

# OPERATING AND SAFETY INSTRUCTIONS



## MOOVMOR STATIC COMPACTOR SYSTEM

SERIES / MODEL: SC2500;  
SC3000; SC3500



## MOOVMOR ENGINEERING LIMITED

31 Kildare Business Park | Melitta Road | Kildare | Ireland  
Tel: 045 521031 | UK Tel: 02030 277064 | EU +353 45 521031  
Mail: [info@moovmor.com](mailto:info@moovmor.com) [www.moovmor.com](http://www.moovmor.com)





# **CONTENTS**

## **1.0 GENERAL**

- 1.1 MODEL /SERIAL NUMBER
- 1.2 SPECIAL FEATURES
- 1.3 INTENDED USE
- 1.4 COMPACTABLE PRODUCT
- 1.5 WARRANTY AND LIABILITY
- 1.6 CUSTOMER SERVICE

## **2.0 SPECIFICATIONS**

- 2.1 SPECIFICATIONS
- 2.2 SPECIFICATIONS AND DIMENSIONS
- 2.3 SHORT OFFLOADING INSTRUCTIONS

## **3.0 SAFETY INSTRUCTIONS**

- 3.1 SAFETY DEFINITIONS
- 3.2 GENERAL SAFETY
- 3.3 SAFETY INSTRUCTIONS
- 3.4 SAFETY INSTRUCTIONS – STARTUP
- 3.5 SAFETY INSTRUCTIONS – OPERATION
- 3.6 SAFETY INSTRUCTIONS – MAINTENANCE / REPAIR
- 3.7 SAFETY INSTRUCTIONS – NOISE
- 3.8 SAFETY INSTRUCTIONS – PPE
- 3.9 SAFETY INSTRUCTIONS – AUTOMATIC START / PHOTOCELLS
- 3.10 SAFETY INSTRUCTIONS – RESIDUAL RISK
- 3.11 SAFETY INSTRUCTIONS – SAFETY SIGNS
- 3.12 SAFETY INSTRUCTIONS – DATA SHEETS

## **4.0 OPERATING INSTRUCTIONS**

- 4.1 CONTROL PANELS / SWITCHGEAR
- 4.2 CONTROL PANELS FUNCTIONS
- 4.3 OPERATING INSTRUCTIONS – STARTUP
- 4.4 OPERATING INSTRUCTIONS – COMPACTING
- 4.5 OPERATING INSTRUCTIONS – PINNING OFF
- 4.6 OPERATING INSTRUCTIONS – MANUAL OPERATION
- 4.7 OPERATING INSTRUCTIONS – BIN LIFT OPERATION

## **5.0 MAINTENANCE**

- 5.1 MAINTENANCE – SCHEDULE
- 5.2 MAINTENANCE – ROUTINE SERVICE
- 5.3 MAINTENANCE – PLC DISPLAY

## **6.0 TRAINING**

## **7.0 COMMISSIONING CHECKLIST**

## **8.0 CE CERTIFICATE**

## **9.0 ELECTRICAL/HYDRAULIC CIRCUIT DIAGRAMS**



## **1.1 MODEL / SERIAL NUMBER**

MODEL **SCL2500-38T-**  
SERIAL NUMBERS **206051** to **206075**

## **1.2 SPECIAL FEATURES**

**OPEN HOPPER TO SUIT BIN LIFT SYSTEM;  
AUTO START PHOTOCELL;  
BIN LIFT POWER SUPPLY,  
4G GSM SYSTEM**

## **1.3 INTENDED USE**

This machine is a hydraulic compactor system exclusively designed for compacting of waste materials into an enclosed compaction container.

The container is then transported away to a recycling or disposal site. The compactor system should not be used for any other purpose.

Also included for conventional usage is:

- to follow all details within the operating instruction,
- to comply with maintenance and inspection operations

## **1.4 COMPACTABLE PRODUCT**

The Compactor is designed to compact materials such as –

- General Waste,
- Black Bag Waste,
- Loose Waste Materials
- Bulk Waste Items
- Cardboard, Paper
- Dry Recyclables

These materials should be compactable.

For example, explosive, pressurised, solid or hard materials, may not be suitable for compaction.

Compaction of some packaging with contents can result in sprays of liquids/dust. (ie. food packaging)



## **1.5 WARRANTY AND LIABILITY**

### **RESPONSIBILITY OF THE OPERATOR**

The operator is responsible, that only qualified staff, who are familiar with the operating instructions and operational safety, accident prevention and the usage of the machine, may work at the machine. They have to read and understand the operating instruction (especially the safety chapter and the warning notes) and have to confirm it by their signature.

### **RESPONSIBILITY OF THE STAFF**

All persons, who work at the machine, obligate themselves before operating the system:

- To follow the basic directions about operational safety and accident prevention,
- To read and understand the operating instruction, especially the safety chapter and the warning notes, and confirm it with their signature.

### **WARRANTY**

The system provided is covered by our standard 12 month warranty terms unless agreed otherwise in our order confirmation.

Warranty covers replacement of faulty components or workmanship, and excludes wearing parts such as Wear pads, guides, fuses and the like.

The warranty is limited to parts only in the event of minor components that can be replaced without specialist knowledge.

The warranty is subject to regular maintenance checks and servicing.

## **1.6 CUSTOMER SERVICE**

When contacting customer service please indicate the machine serial number as indicated in the General specifications / nameplate.

You can Contact customer service under the following address:

### **MOOVMOR ENGINEERING LIMITED**

31 KILDARE BUSINESS PARK, MELITTA ROAD, KILDARE, IRELAND

Telephone: (IRL) 045 521031

(UK) 02030 277064

(EU) +353 45 521031

Fax: + 353 45 522564

Mail: [info@moovmor.com](mailto:info@moovmor.com)

[www.moovmor.com](http://www.moovmor.com)

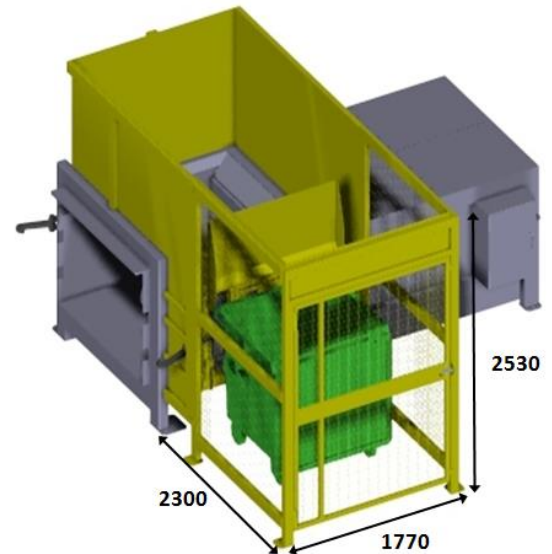
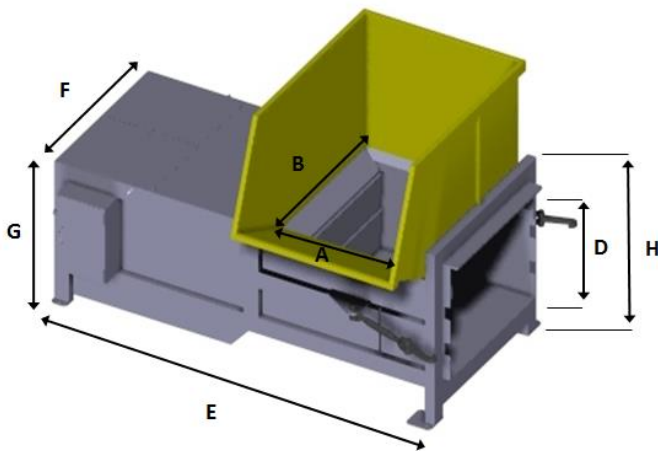


## 2.1 SPECIFICATIONS

PACKING FORCE	10 TONNES	SC1000
	26 TONNES	SC2500-26T, SC3000-26T
	38 TONNES	SC2500-38T SC3000-38T, SC3500-38T
	50 TONNES	SC3500-50T
MAIN CYLINDER	80 mm Bore	SC1000
	125 mm Bore	SC2500-26T, SC3000-26T
	152 mm Bore	SC2500-38T SC3000-38T, SC3500-38T
	180 mm Bore	SC3500-50T
HYDRAULIC PUMP	Gear Pump	
MAX WORKING PRESSURE	200 BAR	
CONTAINER CLAMPS	36 mm Ratchet Galvanised	
CONTAINER HOOK	40mm Heavy Duty Galvanised	
MOTOR RATING	5.5 kw	ALL MODELS EXCEPT SC1000
	4.0 kw	SC1000
POWER REQUIREMENT	400 V, 50 Hz, 3PH +E	20 A
CONTROL VOLTAGE	24v DC	
BIN LIFT CYLINDER	80 mm Bore	
BIN LIFT SAFE WORKING LOAD	450 Kgs	
PLC	ZELIO Programmable Relay	
OPERATING TEMPERATURE	-5° to +40° Celsius	
HYDRAULIC OIL	Viscosity Grade 46.	
OIL RESERVOIR CAPACITY	100 – 200 Litres	ALL MODELS EXCEPT SC1000
	40 Litres	SC1000
OIL COOLER	1.8 kw	(Option)
OIL HEATER	1000 w	(Option)



## 2.2 SPECIFICATIONS & DIMENSIONS



	DIMENSIONS	SC2500 SHORT	SC2500	SC3000	SC3500
A	Charge Box Length	1250mm	1250mm	1500mm	2100mm
B	Charge Box Width	1505mm	1500mm	1500mm	1500mm
E	Overall Length	2090mm	3370mm	4000mm	5316mm
F	Overall Width	1667mm	1667mm	1667mm	1667mm
G	Compactor Height(nominal)	1570mm	1270mm	1270mm	1270mm
	Compactor Weight(nominal)	3.0 Tonnes	3.0 Tonnes	3.5 Tonnes	5.5Tonnes

*(Dimensions shown are nominal for standard Compactor systems ,and may be subject to change without notice.)*

SC1000  
A 700mm  
B 600mm  
E 2150MM  
F 756mm  
G 1750MM  
G 1.25 Tonnes



## **2.3 SHORT OFFLOADING INSTRUCTIONS**

Installation, Lifting & Offloading should be carried out by trained personnel.

A Method Statement, Risk Assessment and Lifting plan should be completed for each individual installation.

### **STEP 1:**

An authorised carrier will arrive with the Compactor.

A CRANE or appropriately size forklift(s) should be on hand to off load the machine from the trailer.

### **STEP 2:**

The crane or forklift will offload the machine and place it onto the desired location.

The proposed site for the machine should be a reinforced concrete base and level in all directions.

### **STEP 3:**

Once placed onto the desired location a visual survey of the machine should be undertaken to access any damage that may have occurred in transit

### **STEP 4:**

Once the System has been properly positioned, assembled and bolted to the ground a qualified electrician should then connect the system to a suitable mains supply.

### **STEP 5:**

Commissioning and training should be undertaken by a suitably qualified person.





### **3.1 SAFETY DEFINITIONS**



**DANGER ZONE:**

Refers to any area within and/or around the machine, including the working area, in which an exposed person is subject to a risk to his/her safety or health.

**EXPOSED PERSON:**

Any Person wholly or partially in the danger zone.

**OPERATOR:**

Trained person given the task of operating, adjusting, maintaining, cleaning, repairing the machine.

### **3.2 GENERAL SAFETY**



The compactor should only be operated by Trained staff, which have read and fully understand the Operating and Safety Instructions.

Only the operator should be in the working area or danger zone of this equipment during operation.

Always turn the compactor OFF and remove the key to prevent unauthorized operation when the system is not in use.

Do Not Enter or climb into any part of this machine.

To carry out maintenance, the system should be locked out using a padlock on the Mains isolator, and the key should be held by the operator at all times.

Always ensure that no one has entered into the system or is carrying out maintenance before starting the system.

Always ensure the Container loading/unloading area is clear of any personnel before loading/unloading or vehicular movements take place.

It is the duty of the Operator to report immediately any damage or malfunction of the machine.

Waste compacting and re-cycling equipment are designed for crushing heavy-duty packaging and waste materials, such as steel drums and pallets etc. Care should always be taken while operating such equipment. A diligent safety attitude on the part of the users should ensure years of trouble free service.



### 3.3 SAFETY INSTRUCTIONS



- |               |   |
|---------------|---|
| <b>ALWAYS</b> | Read the operating Instructions. No untrained personnel should operate or repair this Compactor.  |
| <b>ALWAYS</b> | Check that all safety switches and components are operating correctly.  |
| <b>ALWAYS</b> | Check that all covers and guards are secured correctly.   |
| <b>ALWAYS</b> | Keep working area and Danger zone clean and dry, with no obstructions. Do not stack or store items on or around the compactor system.   |
| <b>ALWAYS</b> | Ensure that only the operator is in the working area of this equipment.   |
| <b>ALWAYS</b> | Wear Safety Equipment specified when working on or around the machine.<br>(PPE - Gloves, Glasses, Boots, Overalls, Ear Protectors)  |
| <b>ALWAYS</b> | Ensure that the container clamps are in good repair and working order, and are fitted correctly to the container after emptying.  |
| <b>ALWAYS</b> | Stand Clear of Bin Lift, and Hydraulic Doors during operation (where fitted)  |
|               |   |
| <b>NEVER</b>  | Climb into or stand on top of the loading hopper, charge box or any part of the equipment   |
| <b>NEVER</b>  | Place hands inside any working area of the equipment.   |
| <b>NEVER</b>  | Remove any warning tags or labels.  |
| <b>NEVER</b>  | Remove or interfere with any panels or safety switches. Any defaults with safety switches or guards should be reported immediately.   |
| <b>NEVER</b>  | Compact any volatile or combustible materials in this machine   |
| <b>NEVER</b>  | Attempt to process unauthorised materials such as concrete, Long/sharp steel products, explosive items which could cause injury and/or damage to the system.  |
| <b>NEVER</b>  | Overload or overfill the compactor, to avoid material jamming in the System.  |
| <b>NEVER</b>  | Power hose or steam clean the electrical control panels, hydraulic power pack or Electric motor.  |
| <b>NEVER</b>  | Leave the system unattended.<br>If unauthorised personnel may have access to the system, then the power supply should be isolated at source when the system is unattended, to prevent any unauthorised use. |



### **3.4 SAFETY INSTRUCTIONS – STARTUP**



- Only properly qualified and authorised operators should carry out installation and start-up of this machine.
- Inspect the system after Installation and carry out Risk assessment, to ensure that no Hazard has been inadvertently created or overlooked in the installation of the baling system, and any of its customised components for each specific installation.
- Ensure Grease points, moving parts, guides and bearings are properly lubricated before use.
- Ensure all guards and Safety devices are in place and operating correctly.
- Before operating, always ensure that no person has entered or is working on any part of the Compactor system.

### **3.5 SAFETY INSTRUCTIONS – OPERATION**



- Only authorised operators should operate this machine.
- Ensure all guards and Safety devices are in place and operating correctly.
- Never attempt to temporarily bypass any safety features fitted on the compactor.
- Do not climb into or stand or reach into any part of the compactor.
- Do not access the compaction chamber through the feed hopper.
- In the event of the compactor being overloaded or jammed, follow isolation procedures before attempting to remove material from the loading hopper or charge box.
- Always ensure that only the operator is within the Working Zone of the machine during operation.
- Take care when in and around the machine to limit the possibility of trips and falls.
- Operators should wear appropriate PPE at all times.
- Be aware of the flammable nature of the materials being baled. Never smoke or create any sparks that may cause materials to ignite or burn.

### **3.6 SAFETY INSTRUCTIONS – MAINTENANCE / REPAIR**



- Only authorised operators should carry out maintenance on this machine.
- Ensure that the machine has been correctly isolated from its power source before carrying out any work.
- Be aware of AUTO START Facilities and disable where appropriate.
- To disconnect the mains power at source, lock the isolator with a padlock in the off position and keep the keys with you at all times.
- The inside of the compactor should be cleaned out regularly.
- Take care when in and around the machine to limit the possibility of trips and falls.
- Operators should wear appropriate PPE at all times.
- Only use Replacement parts that have been recommended by the manufacturer.
- When pressure testing hydraulic equipment, safety goggles and gloves are necessary.
- Care should be taken when handling oil / solvents / lubricants, and these items should only be disposed of in accordance with environmental guidelines.



### **3.7 SAFETY INSTRUCTIONS – NOISE**



- The noise level around the machine is approximately 72-80 dB(A)
- Loading of some materials and the method of loading may have other emissions.

### **3.8 SAFETY INSTRUCTIONS - PERSONNEL PROTECTIVE EQUIPMENT (PPE)**



- When handling waste materials, it is necessary to wear the correct PPE at all times.
- Hi-Visibility Clothing should be worn if in the vicinity of moving vehicles of any type.
- Gloves should be worn when handling materials or operating container clamps.
- Other PPE that should be considered – Steel Cap Boots, Overalls, Ear Protectors. Safety Glasses

### **3.9 SAFETY INSTRUCTIONS – AUTOMATIC STARTUP / PHOTOCELLS**



- PHOTOCCELL and automatic start options are fitted on systems where the method of loading requires that system start, cycle and stop automatically.
- A Key switch is fitted to Enable / Disable the AUTO facility.
- The switch should be turned off and the key removed when the system is unattended, particularly where access is not prevented by a Safety Interlocked door.
- Never climb into or stand on top of the loading hopper, charge box or any part of the equipment. Do not attempt to clear jammed material in the hopper.
- Ensure that the machine has been correctly isolated from its power when not in use, or during maintenance.
- Always ensure that photocells are kept clean to prevent continuous running.
- It is the employer's responsibility to ensure that systems with auto start are not left unattended and that ALL operators are aware of the dangers associated with Auto Start systems.
- It is the employer's responsibility to ensure that a risk management approach to all work activities is adopted, and that potential hazards are identified.
- Safety procedures should be reviewed regularly by the Employer and Operators.



### **3.10 SAFETY INSTRUCTIONS – RESIDUAL RISK**



#### **SYSTEM FAULT**

The compactor should be maintained / serviced on a regular basis to ensure that the system and switchgear are in good working order by qualified personnel.

#### **ELECTRICAL RISK**

Electrical maintenance should only be carried out by qualified personnel. The mains power supply cable should be of adequate type and rating, and should be inspected regularly for wear and damage.

#### **HYDRAULIC ENERGY**

Even if the system is shut down, hydraulic system may remain pressurised. Hydraulic inspections and repairs should only be carried out by qualified personnel.

#### **DUST, STEAM, LIQUIDS**

Waste materials may contain liquids or dust. Appropriate PPE should be used. Employers should ensure that no hazardous, explosive or flammable materials are present.

#### **STRUCTURAL MODIFICATIONS**

Modifications and repairs should only be carried out by the manufacturer.

#### **EMMISSIONS**

Liquids and spillages from waste material should be disposed of correctly.

#### **FIRE**

Potential fire hazards should be removed.

Welding / Hot works should not be carried out near waste materials.

Smoking near waste materials can cause fire.

Continuous running of the system can cause overheating. Turn OFF the system when not in use.

#### **CRUSHING / ASPHIXIATION / SHEARING**

Never enter any part of the system without using correct isolation procedures.

Maintenance should only be carried out by qualified operators.

#### **PINCHING / CUTS**

Care should be taken when opening/closing gates and guards, as well as handling waste materials and tying bales. Do not Remove Panels or Guards. Appropriate PPE should be used.

#### **SLIPS TRIPS & FALLS**

Care should be taken in and around the working zone of the machine. This area should be kept clean and tidy, with proper access walkways to operate the system.



### 3.11 SAFETY INSTRUCTIONS – SAFETY SIGNS



The following safety signs appear on the Compaction System -

Prohibition Safety Sign.

Do not enter into any part of the Compaction system. Do not attempt to climb into the Loading hopper.



Prohibition Safety Sign.

Do not remove guards, or attempt to carry out any repairs without first isolating the power supply. Warning that the equipment is fitted with Auto Start up features and can start automatically.



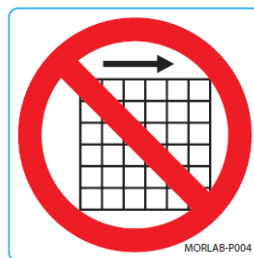
Prohibition Safety Sign.

Do not Climb on Machine.  
Do not access feed hopper by Ladder.



Prohibition Safety Sign.

Do not remove Panels or Guards.



Warning Safety Sign.

Be Aware of Operating Machinery.  
Be Aware of Operating Instructions.  
Do not operate unless you have read and understand the Operating manuals.





Warning Safety Sign.  
Be Aware of Bump Hazard.



Warning Safety Sign.  
Be Aware of Crushing Hazard.



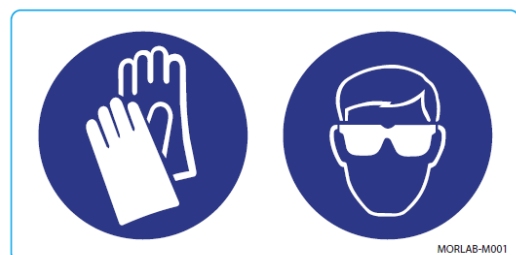
Warning Safety Sign.  
Be Aware of Pinching Hazard.  
Do not reach into machine.



Warning Safety Sign.  
Be Aware of Electrical Hazard.



Mandatory Safety Sign(s).  
Always wear gloves when handling waste materials.  
(Consider other PPE that may be required, such as Boots, Glasses, etc)



Hazard Tape  
Be aware of Bump Hazard  
Be aware of Pinch Hazard





### 3.12 SAFETY DATA SHEET – HYDRAULIC OIL



#### Control of Substances Hazardous to Health Information

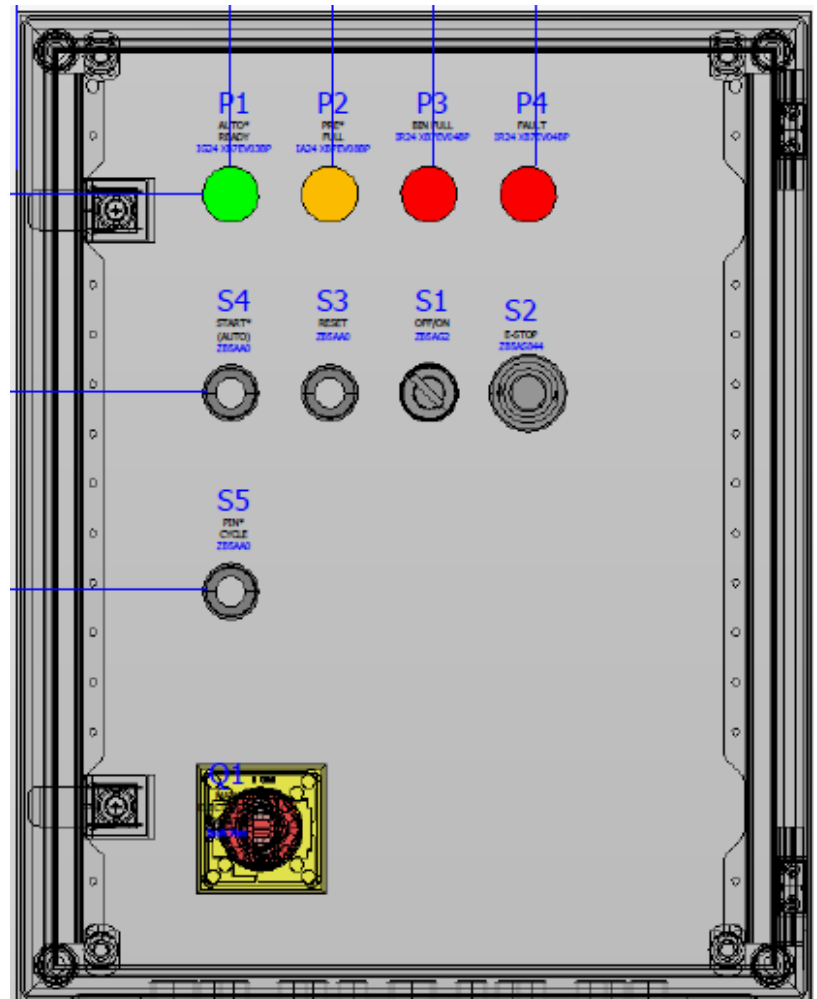
<b>Hazard Data Sheet</b>  Complied by:      Date:	<b>Product:</b> Hydraulic Oil		
	<b>Chemical Description:</b> Refined hydrocarbon mineral oil, containing performance additives		
	<b>Supplier:</b>		
	<b>Intended Use:</b> All hydraulic control systems.		
<b>Identification Details:</b> Hydraulic Oil – ISO Viscosity Grade 46			
<b>Physical Properties</b>	<b>Health Effects</b>	<b>Manufacturers Emergency</b> <b>Contact No.</b>	
<b>Appearance:</b> Pale yellow-orange/brown liquid <b>Odour:</b> Mild <b>Exposure:</b> Long term exposure limit (8hr-TWA) 5mg/m3 <b>Limits:</b> Short term exposure limit (15mins) 10mg/m3 <b>Maximum Exposure Level: (M.E.L.)</b>	<b>Inhalation:</b> Respiratory equipment not normally required, unless operation generates vapour or mist not adequately controlled by extraction. <b>Skin Contact:</b> Avoid unnecessary skin contacts. Suitable PPE should be worn. The use of protective and reconditioning creams may be beneficial. <b>Eye Contact:</b> Suitable eye protection is recommended <b>Ingestion:</b> Store away from food, avoid eating and smoking whilst handling.		
<b>Hazards</b>	<b>Fire Action</b>		
Not classified as hazardous	Low Fire Hazard <b>Recommend:</b> Foam, Dry Powder, CO2 or Water Fog. <b>Do not use: Water Jet</b>		
<b>Precautions</b>	<b>spillage/Disposal</b>		
Avoid spillage, clean up spills immediately. Keep containers tightly closed when not in use. Avoid contact with eyes and skin, prolonged contact with skin can cause dermatitis.	Exclude sources of ignition, contain with absorbent non-combustible material i.e. sand, earth, vermiculite or diatomaceous earth.  Dispose in accordance with local waste regulations, in accordance with Environmental Protection Act 1990 Do Not Allow to Enter Drains or Water Courses.		
<b>First Aid Action</b>	<b>Storage</b>		
<b>Inhalation:</b> For effects produced by over-exposure remove casualty to fresh air, keep warm and at rest. If effects persist seek medical attention.  <b>Skin Contact:</b> Remove contaminated clothing. Wash skin thoroughly with soap and water. Do not use solvents or thinners.	Store between 5 – 25 degrees centigrade in a dry well ventilated area away from sources of heat, ignition and direct sunlight. Prevent unauthorised access to storage area. Designate a no smoking area.  <b>DO NOT STORE WITH: STRONG OXIDISING AGENTS</b>  <b>Comments:</b>		





## 4.1 CONTROL PANELS / SWITCHGEAR

### MAIN CONTROL PANEL



#### **20 Amp Socket.**

This Power Socket is provided for Bin lift Integration only.  
Maximum output is rated at 3 kw  
or 9 Amps.

The plug only has power when  
the Green indicator lamp is Solid.  
(not flashing)





**REMOTE EMERGENCY STOP  
STATION(S)**



**4.1 CONTROL PANELS / SWITCHGEAR (continued)**

**PLC UNIT – FRONT PANEL**

**DISPLAY**

Z1 – Left Arrow

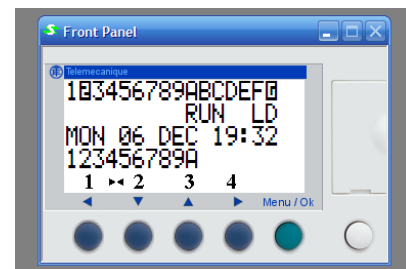
Z2 – Down Arrow

Z3 – Up Arrow

Z4 – Right Arrow

MENU / OK - Green Button

SHIFT - White Button





## **4.2 CONTROL PANELS - FUNCTIONS**

<b>CONTROLS</b>	<b>DESCRIPTION</b>
<b>MAIN ISOLATOR (Q1)</b>	TO TURN ON AND OFF THE MAIN POWER. (Note power supply cable to the panel may still be live when off) The Isolator must be in the OFF position to allow the door to open.
<b>OFF / ON KEY SWITCH (S1)</b>	The switch must be on for the system to Run. Turn off the switch and remove the key to prevent unauthorised use when the system is unattended. Note – This does not turn off the power in the control.
<b>EMERGENCY STOP (S2)</b>	TO SHUT DOWN THE SYSTEM IN AN EMERGENCY Should only be pressed in an emergency.
<b>RESET (S3)</b>	To RESET the System after E/stop or Door switch Activation The Fault lamp will flash if the Emergency Stop circuit requires reset.
<b>START (S4)</b>	Press START to start the Auto Cycle.  Starts the system in Auto Mode. The Packing ram will travel forward and back for the preset number of cycles (usually 3) and then the motor will stop. Auto Start photocells will be enabled (If fitted) allowing the compactor to start and stop automatically when objects are present in the compactor chamber.
<b>PIN CYCLE (S5)</b>	Press PIN CYCLE to start the Pin Mode.  The Motor Will start and the Packing ram will travel to the back position, and then forward to the PIN position and then the motor will stop. Pre-Full and Bin Full indicators will be reset when the Pin mode is activated.



**AUTO READY LAMP (P1)**  
**(Green Lamp)**

Tells the operator that the system is ready in Auto mode.

**FLASHING LAMP :**

The lamp will flash if the following when the system is ready to be started with the START Push button.

The Safety Relay must be healthy, No Faults, Container away switch must be activated.

**SOLID LAMP:**

Auto Start Photocells are enabled when the 'AUTO READY' lamp is on. THIS ALLOWS THE SYSTEM TO **START AUTOMATICALLY**.

When the system is powered up a Manual start is required to enable the photocells. After 60 minutes of no activate the Photocell will be disabled and the Green lamp will flash.

**PRE FULL (P2)**  
**(Amber Lamp)**

Tells the Operator when the Compactor is Nearly Full.

**BIN FULL LAMP (P3)**  
**(Red Lamp)**

Tells the operator when the compactor is Full. The motor stops. Auto ready mode will be off.

**FAULT LAMP (P4)**  
**(Red Lamp)**

In the Event of a FAULT the lamp will illuminate and a message will appear in the PLC display.

When the Emergency Stop circuit is activated the Fault lamp will flash to indicate that a reset is required.

Otherwise the Fault lamp will be on all the time and a fault message will be displayed on the PLC display.

**Fault messages-**

- Low Oil Fault
- Limit Switch Fault – 2 limits activated simultaneously.
- Motor Watchdog Fault – Motor runs continuously for >15min  
This means the photocells are blocked or out of alignment
- Motor Trip Fault – Overload tripped or power issue.
- Container not Present Fault



### **4.3 OPERATING INSTRUCTIONS – STARTUP**

- Ensure the container Clamps are Fitted correctly and secured..
- Ensure all Covers and Guards are in Place.
- Close all Safety Gates and doors.
- Release all Emergency Stop Functions
- Turn On Mains Isolator
- Press RESET push button if required.
- Press START to start the System.

### **4.4 OPERATING INSTRUCTIONS – COMPACTING**

- 1) Push the green 'START' button.
    - The motor will start and the system will Travel forward and back (cycle) for a pre-set number of cycles, and then shut down automatically.
  - 2) PHOTOCCELL START (option)–

IF fitted the Photocells are on when the Green AUTO READY lamp is on.

The Photocell will start the system when the thru beam detects material. The system will Travel forward and back (cycle) for a preset number of cycles, and the motor will stop automatically.
- Load material into the hopper.
  - Press the start Pushbutton. (Or allow the system to Start Automatically)
  - The Motor will start and the main ram will cycle back and forth for the preset number of cycles and shut down automatically.
  - If a Bin Lift is fitted, Raise the Bin Lift by pressing the RAISE Pushbutton. When the bin is at the top, wait for 5-10 seconds or until the contents are fully discharged.
  - Lower the Bin Lift by pressing the LOWER Pushbutton.
  - Do Not Overfill the charge box. Allow the waste to clear before loading more material.
  - Continue to operate the system until the BIN FULL Lamp is on and the system shuts down.



#### **4.5 OPERATING INSTRUCTIONS – PINNING OFF**

In order for the packing ram to stop in the forward position in line with the slots on the compactor container the Pin mode should be used.

Push the 'PIN CYCLE' button.

The motor will start and the compactor ram will cycle to the back position and then forward to the pin position. The motor will stop.

Do this a second time if you need to empty the chargebox of material before removing the container.

#### **4.6 OPERATING INSTRUCTIONS – MANUAL OPERATION**

- Manual operations can be carried out at the PLC for maintenance purposes.  
Contact your service provider if required.

#### **4.7 OPERATING INSTRUCTIONS – BIN LIFT OPERATION**

- Present the wheeled bin / cart into the bin lift and ensure it is located correctly.
- Close the Safety Gate (where fitted)
- Start the motor and press and hold 'RAISE' button to empty the bin.
- When the bin is tipped wait for the content to empty into the compactor hopper.
- Press and hold 'LOWER' button to lower the bin back to the ground.
- Do not overfill the hopper. It is good practice to let the compactor run and clear away the material in the hopper before emptying the next bin.



## **5.1 MAINTENANCE SCHEDULE**

<b>DESCRIPTION</b>	<b>ACTION</b>	<b>FREQUENCY</b>
Covers, Guards & Safety Sensors	Check Function	Daily
Photocell	Cleaned	Daily
Inside Compactor behind packing ram.	Cleaned	1 Month
Emergency Stop Function Safety Switch Function Reset Function	Checked	3 Months
Mains Power Cable & Connection	Checked	3 Months
Bearings Bin Lift Cylinder (if fitted) Moving Parts & Guides	Greased	3 Months
Motor	Checked	6 Months
Oil Level	Checked	6 Months
Oil Filter	Checked / Replaced	6 Months
Hydraulic Circuit	Checked	6 Months
Electrical Circuit	Checked	6 Months
Wear Pads & Guides	Adjusted / Replaced	6 Months

## **5.2 MAINTENANCE – ROUTINE SERVICE**

It is recommended that a full routine service inspection be carried out at 6 monthly intervals. For high volume installations, we recommend 3 Services per year.



### **5.3 MAINTENANCE – PLC DISPLAY**

The Programmable functions in the PLC should only be adjusted by a qualified service engineer.

- To View the I/O display screen Press and Hold [SHIFT] and Press [OK].
- To return to the Message Screen press the buttons again [SHIFT] + [OK].
- The various I/O numbers will be displayed and the active I/O's will be highlighted.
- Functional and Fault messages will be displayed on the Screen during Operation.





## **6.0 TRAINING**

Details of trained operators should be kept with the manual.

The manual should be made available to Operatives at all times, and should be reviewed periodically.



## **7.0 COMMISSIONING CHECKLIST**

- Compactor located & bolted on level surface
- Mains power cable is glanded and secured. Phases Correctly fitted.
- Correct ampage on mains supply / local isolator / Motor Rated MCB
- Hopper / Cage / Bin Lift etc. bolted and secured
- All covers and Guards Bolted and Secured
- Check Container clamps are secured.
- Check area for local hazards / obstacles and highlight necessary clearways for operating the compactor.
- Check that all switchgear and bolt on Components & panels are tight, and have not coming loose during transportation.
- Ensure Operators have copy of the manual, and this should be fully read and understood before operating the Compactor.
- Ensure Operators have correct PPE for Operation.
- Highlight Safety Switches and Emergency Stops. – CHECK FUNCTION
- Highlight Danger Zones, Crushing Hazard(s) – DO NOT ENTER SYSTEM
- Highlight Auto Photocells – AUTOMATIC STARTUP.
- Highlight Correct Lockout procedure for maintenance.
- Highlight Daily Checks – Photocells / E Stops
- Types of material to Compact.
- Demonstrate correct loading of material.
- Demonstrate Auto Cycle, Bin Lift, Pin Cycle as required.
- Sign Off Completion of Installation & Commissioning

---

Signed

---

Date



## **CE DECLARATION OF INCORPORATION**

We: MOOVMOR ENGINEERING LIMITED  
31 Kildare Business Park  
Melitta Road, Kildare, Ireland.



In accordance with the following directives(s):  
**2006/42/EC MACHINERY DIRECTIVE**

Declare that:  
Equipment: **STATIC COMPACTOR**

Model: **SC2500-38T**  
Serial Number: **SC2500-38T – 206051 - 206075**

- Is intended for assembly with other machines or machine parts and it is prohibited to put it into operation until the necessary measures have been implemented in accordance with the assembly documentation, or until a declaration of conformity for the entire machine has been issued in accordance with directive 2006/42/EC
- Complies as far as possible with the essential requirements of Directive 2006/42/EC
- Any alterations carried out to the machine without our prior agreement will render this Declaration Invalid.

Relevant applied EC Directives:  
Machinery Directive 2006/42/EC  
Low voltage Directive 2014/35/EU

Applied standards:  
IS EN ISO 16486:2014 Machines for compacting waste materials or recyclable fractions – Compactors.  
IS EN ISO 60204-1:2006 Electrical Equipment of Machines – Part 1  
IS EN ISO 12100: 2010 Safety of Machinery

For and on behalf of Moovmor Engineering Ltd  
(authorised signature)  
**MARCH 2020**

Original EU Declaration of Incorporation of Partly Completed Machinery under EU machinery Directive 2006/42/EC, Annex II 1 B