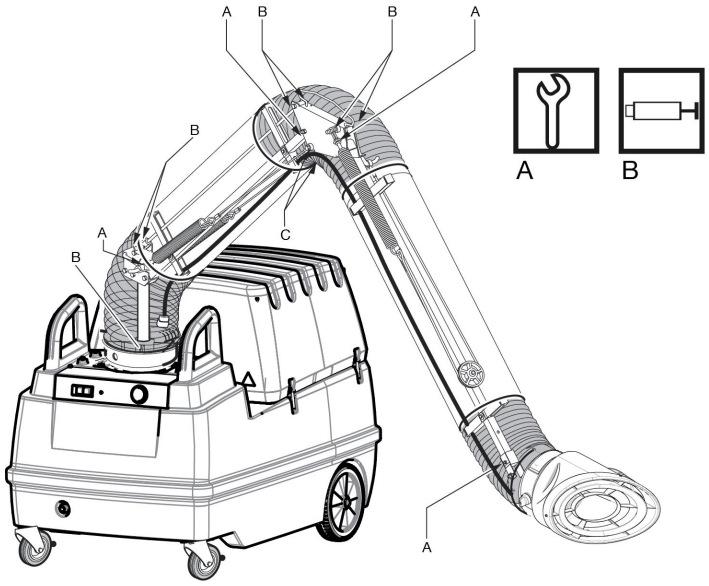
COMPONENT	ACTION	EVERY MONTH	EVERY 6 MONTHS	EVERY 12 MONTHS
Pre-filter	Check for damage, clogging and saturation. If damaged, clogged or saturated, refer to section 6.2.2.	X		
	Clean with a power washer.	X [*]		
LongLife filter cartridge	Check for damage, clogging and saturation. If damaged, clogged or saturated, refer to section 6.2.1.	X		
Base and filter cover	Clean inside with an industrial vacuum cleaner that meets OSHA guidelines for Cr6 housekeeping and remove the dust from the filter compartment.	X [*]		
	Clean outside with a mild detergent.		X [*]	
	Check for cracks or holes. If damaged, refer to chapter 7.	X [*]		
Fan	Check the extraction fan and the extraction fan housing for encrusted particulate. Clean if necessary.			X
	Check the sealing material of the extraction fan. Replace if necessary.			X
Rotating Pulsating cleaning mechanism	Check proper turning of compressed air rod. Repair / replace if necessary.		X	
	Check the cleaning mechanism for leakage. Repair / replace if necessary.		X	
Dust tray	Check the contents of the dust tray. Empty if necessary.	X [*]		
Flexible hose	Check for cracks, holes or deformities. Replace if necessary.	X [*]		
Input power cord	Check the input power cord for damages.	Before every use [*]		

Table 3 :PERIODIC MAINTENANCE PRISM® MOBILE FUME ARM 10/13 FT MANUAL / AUTOMATIC EXTRACTION ARMS

COMPONENT	ACTION	FREQUENCY EVERY 3 MO.	FREQUENCY EVERY 6 MO.
BALANCE SYSTEM (ITEM A)	CHECK THE BALANCE CONSTRUCTION OF THE EXTRACTION ARM. ADJUST MECHANISM IF NECESSARY.		X
OUTSIDE ARM	CHECK AND CLEAN WITH A NON-AGGRESSIVE DETERGENT.	X	
FLEXIBLE HOSES	CHECK FOR CRACKS OR DAMAGES. REPLACE IF NECESSARY.		X
INSIDE ARM	CHECK AND CLEAN THOROUGHLY.		X
ARM MOVEMENT	CHECK HORIZONTAL, VERTICAL AND DIAGONAL ARM MOVEMENT. IF NECESSARY, ADJUST THE SPRING AND FRICTION.		X

COMPONENT	ACTION	FREQUENCY EVERY 3 MO.	FREQUENCY EVERY 6 MO.
ROTATABLE ARM	CHECK THE FUNCTION OF THE HOOD HINGE. IF NECESSARY, ADJUST THE FRICTION.	X	
THROTTLE VALVE	CHECK 90º ROTATION OF THE THROTTLE VALVE USING THE ROTARY KNOB.		X
HINGES (ITEM B)	CHECK AND LUBRICATE THE HINGE POINTS WITH BEARING GREASE.		X
PRISM® MOBILE FUME ARM 10/13 FT MOBILE AUTOMATIC ONLY			
HALOGEN LAMP	CHECK HALOGEN LAMP BY TURNING THE ON / OFF SWITCH	X *	
	CHECK GLASS SPATTER GUARD FOR WELD SPATTERS. REPLACE IF NECESSARY.	X	

* Variables such as coatings (e.g. oil), base material, weld process and procedures can affect filter life and performance.



DISPOSAL

After life of the product, dispose of product in accordance with federal, state or local regulations.

TROUBLESHOOTING

HOW TO USE TROUBLESHOOTING GUIDE

⚠ WARNING

Service and Repair should only be performed by Lincoln Electric Factory Trained Personnel. Unauthorized repairs performed on this equipment may result in danger to the technician and machine operator and will invalidate your factory warranty. For your safety and to avoid Electrical Shock, please observe all safety notes and precautions detailed throughout this manual.

This Troubleshooting Guide is provided to help you locate and repair possible machine malfunctions. Simply follow the three-step procedure listed below.

1. **LOCATE PROBLEM (SYMPTOM)**

   Look under the column labeled “PROBLEM (SYMPTOMS)”. This column describes possible symptoms that the machine may exhibit. Find the listing that best describes the symptom that the machine is exhibiting.

2. **POSSIBLE CAUSE**

   The second column labeled “POSSIBLE CAUSE” lists the obvious external possibilities that may contribute to the machine symptom.

3. **RECOMMENDED COURSE OF ACTION**

   This column provides a course of action for the Possible Cause, generally it states to contact your local Lincoln Authorized Field Service Facility.

⚠ CAUTION

If you do not understand or are unable to perform the Recommended Course of Action safely, contact your local Lincoln Authorized Field Service Facility.

Observe all additional safety guidelines detailed throughout this manual.

TROUBLESHOOTING GUIDE

Observe all Safety Guidelines detailed throughout this manual

PROBLEMS (SYMPTOMS)	POSSIBLE AREAS OF MISADJUSTMENTS(S)	RECOMMENDED COURSE OF ACTION
PRISM® MOBILE BASE UNIT & PRISM® MOBILE FUME ARM 10/13 FT MANUAL / AUTOMATIC EXTRACTION ARMS		
Motor does not start. Machine does not function.	**1.** No input power. **2.** Input power cord defective. **3.** Loose contacts. **4.** Motor protection switch defective.	**1.** Check the input power. **2.** Repair or replace input power cord. **3.** Repair the contacts. **4.** Replace the motor protection.
Motor makes a humming sound. Machine does not function.	**1.** Motor capacitor defective / not connected.	**1.** Repair or replace the motor capacitor.
Motor stops automatically. Machine does not function.	**1.** Motor protection switch activated. **2.** Motor defective.	**1.** Let the machine cool down for some time. Check overload current setting 11 A for 120 V, 5.75 A for 230 V. **2.** Repair or replace the motor.
PRISM® MOBILE only - Faulty Filter Maintenance Indicator. Indicator does not indicate saturation level of pre-filter and / or LongLife filter cartridge.	**1.** Blocked indicator tubes. **2.** Indicator leaking.	**1.** Clean tubes with compressed air. **2.** Replace Filter Maintenance Indicator.
Poor suction. Machine does not function properly.	**1.** LongLife filter cartridge clogged (check filter maintenance indicator - See Figure 5 : FILTER MAINTENANCE INDICATOR on page B-8). **2.** Pre-filter clogged. **3.** Throttle valve closed. **4.** Outside air is being extracted. **5.** Outlet grid blocked. **6.** Extraction fan polluted.	**1.** Replace LongLife filter cartridge (See PRISM MOBILE LongLife Filter Cartridge on page B-11). **2.** Clean (See PERIODIC MAINTENANCE on page D-3) or replace (See PRISM MOBILE FILTER REPLACEMENT on page B-11) the pre-filter. **3.** Open throttle valve. **4.** Check or replace the sealing material. **5.** Remove obstructions from the outlet grid. **6.** Clean the extraction fan.
Dust or smoke coming out of the filter cover. Pollution of the facility.	**1.** LongLife filter cartridge damaged. **2.** Sealing on LongLife filter cartridge damaged. **3.** LongLife filter cartridge placed incorrectly.	**1.** Replace LongLife filter cartridge (See PRISM MOBILE LongLife Filter Cartridge on page B-11). **2.** Replace LongLife filter cartridge (See PRISM MOBILE LongLife Filter Cartridge on page B-11). **3.** Replace the LongLife filter cartridge or place correctly.

PROBLEMS (SYMPTOMS)	POSSIBLE AREAS OF MISADJUSTMENTS(S)	RECOMMENDED COURSE OF ACTION
PRISM® MOBILE BASE UNIT & PRISM® MOBILE FUME ARM 10/13 FT MANUAL / AUTOMATIC EXTRACTION ARMS		
Vibrations in the machine. Machine not steady.	**1.** Imbalance in the extraction fan.	**1.** Clean the extraction fan.

PROBLEMS (SYMPTOMS)	POSSIBLE AREAS OF MISADJUSTMENTS(S)	RECOMMENDED COURSE OF ACTION
PRISM® MOBILE BASE UNIT & PRISM® MOBILE FUME ARM 10/13 FT AUTOMATIC ONLY EXTRACTION ARMS		
Motor does not start automatically. Machine does not function.	**1.** Lens cap of arc sensor damaged or dirty. **2.** Arc Sensor defective.	**1.** Replace or clean plastic lens cap of arc sensor. **2.** Replace arc sensor.

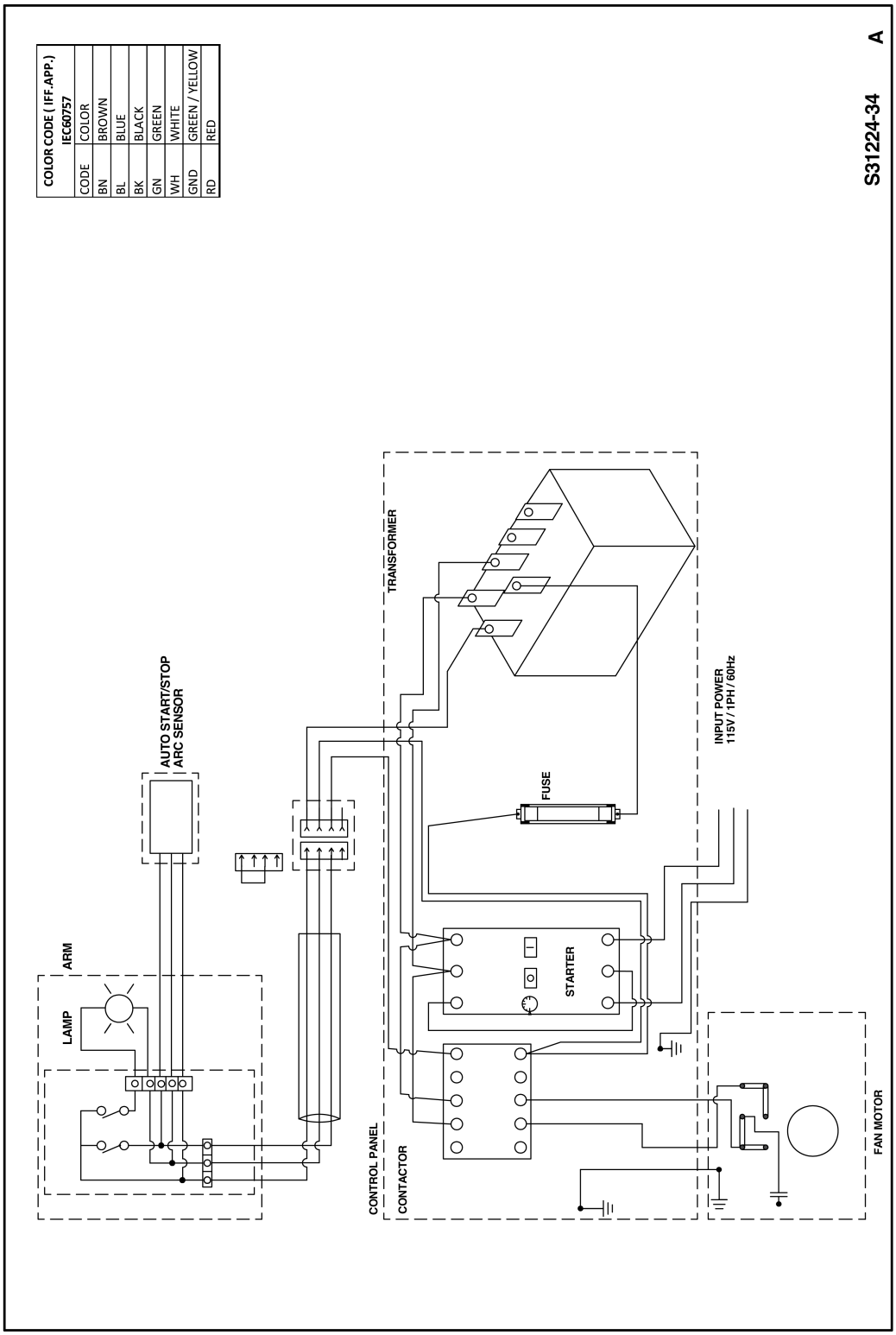
PROBLEMS (SYMPTOMS)	POSSIBLE AREAS OF MISADJUSTMENTS(S)	RECOMMENDED COURSE OF ACTION
PRISM® MOBILE FUME ARM 10/13 FT MANUAL / AUTOMATIC		
Extraction hood not in balance. Extraction hood does not stay in desired position.	**1.** Not enough friction.	**1.** Adjust balance. See BALANCE CHECK on page A-15 .
Extraction hood not in balance. Extraction hood can't be moved in desired position.	**1.** Too much friction.	**1.** Adjust friction. See BALANCE CHECK on page A-15 .
Extraction capacity insufficient. Pollution of the facility.	**1.** Throttle valve closed. **2.** Flexible hose(s) torn or loose. **3.** Rubber seal(s) torn.	**1.** Open throttle valve. **2.** Replace flexible hose(s) or apply correctly. **3.** Replace rubber seal(s).
Extraction arm not in balance. Entire arm falls on its own.	**1.** Lack of spring tension fan side.	**1.** Increase spring tension. See BALANCE CHECK on page A-15 .
Extraction arm not in balance. Hood section falls on its own.	**1.** Lack of spring tension hood side.	**1.** Increase spring tension. See BALANCE CHECK on page A-15 .
Extraction arm creaks or squeaks. Excessive wear of parts.	**1.** Insufficient lubrication in hinges. **2.** Worn out steel cable. **3.** Worn out bearing of balance wheel.	**1.** Lubricate hinges using oil or grease. See PERIODIC MAINTENANCE on page D-3 . **2.** Replace steel cable and lubricate. **3.** Replace bearing and lubricate.

PROBLEMS (SYMPTOMS)	POSSIBLE AREAS OF MISADJUSTMENTS(S)	RECOMMENDED COURSE OF ACTION
PRISM® MOBILE FUME ARM 10/13 FT AUTOMATIC ONLY		
Insufficient light to the workpiece. No clear view.	**1.** Weld spatters on glass spatter guard. **2.** Halogen lamp defective.	**1.** Replace glass spatter guard. **2.** Replace halogen lamp.

DIAGRAMS & PRINTS

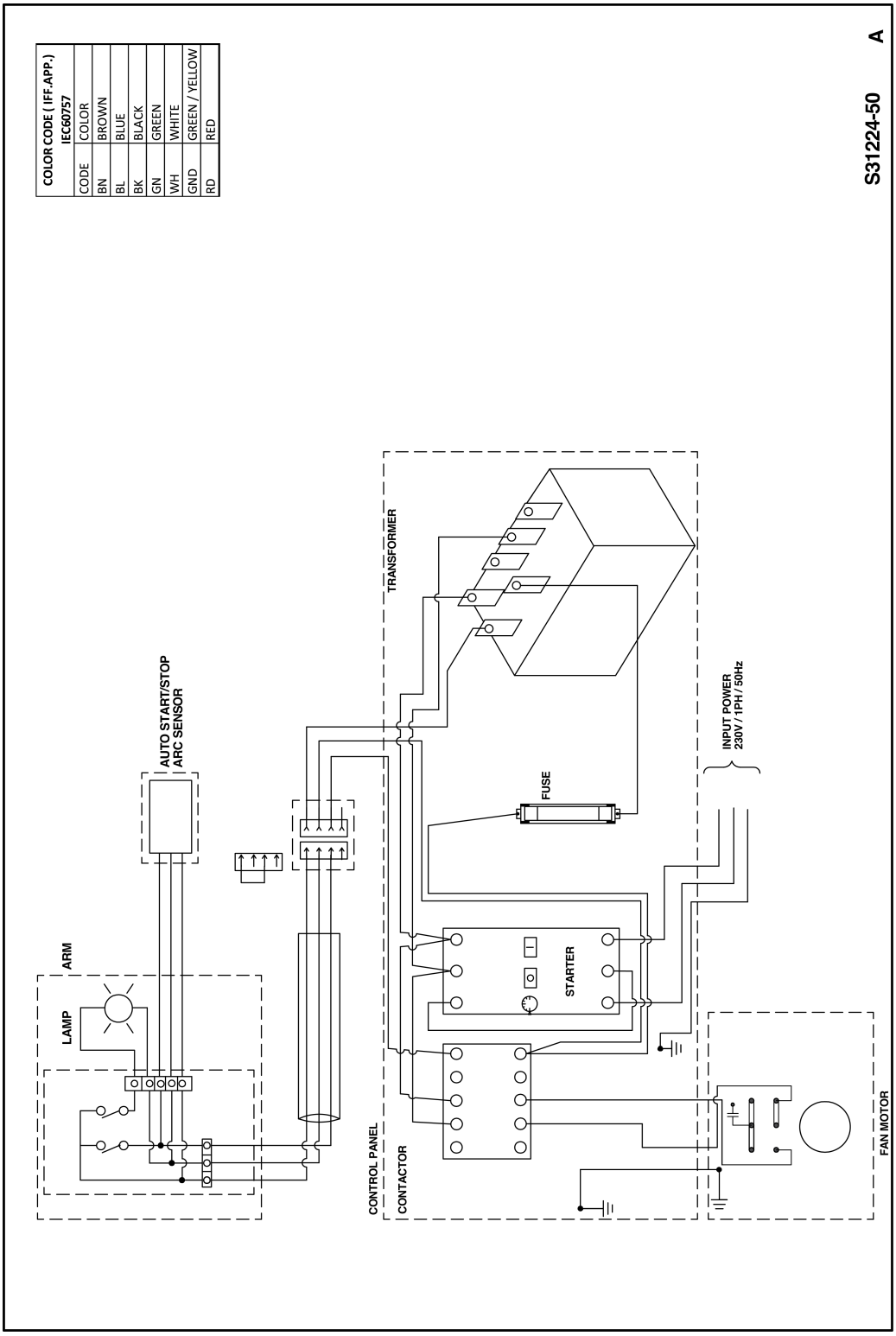
DIAGRAMS

PRISM® MOBILE 120V/1~/60 Hz

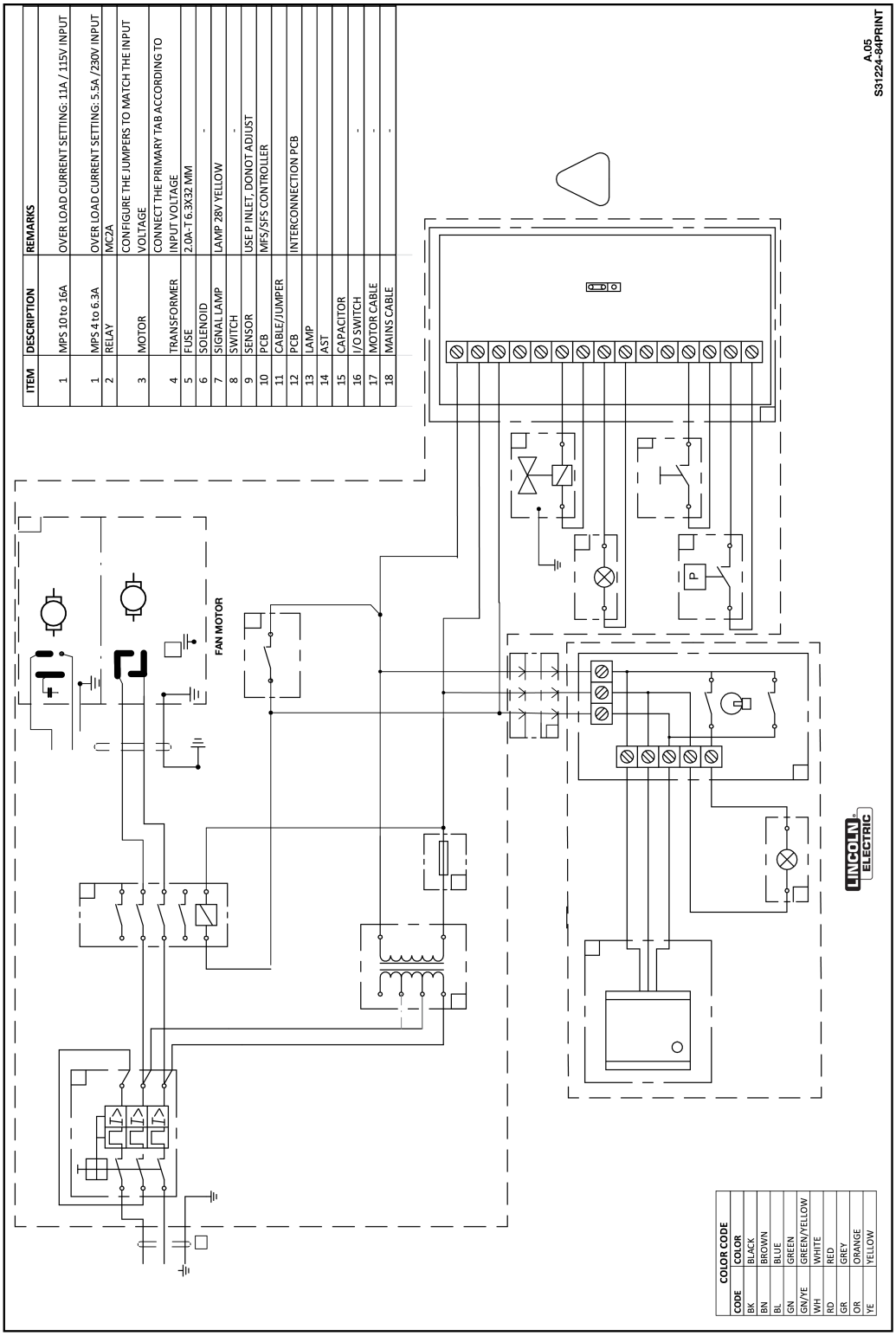


NOTE: This diagram is for reference only. It may not be accurate for all machines covered by this manual. The specific diagram for a particular code is pasted inside the machine on one of the enclosure panels. If the diagram is illegible, write to the Service Department for a replacement. Give the equipment code number.

PRISM® MOBILE 230V/1~/50 Hz



NOTE: This diagram is for reference only. It may not be accurate for all machines covered by this manual. The specific diagram for a particular code is pasted inside the machine on one of the enclosure panels. If the diagram is illegible, write to the Service Department for a replacement. Give the equipment code number.



NOTE: This diagram is for reference only. It may not be accurate for all machines covered by this manual. The specific diagram for a particular code is pasted inside the machine on one of the enclosure panels. If the diagram is illegible, write to the Service Department for a replacement. Give the equipment code number.

APPENDIX

CUSTOMER ASSISTANCE POLICY

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and 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.

WELD FUME CONTROL EQUIPMENT

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

PARTS LIST

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