


I. INSTALLATION INSTRUCTIONS

IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER OF SELF-CONTAINED COMPACTORS TO INSTALL SELF-CONTAINED COMPACTORS IN ACCORDANCE WITH APPLICABLE CODES, LOCAL ORDINANCES, AND THE MANUFACTURER'S RECOMMENDATIONS.

 **Warning:** All involved personnel shall study this manual completely before proceeding. Study the installation instructions carefully to be certain that all safety guards, and safety devices are provided and in the proper place to protect personnel and equipment during and after the installation.

Careful consideration should be given to the site selected for the K-PAC Compactor. Ample room should be provided for the collecting vehicle to maneuver, including room to avoid OVERHEAD ELECTRIC AND TELEPHONE LINES. The unit should be placed on a reinforced concrete pad which is 12' to 14' square. The power unit must be located within 3' of the loading chamber for access in an emergency. If this is not possible, an auxiliary emergency stop control must be installed within this 3' range.


INITIAL LUBRICATION

Lubricate all oil and grease points on the compactor as instructed under "Monthly Check" in the preventive Maintenance Section of the manual. See page 16.

HYDRAULICS

The hydraulic system has been completely operated and tested at the factory. If necessary add oil to the reservoir. Use Dexron III ATF or equivalent automatic transmission fluid. Fill reservoir to within 4" or 5" of the top. After the unit has been cycled, it may be necessary to add more fluid. Recheck the level after the compactor has been cycled. Check all of the hydraulic connections to insure that no leaks have been developed during transit and testing.

READ ALL HYDRAULIC SAFETY INSTRUCTIONS ON PAGE OF THIS MANUAL!

 **Warning:** Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.


Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.



If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

ELECTRICAL

Check the voltage and frequency marking at the installation site main supply disconnect box, so that it is certain that the electrical current characteristics (voltage, etc.) are compatible with those in the K-PAC Power Unit. If not, a qualified electrician must take whatever steps are necessary to make the voltage compatible.

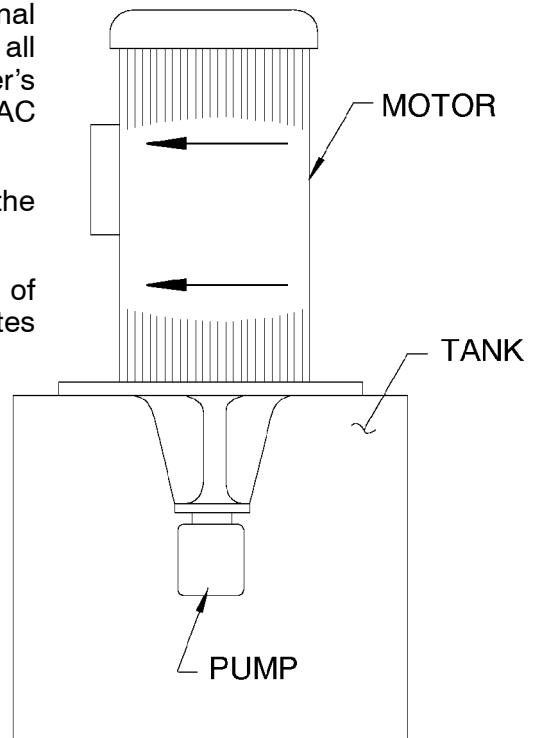
 **Warning:** Before wiring changes are made, make sure that the disconnect switch is padlocked in the "OFF" position. Place an appropriate warning tag "UNDER REPAIR, DO NOT ENERGIZE WITHOUT THE PERMISSION OF _____", on the disconnect switch so that the switch will not be energized without notifying the person making the wiring changes.

All wiring must be in accordance with local and national electrical code regulations. After making sure that all wiring is correct, run power lines between the customer's disconnect switch and the motor starter for the K-PAC Compactor.

See the Parts Section of this owner's manual for the wiring schematics.

Quickly start and stop, and then observe the direction of the electric motor's rotation. If the pump rotates **BACKWARDS**, **STOP IMMEDIATELY!** The pump will be damaged if it is run in reverse even for short periods of time. If the direction of rotation is not in agreement with the marking on the motor, (See illustration to the right) correct motor rotation.

NOTE: The instruction plate on the motor will show wire numbers which will reverse the motor for single phase. On 3-Phase motors, reversing any two incoming power lines will reverse the pump motor rotation.



SIDE VIEW

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ELECTRICAL REQUIREMENTS

A separate branch circuit for the power unit must be installed by a qualified electrician. Check the supply voltage and frequency on the power unit before connecting to main supply disconnect device (Customer furnished). The actual voltage must be within $\pm 5\%$ of the name plate rating when unit is subject to maximum relief setting.

All wiring should be in accordance with Local and National Electric Code regulations. Recommended fuses and wire sizes are listed on a chart on the following page, but the ratings must always meet or exceed any local code. Use copper 60° Celsius wire insulation.

See the inside of the control panel door on the Power Unit for the electrical schematic. Electrical Schematics are also included in the Parts Section of this manual.

MOTOR HORSEPOWER	LINE VOLTAGE	MOTOR OVERLOAD AMPS	TIGHTENING TORQUES		
			CONNECTION	SCREW SIZE	TORQUE INCH-LB. MIN. - MAX.
3 Horsepower 3 Phase	208	11.0	Line Terminals:	M4	9 - 13.3
	230	10.0	Load Terminals:	M4	9 - 13.3
	460	5.0	Control Terminals:	M3.5	7 - 10.6
1 Horsepower Single Phase	110	16.0	Auxiliary Contact:	M3.5	7 - 9
	220	8.0	Terminal Block:		7 - 9

MOTOR HORSEPOWER	LINE VOLTAGE	DUAL ELEMENT TIME DELAY FUSETRON - AMPS	MINIMUM COPPER WIRE SIZE TO 100'
3 HORSEPOWER 3-PHASE	208	30	10 Ga.
	230	30	10 Ga.
	460	20	12 Ga.
1 HORSEPOWER SINGLE PHASE	110	30	10 Ga.
	220	15	12 Ga.

IMPORTANT: AS A FINAL CHECK CAREFULLY INSPECT FOR LEAKY HYDRAULIC CONNECTIONS, LOOSE ELECTRICAL CONNECTIONS, AND LOOSE OR MISSING BOLTS AND NUTS.

II. START-UP AND TESTING INSTRUCTIONS

 **Warning:** Make sure that all access covers, tank lid, and loading chamber lid are closed and secured.

Before proceeding with this test, make sure that persons are clear of the loading chamber and the container.

Do not test this unit until you have read and understood the operating and maintenance instructions in this manual.

1. With the main disconnect switch OFF, visually inspect all hydraulic, mechanical, and electrical connections on power unit and compactor. All connections must be tight.
2. Check oil level in the reservoir to be sure it is adequate. The oil must be within 4" or 5" of the top of the reservoir.
3. Close the main power supply switch, BE ALERT for smoking, electrical arcing, or fuse failure. If any irregularity is observed, open main supply switch IMMEDIATELY. Find the source of trouble and make the necessary corrections.
4. Insert the key and turn clockwise, depress 'START' key momentarily (1-2 seconds), turn key off and remove to prevent unauthorized use. When released, the ram will move, and continue to pivot forward until it reaches full extension, then the ram will automatically shift to retract. Upon reaching the retracted position, the power will shut off.
5. OBSERVE MOTOR ROTATION. It must rotate in the same direction as the arrow on the motor housing (clockwise). If motor rotation is incorrect, depress the 'STOP' button and immediately open the main disconnect switch. If motor is 3-Phase, reverse any two wires on box. If motor is single phase, exchange wires as shown on the instruction plate on the motor.
6. Depress the 'STOP' button while the ram is moving. The electric motor will stop. NOTE: When restarted, the ram will pivot forward even if the 'STOP' button was depressed while the ram was retracting.

7. After the completion of the packing cycle, the power unit should stop automatically. If it does not, press the 'STOP' button. Check the pressure switch in the cylinder 'retract' line. It may be faulty or incorrectly adjusted. See pages 7 and 8.



Warning: Make sure the interlocks are functioning. The loading chamber lid shall not open unless the ram is fully retracted and the ram shall not operate when the loading chamber lid is open.

If adjustment is needed, see Loading Chamber Lid Latch and Interlock Valve Adjustments on pages 4 and 5 of this manual.

III. OPERATING INSTRUCTIONS

EMPLOYER RESPONSIBILITY FOR SELF-CONTAINED COMPACTORS

The employer shall provide properly maintained self-contained compactors that meet all applicable regulatory standards and shall be responsible for:

1. Ensuring that the installation of self-contained compactors is in conformance with local codes, ordinances and manufacturer's recommendations.
2. Providing for instruction and training in safe methods of work to employees before assigning them to operate, clean, service, maintain, or repair the equipment. Such instruction and training shall include procedures provided by the manufacturer.
3. Monitoring the employee's operation of self-contained compactors and taking appropriate action to ensure proper use of the equipment, including adherence to safe practices.
4. Repairing, prior to placing the self-contained compactors into service, any mechanical functions or breakdowns that affect the safe operation of the equipment.
5. Establishing and following a program of periodic and regular inspections of all self-contained compactors to ensure that all parts, component equipment, and safeguards are in safe operating condition and adjusted in accordance with the manufacturer's recommended procedures. This shall include keeping all malfunction reports and records of inspections and maintenance work performed.

Before operating, check to see that the loading chamber is empty and free to operate. Make sure the two hydraulic hoses are completely connected. (Incomplete connection restricts or stops the flow of hydraulic fluid.) Make sure the hold-down latches on the tank lid are fastened. Controls shall be located outside the area of operation of the dumping system and container.

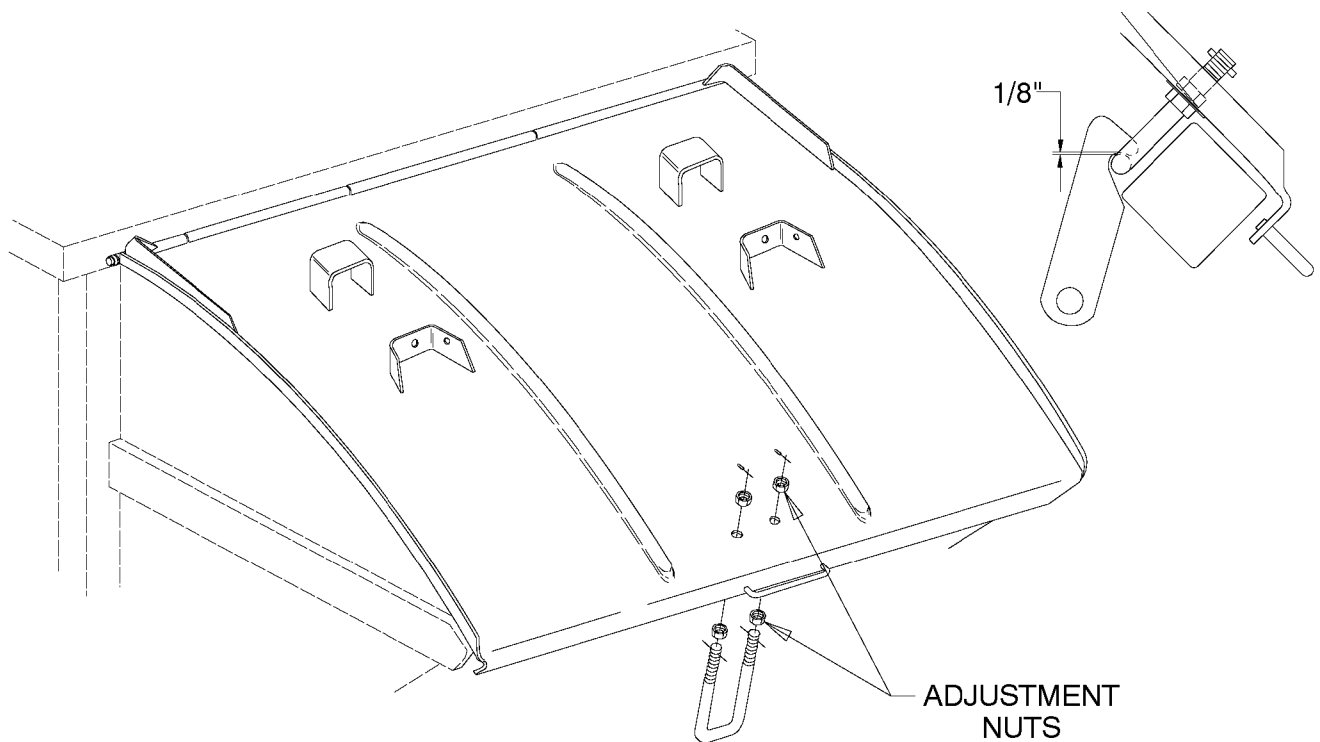
ADJUSTMENTS

Before operating the compactor, check the loading chamber lid latch, interlock valve adjustment, and loading chamber lid counterbalance spring adjustment.

LOADING CHAMBER LID LATCH ADJUSTMENT

The lid should always easily latch and unlatch. A properly adjusted lid will have approximately 1/4" of travel between the lid and chamber top. If not, make the following adjustments:

1. Raise the lid.
2. Loosen adjustment nuts on both sides of the latch.
3. Move the latch up or down as needed to insure proper latching.
4. Retighten adjustment nuts.
5. TEST.



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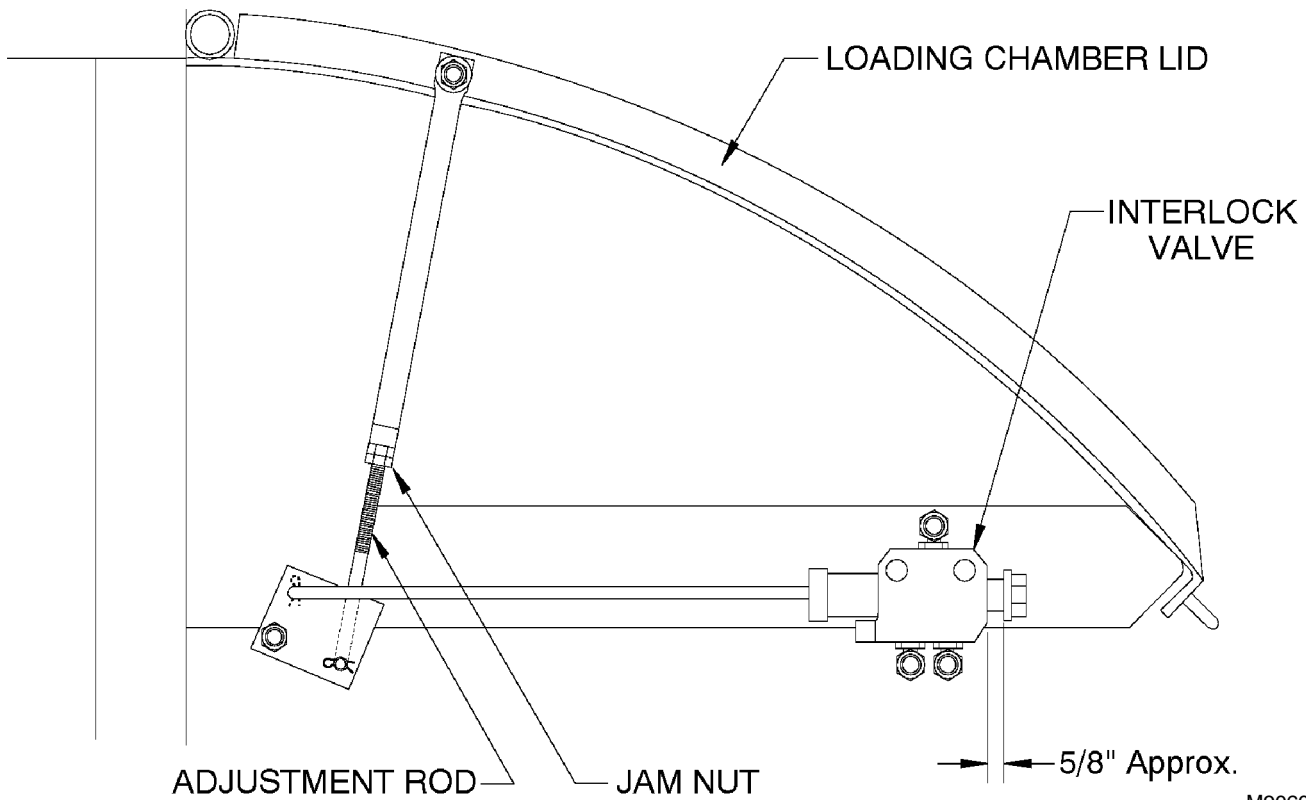
INTERLOCK VALVE ADJUSTMENT

The interlock valve is mounted behind an access cover on the left side of the compactor chamber. The function of this valve is to divert oil back to the reservoir when the loading chamber lid is open. NOTE: The loading chamber lid should not be open unless the ram is fully retracted, and the compactor should not operate when the lid is open.

To adjust the interlock valve:

1. First make sure loading chamber lid is properly adjusted.
2. Valve adjustment is made when the chamber lid is closed.
3. Loosen jam nut on the adjusting rod, and back off to approximately 1/4". Turn adjustment nut until valve spool is extended to a minimum of 5/8" beyond the valve body.
4. Retighten jam nut on adjustment rod.

IMPORTANT: AFTER ADJUSTMENTS ARE COMPLETE, TEST THE OPERATION, THEN CLOSE THE ACCESS COVER AND BOLT SECURELY.

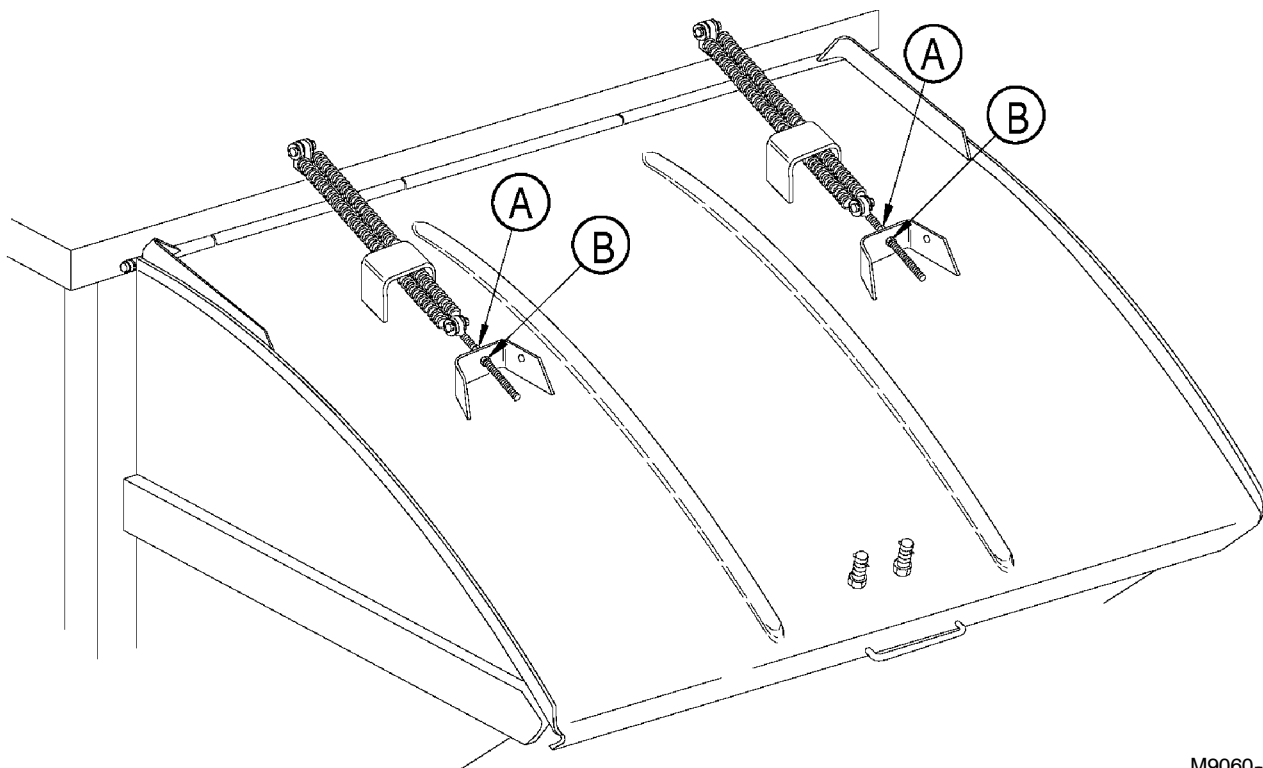


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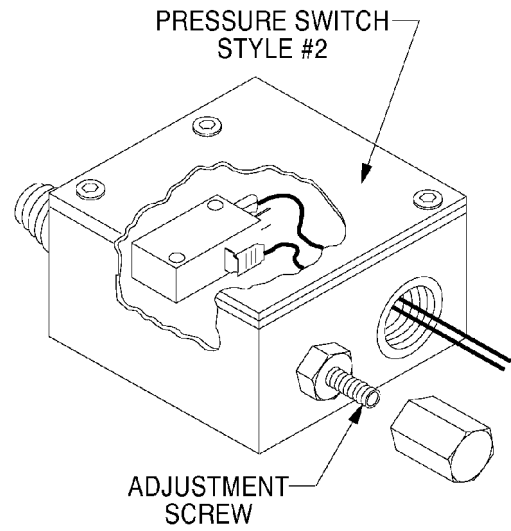
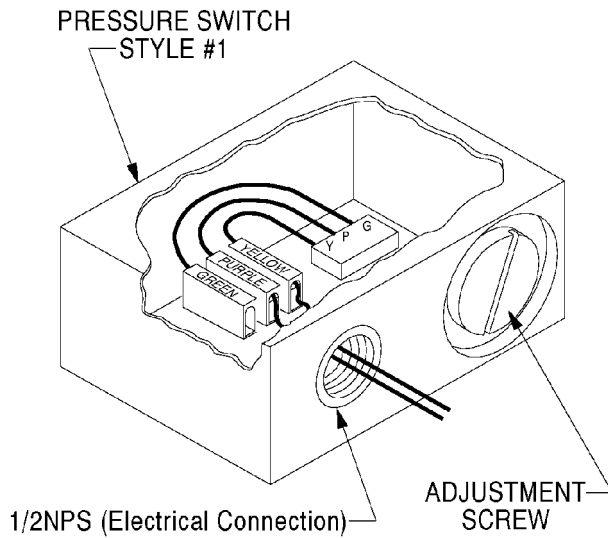
LOADING CHAMBER LID COUNTERBALANCE SPRING ADJUSTMENT

Springs should have the minimum of tension required to hold the lid in the full open position.

1. To decrease spring tension, loosen nut 'B' and tighten nut 'A'.
2. To increase spring tension, loosen nut 'A' and tighten nut 'B'.
3. Tighten both nuts 'A' and 'B' after adjustment is made.

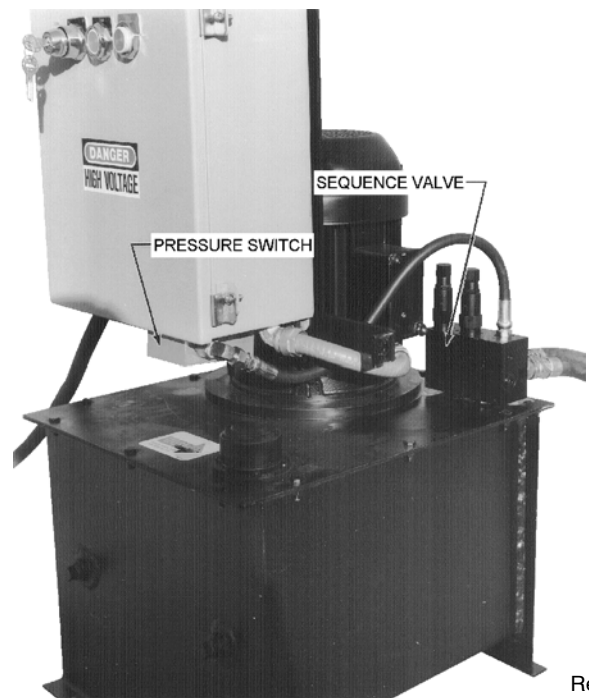
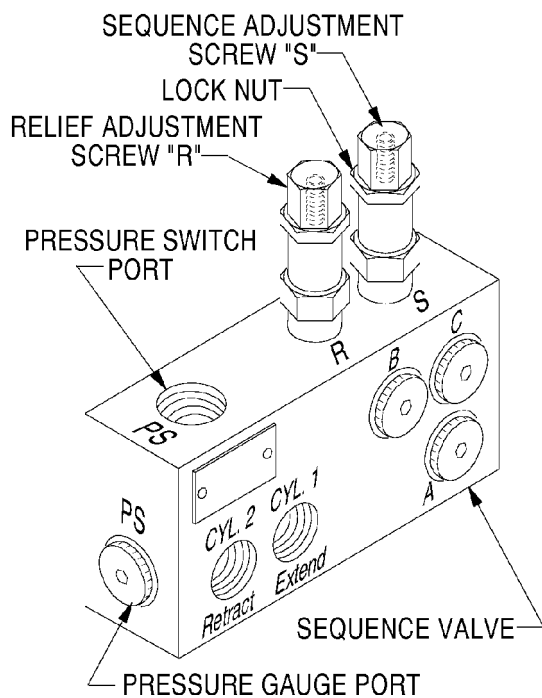
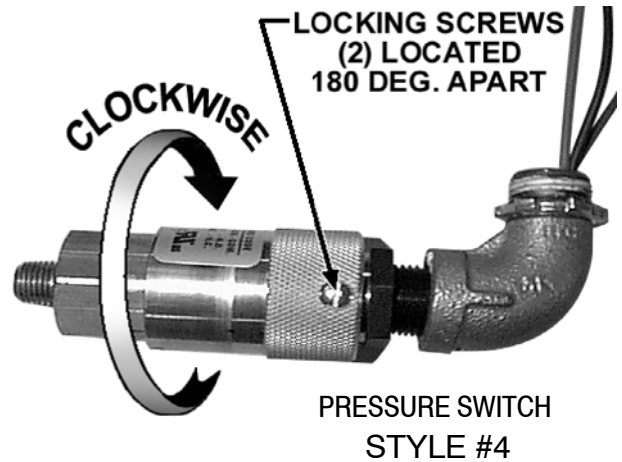
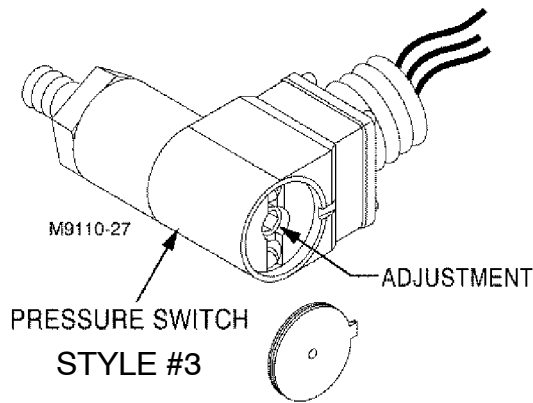


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SPECIAL ITEMS NEEDED TO ADJUST VALVE:

- | | |
|---------------------------------------------------------------------------------------------------|------------------------------|
| 1. 0-3000 PSI Glycerine filled hydraulic gauge adaptable to 3/8" O-Ring port (9/16-18 SAE thread) | 5. Thin 3/4" Open End Wrench |
| 2. 1/4" Allen Wrench | 6. 3/16" Allen Wrench |
| 3. 8" Adjustable Wrench | 7. 1/8" Allen Wrench |
| 4. Screwdriver | |



SEQUENCE VALVE, RELIEF VALVE AND PRESSURE SWITCH - - SETTING AND ADJUSTING PROCEDURES

The Pressure Switch's function is to turn the unit off after a cycle is complete. The Main Relief Valve (R) and the Sequence Valve (S) are located on top of the valve block. The Main Relief Valve protects the pump and motor if the Sequence Valve or Pressure Switch should fail to function. The Sequence Valve controls the packing force and reverses the ram direction.

NOTE: The Sequence Valve is preadjusted at the factory and should never need adjusting. However, if the need should arise, the following procedures must be followed.

PRESSURE SETTING AND ADJUSTING PROCEDURES

1. Install a 0 to 3000 PSI gauge in pressure port (PG).
2. STYLE #1, #2, #3 Switch: Turn pressure switch adjustment screw clockwise one (1) full turn (800 PSI). STYLE #4 Switch: Turn pressure switch knurled collar counterclockwise (away from hydraulic fitting end) four (4) full turns.
3. Remove the caps and loosen the lock nuts on Main Relief Valve (R) and Sequence Valve (S). See page 7.
4. Turn the Sequence Valve (S) adjusting screw clockwise approximately two (2) full turns and turn Relief Valve (R) adjusting screw counter-clockwise approximately two (2) full turns.
5. Start Machine. The ram will extend completely and the oil will dump over the Relief Valve (R). Adjust Relief Valve (R) clockwise until Pressure Gauge reads 1,550 PSI. Turn Sequence Valve (S) counter-clockwise until the ram starts retracting. Tighten the lock nut on the Sequence Valve (S). (THIS OPERATION SHOULD BE PERFORMED AS QUICKLY AS POSSIBLE WITH THE MACHINE RUNNING AND THE RAM RETRACTING.)
6. Upon the ram fully retracting, adjust the Relief Valve (R) by turning clockwise one-half (1/2) turn. Tighten the Lock Nut on the Relief Valve (R). Relief pressure should be 1750 PSI.
7. 3-PHASE POWER UNITS: With the motor running and the oil dumping over the relief valve; turn pressure switch adjustment screw counter-clockwise until the motor stops, then turn an additional one-half (1/2) turn for STYLE #1 switch, or one and one-half (1-1/2) turns for STYLE #2 and #3 switches. STYLE #4 Switch: With motor running and the oil dumping over the relief valve, turn the pressure switch knurled collar clockwise (toward hydraulic fitting end) until motor stops. After the motor stops, continue turning clockwise approximately one-half (1/2) turn. Tighten one (1) Lock Screw on the knurled collar.
8. SINGLE PHASE POWER UNITS: With motor running; turn pressure switch adjustment screw counter-clockwise until the motor stops. Then turn an additional one quarter (1/4) turn for STYLE #1 switch, or three-quarters (3/4) turn for STYLE #2 and #3 switches. This should set the switch at 700 PSI or 900 PSI. Check by operating a complete cycle.
9. Install and tighten the caps on Relief Valve (R) and the Sequence Valve (S), and remove the gauge. Cycle the machine five (5) or six (6) times as a final check-out before installing the cover.

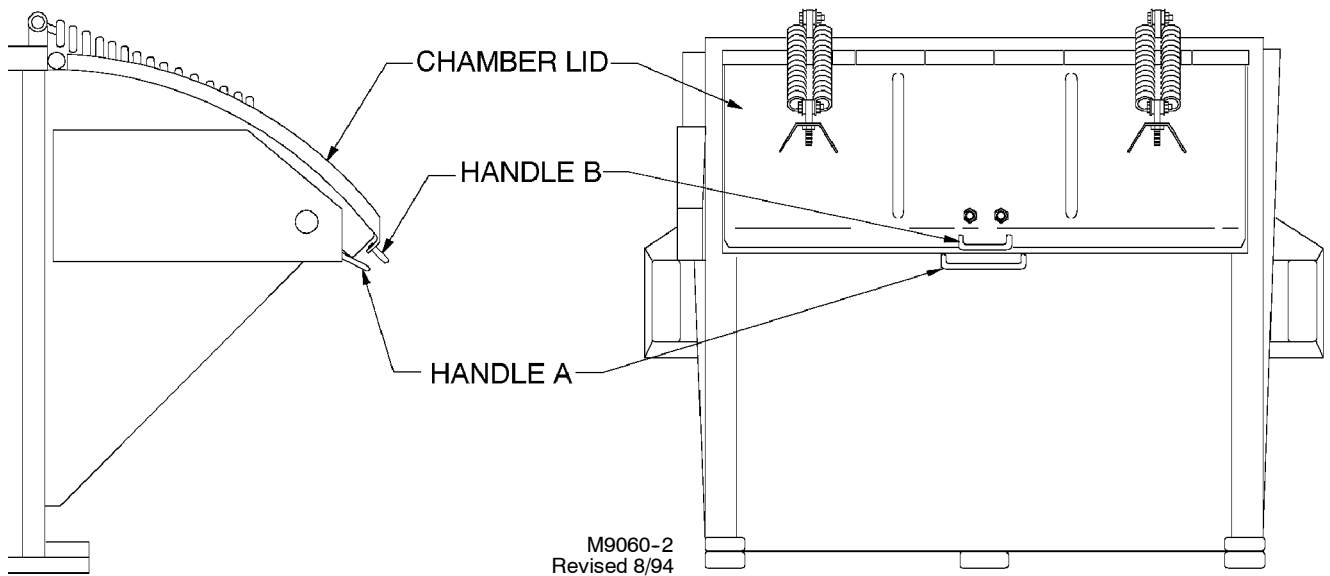
NOTE: If ambient temperature is below 0° Fahrenheit, the pressure switch setting may have to be increased. Increase setting only if problem of ram returning exists.

FULL LIGHT OPTION

The ram cycle, full extend and retract, is longer when the container is empty than when full. The full light functions by a timer that is factory set at 34 seconds for 1HP power pack; 21 seconds for 3 HP power pack. When the ram cycle is reduced to the timer setting, the full light illuminates and will remain lit until the stop button is activated or power is interrupted. If the light illuminates too soon, decrease the timer setting.

The electrical schematic and replacement parts are included for the full light option in the "Parts" section of this manual.

IV. USER OPERATING INSTRUCTIONS



1. Make sure control panel key switch is in the "OFF" position and the key is removed.
2. To open loading chamber lid, grasp handle "B", pull up on handle "A" and lift handle "B".

⚠ Caution: Spring assisted loading chamber lid will open quickly.
Keep a firm grip on handle "B".

3. Place refuse into loading chamber.
4. Close chamber lid by pulling down on handle "B" to engage lid latch. NOTE: Chamber lid latch must in proper adjustment to assure ease of latching and unlatching. If adjustments are needed, refer to instructions on page 4 of this manual.
5. Insert key in panel switch and turn to "ON" position. Momentarily depress the KEY TO START button. Motor will start and operator will hear ram moving. At full stroke, ram will reverse automatically and return to starting position and motor will shut off. (This cycle takes approximately 36 seconds).
6. The loading chamber lid should not open unless the ram is fully retracted and the compactor ram should not operate when the lid is open.
7. If it is necessary to stop the machine at any time during the packing cycle, depress the Red "STOP" button. NOTE: When the machine is re-started after depressing the "STOP" button, the ram will always extend.

IMPORTANT: AFTER PACKING CYCLE HAS BEEN STARTED, LOCK START BUTTON AND REMOVE KEY, BEFORE LEAVING COMPACTOR UNATTENDED. PACKING CYCLE WILL BE COMPLETED AUTOMATICALLY AND CANNOT BE RE-STARTED WITHOUT THE KEY.

V. HAULER OPERATING INSTRUCTIONS

⚠ Caution: The operator shall be certain that all individuals are standing clear of the point of operation and pinch-point area before actuating the controls.

1. Disconnect all hold-down latches on the tank lid.
2. Cycle the machine two or three times to dislodge compacted load. (See "USER OPERATING INSTRUCTIONS" on page of this manual)
3. Make certain that the loading chamber lid is securely latched.
4. Read Hydraulic Safety Section on page of this manual. Disconnect hydraulic lines.

⚠ Warning: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

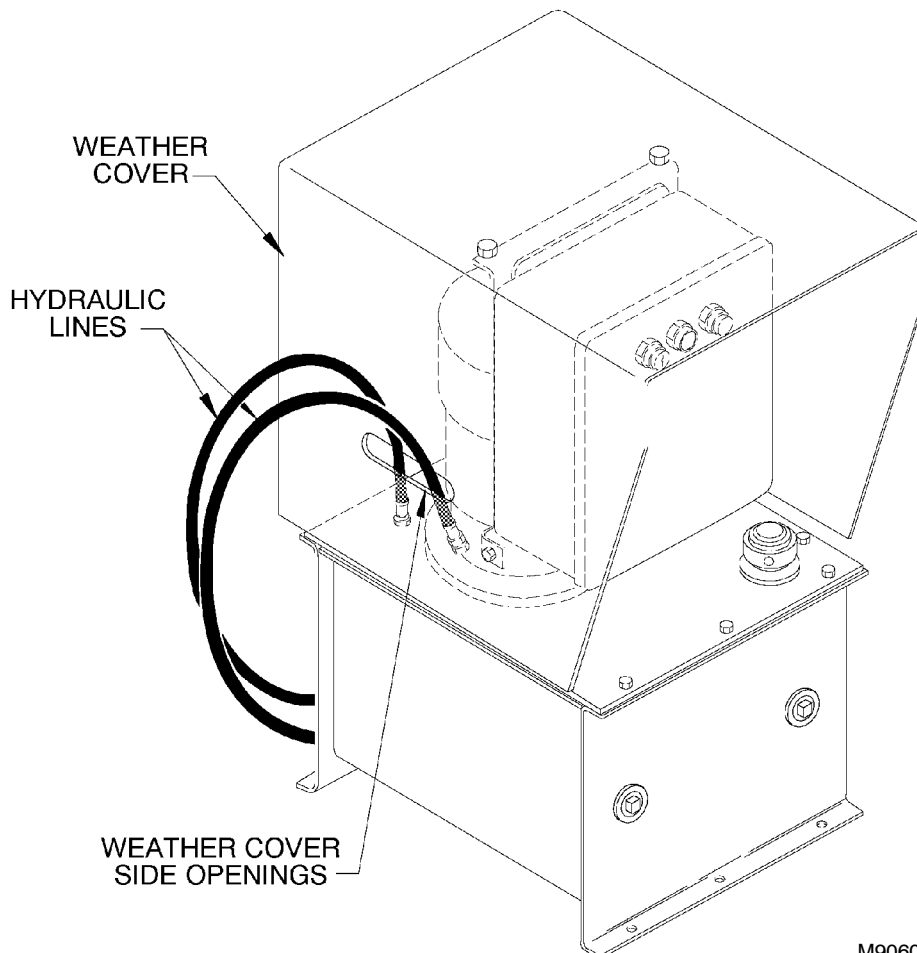
Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



⚠ Caution: Do not disconnect hydraulic lines until motor has stopped running. Personal injury could result from escaping high pressure oil.

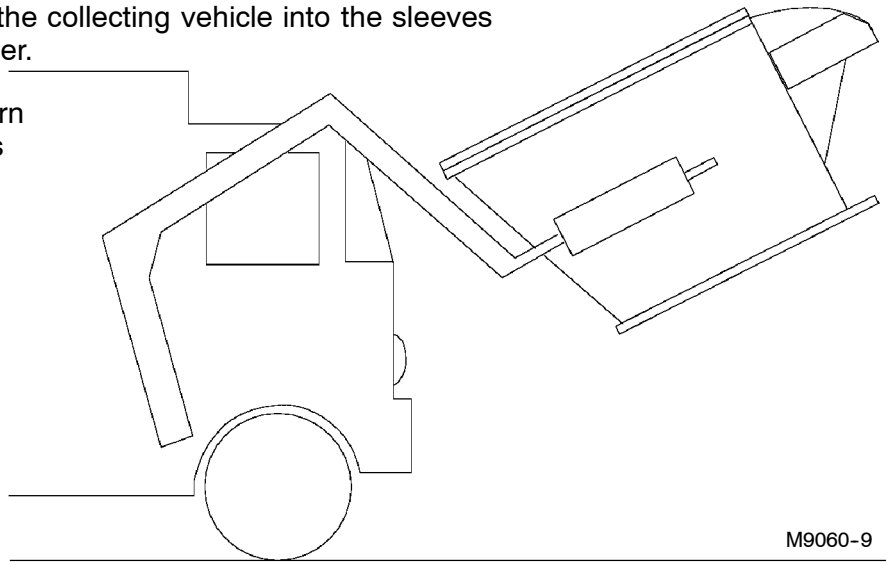
NOTE: Hydraulic disconnects must be kept clean. DO NOT drop hoses. Place them inside the weather cover side openings as shown in the illustration below.



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FRONT LOAD COMPACTOR

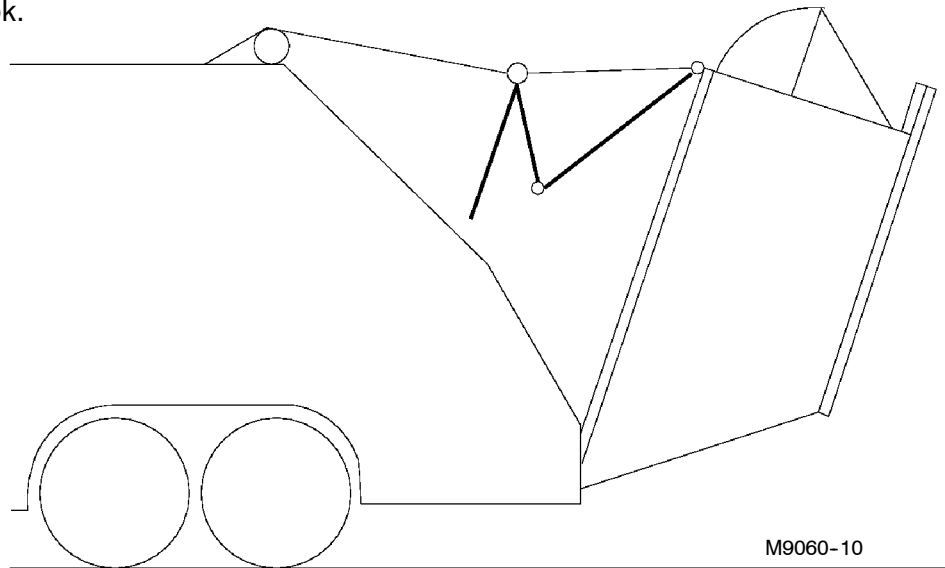
5. Properly align forks on the collecting vehicle into the sleeves and unload the container.
6. After unloading, return the compactor to its original position.
Secure all latches.



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REAR LOAD COMPACTOR

7. Properly align collecting vehicle with the compactor. Secure any trunnion safety latches on the truck body.
8. Hook overhead winch cable hook into eye above the tank lid and string cable under open hook in center of tank lid and unload container.
9. After unloading, return the compactor to its original position. Unhook cable from eye and center tank lid hook.



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10. Re-connect hydraulic hoses. Make sure connectors are clean and free of foreign particles. Do not allow dirt to get into the hydraulic system.
11. Cycle machine one time to make sure that the machine is ready to use.
IMPORTANT: REPORT ANY OBSERVATIONS OF IRREGULARITY TO MAINTENANCE IMMEDIATELY!
12. Do not transport the compactor with the collecting vehicle.
13. Do not use additional equipment in lifting and dumping operation.

⚠ Caution: When unloading the compactor, observe the following:

Check for overhead line clearance before unloading the container.

The above operations must be performed only after the area is cleared of persons and/or property.

VI. HYDRAULIC SAFETY - - READ CAREFULLY!

⚠ Warning: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



AVOID HEATING NEAR PRESSURIZED HYDRAULIC HOSES

Flammable spray can be generated by heating near pressurized hydraulic hoses, resulting in severe burns to yourself and bystanders. Do not heat by welding, or using a torch near hoses. Hose can be accidentally cut when heat goes beyond the immediate flame area.

THE FOLLOWING WARNINGS PERTAIN TO THE MORE COMMON ABUSES OF HYDRAULIC HOSE:

1. **INSPECT** the hose assembly before each use.
2. **REPLACE** the hose assembly immediately if:
 - a. The jacket of the hose appears abnormal.
 - b. You have reason to believe it may be abnormal.
 - c. There is any fluid leakage.
 - d. The couplings are damaged.
 - e. The hose is damaged or kinked.
 - f. The reinforcement is visible through the jacket.
3. DO NOT **EXCEED** the maximum recommended working pressure of the hose.
4. DO NOT **KINK** the hose assembly.
5. DO NOT **BEND** the hose assembly beyond its minimum recommended bend radius.
6. DO NOT **EXPOSE** to temperatures in excess of 225° Fahrenheit.
7. DO NOT USE AS A **STRENGTH MEMBER** for pulling or lifting equipment.

⚠ Caution: If replacing hydraulic hose, use only hose that meets or exceeds 3,000 PSI working pressure.

IMPORTANT: REPAIR OF HYDRAULIC CYLINDERS SHOULD BE MADE BY AN AUTHORIZED DEALER.

VII. TROUBLE-SHOOTING

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Packer does not develop full packing force	Sequence valve set too low	Re-adjust valve. See pressure switch adjustment instructions.
Motor and pump run, but compactor does not operate	Low oil level	Add oil.
	Hoses not properly connected	Check connections at quick couplers.
	Loading chamber lid open	Compactor ram will not run with lid open. Close lid.
	Incorrect pump and motor rotation	Reverse any two motor leads on the starter (3-Phase only). Reverse wires at motor for Single Phase.
	Interlock valve out of adjustment	Adjust interlock valve. See page for instructions.
	Pump suction screen plugged	Clean suction screen
	Key sheared on pump or motor shaft	Replace key and any damaged parts
Cycle time too long	Restriction or kink in hydraulic hose	Check hose. See Hydraulic Safety on page
	Pump worn or damaged	Replace pump
	Pump suction screen plugged	Clean suction screen
	Interlock valve out of adjustment	Adjust interlock valve. See valve adjustment instructions on page .
	NOTE: On single phase power unit, the cycle time will become longer as compaction in container increases. If cycle time becomes longer than 2 minutes, check for one of the problems listed above or pump sequence valve set too low.	
Pump makes noise	Partly clogged intake strainer or restricted intake pipe	Pump must receive intake fluid freely or cavitation results. Flush the system. Clean intake pipe and clean or replace the strainer. Add clean fluid.
	Defective bearing	Replace pump.
Power unit does not shut off at end of packing cycle.	Pressure switch setting too high	Adjust pressure setting. See page for instructions.
	Main Relief Setting too low	Adjust main relief. See page for instructions.
System operates continuously over main relief and ram does not operate	Main relief set too low	Adjust main relief. See page for instructions.
	Sequence valve set too low or stuck in "pack" position	Adjust sequence valve or disassemble and clean. See page for instructions.

VIII. ELECTRIC MOTOR TROUBLE-SHOOTING

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Motor runs excessively hot	Block ventilation	Clean external and internal ventilation system
	High ambient temperature of over 105° Fahrenheit	Provide outside source of cooler air
		Reduce number of cycles per hour
Motor won't start or makes growling noise	Very low voltage	Check power source. Check motor nameplate (motor wiring vs. line voltage for low volts or high volts.)
	Single phased	Check power source (3-Phase only)
	Open motor leads	Check continuity. Clean and tighten.
	Rotor or bearings locked	Check shaft for freeness of rotation
	Thermal overload tripped	Reset. Be sure proper sized overload relays are used and amp setting is correct.
	Starter coil burned out	Replace starter coil.
Motor runs noisy	Bad bearings	Disconnect from pump coupling and check. If noise does not stop, replace bearings
	Bad pump or coupler	Disconnect from coupling and check
Thermal over relays tripping	Incoming leads to incorrect terminals	Correct lead terminal locations
	Low voltage at motor terminals	Improve power supply and/or increase line size
	Single phasing	Check power source, must have all 3 phases. (For 3-phase models only)
	Excessive voltage drop	Eliminate
	Overload amps set too low	Correct setting per nameplate current on motor
	Loose electrical connections	Clean and retighten
Power unit shuts off on return of ram prior to complete return	Low ambient temperature	Increase setting on pressure switch
Excessive vibration (out of balance)	Motor mounting	Check alignment between motor and pump. Be sure motor mounting is tight and solid.
	Pump	Disconnect pump from coupling and restart motor. If vibration stops, the unbalance is in the pump. Replace the pump.
	Coupling	Remove coupling and restart motor. If the vibration stops, the unbalance is in the coupling. Replace coupling spider.
Thermal overload does not trip soon enough	Overload setting too high	Set correctly.
	Line voltage too high for motor	Rewire motor and starter. Match line voltage. Replace overload with correct one or reset if applicable.
	Avoid the following: Excessive greasing of motor, misalignment of motor and pump, and contamination on motor and electrical components.	
Control fuse blowing prematurely or excessively	Water in flex conduit at bottom joint	Drill hole in lower fitting
	Incorrect incoming voltage (also check 3-Phase vs. single phase, they are incompatible)	Match power unit and voltage

IX. MAINTENANCE INSTRUCTIONS

It shall be the responsibility of the employer who operates the equipment to ensure the proper caring for, cleaning, inspecting, and maintaining of compaction equipment, in the case of employers who maintain their own equipment, the training of competent personnel for this purpose.

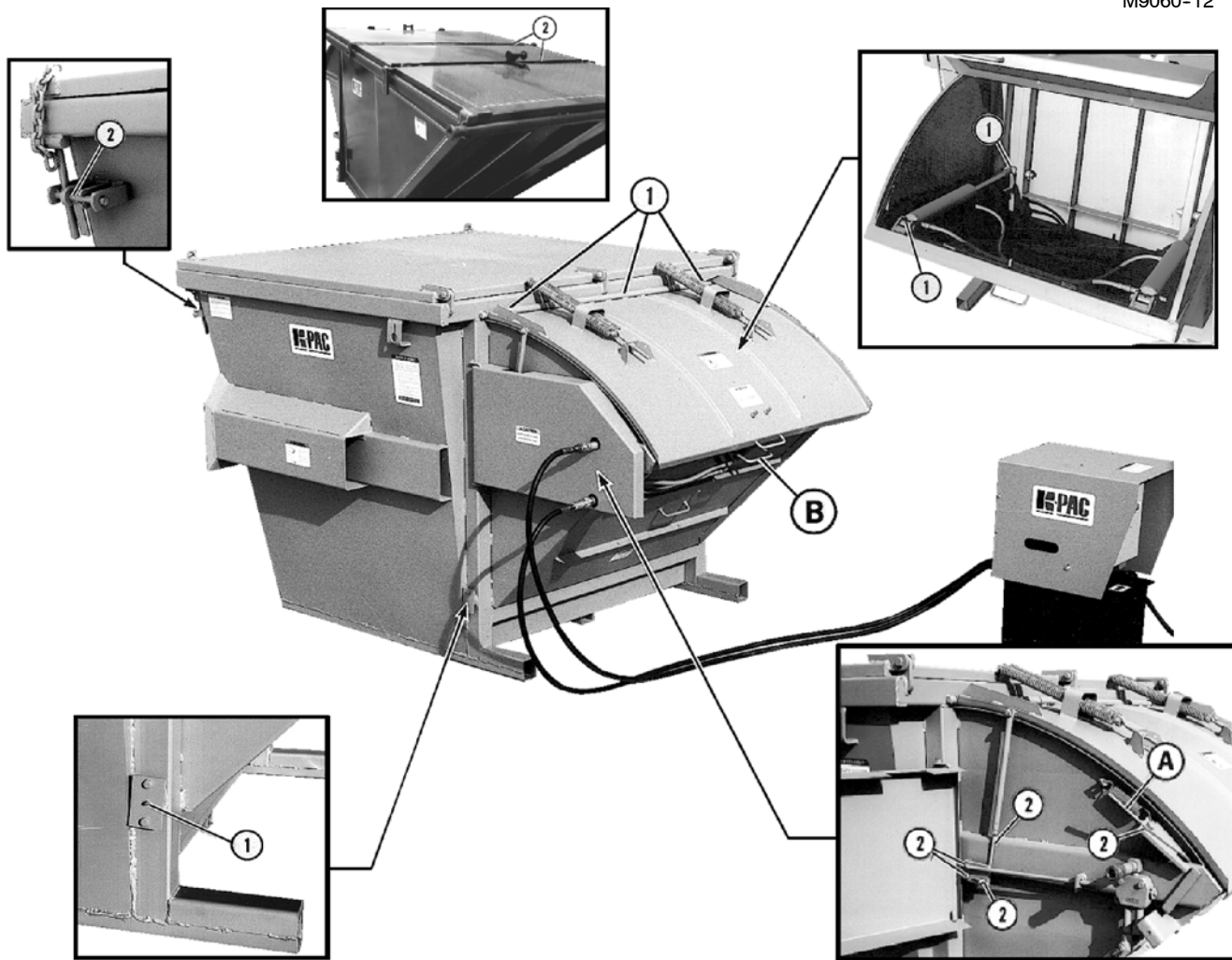
It shall be the responsibility of the employer to establish and follow a program of periodic regular inspections of compaction equipment, and to ensure that all parts, auxiliary equipment, and safeguards are in safe operating condition and adjusted in accordance with the manufacturer's recommended procedures. The employer shall maintain records of these inspections and of maintenance work performed.

WORK AREAS AROUND COMPACTORS: It shall be the responsibility of the employer to provide adequate work area around the compactor to permit safe maintenance, servicing, and cleaning practices. It shall be the responsibility of the employer to keep all surrounding floors free from obstructions, from accumulation of waste water, and from grease, oil or water.

PREVENTIVE MAINTENANCE	
We recommend that the user of the K-PAC compactor adopt a program of regularly scheduled maintenance procedures.	
This schedule should be followed to insure against premature failure of mechanical or hydraulic components.	
INITIAL CHECK	All nuts and bolts during the first week of use, and then monthly thereafter.
	Hydraulic reservoir oil level should be within 4" - 5" of the top. Use a good quality Dexron III Automatic Transmission Fluid.
	Check hydraulic lines for leaks.
	Hydraulic hose condition. (Check for damage, kinks, etc.)
	Access covers to be sure fasteners are in place.
	Power unit. Remove dust and dirt from outside of control box. Wipe off any dirt of grease, oil or moisture.
MONTHLY CHECK	Walk around the compactor and check overall condition of K-PAC, and the cleanliness of the work area.
	Check lubrication. See lubrication chart at the end of this section.
	Check all nuts and bolts.
	Check and clean out excess refuse behind the ram.
	Check oil level in hydraulic reservoir. NOTE: Depending upon the type of refuse being compacted, this inspection may be required more or less frequently than once a month.
YEARLY CHECK	Electrician to check all electrical connections, check motor resistance (recording successive readings helps to prevent future failures). Under heavy use, grease the motor. <u>DO NOT OVERGREASE. SEE MOTOR MANUAL FOR DETAILED INFORMATION.</u>
	Hydraulic system - Drain and refill the reservoir. Prior to the winter season, clean the sump filter being careful not to tear it. Clean with a soft brush and industrial solvent. Check for tightness. Refill reservoir with Dexron III Automatic Transmission Fluid (high quality)
	Check structure of compactor for potential trouble areas and repair as needed.
	Check hoses to insure that they do not become severely worn before being replaced. A broken hose will allow the reservoir to be pumped dry and ruin the pump.

LUBRICATION:

M9060-12



1 GREASE

2 OIL

Grease and oil monthly. High use will require weekly lubrication.

NOTE: Clean-out or maintenance require the loading chamber lid to be open and the compactor's ram to be extended. To EXTEND the ram and open the lid -- first press the "START" button and fully extend the ram. When the ram is fully extended, press the "STOP" button, turn the control panel key to the "OFF" position and remove the key. Open the access cover on the left side of the compactor, press in on Handle "A", and hold in while releasing Lid Latch "B". When lubrication or maintenance is complete, hold Handle "A" in and close the lid making sure Latch "B" is secure.

Caution: Be aware of spring-loaded chamber lid; it may open suddenly.

Warning: This procedure is for maintenance only. All access covers shall be replaced and bolted in position after lubrication and / or clean-out.