

OPERATION, MAINTENANCE, AND INSTALLATION MANUAL

ELIMINATOR[®]



Marathon Equipment Company
OMI Manual No. 0077, Revision Date: March 2011
www.marathonequipment.com

1-800-633-8974

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INTRODUCTION**THANK YOU FOR PURCHASING A MARATHON
ELIMINATOR® PERFORATOR.**

This perforator is designed to give you reliable and superior performance for years to come. The purpose of this manual is to provide the owner and operator with the necessary information to properly and safely install, operate, and maintain your equipment. The manual is not intended as a primary training source, but as a reference guide for authorized, trained personnel. Each person involved in the operation, maintenance and installation of the machine must read and thoroughly understand the instructions in this manual and follow **ALL WARNINGS**.

Anyone involved in the operation, maintenance, and installation of the equipment must also read and understand the most current version of the following applicable standards:

ANSI Standard No. Z245.51, "Safety Requirements for Recycling Equipment"

A copy of this standard may be obtained from:

ANSI
25 West 43rd Street
New York, NY 10036

OSHA 29 CFR, Part 1910.147

"The control of hazardous energy (lockout/tagout)"

Any service or repair instructions contained in this manual should be performed by factory authorized personnel only. If you should need assistance with your Perforator, please contact your distributor.

When contacting your distributor, you will need to provide:

Perforator Serial Number: _____

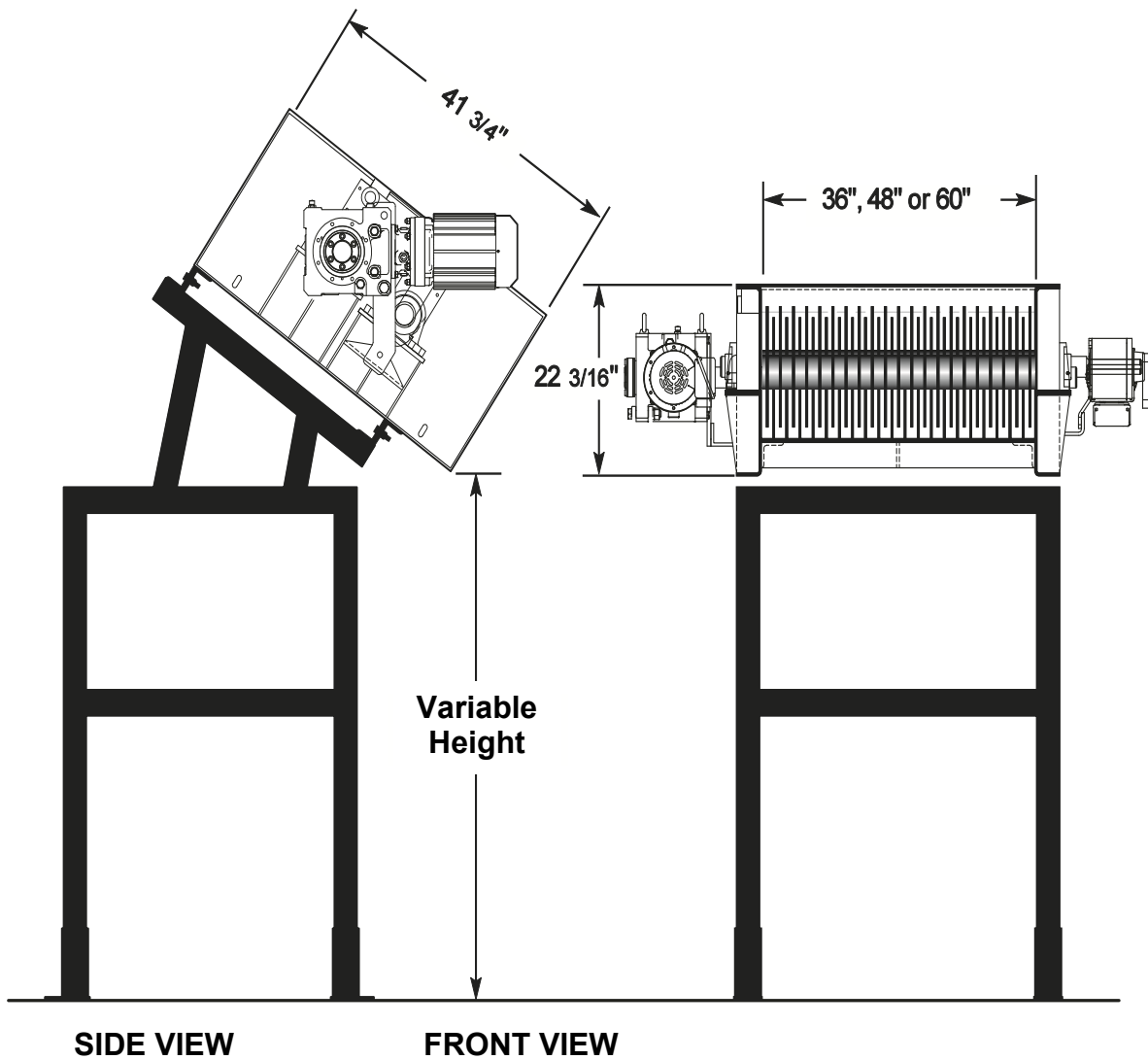
Installation Date: _____

Electrical Schematic Number: _____

**IF YOU HAVE ANY SAFETY CONCERNS WITH EQUIPMENT, OR
NEED FURTHER INFORMATION, PLEASE CONTACT US AT:**

**Marathon Equipment Company
Attn: RamJet Service Department
P.O. Box 1798
Vernon, AL 35592-1798
1-800-633-8974**

DIMENSIONAL DRAWING (typical)



1 OPERATION

PRE-OPERATION INSTRUCTIONS

FEDERAL REGULATION PROHIBITS THE USE OF THIS EQUIPMENT BY ANYONE UNDER 18 YEARS OF AGE.

The Eliminator is a dewatering perforator designed to process small aluminum cans and plastic bottles. ***Glass materials, aerosol cans, rope, string or metal strapping type items should not be loaded into this machine!***

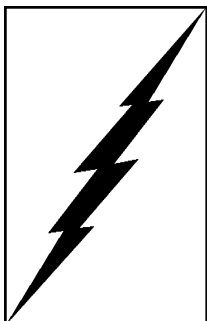
During operation in-feed rotors direct objects from the feed hopper into the out-feed rotors of the machine puncturing the containers and emptying the contents.

WARNING: Do not operate perforator until operating instructions are thoroughly understood. Safety glasses, and gloves should be worn when operating this equipment.

This equipment requires a key to operate and should only be in the possession of authorized and trained personnel. Before starting be sure everyone is clear of all points of operation and pinch point areas. ***Failure to do so could result in serious injury or death!***

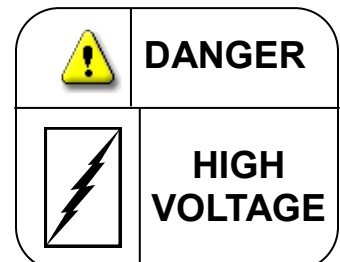


NEVER ENTER ANY PART OF THE PERFORATOR UNLESS THE DISCONNECT SWITCH HAS BEEN LOCKED-OUT AND TAGGED-OUT. See Lock-Out & Tag-Out instructions in the Maintenance section on page 9.



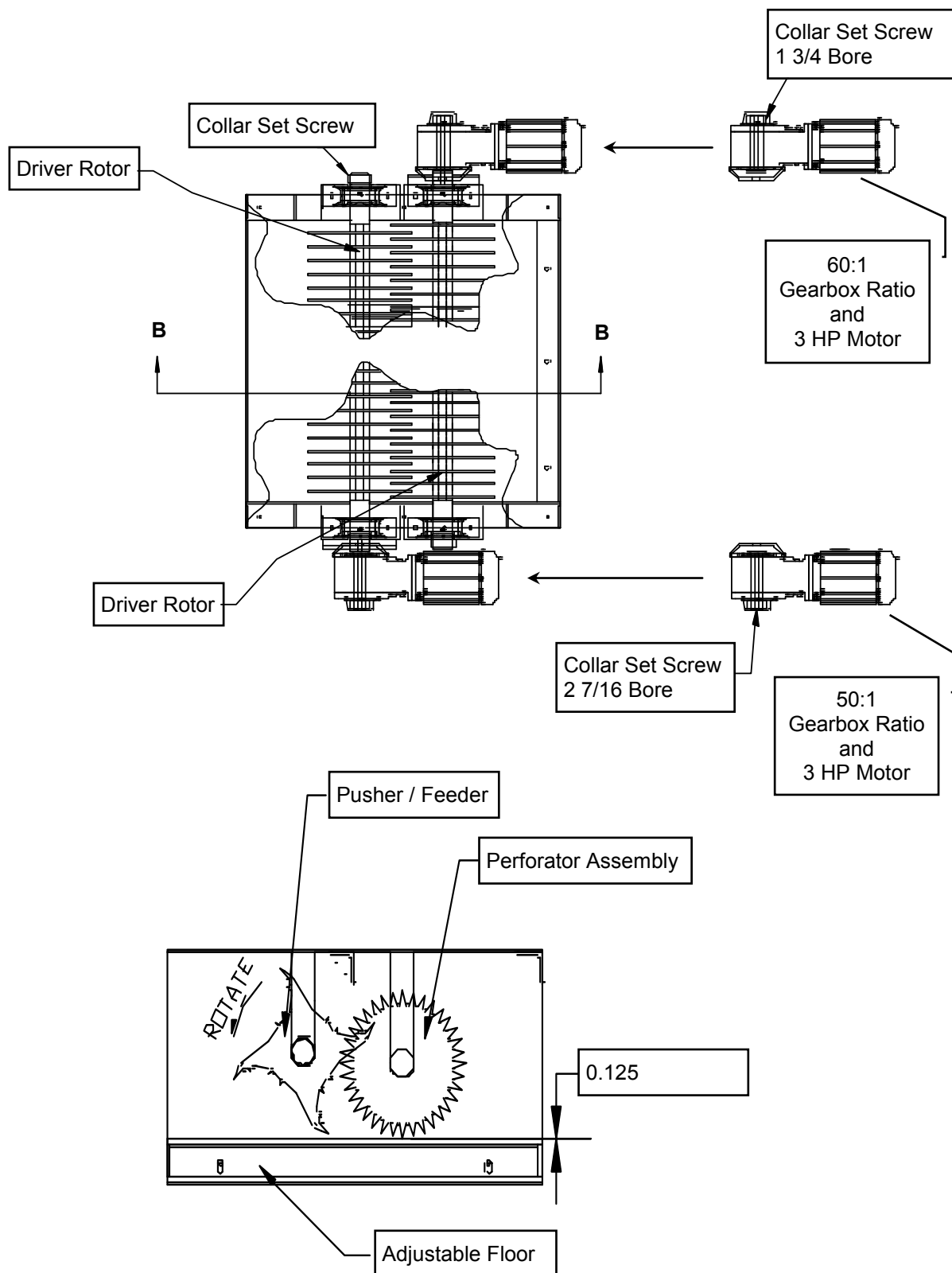
ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED INSIDE THE MOTOR CONTROL PANEL.

The motor control panel contains high voltage components. **See Lock-Out & Tag-Out Instructions in the Maintenance section.**



1 OPERATION

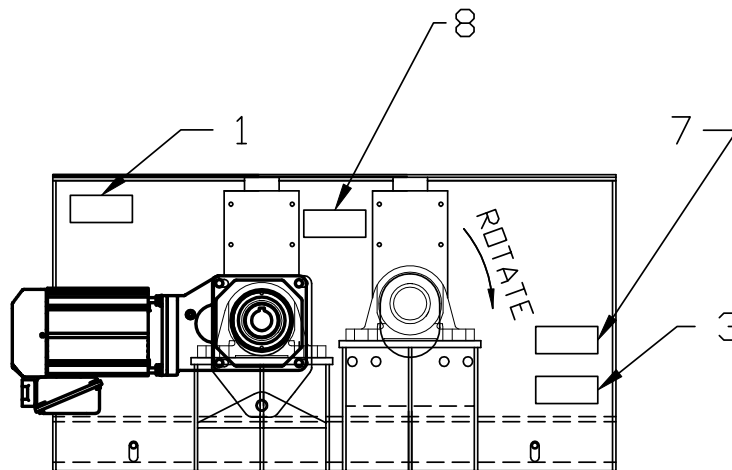
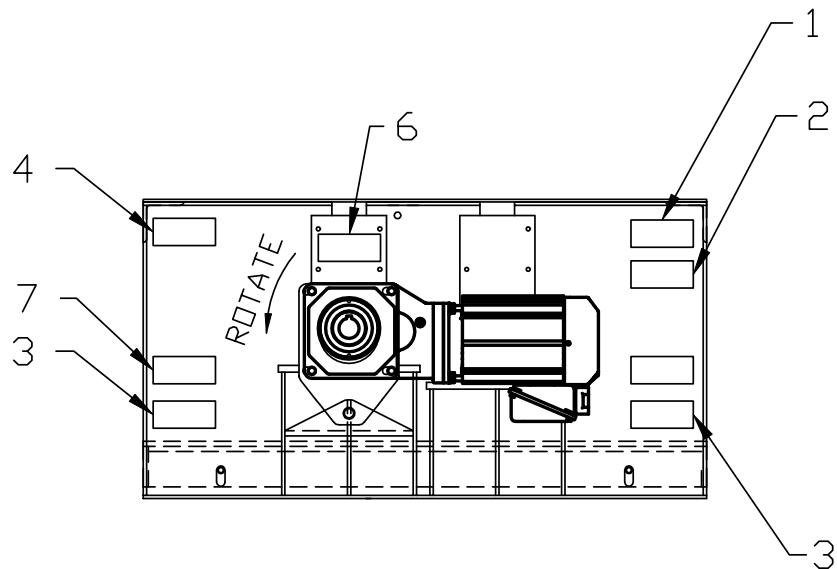
PERFORATOR COMPONENTS



SECTION B-B

1 OPERATION

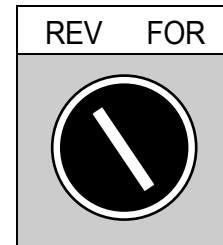
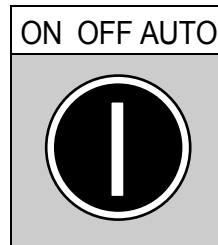
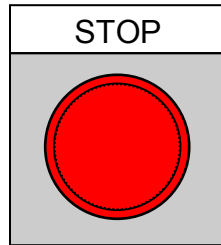
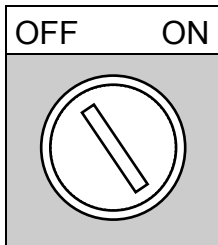
PERFORATOR DECAL DRAWING



Ref. #	Part #	Decal Description
1	06-0126	Marathon Equipment Company
2	06-0097	Serial Number Plate
3	06-1100	Pinch Point
4	06-1101	Before Cleaning or Servicing
6	06-1103	Do Not Operate Without Guards
7	06-1104	Watch Your Hands and Fingers
8	06-1105	Keep Guards in Place

1 OPERATION

CONTROL DESCRIPTION



1. **ON/OFF KEY SWITCH** - This switch requires a key for operation and must be ON to operate the other controls. While the machine is not in use, this switch should remain in the OFF position with the key removed. The key should always be in possession of authorized personnel.
2. **EMERGENCY STOP BUTTON** - Pressing this button will stop all powered motion of the perforator.
3. **ON/OFF/AUTO** - With switch in ON position the FOR/REV control is available for use. With switch in AUTO position the machine will run continuously.
4. **REV/FOR** - This spring return selector switch will override the automatic operation of the machine. When turned to the FORWARD selection the drive rotors will turn in the forward direction. When turned to the REVERSE selection the driver rotors will turn in the reverse direction.

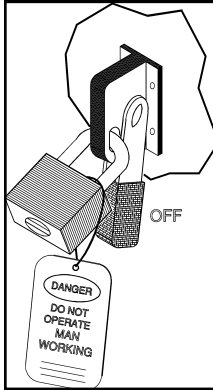
OPERATING INSTRUCTIONS

STARTING THE PERFORATOR AND CONVEYOR

1. The Push/Pull Red Stop Button must be pulled out to start machine.
2. Insert the key into the key switch and turn to the ON position.
3. Turn selector switch to AUTOMATIC position.

IN CASE OF EMERGENCY:
Push the RED button to STOP

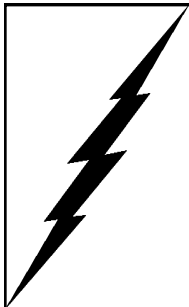
LOCK-OUT & TAG-OUT INSTRUCTIONS



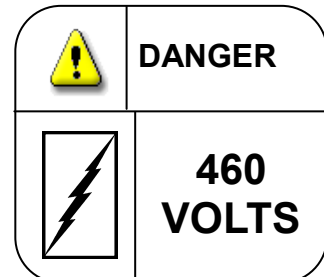
Before entering any part of the Perforator, be sure that all sources of energy have been shut off, all potential hazards have been eliminated, and the Perforator is locked-out and tagged-out in accordance with OSHA and ANSI requirements. The specific lock-out and tag-out instructions may vary from company to company (i.e. multiple locks may be required, or other machinery may need to be locked-out and tagged-out). The following instructions are provided as minimum guidelines.

INSTRUCTIONS

1. Move the main disconnect lever to the OFF position.
2. Padlock the disconnect lever with a keyed padlock and take the key with you.
3. Along with the padlock, place an appropriate, highly visible, warning tag on the disconnect lever. The tag should provide a warning such as:
Danger: Do not operate equipment. Person working on equipment. or
Warning: Do not energize without the permission of _____.
4. After locking and tagging, try to start and operate the Perforator (as outlined in the Operating Instructions) to make sure the lock-out and tag out is effective. If the lock-out and tag-out is effective, remove the key from the key switch and take it with you.

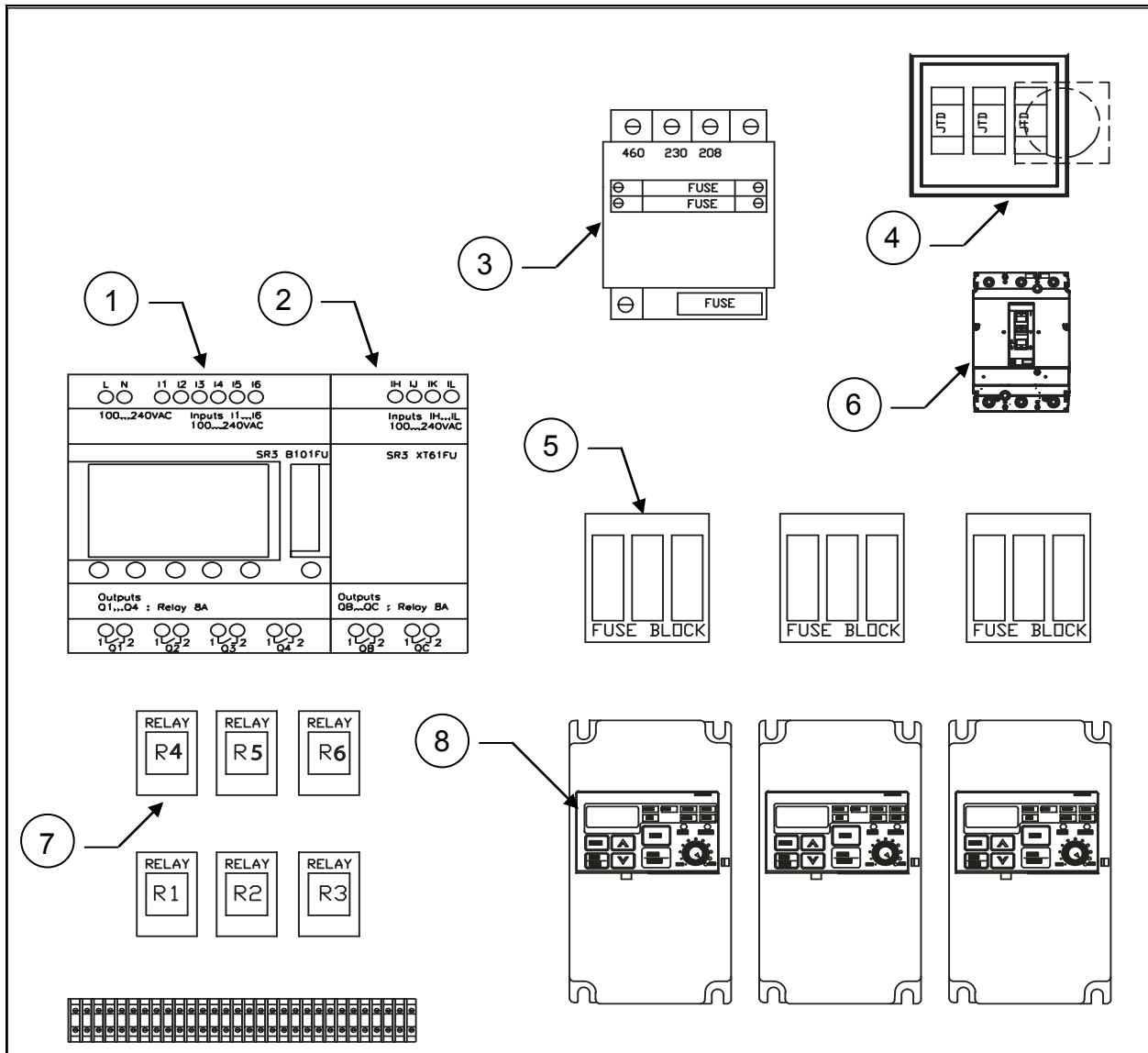


ELECTRICAL: The motor control panel contains high voltage components. Only authorized service personnel should be allowed inside the panel. Authorized service personnel should be allowed inside the panel only after the Perforator has been locked-out and tagged-out.



NOTE: The Eliminator Perforator is not a stand alone machine, meaning it is normally attached to the discharge end of a conveyor. Depending upon your installation the controls for the perforator may be located in the conveyor or baler control panel.

PANEL BOX LAYOUT (optional - typical layout)



REF #	PART #	DESCRIPTION
1	03-4729	PLC Telemecanique 6 Inputs & 4 Outputs
2	03-4730	PLC Telemecanique Expansion Module
3	03-0288	Transformer 150 VA 208/230/460
4	03-4727	Breaker Mechanism Rotary
5	99-8240	Fuse Holder
6	03-5130	Breaker 25 Amp Telemecanique
7	03-0256	Relay
8	03-3086	Motor Starter - Variable Speed Control



GENERAL INSTALLATION

CAUTION!

Review this manual before beginning the installation. Study the job-site, and installation requirements carefully to be certain all necessary safeguards and/or safety devices are provided to protect all personnel, and equipment during the installation, and as a complete system.

These instructions are not intended as a substitute for training and experience in proper use and safety procedures in operating this equipment.

Marathon Equipment Company does not assume responsibility for the installation procedures of this equipment. Conformance to applicable local, state, and federal laws concerning installation rests with the customer.

Anchoring To Concrete Pad

The concrete pad should be level, and a minimum of 3000 PSI concrete, steel reinforced, 6" thick. Red Head type 3/4" diameter anchor bolts are recommended.

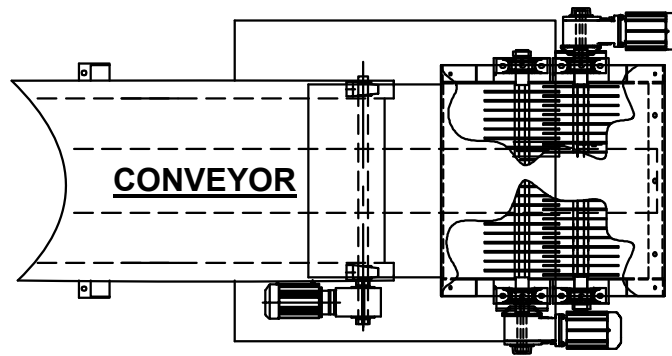
Decals

Installation is not complete until an inspection of the warning decals has been made. Decals should be clearly visible, legible, securely applied, and in the proper location. Refer to "Decal Placement" and "Decal Descriptions" on page 7.

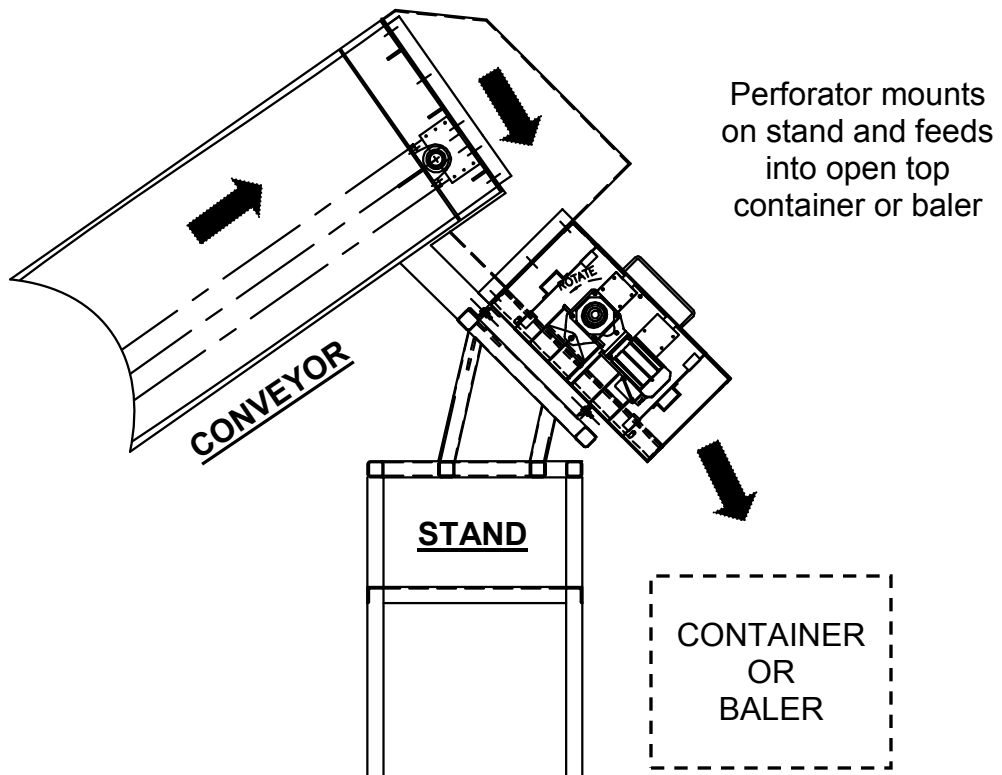
DANGER: Do not climb on equipment. Always use a ladder or platform when working on areas that cannot be reached from ground level.

3 INSTALLATION

PERFORATOR and CONVEYOR (typical install)

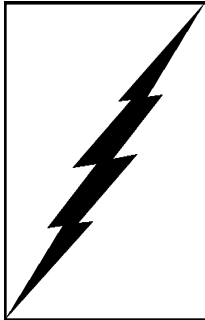


TOP VIEW

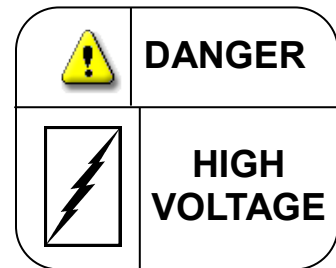


SIDE VIEW

GENERAL INSTALLATION



The panel box contains high voltage components and should only be opened by authorized electrical personnel. See Lock-Out & Tag-Out Instructions on page 9 in the Maintenance section.



WARNING: Before making any electrical connection, be sure that the disconnect switch has been locked-out, and tagged-out per the instructions on page 9.

Emergency Stop Buttons are to be installed one on each side of the loading area of the conveyor. On conveyors being integrated with other equipment, the stop buttons should be integrated so any stop button pressed will stop the entire system.

1. Before connecting power to the equipment, check the incoming line voltage with a voltmeter. Also, check voltage wiring of the perforator, and conveyor panel box. If the perforator, and conveyor is not wired to the proper voltage, make the necessary corrections before proceeding.
2. A lockable disconnect switch **IS NOT PROVIDED** on this perforator and conveyor and must be provided by the installer at the time of installation. This disconnect switch must be fused, lockable, within sight of, and not to exceed 50 feet from the perforator and conveyor, per the National Electrical Code. Additional local codes may apply.
3. Check motors for correct rotation. If motor turns backwards, reversing any two incoming lines will change the rotation.

NOTE: If equipment electrical supply is being connected to existing, or other controlling equipment, refer to the electrical schematic of that equipment for the proper connecting terminals.

NOTE: It is the owner's responsibility to install the perforator and conveyor in conformance with all local, state, and federal laws.

MAKE SURE THAT THE OPERATORS ARE TRAINED IN THE PROPER USE OF THIS EQUIPMENT.

ELECTRICAL INSTALLATION

DANGER: All equipment should be grounded per the National Electrical Code.

GROUND INSTRUCTIONS

This appliance must be connected to a grounded, metal, permanent wiring system; or an equipment grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the appliance.

If there is any doubt whether the equipment is properly grounded, a qualified electrician should be consulted.

3 INSTALLATION

ELECTRICAL SPECIFICATIONS - By Motor Size

Motor	FLA	Disconnect Size (Max)	Time Delay Fuse (Max)	ITCB* (Max)	60ft	90ft	120ft	270ft
1hp								
208 VAC	4.6	30	6	10	12	12	12	12
230 VAC	4.2	30	6	6	12	12	12	12
460 VAC	2.1	30	3	3	12	12	12	12
2hp								
208 VAC	7.5	30	10	15	12	12	12	10
230 VAC	6.8	30	10	15	12	12	12	10
460 VAC	3.4	30	3	6	12	12	12	12
3hp								
208 VAC	10.6	30	15	25	12	12	10	8
230 VAC	9.6	30	15	20	12	12	12	10
460 VAC	4.8	30	6	10	12	12	12	12
5hp								
208 VAC	16.7	30	25	40	12	12	8	6
230 VAC	15.2	30	25	35	12	12	10	8
460 VAC	7.6	30	10	15	12	12	12	12
7.5hp								
208 VAC	24.2	60	40	60	10	10	6	6
230 VAC	22	60	35	50	10	10	8	6
460 VAC	11	30	15	25	12	12	12	12
10hp								
208 VAC	30.8	60	50	70	8	8	6	4
230 VAC	28	60	45	70	10	10	6	4
460 VAC	14	30	25	35	12	12	12	10
15hp								
208 VAC	46.2	100	80	110	6	6	4	3
230 VAC	42	100	70	100	6	6	4	4
460 VAC	21	60	35	50	10	10	10	10
25hp								
208 VAC	74.8	200	125	175	3	3	2	2
230 VAC	68	200	110	150	4	4	3	3
460 VAC	34	60	50	80	8	8	8	8
*Inverse Time Circuit Breaker								

Notes

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