



AIR COMPRESSOR/GENERATOR/WELDER
OPERATOR'S MANUAL



CAUTION

**RISK OF INJURY! READ ENTIRE MANUAL BEFORE OPERATING!
THIS MANUAL IS AN IMPORTANT PART OF THE AIR COMPRESSOR/GENERATOR/WELDER
AND MUST REMAIN WITH THIS UNIT!**

Introduction

THANK YOU for purchasing a Mi-T-M product.

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT HAND AND LEFT HAND sides are determined by facing the motor end of the machine.

The SERIAL NUMBER is located in the Specification or Identification Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided from your dealer for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate shown in this manual.

This warranty provides you the assurance that your dealer will back products where defects appear within the warranty period. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void.

WARNING

 **WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

WARNING

 **WARNING:** This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contents

INTRODUCTION	2
RECOGNIZE SAFETY INFORMATION	5
CONTROLS	15-16
INSTALLATION.....	18
OPERATION	22
START-UP	22
WELDING START-UP.....	22
SHUTDOWN	24
OPERATING CONTROLS	24
CABLE SIZE	25
TROUBLESHOOTING	26
MAINTENANCE	28
MAINTENANCE CHART.....	28
CHECKING ENGINE OIL.....	29
CHANGING ENGINE OIL	29
WIRING DIAGRAM/ SCHEMATIC	33-34
STORAGE.....	35
SPECIFICATIONS	36
WARRANTY	37

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Contents

Safety

RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



UNDERSTAND SIGNAL WORDS

A signal word--DANGER, WARNING or CAUTION--is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and safety signs on your machine. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.





CARBON MONOXIDE - POISONOUS GAS

Use unit outdoors, away from open windows, vents, or doors.

Unit exhaust contains carbon monoxide - a poisonous gas that can kill you. You **CAN NOT** smell or see this gas.

Never use the unit in enclosed or partially-enclosed spaces. The unit can produce high levels of carbon monoxide very quickly. When you use this unit, remember that you cannot smell or see carbon monoxide. Even if you can't smell exhaust fumes, you may still be exposed to carbon monoxide.

If you start to feel sick, dizzy, or weak while using the unit, get to fresh air **RIGHT AWAY**. **DO NOT DELAY**. The carbon monoxide from the unit can rapidly lead to full incapacitation and death.

If you experience serious symptoms, get medical attention immediately. Inform medical staff that carbon monoxide poisoning is suspected. If you experienced symptoms while indoors, have someone call the fire department to determine when it is safe to re-enter the building.

Never operate the unit in an explosive atmosphere, near combustible materials or where ventilation is not sufficient to carry away exhaust fumes. Exhaust fumes can cause serious injury or death.

NEVER use the unit indoors, including in homes, garages, basements, crawl spaces, and other enclosed or partially-enclosed areas, even with ventilation. Opening doors and windows or using fans will not prevent carbon monoxide build-up in the home.

Follow the instructions that come with your unit. Locate the unit outdoors and away from doors, windows, and vents that could allow the carbon monoxide gas to come indoors.

ONLY run unit outdoors and away from air intakes.

NEVER run unit inside homes, garages, sheds, or other semi-enclosed spaces. These spaces can trap poisonous gases **EVEN IF** you run a fan or open doors and windows.

If you start to feel sick, dizzy, or weak while using the unit, shut it off and get fresh air **IMMEDIATELY**. See a doctor. You may have carbon monoxide poisoning.

Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up in your home, according to the manufacturer's installation instructions. The carbon monoxide alarms should be certified to the requirements of the latest safety standards for carbon monoxide alarms. (UL 2034, IAS 6-96, or CSA 6.19.01).

Test your carbon monoxide alarm frequently and replace dead batteries.



ADANGER	ADANGER	PELIGRO
Using a generator indoors CAN KILL YOU IN MINUTES . Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.	L'utilisation d'un groupe électrogène à l'intérieur PEUT VOUS TUER EN QUELQUES MINUTES . Le gaz d'échappement du groupe électrogène contient de l'oxyde de carbone. C'est un gaz toxique que l'on ne peut pas voir ou sentir. Ne JAMAIS utiliser à l'intérieur d'une maison ou d'un garage, MÊME SI les portes et fenêtres s'ont ouvertes.	Utilizando un generador adentro PUEDEN MATARLE EN MINUTOS . El escape de generador contiene monóxido de carbono. Este es un gas tóxico que usted no puede ver ni puede oler.
 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.	 Nunca utilice dentro de un hogar ni el garage, INCLUSO SI puertas y ventanas están abiertas. Solo utilice AFUERAS y lejos de ventanas abiertas, las puertas, y descargas.



SAFETY WARNING WHEN REFUELING

Injury or death may occur as a result of improper fueling. Do not smoke while filling engine fuel tank.

Always refuel slowly to avoid the possibility of spilled fuel which may cause a risk of fire.

Gasoline is extremely flammable and its vapors can explode if ignited.

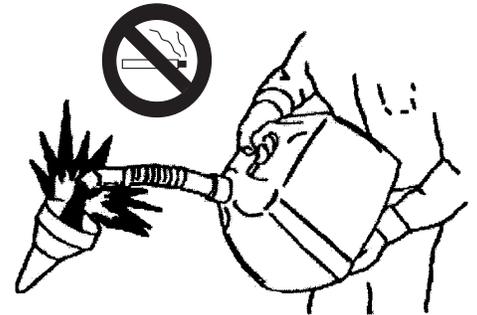
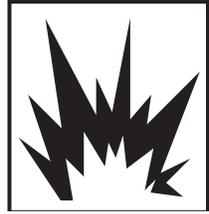
Observe all safety regulations for the safe handling of fuel. Handle fuel in safety containers. If the container does not have a spout, use a funnel.

Do not overfill the fuel tank, leave room for the fuel to expand.

Fill the tank only on an area of bare ground. While fueling the tank, keep heat, sparks and open flame away. Carefully clean up any spilled fuel before starting engine.

Always fill fuel tank in an area with plenty of ventilation to avoid inhaling dangerous fumes.

NEVER store fuel for your unit in the home. Gasoline, propane, kerosene, and other flammable liquids should be stored outside of living areas in properly-labeled, non-glass safety containers. Do not store them near a fuel-burning appliance, such as a natural gas water heater in a garage. If the fuel is spilled or the container is not sealed properly, invisible vapors from the fuel can travel along the ground and can be ignited by the appliance's pilot light or by arcs from electric switches in the appliance.





ELECTRICAL HAZARDS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. Do not touch live electrical parts.



DANGER - IMPROPER CONNECTION OF THE EQUIPMENT-GROUNDING CONDUCTOR CAN RESULT IN A RISK OF ELECTROCUTION. CHECK WITH A QUALIFIED ELECTRICIAN OR SERVICE PERSON IF YOU ARE IN DOUBT AS TO WHETHER THE UNIT IS PROPERLY GROUNDED.

This unit is equipped with a grounding terminal for your protection. Always complete the ground path from the unit to an external ground source as instructed in the section labeled “Grounding Instructions” in the Preparation section of this manual.

The unit is a potential source of electrical shock if not kept dry. Keep the unit dry and do not use in rain or wet conditions. To protect from moisture, operate it on a dry surface under an open, canopy-like structure. Dry your hands if wet before touching the unit.

Plug appliances directly into the unit. Or, use a heavy duty, outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.

NEVER try to power the house wiring by plugging the unit into a wall outlet, a practice known as “back feeding”. This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.

If you must connect the unit to the house wiring to power appliances, have a qualified electrician install the appropriate equipment in accordance with local electrical codes. Or, check with your utility company to see if it can install an appropriate power transfer switch.

For power outages, permanently installed stationary units are better suited for providing backup power to the home. Even a properly connected portable unit can become overloaded. This may result in overheating or stressing the unit components, possibly leading to a unit failure.

Do not use worn, damaged, undersized, or poorly spliced welding cables. Do not drape welding cables over your body. Do not touch electrode if you are in contact with the work, ground, or another electrode from a different machine.





RISK OF FIRE OR EXPLOSION

Serious injury or death may occur from normal sparks in the engine ignition system or engine exhaust/muffler. Always operate the unit in a well ventilated area free of flammable vapors, combustible dust, gases or other combustible materials. Do not weld where the atmosphere may contain flammable dust, gas, or liquid vapors (such as gasoline).

DO NOT SMOKE if spraying flammable material. Locate the unit at least 20 feet away from the spray area. (An additional hose may be required.)

Never fill the engine fuel tank while the engine is running or hot. Allow the engine to cool two minutes before refueling. Do not refuel indoors or in a poorly ventilated area.

Do not operate the unit if gasoline is spilled. Wipe the unit clean and move it away from the spill. Avoid creating any ignition until the gasoline has evaporated.

Do not store the unit near an open flame or any equipment such as a stove, furnace, water heater, etc. which utilizes a pilot light or sparking device.

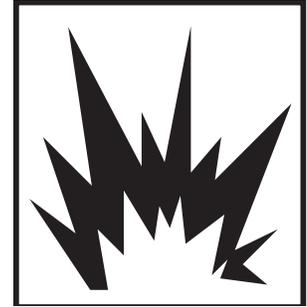
A spark arrester must be added to the muffler of this engine if it is to be used on any forest covered, brush covered or grass covered unimproved land. The arrester must be maintained in effective working order by the operator.

Serious injury may occur if any of the unit's ventilation openings are restricted, causing the unit to overheat and start a fire. Never place objects against or on top of the unit. Operate the unit at least 12 inches away from any wall or obstruction that would restrict proper ventilation.

Welding on closed containers, such as tanks, drums, or pipes, can cause them to explode. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire.

Remove all flammables within 35 ft (10.7 m) of the welding arc. Do not weld where flying sparks can strike flammable material. Watch for fire, and keep a fire extinguisher nearby.

After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames. Remove stick electrode from holder when not in use.



RISK OF BURSTING

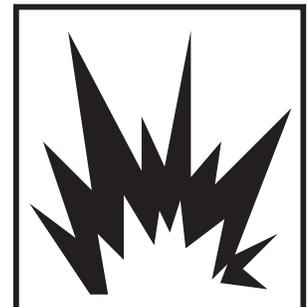
Serious injury or death may occur from an air tank explosion if air tanks are not properly maintained. Drain air tank daily or after each use to prevent moisture buildup in the air tank.

If air tank develops a leak, replace the air tank immediately. Never repair, weld or make modifications to the air tank or its attachments. Use only genuine manufacturer repair parts for your unit. NEVER make adjustments to the factory set pressures.

Serious injury may occur from the unit malfunction or exploding accessories if incorrect system components, attachments or accessories are used. Never exceed manufacturers maximum allowable pressure rating of attachments.

Because of extreme heat, do not use plastic pipe or lead tin soldered joints for a discharge line.

Never use the unit to inflate small, low pressure objects such as toys.





RISK OF BREATHING

Serious injury or death could occur from inhaling compressed air. The air stream may contain carbon monoxide, toxic vapors or solid particles. Never inhale air from the unit either directly or from a breathing device connected to the unit.

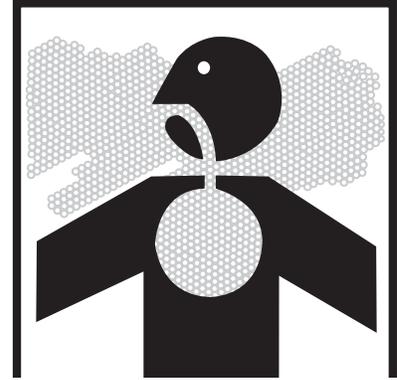
Serious injury or death may occur from inhaling engine exhaust. This unit was designed for outdoor use. Never operate this unit in an enclosed area. Always make certain there is adequate ventilation (fresh outside air) for breathing and combustion. This will prevent the buildup of dangerous carbon monoxide gases. Beware of poorly ventilated areas, or areas with inadequate exhaust fans.

Sprayed materials such as paint, solvents, paint remover, insecticides, weed killers, etc. contain harmful vapors and poisons. Operate the unit only in a well ventilated area. Follow all safety instructions provided with the materials you are spraying. Use of a respirator may be required when working with some materials.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health. Keep your head out of the fumes. Do not breathe the fumes.

Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.

Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel. The coatings and any metals containing these elements can give off toxic fumes if welded.



RISK OF BURNS

Serious injury could occur from touching exposed metal parts. These areas can remain hot for some time after the unit is shutdown. Never allow any part of your body or other materials to make contact with any exposed metal parts on the unit.

Never allow any part of your body to contact the engine muffler, compressor head or adjacent areas.

