



PORTA POWER

SAFETY INSTRUCTIONS MANUAL



1 GENERAL

Operator and Supervisor Information

Signal Word Definition

Signal Word Panel

2 SIGNAL WORD PANEL - MACHINE FRONT

3 SIGNAL WORD PANEL - MACHINE BACK

4 SIGNAL WORDS

Danger Panel

Warning Panel

Notice Panel

Additional Graphic Information

OPERATOR AND SUPERVISOR INFORMATION

This is one of four manuals supplied with your machine.

- **Installation Manual**
- **Safety Instructions Manual**
- **Operations Manual**
- **Maintenance Manual**

READ ALL MANUALS BEFORE OPERATING MACHINERY. Operating machinery before reading and understanding the contents of all four manuals greatly increases the risk of injury.

Each of the four machine manuals describes 'best practices' in handling, installing, operating and maintaining your machine. The contents of each manual is subject to change without notice due to improvements in the machinery or changes in National or International standards.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

Keep all manuals close to the machine to allow for easy reference when necessary.

Provide operators with sufficient training and education in the basic functions of the machine prior to machine operation.

Do not allow for operation of the machine by unqualified personnel. Edwards Manufacturing Company is not liable for accidents arising from unskilled, untrained operation.

Do not modify or change the machine without written authorization from Edwards Manufacturing Company. Unauthorized modification to a machine may result in serious operator injury, machine damage and will void your machine warranty.

Never leave a powered machine unattended. Turn machinery **OFF** before walking away.

This machine is manufactured for use by able bodied and able minded operators only. Never operate machinery when tired or under the influence of drugs or alcohol.

Do not resell, relocate or export to a destination other than to the original point of sale. Edwards has designed this machine to meet the standards of the original receiving country and is not liable for meeting any governing body or performance standards beyond those of the original receiving country.

SIGNAL WORD DEFINITION

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation that, if not avoided, could result in mild or moderate injury.

NOTICE

Indicates information considered important, but not hazard related.



WARNING: This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.



WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

SIGNAL WORD PANEL ON MACHINE

DANGER

Critical machine safety information is identified on signal word labels. Labels are attached adjacent to the potentially hazardous locations of the machine. Reference the Safety Instruction Manual for additional information regarding the potentially hazardous condition identified on the label.

Review ALL labels on the machinery, reference the operational precautions and safe operations sections within this manual before any operation activity is initiated.

Failure to read and understand the signal word labels affixed to the machinery may result in operator death or injury.

SIGNAL WORD PANEL • MACHINE FRONT

NOTICE

Read, understand, and follow all labels shown on the machine and described in the:

- Safety Instructions Manual
- Installation Manual
- Operations Manual
- Maintenance Manual

Keep all manuals close for easy reference.

Trained and authorized personnel are to install, operate and service this machinery. Do not allow for operation of the machine by unqualified personnel.

Personal protective equipment must be worn at all times during machinery operation.

EMERGENCY STOP

PUSH TO START

DO NOT REMOVE, DESTROY OR COVER THIS LABEL.



WARNING

FLUID INJECTION HAZARD
Fluid under pressure.

P.P.E. Required

24V POWER

LIMIT SWITCH

CAUTION

Hydraulic accessory controls powered by Porta Power.

PUSH BUTTON

DANGER

KEEP OUT

Hazardous voltage inside.

Lockout power before servicing.

hp ~
V Hz

SIGNAL WORD PANEL • MACHINE BACK



DANGER PANEL

DANGER



Electrical Hazard

This is the electrical hazard symbol. It indicates there are dangerous high voltages present inside the enclosure of this product. ONLY qualified, authorized, maintenance, service or Certified Electricians should gain access to electrical panel. Do not operate this equipment from any power source that does not match the voltage rating stamped on the equipment. Refer to the Manufacturer's Identification Label for operational requirements.



Lockout Power

Danger circuits are live. Lockout/Tagout the upstream power source. Lockout/Tagout machinery according to Employer procedures.

230 V

Voltage (Varies by consumer requirement)

Indication of operating power requirements. This product should be operated only from the type of source indicated on the manufacturer's identification label Installation should be in compliance with applicable sections of the National Electric Code. Consult your local building code before installing.

3~

Phase (Varies by consumer requirement)

Indication of electrical phase requirements. This product should be operated only from the type of source indicated on the manufacturer's identification label Installation should be in compliance with applicable sections of the National Electric Code. Consult your local building code before installing.

5 hp

Horsepower (Varies by model)

Indication of horsepower requirements. This product should be operated only from the type of source indicated on the manufacturer's identification label Installation should be in compliance with applicable sections of the National Electric Code. Consult your local building code before installing.

60 Hz

Hertz (Varies by consumer requirement)

Indication of electrical cycles per second. This product should be operated only from the type of source indicated on the manufacturer's identification label Installation should be in compliance with applicable sections of the National Electric Code. Consult your local building code before installing.

WARNING PANEL

WARNING



Wear Personal Protective Equipment

To avoid physical hazard, always wear personal protective equipment. Wear protective eyewear, clothing, gloves, footwear, head-gear and hearing protection while operating or servicing this machinery.



Fluid Injection Hazard

Hydraulic hoses and cylinders are under pressure. Pressurized fluid can pierce skin and cause severe injury. To avoid physical hazard, always wear personal protective equipment. Keep hands clear while operating. Lockout power before servicing. Immediately replace guards after adjustment, repair or service.

NOTICE PANEL

NOTICE



Ironworker Operation

This manual outlines the basic functions associated with typical Porta Power operations and is neither intended to create a comprehensive list of, nor describe every operation possible with a Porta Power. **DO NOT USE THIS EQUIPMENT FOR ANY PURPOSE NOT DESCRIBED IN THE MANUALS.** Hydraulic machines are dangerous and require extreme care and caution in the safe installation, operation and maintenance of the machinery. Edwards Manufacturing Company strongly suggests reading and understanding all manuals associated with the machinery as well as obtaining certified, technical, industrial machinery operations and maintenance training to reduce the risk of injury. Regardless of the contents of the machinery manuals Edwards Manufacturing Company will not be held liable for accidents caused by lack of training.



Refer to Manuals: Safety, Installation, Operations and Maintenance

Manuals contain critical instructions regarding proper procedures for your machinery. Understand the contents of all manuals thoroughly. Failure to follow proper procedures may result in serious operator injury, machine damage and will void your machine warranty. Keep manuals close to the machine for easy reference.



Wear Personal Protective Equipment

To avoid physical hazard, always wear personal protective equipment. Wear protective eyewear, clothing, gloves, footwear, head-gear and hearing protection while operating or servicing this machinery.



Forklift Location

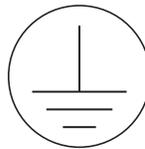
This machine is equipped with rated forklift movement points. Do not attempt to lift the machinery by any other means. Inappropriate movement of the machinery may result in serious operator injury, machine damage and will void machine warranty. Consult the installation manual for equipment weight ratings. Provide rated forklift and certified forklift operator to move machinery to appropriate location.

ADDITIONAL GRAPHIC INFORMATION



PE

'Protective earth', electrical grounding location.



Safety Ground

Safety earth ground location.



Do Not Use Non-Approved Lubricants

This machine requires lubrication of moving mechanical parts (grease) and the maintenance of hydraulic fluids. Consult maintenance manual for specific lubrication requirements and application or maintenance schedules.



Electric Motor Rotation (Above)

Identification of proper electrical motor rotation.



Hydraulics

Hydraulic fluids must be recycled as required by local environmental law. Do not dispose of by adding to the municipal waste stream.

ADDITIONAL GRAPHIC INFORMATION



Electronics

Electronic equipment must be recycled as required by local environmental law. Do not dispose of by adding to the municipal waste stream.



Metal

Metal components must be recycled as required by local environmental law. Do not dispose of by adding to the municipal waste stream.



IRONWORKERS

1107 SYKES ST., ALBERT LEA, MN 56007 800-373-8206 WWW.EDWARDSIRONWORKERS.COM



PORTA POWER

INSTALLATION MANUAL



1 GENERAL

- Operator and Supervisor Information
- Signal Word Definition
- Signal Word Panel

2 INSTALLATION REQUIREMENTS

- Environmental Requirements at Work Station
- Electrical Requirements at Work Station
- Electrical Performance Specification

3 INSTALLING THE PORTA POWER

- Receiving the Porta Power
- Unpacking/Moving
- Electrical Connection of the Porta Power
- Installing the Porta Power
- Starting Box Wiring
- Powering Up the Porta Power

OPERATOR AND SUPERVISOR INFORMATION

This is one of four manuals supplied with your machine.

- **Installation Manual**
- **Safety Instructions Manual**
- **Operations Manual**
- **Maintenance Manual**

READ ALL MANUALS BEFORE OPERATING MACHINERY. Operating machinery before reading and understanding the contents of all four manuals greatly increases the risk of injury.

Each of the four machine manuals describes 'best practices' in handling, installing, operating and maintaining your machine. The contents of each manual is subject to change without notice due to improvements in the machinery or changes in National or International standards.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

Keep all manuals close to the machine to allow for easy reference when necessary.

Provide operators with sufficient training and education in the basic functions of the machine prior to machine operation.

Do not allow for operation of the machine by unqualified personnel. Edwards Manufacturing Company is not liable for accidents arising from unskilled, untrained operation.

Do not modify or change the machine without written authorization from Edwards Manufacturing Company. Unauthorized modification to a machine may result in serious operator injury, machine damage and will void your machine warranty.

Never leave a powered machine unattended. Turn machinery **OFF** before walking away.

This machine is manufactured for use by able bodied and able minded operators only. Never operate machinery when tired or under the influence of drugs or alcohol.

Do not resell, relocate or export to a destination other than to the original point of sale. Edwards has designed this machine to meet the standards of the original receiving country and is not liable for meeting any governing body or performance standards beyond those of the original receiving country.

SIGNAL WORD DEFINITION

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation that, if not avoided, could result in mild or moderate injury.

NOTICE

Indicates information considered important, but not hazard related.



WARNING: This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.



WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

SIGNAL WORD PANEL ON MACHINE

DANGER

Critical machine safety information is identified on signal word labels. Labels are attached adjacent to the potentially hazardous locations of the machine. Reference the Safety Instruction Manual for additional information regarding the potentially hazardous condition identified on the label.

Review ALL labels on the machinery, reference the operational precautions and safe operations sections within this manual before any operation activity is initiated.

Failure to read and understand the signal word labels affixed to the machinery may result in operator death or injury.

INSTALLATION REQUIREMENTS

This manual provides installation information for the following:

25 Ton	40 Ton	50 Ton
55 Ton	60 Ton	65 Ton
75 Ton	100 Ton	100 Ton DX
120 Ton	Elite 110	Elite 110/65 D.O.
Porta Power		

- **Altitude:** This equipment will operate correctly up to 1000m above mean sea level.
- **Transportation and Storage:** This equipment will withstand, or has been protected against, transportation and storage temperatures of -25°C to +55°C and for short periods up to +70°C. It has been packaged to prevent damage from the effects of normal humidity, vibration and shock.

Electrical Requirements at Work Station



Environmental Requirements at Work Station

NOTICE

The work station environment for your machine must meet the following minimum requirements:

- **Floor area:** Assure that the machinery work area provides for a stable, adequately sized and load rated floor area for material movement to and from the machinery work stations.
- **Shelter:** Edwards Ironworkers are designed for indoor use only. Protect your Ironworking machinery from water, salts and corrosive elements.
- **Lighting:** 500LUX (50 footcandles) minimum.
- **Operating Temperature:** This equipment will operate correctly in its intended ambient, at a minimum between +5° C and +40°C.
- **Relative Humidity:** This equipment will operate correctly within an environment at 50% RH, +40°C. Higher RH may be allowed at lower temperatures. Measures shall be taken by the Purchaser to avoid the harmful effects of occasional condensation.

Locate your Porta Power directly adjacent to your power supply. Confirm that power supply is not connected in series with other machinery. Provide dedicated electrical socket and circuit breaker for each machine installed. Edwards Machines are protected from voltage variations provided the variation does not exceed +/- 10% machine rating.

Electrical Performance Specification

Machine	Motor #	Type	Brand	60Hz/V	FLA	50Hz/V	FLA
25 Ton	116676	1Hp 1~	Leeson	60 Hz 115/208-230	12/6	50 Hz 110/220	13/6
40, 50, 55, 60 Ton,	132089	5Hp 1~	Leeson	60 Hz 230	19	50 Hz 208-220	23-22
Porta-Power	132077	5Hp 3~	Leeson	60 Hz 208-230/460	14/7	50 Hz 190/380	16/8
	CEM3615T-5	5Hp 3~	Baldor	60 Hz 575	5		
65, 75, 100 Ton,	132089	5Hp 1~	Leeson	60 Hz 230	19	50 Hz 208-220	23-22
Elite 110	140809	7.5Hp 3~	Leeson	60 Hz 208-230/460	22-21/10	50 Hz 190/380	24/12
Elite 110/65 D.O.	CEM3710T-5	7.5Hp 3~	Baldor	60 Hz 575	8		
	141140	7.5Hp 1~	Leeson	60 Hz 230	36		
100DX, 120 Ton	CEM3714T	10Hp 3~	Baldor	60 Hz 208-230/460	25-24/12		
	EM3714T-5	10Hp 3~	Baldor	60 Hz 575	10		
	CEM3714T-50	10Hp 3~	Baldor			50 Hz 220/380/440	28/16/14
	CL3712T	10Hp 1~	Baldor	60 Hz 208-230	38		

INSTALLING THE PORTA POWER

Receiving the Porta Power



Edwards Ironworking machinery is fully assembled and is shipped either by palletized custom wooden crate or by shrink-wrapped wooden pallet for ease of transport and receiving.

Inspect the packaging for damage and follow shipping/receiving instructions as listed on the packaging prior to receiving the machine into your facility.

When receiving your machine, be prepared to safely move your machinery with a fork-lift rated for the following equipment weights:

Minimum Machinery Weights

25 Ton	453.6 kg / 1000 lb
40 Ton	861.8 kg / 1900 lb
50 Ton	916.3 kg / 2020 lb
55 Ton	1124.9 kg / 2480 lb
60 Ton	1156.7 kg / 2550 lb
65 Ton	2154.6 kg / 4750 lb
75 Ton	1859.7 kg / 4100 lb
100 Ton	2109.2 kg / 4650 lb
100 Ton DX	2349.6 kg / 5180 lb
120 Ton	2494.8 kg / 5500 lb
ELITE 110	2440.3 kg / 5380 lb
ELITE 110/65	3891.8 kg / 8580 lb
Porta Power	181.4 kg / 400 lb

Utilize best practices for fork-lift operation. Handle material as close to the drive surface as possible with the widest spread and deepest penetration of forks effective to service the pallet. Forks should be adjusted and locked into the safety detent closest to the maximum available fork spread.

Unpacking/Moving

Your Edwards Porta Power includes surface and remotely mounted electrical cabling and hydraulic lines. Exercise caution when removing the factory supplied packaging. Do not cut electrical wires or hydraulic hoses.

1. *Unbolt/unpack from its pallet using a 3/4" (19.05mm) socket. Wear appropriate personal protective equipment.*
2. *Lift Edwards machinery using the designated fork lift locations and appropriately rated lifting equipment.*
3. *Move the machinery to the prepared workstation.*

Electrical Connection



Confirm with a certified electrician that the electrical supply to the terminal location powering your Porta Power meet the operating specifications (page 2) of the machine prior to electrical connection.

Confirm your electrical supply with the electrical specifications of the machine or accessory listed (page 2), and located on the Porta Power starter box. ***It is critical that a qualified electrician install your machinery as your Warranty protection does not cover incorrect wiring of electrical components at your site.***

Prior to connecting your machine to the dedicated, protected power supply, match work station wiring to the power supply cable (Owner supplied) and the starter-box/motor specifications on the machinery. Install connections appropriately. Check for stability of connections.

If wiring through a plug/socket connection at the work station, match work station wiring to the socket (Owner supplied), plug (Owner supplied) and the power supply cable (Owner supplied) to the starter-box / motor specifications on the machinery. Install connections appropriately. Check for stability of connections.

Wire according to the electrical diagrams located within the control box.

Starting Box Wiring



Provide the electrical schematic wiring diagram (located within the control box) to your Electrician prior to initiating the electrical hookup of the machine.



Power up the Porta Power

Power up the Porta Power by depressing the green button on the starter box. With the power on, your machine will be in a neutral position.

If the machinery fails to cycle the motor may be rotating incorrectly. To ensure the machinery cycles properly simply reverse two of the phase wires on the machine starter box.

Power down the Porta Power by depressing the red button on the starter box.

Consult the installation manual of your Edwards Hydraulic Accessory for proper installation of your Radius Roller, Horizontal Press, Tube/Pipe Bender, or Shop Press to your Porta Power.



IRONWORKERS

1107 SYKES ST., ALBERT LEA, MN 56007 800-373-8206 WWW.EDWARDSIRONWORKERS.COM



PORTA POWER

OPERATIONS MANUAL

SERIAL NUMBER: _____



1 GENERAL

Company Profile

Warranty

Machine Identification

Operator and Supervisor Information

Signal Word Definition

Signal Word Panel

Operational Precautions

Machine Operations

Foreseeable Misuse

Machine Life Cycle

6 OPERATIONS DIAGRAMS

8 CONTROL PANEL

9 HYDRAULIC ACCESSORY POWER

10 TROUBLESHOOTING

COMPANY PROFILE



Edwards Manufacturing Company manufactures a full line of high quality, low maintenance hydraulic ironworking machines, associated tooling and accessories that are used in the steel fabrication industry. With proper operation, care, and maintenance, your Edwards Ironworker or Hydraulic Accessory

Tool will provide consistent, long-term service. Please take time to study this Operator's Manual carefully to fully understand Ironworker and Hydraulic Accessory Tool safety procedures, set-up, operation, care, maintenance, troubleshooting and warranty coverage prior to putting the machine into production. Any questions not answered within this manual can be directed to your local Edwards Ironworker dealer or factory representative.

Contact the factory:

EDWARDS MANUFACTURING COMPANY

1107 Sykes Street

Albert Lea, MN 56007

507 373 8206 PHONE

507 373 9433 FAX

www.edwardsironworkers.com

General Questions:

sales@edwardsmfg.us

Service Questions:

service@edwardsmfg.us

Contact your dealer:

WARRANTY

Edwards Manufacturing Company will, within one (1) year of date of original purchase (proof of purchase required), replace F.O.B. the factory, any goods, excluding punches, dies and shear blades, which are defective in materials or workmanship provided that the buyer return the defective goods, freight pre-paid, to the seller, which shall be the buyer's sole and exclusive remedy for the defective goods. Hydraulic components are subject to their manufacturer's warranty.

Edwards Manufacturing Company will, within thirty (30) days of date of original purchase (proof of purchase required), replace F.O.B. the factory, any punches, dies and/or shear blades, which are defective in materials or workmanship.

This warranty does not apply to machines and/or components which have been altered, changed or modified in any way, or subjected to abusive and abnormal use, inadequate maintenance and lubrication, or subjected to use beyond seller recommended capacities and specifications. Edwards Manufacturing Company shall not be liable for labor costs expended on such goods or consequential damages. Edwards Manufacturing Company shall not be liable to the purchaser or any other person for loss, down-time, or damage directly or indirectly arising from the use of the goods or from any other cause. No officer, employee, or agent of Edwards Manufacturing Company is authorized to make any oral representations or warranty of fitness or to waive any of the foregoing terms and none shall be binding on Edwards Manufacturing Company.

NOTE: Edwards Manufacturing is a division of JPW Industries, Inc. References in this document to Edwards also apply to JPW Industries, Inc., or any of its successors in interest to the Edwards brand.

MACHINE IDENTIFICATION

Your Edwards Porta Power has been serialized for quality control, product traceability and warranty enforcement. Please refer to the aluminum identification tag with engraved serial number, electrical and power specifications when ordering parts or filing a warranty claim.

OPERATOR AND SUPERVISOR INFORMATION

This is one of four manuals supplied with your machine.

- Installation Manual
- Safety Instructions Manual
- Operations Manual
- Maintenance Manual

READ ALL MANUALS BEFORE OPERATING MACHINERY. Operating machinery before reading and understanding the contents of all four manuals greatly increases the risk of injury.

Each of the four machine manuals describes 'best practices' in handling, installing, operating and maintaining your machine. The contents of each manual is subject to change without notice due to improvements in the machinery or changes in National or International standards.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

Keep all manuals close to the machine to allow for easy reference when necessary.

Provide operators with sufficient training and education in the basic functions of the machine prior to machine operation.

Do not allow for operation of the machine by unqualified personnel. Edwards Manufacturing Company is not liable for accidents arising from unskilled, untrained operation.

Do not modify or change the machine without written authorization from Edwards Manufacturing Company. Unauthorized modification to a machine may result in serious operator injury, machine damage and will void your machine warranty.

Never leave a powered machine unattended. Turn machinery **OFF** before walking away.

This machine is manufactured for use by able bodied and able minded operators only. Never operate machinery when tired or under the influence of drugs or alcohol.

Do not resell, relocate or export to a destination other than to the original point of sale. Edwards has designed this machine to meet the standards of the original receiving country and is not liable for meeting any governing body or performance standards beyond those of the original receiving country.

SIGNAL WORD DEFINITION

 **DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 **WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 **CAUTION**

Indicates a hazardous situation that, if not avoided, could result in mild or moderate injury.

NOTICE

Indicates information considered important, but not hazard related.

SIGNAL WORD PANEL ON MACHINE

 **DANGER**

Critical machine safety information is identified on signal word labels. Labels are attached adjacent to the potentially hazardous locations of the machine. Reference the Safety Instruction Manual for additional information regarding the potentially hazardous condition identified on the label.

Review ALL labels on the machinery, reference the Safety Instructions Manual, the operational precautions and the safe operations sections within this manual before any operation activity is initiated.

Failure to read and understand the signal word labels affixed to the machinery may result in operator death or injury.

OPERATIONAL PRECAUTIONS

DANGER

Reasonable, common sense safety precautions should be observed when operating the Porta Power. The following precautions are described in order of their hazard.

Electrical Hazard

Dangerous high voltages are present inside the electrical enclosure of this product. Only qualified, authorized, maintenance or service personnel should gain access to the electrical panel.

Lockout Power

Danger, circuits are live. Lockout / tagout upstream power source before any maintenance activity is performed.

Hydraulic Fluid Hazard

Hydraulic hoses are under pressure. Pressurized fluid can pierce skin and cause severe injury. To avoid physical hazard, always wear personal protective equipment when servicing / maintaining the Ironworker.

Refer to Manuals

For safe installation, operation and maintenance of the machine, read:

- Installation Manual
- Safety Instructions Manual
- Operations Manual
- Maintenance Manual

Wear Personal Protective Equipment

To avoid physical hazard wear protective eyewear, clothing, gloves, footwear, head-gear and hearing protection.

 **WARNING:** This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

 **WARNING:** Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

MACHINE OPERATIONS

WARNING

Edwards Porta Power, portable hydraulic power source is designed to provide rated, hydraulic fluid power to Edwards Shop Presses, Pipe/ Tube Benders, Radius Rollers, Horizontal Presses and other Edwards Branded Hydraulic Accessories.

The following pages detail the proper operations procedures for setting up and safely operating the Edwards Porta Power.

FORESEEABLE MISUSE

WARNING

Do not use this equipment for any purpose not described in this manual. Using this equipment in ways not described in this manual could result in death or serious injury to the operator.

MACHINE LIFE CYCLE

NOTICE

Edwards Porta Powers are designed to be generally free from risk throughout their life cycle from installation to dismantling and disposal. Consult your local governmental agency for guidelines and procedures to ensure the safe disposal and recycling of system hydraulics, electronics and metals.

OPERATIONS DIAGRAM • MACHINE FRONT



OPERATIONS DIAGRAM • MACHINE BACK



Drain Plug

CONTROL PANEL



DANGER

Edwards Porta Power feature a centrally located, integrated Control Panel. **Hazardous voltage is present within the control panel.** The panel should only be opened and serviced by authorized personnel. An external power source enters this panel and is distributed to the various working components of the machine.

Push to Start

This button energizes the machine. When energized this recessed button is internally illuminated and will glow green. If the machine does not start when pressed an emergency palm stop button may have been previously pressed and will need to be reset to allow for the start button to energize the machine.

Emergency Palm Stop

This button de-energizes the machine and contains a manual, safety reset function. The projecting, red, palm stop style button is set within a safety yellow bezel and is pushed to de-energize the machinery. Once de-energized the machine requires the palm stop to be re-set prior to energizing the machine. Simply rotate the emergency palm stop button clockwise. The button will retract and the machine will be available for powered operation.

Lockout/Tagout

This round, safety red switch is set within a square, safety yellow housing. The switch allows for proper procedures to be followed when de-energizing, isolating, and ensuring the energy isolation of the Porta Power. The Lockout/Tagout switch is used, in conjunction with Owner safety and maintenance programs to ensure that equipment and machinery is de-energized and isolated from unexpected start-up by physically locking machinery in a state of zero energy.

To lockout the Porta Power turn the red switch counterclockwise until the black tagout bar is horizontal. Pull the black, spring-loaded tagout mechanism to install the maintenance/safety lock and tag provided by the Owner of the machinery. The machine is now de-energized and is available for authorized personnel to maintain and service the machinery.

To open the control panel for servicing, gently pull the 'hopper-style' hinged cover. The cover will not open fully until a safety yellow thumb slide located within the safety yellow housing is rotated clockwise. Reverse operation following service to resume Ironworking.

HYDRAULIC ACCESSORY POWER



WARNING

The Porta Power is ready to power any Edwards branded hydraulic accessory tools. The Porta Power includes hydraulic input and output quick connect/disconnect hardware and a series of female M12 and Mil Spec connections allowing for the control of your hydraulic accessory tool, limit switch and 24V Power. To install your accessory tool please observe the following steps.

Setup

Turn off power to machine by pressing the red stop / off button or lockout upstream power at the main electrical panel.

Install an Edwards Hydraulic Accessory Tool:

1. *Locate the operations control box on the front of the machine.*
2. *Locate the hydraulic quick connections and accessory controls on the front of the machine.*
3. **LOCATE EDWARDS HYDRAULIC ACCESSORY TOOL IMMEDIATELY ADJACENT TO THE PORTA POWER.**
4. *With the Porta Power power off, install the male and female accessory hydraulic hoses to the ironworker male and female quick connect hydraulic fittings. Both fittings have a detent ball setting that must be aligned to couple and uncouple hoses.*
5. *Attach the accessory tool male M12 power cable, to the M12 female limit switch port. **Assure your M12 connections are seated properly. Align M12 male and female fittings so that keyed surfaces align. Misalignment of surfaces will prohibit correct operation.***
6. *Remove the safety cap at the Push Button Port. Attach the accessory tool control OUT / IN, male Mil Spec control cable to the Mil Spec female accessory control port.*
7. **REFER TO THE SAFETY, INSTALLATION, OPERATIONS AND MAINTENANCE MANUALS OF YOUR EDWARDS HYDRAULIC ACCESSORY TOOL PRIOR TO OPERATION.**
8. *When Disconnecting your Hydraulic Accessory, Simply reverse procedure. **Replace the Safety Cap at the push button port** to restore power to your Porta Power.*

TROUBLESHOOTING

WARNING

Your Edwards Porta Power is designed for consistent, long-term use. In the event of operational problems, refer to the following troubleshooting strategies prior to contacting your Edwards Dealer. *Turn off power to machine by pressing the red stop / off button or lockout upstream power at the main electrical panel before any trouble shooting activity.*

Problem	Solution
Machine will not run	Check safety cap at Hydraulic Accessory Pack installed Twist E-stop if depressed Confirm the correct voltage Check fuses
Machine turns off after short time in use	Check correct amp/voltage to machine
Hydraulics feel hot after operation	Hydraulic system operates within the 160 – 190 degree range
Hydraulic oil overflow/foaming at breather cap	Check hydraulic fluid level Check for loose hose coupling



IRONWORKERS

1107 SYKES ST., ALBERT LEA, MN 56007 800-373-8206 WWW.EDWARDSIRONWORKERS.COM



PORTA POWER

MAINTENANCE MANUAL



1 GENERAL

Operator and Supervisor Information

Signal Word Definition

Signal Word Panel

2 MAINTENANCE PRECAUTIONS MAINTENANCE SCHEDULE

OPERATOR AND SUPERVISOR INFORMATION

This is one of four manuals supplied with your machine.

- **Installation Manual**
- **Safety Instructions Manual**
- **Operations Manual**
- **Maintenance Manual**

READ ALL MANUALS BEFORE OPERATING MACHINERY. Operating machinery before reading and understanding the contents of all four manuals greatly increases the risk of injury.

Each of the four machine manuals describes 'best practices' in handling, installing, operating and maintaining your machine. The contents of each manual is subject to change without notice due to improvements in the machinery or changes in National or International standards.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

Keep all manuals close to the machine to allow for easy reference when necessary.

Provide operators with sufficient training and education in the basic functions of the machine prior to machine operation.

Do not allow for operation of the machine by unqualified personnel. Edwards Manufacturing Company is not liable for accidents arising from unskilled, untrained operation.

Do not modify or change the machine without written authorization from Edwards Manufacturing Company. Unauthorized modification to a machine may result in serious operator injury, machine damage and will void your machine warranty.

Never leave a powered machine unattended. Turn machinery **OFF** before walking away.

This machine is manufactured for use by able bodied and able minded operators only. Never operate machinery when tired or under the influence of drugs or alcohol.

Do not resell, relocate or export to a destination other than to the original point of sale. Edwards has designed this machine to meet the standards of the original receiving country and is not liable for meeting any governing body or performance standards beyond those of the original receiving country.

SIGNAL WORD DEFINITION

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation that, if not avoided, could result in mild or moderate injury.

NOTICE

Indicates information considered important, but not hazard related.

 **WARNING:** This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

 **WARNING:** Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

SIGNAL WORD PANEL ON MACHINE

DANGER

Critical machine safety information is identified on signal word labels. Labels are attached adjacent to the potentially hazardous locations of the machine. Reference the Safety Instruction Manual for additional information regarding the potentially hazardous condition identified on the label.

Review ALL labels on the machinery, reference the operational precautions and safe operations sections within this manual before any operation activity is initiated.

Failure to read and understand the signal word labels affixed to the machinery may result in operator death or injury.

MAINTENANCE PRECAUTIONS



Reasonable, common sense safety precautions should be observed when maintaining the Porta Power. The following precautions are described in order of their hazard.

Electrical Hazard

Dangerous high voltages are present inside the electrical enclosure of this product. Only qualified, authorized, maintenance or service personnel should gain access to the electrical panel.

Lockout Power

Danger, circuits are live. Lockout / tagout upstream power source before any maintenance activity is performed.

Hydraulic Fluid Hazard

Hydraulic hoses are under pressure. Pressurized fluid can pierce skin and cause severe injury. To avoid physical hazard, always wear personal protective equipment when servicing / maintaining the Porta Power.

Refer to Manuals

For safe installation, operation and maintenance of the machine, read:

- Installation Manual
- Safety Instructions Manual
- Operations Manual
- Maintenance Manual

Wear Personal Protective Equipment

To avoid physical hazard wear protective eyewear, clothing, gloves, footwear, head-gear and hearing protection.

Slipping, Tripping and Falling

During routine maintenance hydraulic fluid could spill outside of the machine footprint. Plug hose ends when working with hydraulic fluids and clean up spills near the machinery in a timely manner.

MAINTENANCE SCHEDULE



Your Edwards Machinery will benefit from reasonable care and periodic maintenance. Reasonable care includes daily visual observation, general maintenance daily, weekly, monthly and at hourly milestone intervals by operator/maintenance personnel. Perform inspections and maintenance of the electrical and hydraulic systems of the Porta Power as follows:

Daily/Shift Change Visual Observation



Electrical System

Visually inspect incoming power and cabling on the Porta Power for signs of damage. Cut, abraded or crushed electrical cords may present an electrical hazard to the Operator and damage the machinery. **Replace fuses as necessary with same type and rating. See Figure 1 below.**

Hydraulic System

Visually inspect exposed or surface mounted hydraulic hoses and fittings for signs of damage. Cut, abraded or crushed hydraulic hoses or leaking fittings may present a hydraulic fluid hazard to the Operator and damage the machinery.

Plug hose ends when working with hydraulic fluids and clean up spills near the machinery in a timely manner to reduce the likelihood of spills, trips and falls.

Failure of any element of the daily/shift change visual observation will require maintenance of the affected Porta Power component. Please follow the following maintenance procedures.

Figure 1 - Fuses

Part #	Volts	Phase	Hertz	FLA	Fuse	Part #	Voltage	Amperage	SC/IR	Class	Qty.
213197	230 V	1~	60 Hz	19.2 FLA	Littelfuse	JTD040	600 VAC	40 A	200 kA	J	2
213198	230 V	3~	60 Hz	13.6 FLA	Littelfuse	JTD025	600 VAC	25 A	200 kA	J	3
213201	460 V	3~	60 Hz	6.8 FLA	Littelfuse	JTD012	600 VAC	12 A	200 kA	J	3
213202	575 V	3~	60 Hz	5.7 FLA	Littelfuse	JTD010ID	600 VAC	10 A	200 kA	J	3

General Maintenance - Daily

 **DANGER**

Lockout power to machine.

Clean your machines daily with a brush and soft cloth lightly moistened with a mild, water based detergent solution. Remove filings, dirt, dust and grime and excess lubricant from working surfaces. All clean surfaces must be fully dry before powering up machine.

General Maintenance - Monthly

 **DANGER**

Lockout power to machine.

Check the ISO Viscosity 46 hydraulic fluid level monthly. maintain the correct volume of hydraulic fluid in the reservoir as indicated.

General Maintenance - First 30 Hours

 **DANGER**

Lockout power to machine.

Replace the oil filter on your Porta Power after your first 30 hours of use. External oil filters are available through your Edwards Distributor or Edwards Manufacturing.

When working on the hydraulic power plant use plugs to cap hose ends during maintenance procedures to minimize fluid loss. Clean up spills near the machinery to reduce the likelihood of slips, trips and falls.

General Maintenance - Every 1000 Hours

 **DANGER**

Lockout power to machine.

Replace the oil filter on your Porta Power after your first 1000 hours of use. External oil filters are available through your Edwards Distributor or Edwards Manufacturing.

When working on the hydraulic power plant use plugs to cap hose ends during maintenance procedures to minimize fluid loss. Clean up spills near the machinery to reduce the likelihood of slips, trips and falls.

General Maintenance - Every 5000 Hours

 **DANGER**

Lockout power to machine.

Drain used hydraulic fluid, dispose of according to local or jurisdictional guidelines and replace with ISO Viscosity 46 hydraulic fluid to the volume specified on the hydraulic fluid reservoir.



IRONWORKERS

1107 SYKES ST., ALBERT LEA, MN 56007 800-373-8206 WWW.EDWARDSIRONWORKERS.COM