

# Safety, Operation, & Maintenance Manual

### **Self-Contained Trash Compactor**

Models SC-3248/ and SC-4060/ Manufactured by Summit Equipment, Inc.

SC UL73 0906



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# CONTENTS

Introduction	ii
Installation Instructions	1
Safety Guidelines	2
Disabling the Compactor	2.6
Routine Preventative Maintenance	3
Compacting Process	4
Controls	5
Basic Trouble-Shooting	6
Warranty Provisions Warranty registration	7

Schematic



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i

# INTRODUCTION

The purpose of this manual is to provide you with the information necessary to use your compactor, and to perform routine maintenance and trouble-shooting. Years of experience are behind the design and construction of the compactor's structure and hydraulic and electrical systems, making your Summit compactor one of the most reliable units available.

Following the guidelines presented in this manual will help ensure that you get many years of performance out of your compactor with a minimum of downtime.

Detailed drawings of the construction and design of the compactor are not included in the manual. If you need service or repair that is not covered in this manual, please contact a competent repair service or the factory. Never modify your compactor without consultation with the factory, or you will risk compromising safety and / or performance.

Safety is one of our biggest concerns at Summit. We have built your compactor in compliance with current safety standards. However, no safety features will protect an operator who is untrained or unwilling to follow safe operating instructions. Safety and training are ultimately the responsibility of the owner of the compactor. Please be sure that no one ever operates the compactor without first reading this manual completely and carefully. Strict adherence to safety requirements will help ensure the safety of operators and the life and performance of the compactor.



ii

# INSTALLATION INSTRUCTIONS

#### IMPORTANT SAFETY INSTRUCTIONS

Your Summit Equipment, Inc waste compactor was designed and manufactured to provide years of reliable performance. *However, if* you do not install it correctly, you may compromise operation. durability, or safety, or you may cause damage or failure that would not be covered by warranty.

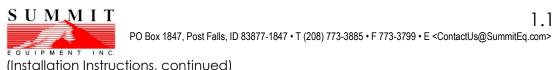
The owner of this equipment is responsible to ensure it is installed according to the following instructions, and according to all codes and requirements in effect at the site of installation.

### MECHANICAL INSTALLATION

For safety and serviceability, install the equipment with as much clear workspace around it as is practical. When installing the equipment near walls, docks, bollards, roof overhangs, or other such surfaces or fixtures, avoid locating the equipment so that its access panels cannot be opened or removed in the event cleaning, maintenance, or service is required.

If the equipment will be lifted and/or removed from the site for emptying, ensure that it is installed with sufficient clearance to allow removal contractors to lift and remove the equipment safely.

The compactor should be installed by anchoring it or its location guides on a solid surface such as a minimum 4" thickness of 3000 PSI concrete reinforced with either #2 rebar on 2' centers or 6" mesh. If the mounting surface is asphalt, mount the compactor or its location guides to steel rails embedded in the paying or to other solid mounting accepted by local codes.



(Installation Instructions, continued)

#### ELECTRICAL INSTALLATION

The enclosure of the electrical panel is fabricated to carry a NEMA 4 rating. The factory fabricated the electrical panel to operate with the supply voltage marked on the factory data tag. Use only locally-qualified electricians or electrical contractors to open or perform work on the enclosure in order to bring the correct incoming electrical power to the electrical panel. Do not penetrate the electrical enclosure with anything other than an entrance fitting/assembly that will maintain the NEMA 4 rating of the enclosure.

In the event site conditions require connecting the equipment and its electrical panel to incoming electrical power other than what is marked on the factory data tag, notify the factory, and obtain instructions and a corrected data tag from the factory.

#### DANGER!

Only qualified electricians should open the electrical enclosure of this equipment. Contact with the electrical power required to operate this equipment can cause injury and even death.

#### **GROUNDING INSTRUCTIONS**

This equipment 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.

#### SAVE THESE INSTRUCTIONS



### **SAFETY GUIDELINES**

# 2

**!!** IMPORTANT **!!** 

Safety is your responsibility

The parts of your Summit Equipment, Inc. compactor are moving with forces measured in 10's of tons. Safety warnings are labeled on the compactor, and it is provided with required safety guards and interlocks to prevent inadvertent injury. However, the best safety protection is strict adherence to safe practices as set forth in these guidelines and by those who are responsible for managing the compactor.

Our publication of these safety guidelines does not guarantee or imply that there are no other safety precautions that are wise or required in your particular installation. Safety requirements vary from area to area, and they are continually changing. Therefore it is the responsibility of ownership and management to ensure that the use of the compactor is in compliance with all applicable safety standards, rules, and regulations.

Your Summit compactor has been labeled at the factory with decals covering basic operational and safety instructions. Your local codes may require additional decals or labels.



In all installations, especially those where the compactor is used in a system with other equipment, it is the responsibility of ownership and management to ensure that:

- all required decals and labels are in place and legible
- the compactor and all of its safety devices are operating properly
- no one operates the compactor until they have read completely through this manual and have been thoroughly instructed in the operation, safety requirements, capacities, and limitations of the compactor.

The owner of this compactor is responsible for the training of all of its operators, and for the proper maintenance of the equipment and its labels and safety devices.

American National Standards Institute periodically affirms a Standard for the design, manufacture, installation, and operation of compactors. Compliance with the Standard is voluntary. Summit Equipment, Inc. complies insofar as it is able to in the design and manufacture of the compactor, and recommends that employers / owners of compactors comply with ANSI Z245.2-1997, section 6.1, as paraphrased and summarized in the following items:

• Make sure that the installation of the compactor is in compliance with any applicable local codes or regulations, and is in accordance with the recommendations of the manufacturer.



- Give complete training to employees before allowing them to operate, clean, or work on the compactor, including training in procedures recommended by the manufacturer. Keep records including the names of employees and the respective dates of their training.
- Monitor the employees who operate the compactor and take whatever action is necessary to be sure they are using it correctly and following safe practices.
- Repair any malfunctions that affect safe operation of the compactor before allowing anyone to operate it.
- Establish and follow a regular inspection program to be sure that all aspects of the compactor are in safe operating condition and adjusted properly. Keep records of all inspections, malfunctions, and repairs.
- Protect workers, either by:
  - a. installing a guard or barrier with a height of at least 42" above where employees stand when near the compactor to prevent entrance into the load chamber, and to prevent personnel from being caught in the path of the moving parts of the compactor, making sure the guard or barrier does not itself create a danger point and that the compactor cannot be operated if the guard or barrier is disabled, bypassed, or removed; or by
  - b. locating constant-pressure-required controls in a location from which the operator will not reach the path of a moving part but will still be able to observe the operation of the moving part.



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- If the compactor will be loaded by an in-floor (pit) conveyor, moving floor, or any surface at or below the level of the floor on which employees walk, provide protection for employees by limiting access within six feet (6') of the edge of a pit only to authorized employees, train employees to know and avoid the hazards related to the loading area, require that any other companies whose employees use the pit provide evidence of equivalent training, limit access with signs such as "RESTRICTED AREA: AUTHORIZED EMPLOYEES ONLY", and provide some kind of device to prevent vehicles from rolling into the pit.
- Prevent the use of compactors that cycle automatically unless the loading chamber is not accessible whenever the compactor cycles.
- Provide guard railings at least 42" high and toeboards around raised platforms or ramps to be used by employees for loading.
- Use the manufacturer's recommendations when shutting down the compactor and locking out power (OSHA 29 CFR 1910.147, Appendix A recommends procedures for locking out power).
- Provide a work area around the compactor that is sufficient for safe maintenance and cleaning.
- Keep walking areas around the compactor clean and unobstructed.
- Inspect safety devices, interlocks, switches, and guards to be sure they are not disabled, bypassed, or inoperative, and do not allow the compactor to be operated until all safety devices operate as designed.
- Make sure that no compaction containers are used unless they can withstand the maximum forces produced by the compaction system.
- Make sure that only authorized employees 18 years or older operate, inspect, or work on the compactor.



Summit Equipment, Inc. also recommends employees who work with compactors comply with ANSI Z245.2-1997, section 6.2, as paraphrased and summarized in the following items:

- Use all the safety features and devices provided with the compactor.
- Do not operate a compactor until you are fully trained.
- Report any damage or malfunction of the compactor immediately to your employer or the individual responsible for the compactor.
- Make sure that all access doors and service covers are secured and / or locked before you begin operation.
- Be sure the area around any container lifting device and the container to be lifted is clear of personnel during all stages of using the dumping system.
- Make sure all personnel are clear of any moving parts of the compactor before operating the compactor or a dumper, and remain at the controls ready to stop operation if necessary.
- Make sure all personnel are clear of the hydraulic door (if so equipped) before it is opened or closed, and warn all personnel not to pass under or behind the door.
- Use the compaction equipment only according to this Standard and the instructions of the manufacturer, including making sure of the proper functioning of all guards, barriers, and safety devices.
- Make sure that safety interlocks or switches or other safety devices are not disabled, bypassed, or nonfunctional, and that the compactor is not operated unless such devices are working properly.



- Lock out power to the compactor whenever inspecting or working on it in a way that might expose you to moving parts. Be able to identify the type and amount of power the compactor uses, understand the potential dangers, and know how to control the power.
- Attached containers to the compactor as specified by the manufacturer.
- Do not operate the compaction system, or work on it, unless you are 18 years old or older and have been fully trained as called for in the Standard.

(The full text of the ANSI Z245.2-1997 standard is available by contacting the American National Standards Institute, 11 W. 42<sup>nd</sup> St., New York, NY 10036, tel (212) 642-4900, fax (212) 398-0023.)

Do not perform service or maintenance on the compactor or remove any of its covers or panels until you are sure none of its parts can move, even inadvertently.

Before doing any work on the compactor, use its key to switch it to its "OFF" position, keep the key with you, and disable the compactor as follows:

# **DISABLING the EQUIPMENT**

Disconnect power to the equipment at the master disconnect by switching it to its "OFF" position. Lock the switch in its "OFF" position with a lock for which only you have a key, and keep the key(s) with you.

Each individual working on the equipment must put their own lock on the master power disconnect to prevent the power from being switched back on by someone else when they are finished with their part of the work.



(Safety Guidelines, general, continued)

Even after the electrical power is removed, remove residual hydraulic pressure before getting in the path of any moving parts or disconnecting any hoses or connections.

Never work or reach inside of guards unless the compactor is completely disabled, as set forth above on page 2.6.

Even when the compactor is "OFF", remember that it works by highly pressurized hydraulic fluid, and that hydraulic systems can retain pressure after electrical power is removed. Therefore, slowly bleed away any residual hydraulic pressure that may remain in the lines before removing covers or entering any part of the compactor or getting in the path of moving parts, and before disconnecting any hydraulic lines or fittings.

Hydraulic oil is extremely slippery. Never remove any hydraulic lines or fittings until you have a generous supply of "floor-dry" available to maintain a clean, dry floor area. If there are leaks in the hydraulic system, immediately correct them and clean up any spilled oil.

Hydraulic oil also can operate at high temperatures. Be careful of contact with hoses, fittings, and other hydraulic components.

Always wear any safety equipment specified by the management responsible for the compactor.



Never enter the feed opening.

Always report any malfunction or need for service, maintenance, or repair to the management or supervisory personnel responsible for the compactor. Never operate the compactor with malfunctions, or when it is in need of service, maintenance, or repairs.

Never restore operating power to the compactor until all guards and covers have been reinstalled and secured.



# ROUTINE PREVENTIVE MAINTENANCE

Your Summit Equipment, Inc. compactor was engineered to provide years of trouble-free performance as long as routine basic maintenance is performed on a regular basis. A small investment in routine maintenance will yield a large return in equipment longevity. It is the responsibility of the owner or manager of the compactor to ensure that it is properly maintained, and that competent personnel are trained in accordance with the manufacturer's recommendations.

Do not perform any service without reading and following the Safety Guidelines set forth in this manual.

#### SAFETY

Inspect to ensure that all safety requirements are met (see the section on "Safety Guidelines" in this manual).

#### **OPERATION SITE**

A cramped installation makes problems for likely. Provide enough work area around the compactor so that it is as safe and convenient as possible to operate the compactor, and to perform routine maintenance and cleaning procedures.



(Routine Preventive Maintenance, continued)

#### **CLEANLINESS**

Many compactor installations are dirty or dusty. The compactor and its surroundings should be kept as clean as the environment will reasonably allow.

Clean garbage, trash, or other spillage from in and around the compactor.

Oil, dirt, and even lint coating the surfaces of hydraulic components will act as insulation, and encourage heat build-up. Cleaning the exposed surfaces of hydraulic tanks and hoses will improve the radiant cooling capacity of the hydraulic system.

Remove oil spills or leakage immediately, and correct the cause of the problem.

#### HYDRAULICS

Hydraulic fluid is the life-blood of the system. At least 70% of all hydraulic system problems are hydraulic fluid problems. If you keep the fluid in good condition, you'll prevent most hydraulic trouble.

Make sure the fluid is visible at least half-way up the sight glass (if so equipped) or at the correct mark on the dipstick when the cylinders are in their fully retracted position. If fluid level drops, there is probably a leak, because fluid has nowhere to go unless there is a leak.

Vibration can loosen fittings and cause small leaks to develop. Regularly inspect hydraulic lines, hoses, and fittings for leaks or wear. This will help prevent a small leak from growing into a large leak.



(Routine Preventative Maintenance, continued)

Use only approved fluid, Chevron AW-MV, Texaco Z-36, or equivalent.

Contaminants in the hydraulic oil will greatly accelerate wear on expensive components of the hydraulic system (cylinder, pump, valves, etc.). At least once per year or every 4,000 operating hours, whichever comes first, the air vent filler/breather should be cleaned. In particularly dirty or windy environments, this cleaning should be more frequent. Fluid should appear a normal motor oil color. If it is very dark in color, it may be contaminated or deteriorated. There are hydraulic oil testing services that can determine whether your fluid is in good condition. Using such a service each time the filler/breather is cleaned / replaced is a wise preventative measure.

Check oil temperature after the compactor has been operated for a couple of hours of its normal daily shift. If you think the oil is becoming too hot, consult competent service personnel to verify temperature; it should not regularly exceed 150°.

#### MECHANICAL

Routine maintenance of mechanical parts of the compactor consists primarily of checking for breakage, lubrication, and tightness of fasteners.

Lubricate and check the security of the pins on the cylinder clevis ends. In order to gain access to the cylinder pins, the compactor must be **disabled as explained on page 2.6**, and the top or end cover of the compactor removed. Check the fully-extended cylinder rods to ensure there are no nicks or scratches (these will wear on seal surfaces, causing leaks and possible contamination of the hydraulic fluid).



Inspect all screws, bolts, and other fasteners, particularly those associated with guards, switches, and other safety devices. Tighten or replace as necessary.

Inspect and lubricate door hinges, ratchets, and latch mechanisms. When lubricating ratchet mechanisms, loosen them so that as much thread area is exposed as when they are fully opened in use, and apply grease to the exposed threads.

Lubricate any grease zerk fittings provided.

#### ELECTRICAL

Vibration can loosen connections over time. Check to be sure that all panels and control boxes are properly covered and latched. **After disabling the compactor as explained on page 2.6**, look inside of boxes and inspect starters, controllers, relays, terminal strips, and other mounted components, checking for loose connections or exposed wires that could create problems.

Make sure that all covers on limit switches, pressure switches, and solenoid valves are secure.

Inspect for frayed conduit or insulation, or exposed wires.

Inspect all limit switches to ensure they are mounted securely and aligned for proper operation.



#### INSPECTION AND MAINTENANCE RECORDS

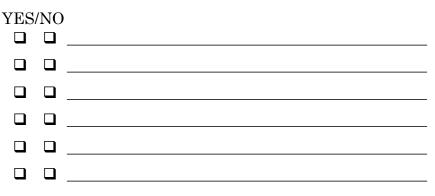
Those who own and manage the operation of the compactor are responsible for establishing and maintaining a program of regular inspection and service, to ensure that all parts of the compactor continue to function as designed, to ensure that all safety devices remain in place and functional, and to ensure that safe practices are being followed. Records should be kept of all regular inspections and service or maintenance work performed on the compactor.

In addition to the specific inspection and maintenance areas mentioned above, there is another good habit found among those who traditionally get long life and performance out of their equipment. That habit involves a simple "walk-around" inspection. It is the recommendation of the factory that, on a regular basis, someone makes a careful walk-around inspection of the compactor and the power unit. This will alert you to potential problems early, before they become hazards to safety or to the performance and long life of the compactor.



#### COMPACTOR MAINTENANCE CHECK-LIST (4 pages)

A. Decals, warnings: Ensure that all decals or warnings required by local codes are in place, legible, and in good condition (including showing their required colors). In the event any of such decals or warnings are defaced, faded, or illegible, shut down and lock out the power to the compactor (see page 3.8 below) and do not return the compactor to service until such decals or warnings are replaced. List decals appropriate for your compactor here. If the presence or condition of any decal is confirmed as "No," shut down and lock out the power to the compactor (see page 3.8 below) and do not return the compactor to service until the decal has been restored to good condition.



**B. Controls:** Confirm that all control actuators are undamaged, that they function as designed, and that their labels are in place, legible, and in good condition. If any item is confirmed as "No," shut down and lock out the power to the compactor (see page 3.8 below) and do not return the compactor to service until the control has been restored to correct operation.

#### YES/NO

 Emergency STOP push-button(s): The compactor will not start when a STOP button is pressed. If running, the compactor immediately shuts down when a STOP button is pressed.



YES/NO

- □ □ Key-locked ON/OFF switch: The compactor will not start when the switch is in its OFF position. If running, the compactor immediately shuts down when the switch is moved to its OFF position.
- Start push-button: When the key-locked ON/OFF switch is in its ON position, no STOP buttons are pressed, and any access doors (see below under "Safety") are securely closed, pressing-and-releasing this push-button will cause the compactor to cycle (see "Controls" chapter for multiple cycles).
- □ □ Emergency Ram Control (FWD/REV or EXT/RET) switch: When the key-locked ON/OFF switch is in its ON position, switching this control to its FWD or EXT position causes the compactor platen to move <u>ForWarD</u> or <u>EXT</u>end for as long as the control is held, and switching it to its REV or RET position caused the compactor platen to <u>REV</u>erse or <u>RET</u>ract for as long as the control is held.
- C. Safety: If the answer to any safety question is confirmed as "No," shut down and lock out the power to the compactor (see page 3.8 below) and do not return the compactor to service until all safety issues are resolved.

#### YES/NO

□ □ Is the compactor charge chamber protected by a point of operation guard that prevents entry of any part of a body into the point of operation, that does not itself create a pinch point between the guard and moving compactor parts, that offers maximum visibility of the point of operation consistent with other safety requirements, and that is interlocked so that the compactor will not operate if the guard is opened or removed?



YES/NO

- □ □ Is the main electrical power disconnect visible from the position of personnel standing at the compactor controls and from the compaction head end of the compactor, and within 25' of the controls?
- □ □ Do all personnel with access to operation of the compactor know how to remove power and disable the compactor?

Do not perform service or maintenance on the compactor or remove any of its covers or panels until you are sure none of its parts can move, even inadvertently. Before doing any work on the compactor, move its key to switch to its "OFF" position, keep the key with you, and disable the compactor as follows:

### **DISABLING the EQUIPMENT**

Disconnect power to the equipment at the master disconnect by switching it to its "OFF" position. Lock the switch in its "OFF" position with a lock for which only you have a key, and keep the key(s) with you.

Each individual working on the equipment must put their own lock on the master power disconnect to prevent the power from being switched back on by someone else when they are finished with their part of the work.



**D. General care:** If the answer to any general care question is confirmed as "No," shut down and lock out the power to the compactor (see page 3.8 above) and do not return the compactor to service until all issues are resolved.

#### YES/NO

- □ □ Is the area around the compactor clean and reasonably free of obstructions and debris, providing safe access for operating personnel?
- □ □ When the compactor operates, is it free of any unusual operation or noise?
- Does the sight glass or dipstick indicate sufficient hydraulic fluid in the reservoir when the compactor platen is fully retracted?
- Does a visual inspection reveal that all hoses, covers, chutes, hoppers, doors, push-buttons, and other compactor parts are in good condition?
- Does a visual inspection by a qualified electrician or technician inside electrical enclosures reveal that all components are secured and free from indications of overheating or loose or frayed wires?
- □ □ Are the contacts, arms, or rollers on limit switches straight and operating as they should be, and not bent or fouled?
- □ □ Are the platen guide wear shoes supporting the platen without signs of wear and looseness such that they should be replaced?



### **COMPACTING PROCESS**

# 4

A compaction system is composed of two basic units. One is the compactor (or compaction head) with its power unit. The other is a container. Compacting is accomplished as the hydraulic system moves the structural parts of the compactor, compressing more and more material into the container until the container needs to be emptied.

The system is designed so that when material is deposited into the compactor load chamber, the compactor ram will push the material into the container. If the capacity of the container (just for example) is 15 cubic yards, then the first 15 cubic yards of material deposited into the compactor are pushed into the container to fill it (just as a regular garbage can might be filled). However, once you deposit more waste than the container's capacity, the compactor forces it in and begins to compact it (just as you would compact more into a garbage can by stepping on it, for example). So, compaction takes place *in the container* as the powerful compaction head forces more and more material into the container.



(Compacting Process, continued)

Even though the container may have been "full", more material can be pushed in it with enough force. Depending on the kind of material, a Summit compactor will compress from three times to seven times as much material into a container as its capacity. In other words, 45 to 105 cubic yards of loose material can be packed into a 15 cubic yard container. Put yet another way, the "compaction ratio" of a Summit compactor can range from 3-to-1 to 7-to-1, depending on the type of material.

"Self-contained" compactors are built with their compaction heads and containers permanently joined together. They are used primarily in situations where material leakage needs to be minimized (such as in the case of liquid or granular materials).

"Stationary" compactors are built separately from their containers. They are designed to be fastened to the ground or floor. Containers are mechanically secured to these compactors until they are packed full, and then are released for emptying. "Stationary" compactors are used primarily in situations where material leakage is not a problem (such as dry waste).

Using a compactor is simple.

1. If the compactor is a "stationary" design, ensure that the container is securely fastened to the compactor with the ratchets and claws or other devices supplied.



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- 2. If the compactor is equipped with a digital keypad to allow access to the compactor feed hopper, enter the appropriate 4-digit code + the "OK" key to unlock the feed hopper door.
- 3. Deposit material into the feed opening until the chamber is full or until you haven't any more material to load.
- 4. Close the feed hopper door. If the compactor is equipped with the optional cycle upon door closing feature, the compactor's power unit will start, and the platen will push the material into the container before reversing itself to its rearmost position when the power unit will shut down. If the compactor is not so equipped, simply press and release the START button. If the controls are enabled by a keypad, the compactor will remain activated for its next load for a preset amount of time. (See Controls chapter, below.)
- 5. Repeat the process from step 2 above.
- 6. Every time you unlock the door, deposit waste, and then close the door, the compactor will cycle and compress more and more material into the container. *If your compactor is equipped with a OnePlus brand "Waste Edge" monitoring system, management will know when it is time to empty the container, and you can ignore the Packing Progress Indicator Light.*



If the container somehow gets completely full so that the compactor cannot compress any more waste into it, the Packing Progress Indicator Light in the START button will light solidly and the compactor will shut down in its forward-most position. This signals that the container is full. (You will not harm the compactor by trying to "stuff" more material into the container, but you will reach a point where no more can be pushed in).

7. Once the container has been emptied, you are ready to continue compacting by returning to step 1 above.

If you find that a single stroke of the compactor platen commonly does not completely clear the amount of material you have deposited in the load chamber, ensure that the key-locked switch on the controls is set to its multiple-cycle position. This position sets the controls so that every time you closed the compactor feed hopper door, the compactor will cycle multiple times (if so set; see controls chapter) instead of just once.



# CONTROLS

# 5

Your compactor will be equipped with some or all of the following controls. Note the function of the controls that apply to your compactor so that you can obtain the best safety and performance possible. *DO NOT tamper with or modify any control devices, or you will jeopardize safety, performance, and warranty coverage.* 

**Red "STOP" button (oversized)**. Depressing this button will immediately shut the compactor down, in any mode, and in any cycle.

**Security keypad (optional)**. You will not be able to deposit waste in the compactor feed hopper until you unlock and open its door and enable the controls. To unlock the door & enable the controls, enter the appropriate 4-digit code + "OK" in the security keypad. When an acceptable code has been entered, the hopper feed door will unlock so you can open it. When you close the door, it will re-lock itself (after a brief delay; if so equipped).

**"START" button**. If the compactor feed hopper door is locked, depressing the START button will start compactor operation and cause the platen to cycle. The light in the button serves as an indicator for the "Container Packing Progress" function as follows. The compactor ram meets more and more resistance at the end of its forward stroke as more and more material is stuffed tighter and tighter into the container. The "Container Packing Progress"



(Controls, continued)

indicator is a warning light, notifying the operator that the container is beginning to near its "full" point. When the platen moves forward and reaches a pre-set amount of resistance, the light in the "START" button will blink slowly. As the container fills and that preset resistance is reached earlier in the platen's forward stroke, the light will blink at a medium speed. When the compactor is nearing the end of its ability to compact more material into the container, the light will blink fast. Finally, when the container is full, the ram will stop in its forward-most position and this light will remain lit. *NOTE: If your compactor is equipped with a OnePlus brand "Waste Edge" monitoring system, management will know when it is time to empty the container, and you can ignore the Packing Progress Indicator Light.* 

**Emergency Ram Control**. Your compactor is provided with a three-position toggle switch for the purpose of moving the compactor platen forward or back manually. To move the platen forward, use the "FORWARD" or "EXTEND" function of the switch; to move the platen backward, use the "REVERSE" or "RETRACT" function. The Emergency Ram Control is also used to adjust standard or optional settings; see the paragraphs below for "Setting number of strokes" and "Setting number of door closes before cycle (optional)."



(Controls, continued)

**Door Interlock Switches (optional)**. The compactor feed hopper loading door may be equipped with a device providing immediate shutdown of the compactor when the door is opened. In this case, the compactor will not operate with the door open. NOTE: **If the compactor will run with the door open, or if opening the door does not cause the compactor to shut down, DISABLE THE COMPACTOR IMMEDIATELY as instructed on page 2.6.** Call for service to adjust or repair the door switch. Note also that the switch provided with your compactor door may be of a tamper-proof design. Since it is designed to be tamper-proof, tampering with it will likely ruin it AND MAY DISABLE YOUR COMPACTOR. Please be aware that damage to the compactor or faulty operation due to tampering with switches will NOT be covered by warranty.

Setting number of strokes. Each time the compactor cycles, it will produce the number of compaction strokes you have set with the controls. To set the number of strokes to one, hold in the STOP button while turning the Emergency Ram Control once to its "RETRACT" or "REVERSE" position and releasing it. Then, while holding in the STOP button, each time you turn the Emergency Ram Control to its "EXTEND" or "FORWARD" position and release it, you will add one stroke. Releasing the STOP button cancels the setting function and locks in the number most recently set. As an example, to set the controls so the compactor produces three strokes each time it cycles, press and hold the STOP button, turn the Emergency Ram Control once to its "RETRACT" or "REVERSE" position, and turn it twice to its "EXTEND" or "FORWARD" position (each "EXTEND" or "FORWARD" turn adds one more stroke).



(Controls, continued)

Setting number of door closes before cycle (optional). Your compactor may be equipped with a feed hopper and interlocked door, and an optional feature that will make the compactor cycle upon closing the door. If your compactor is equipped with this option, you can adjust the number of times the hopper door must close before the compactor will cycle. While setting the number of door closes required to cause the compactor to cycle, remember that releasing the STOP button cancels the setting function and locks in the number most recently set. To adjust the number of door closes required to cause the compactor to cycle, hold in the STOP button while also holding in the START button for a minimum of fifteen (15) seconds. Then release the START button (but maintain pressure on the STOP button) while turning the emergency ram control to its "RETRACT" or "REVERSE" position and releasing it, which will set the number of door closes to one. While continuing to maintain pressure on the STOP button, each time you turn the emergency ram control switch to its "EXTEND" or "FORWARD" position and release it, you will add one door closing. Releasing the STOP button cancels the setting function and locks in the number most recently set. As an example, to set the controls so the compactor will cycle after the door has been closed four times, press and hold the STOP and START buttons for a minimum of 15 seconds, release the START button, turn the Emergency Ram Control once to its "RETRACT" or "REVERSE" position, and turn it three times to its "EXTEND" or "FORWARD" position (each "EXTEND" or "FORWARD" turn adds one more door closing).



# **BASIC TROUBLE SHOOTING**

# 6

PROBLEM	POSSIBLE SOLUTIONS
Motor does not run	Your compactor may be equipped with safety inter- locks on its door. Make sure they are closed and secured. Also read this manual to ensure you are using controls properly. (Could the "STOP" button be pressed?) Ensure that power of the correct voltage is getting to the compactor. If the compactor won't run at installation, note that it was run at the factory, so the motor has been proven. Check circuit breakers or fuses, overload reset on the motor starter, loose relays or wires in the electrical boxes.
Motor runs, but the compactor doesn't	Check motor rotation. If the motor runs backward, so does the pump. If you confirm the motor is running, and the pump is turning, motor rotation is probably backward. If motor rotation is incorrect, competent service personnel should disable the compactor as on page 2.6, open the electrical panel, and (for 3- phase power) switch any two of the three incoming power connections (marked "L1", "L2", and "L3"), or (for single-phase power) switch the two incoming power connections (marked "L1" and "L2"). Reconnect power and confirm operation.
Compactor runs momentarily, shuts down; starter over- loads must be reset.	Confirm that incoming voltage is correct. Loss of phase of incoming 3-phase power. Confirm correct thermal overload elements. Hydraulic pump failure. Serious fluid viscosity problems.
Chattering sound when starting	Confirm correct voltage. Component failure in control box.



(Basic Trouble-Shooting, continued)

PROBLEM POSSIBLE SOLUTIONS	
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Compactor runs slow or sluggish	Confirm correct fluid type and level. Confirm Confirm correct voltage. Inspect to see if there is a wedge of material under the ram. Check for hydraulic leaks. Pump or cylinder or hydraulic flow problems; call for competent service.
Hydraulic oil level is always low.	Inspect for leaks around hoses, fittings, cylinder, or cylinder packing glands.
Some cycles or modes will not work right.	Inspect limit switches to confirm arms are not bent or fouled by material. If this does not cure the problem, call for competent service.
Material accumu- lates excessively behind ram.	Worn scraper blade not cleaning ram top. Material jammed under the scraper blade, preventing it from cleaning off the top of the ram as it retracts.
Compactor does no shut down when "STOP" button or safety-switched door is activated.	<i>t</i> DISABLE THE COMPACTOR IMMEDIATELY! as set forth on page 2.6. Call service to repair door switch or other control circuitry. <b>Never</b> operate the compactor when any of its safety features is not working.
As the platen moves, there is squealing	Check for material wedged between the platen and the case. See if noise is from air in the hydraulic system. If fluid is correct, air will eventually purge out of the system. Squealing may also be caused by a tight- fitting scraper, especially when the compactor is new. As the scraper gets broken in, the squealing will subside.
Compactor shuts down in forward position but the container is not full.	Make sure the container is not full. Also be sure there is no solid object jamming the ram from traveling fully forward. Check the operation of the forward limit switch. Make sure the "STOP" button is not depressed.



### **Basic Warranty Provisions**

# 7

#### or "Things You Should Be Careful About"

Summit's Limited Warranty is intended to protect the original purchaser of equipment manufactured by Summit Equipment, Inc. from defects in materials and workmanship, and covers parts and labor for twelve (12) months within the terms and conditions of the Warranty (see the Warranty for details).

The Warranty is not meant to cover everything that could possibly go wrong in the first 12 months. When Warranty Claim Forms are submitted to Summit, claims for items that are not meant to be covered will be denied. Please read and understand the Warranty so that you do not assume that anything that goes wrong during the first year is automatically covered. It may or may not be covered; check the Warranty.

Here is a list of some of the items you need to be especially aware of so that you do not cause damage not covered by the Warranty, or void the Warranty.

> 1. *DO NOT* neglect routine maintenance as recommended in this manual. Warranty coverage may not be extended to equipment that has not had its regular recommended maintenance performed and documented.



- 2. **DO NOT** modify the equipment without advance written consent from Summit Equipment, Inc. Modification includes structural changes, changing computer logic, moving electric eyes or limit switches, changing settings, or other modifications to the equipment or its power unit or controls.
- 3. *DO NOT* manually override any of the automatic control sequences of the equipment unless you know exactly what you are doing. Damage caused by making a mistake while manually overriding the equipment's automatic controls is not covered by the Warranty.
- 4. *DO NOT* weld on the equipment without removing the fuses or switching off the circuit breakers on the output side of the control transformer. Doing so may damage the controls or other components and would not be covered by the Warranty.
- 5. *DO NOT* install the equipment in a way that will allow voltage spikes or surges to reach its controls (from lightning, for example). Doing so may result in damage to the controls or other components and would not be covered by the Warranty.



SUMMIT EQUIPMENT INC. POST FALLS. ID 83854-9413	PROPRIETARY: NEITHER THIS DOCUMENT NOR THE INFOR- MATION CONTAINED THERIN MAY BE REPRODUCED OR DIS- CLOSED TO ANYONE WITHOUT WRITTEN PERMISSION OF SUMMIT EQUIPMENT INC.DRAWING # : HSCPIO®IO*OITITLE : IO HP/IO GPM Power 
ITEMOTYDESCRIPTION 1 1 10 HP Motor 2 1 EAT26008-RZC (10 gpm Pump) 2 1 EAT26008-RZC (10 gpm Pump) 2 1 Coptional) EAT26004-RZC (5 gpm Pump) 2 1 Coptional) 11 GPM 2-Stage Pump (Holdex) 3 1 AD055PRVC68 (DAMAN Manifold) 4 1 RPE4-102R21/12060E5T3 (Hytos 2 pos. Valve) 5 1 RV5-10-S-0-35 (Vickers Relief) 5 2 43654D (4*37*225 Byposs Cylinder) 7 1 96201-BB2-T2-Z17 (Pressure Switch)	