



Operation and Maintenance Instructions

For the

Wilkinson Hi-Rise

Model TSE-3RU; TSC-3RU; TSI-3RU

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1. USING THIS MANUAL

A. INSTRUCTION MANUAL

This document contains an Operation & Maintenance Instruction Manual for Wilkinson Hi-Rise's (*now referred to as Wilkinson*) **TRISORTER Recycling System**. This manual is divided into six (6) basic sections:

1. Using this manual
2. System Description
 - Intake Doors
 - Trisorter System
3. Operation
 - Intake Doors
 - Trisorter System
4. Maintenance
 - Intake Doors
 - Trisorter System
5. Troubleshooting
6. Schematics and Drawings

B. SPECIAL ATTENTION BOXES

Throughout this manual, special attention boxes are provided to supplement the instructions and make special notice to potential hazards and important aspects of the operation of the system. The definition of these special attention boxes is as follows:

! WARNING

Indicates a condition or hazard, which will cause severe personal injury, death or property damage.

! NOTICE

The special attention box contains information pertaining the system.

2. SYSTEM DESCRIPTION

A. GENERAL

The Wilkinson **Tri-sorter Recycling System** is a patented automated system that enables multi-story buildings to recycle by utilizing the same trash chute that is used for garbage. The system incorporates the tri-sorter, a compactor designed for trash applications, ICD-2000 door recycling door, and software programmed intake.

The Tri-sorter System is a system that facilitates the separation of recyclables from household waste utilizing a single trash chute installed in a building. At each intake door of the system, there is a keypad that allows the user to enter in the type of waste to be deposited in the system. The Tri-sorter is typically used in conjunction with a 24" to 30" Wilkinson trash chute.

B. SYSTEM COMPONENTS

1. **ICD 2000 Intake door with user keypad** – The intake doors are usually installed on every floor of the building where waste can be deposited into the trash chute system. User enters the type of waste to be deposited and the turntable adjusts to the proper position to receive that waste. The ICD 2000 intake is normally closed and will only open upon pushing a button on the user keypad. Keypads on the ICD 2000 doors have lights that indicate the type of waste that is selected by a user, "In-use" and "Pick Up in Process" to inform a user of when the system is being used and out of service for pick up.
2. **The Tri-sorter with three position diverters** – The heart of the system, the tri-sorter is usually located in the trash room in the basement of the building. The tri-sorter contains three (3) positions that are programmed to collect household trash, recycling material such as glass and plastic, and newspapers. The containers are installed directly below the tri-sorter that diverts to the applicable location depending on the waste being collected. The tri-sorter is installed directly below the discharge of the trash chute. The tri-sorter is equipped with a compactor system that consolidates the household trash that is collected in the system.
3. **350-C5 Compactor** – The tri-sorter system is equipped with a 350-C5 compactor that is designed for loading and compaction of waste into a totally enclosed wheeled waste containers. The 350-C5 compactor will not consolidate the recycling and newspaper collected in the system.

! WARNING

The compactor operates without warning so the proper precautions should be taken while performing container change-outs, maintenance and troubleshooting of the system. These tasks will be discussed further later in this manual.

4. **Master Control System** – The master control system (MCP) operates the components of the system based on the type of waste that is being collected in the system. The MCP incorporates a variable frequency drive (VFD) system that is utilized to operate the turntable and compactor. The VFD is located in the vicinity of the MCP in the trash room.

! WARNING

This system operates with HIGH Voltage electricity so extreme caution should be taken when performing maintenance or troubleshooting system. Improper work practices while maintaining this system could result in severe injury or death.

5. **Trash Chute System** - The trisorter is supplied by a trash chute system installed in the building. The trash chute typical size is 24". The trash chute system has intakes on each floor to allow users of the system to deposit waste into the system for processing by the trisorter system.

3. SYSTEM OPERATION

A. ICD 2000 Intake Doors

A user initiates the operation of the TRISOTER recycling system by accessing the trash room, which contains the intake door to the trash chute. The system is designed with the general parameter that as user will dispose typical residential waste during a single visit or transaction at the trash chute. The following is a general description of a typical transaction for the disposal of trash, recycling and newspaper.

! NOTICE

The trash chute is not designed to accept construction debris, furniture, cardboard boxes, and chemicals of any sort. These items can damage the trash chute and render it unusable. If it is discovered that any type of this material is deposited in the chute, the manufacturer's warranty on this equipment will become null and void.

! NOTICE

All waste that is to be deposited in the chute should easily fit through the intake doors. Forcing material through the intake doors may cause the chute to become clogged.

! NOTICE

The intake doors are NORMALLY locked so users will only gain access to the trash chute by selecting the type of waste to be deposited into the systems from the user keypad installed in each door.

1. Assuming the first materials to be handled is a bag of garbage, the resident presses the GARBAGE key on the control panel adjacent the chute access door. The light adjacent the GARBAGE key and the AMBER "IN USE" light illuminates on all keypads on all floors. An audible alarm will sound when the door is ready to be opened. The door is now unlocked and the user can deposit the trash. There can be a 3-5 second delay in the door opening depending how many users are accessing the system.

! NOTICE

When a GARBAGE push button is activated on any floor, all chute intake doors on the remaining floors are locked until the transaction is completed.

Once the door is unlocked, the resident now swings the access door down, disposes of their bag of trash into the chute. Once the user lets go of the intake door, it will close automatically.

2. The user now disposes of NEWSPAPER, for example. All access doors are locked. The user pushes the NEWSPAPER button. All the other intake doors remain locked until transaction is completed. In the trash room, the turntable rotates to the newspaper paper container under the chute discharge position. The audible signal will sound and the intake door will unlock. The user opens the door to dispose of their NEWSPAPERS.
3. Other types of recyclables, as identified on the user keypad, are disposed of in a similar manner as described above.

! NOTICE

It is important that the residents be thoroughly instructed and strongly encouraged to accurately separate their waste prior to using the recycling system. Users NEED to want to recycle for the system to be utilized to its maximum potential. Wilkinson has found that training is the most effective method to persuade users to separate trash properly.

B. TRISORTER SYSTEM

The Tri-sorter is controlled by a PLC (Programmable Logic Controller) based system (MCP) that positions the diverter based on the user entries selected at the ICD 2000 intake doors. Once a user selects the type of waste to be deposited into the system, the MCP determines which waste is selected and rotates the turntable so that the applicable waste container is located under the discharge of the trash chute. The waste is then collected by the system.

The further details of the operation of the tri-sorter system are included later in this section.

! NOTICE

The trisorter defaults to the garage position after each transaction is completed. So, the tri-sorter will divert to one the garbage containers after recycling or newspaper transaction is completed.

! WARNING

The tri-sorter system diverts without warning so the proper precautions should be taken while performing container change-outs, maintenance and troubleshooting of the system. These tasks will be discussed further later in this manual.

C. 350-C5 COMPACTION SYSTEM

The Tri-sorter is equipped with a 350-C5 compaction system that consolidates the household trash. By consolidating the trash it allows the container in the system to be changed less frequently. The compaction system performs consolidation of the trash automatically.

! WARNING

The 350-C5 compaction system operates without warning so the proper precautions should be taken while performing container change-outs, maintenance and troubleshooting of the system. These tasks will be discussed further later in this manual.

D. OPERATION OF TRISORTER AND COMPACTION SYSTEM

The system is designed to operate automatically with minimal assistance with the exception of the change out of trash and recycling containers and the maintenance of the system. The following are the SYSTEM START-UP and CONTAINER CHANGE OUT procedures for the recycling system.

SYSTEM START-UP

- Place SELECTOR Switch to the SORT Position.
- Turn Power ON at electrical disconnect panel.
- Ensure EMERGENCY STOP BUTTON is pulled OUT.
- System is now ready for operation.

! NOTICE

A message will be displayed "SYSTEM READY" in the display screen. THE SYSTEM IS NOW READY TO OPERATE IN AUTOMATIC MODE

1. CONTAINER CHANGE

- Place the System SELECTOR Switch to the SERVICE position. The recycling chute intake doors will be disabled and containers can be changed.
- Change out containers as necessary.
- When completed changing the containers, place System SELECTOR Switch to the SORT position. THE SYSTEM IS NOW READY TO OPERATE IN AUTOMATIC MODE.

! NOTICE

An audible alarm will continue to BEEP while the system is in the SERVICE mode. The alarm will stop once the System SELECTOR system is placed back in the SORT or NON-SORT position.

! NOTICE

The MCP for this system is equipped with SORT and NON-SORT selector switch that can be utilized if SORTING of waste is no longer desired. In the NON-SORT mode, all waste will be directed to the garbage containers on the turntable and the recycling containers will not be utilized.

! WARNING

This system is equipped with an EMERGENCY STOP button which when activated, shuts down all power to the turntable and locks all the intake doors. The EMERGENCY STOP button should be used to shut down the system in the event of an EMERGENCY and when the system is to be taken out of commission. The system will automatically reset based on the position of the selector switch once the EMERGENCY button is pulled out.

4. SYSTEM MAINTENANCE

A. ICD 2000 Intake Doors

As long as good housekeeping processes are followed, the intake doors are relatively low maintenance.

1. Keep intake door free of build-up of trash, lint and other items that may interfere with this operation of the door.
2. **MONTHLY** perform the following recommended maintenance procedures
 - a. Lubricate all parts of the intake door using WD-40 or equal industrial lubricant
 - i. Hinges
 - ii. Pistons
 - iii. Locking devices including electrical solenoid installed in the control box of the ICD 2000 door.

! NOTICE

In the event that an intake door is not operating properly, please contact you LOCAL WILKINSON REPRESENTATIVE for service.

B. TRISORTER SYSTEM

Following are the recommended maintenance procedures for the TRISORTER system.

! WARNING

The trisorter system rotates without warning so the proper precautions should be taken while performing maintenance and troubleshooting of the system. **DISABLE SYSTEM WHILE PERFORMING RECOMMENDED MAINTENANCE PROCEDURES.**

1. **DAILY**

- a. Keep trisorter free of debris. Build-up of debris can possibly interfere with the operation of the trisorter.

2. **WEEKLY** perform the following recommended maintenance procedures:

- a. Lubricate the following parts of the trisorter system using WD-40 or equal industrial lubricant.
 - i. Tri-sorter flap support (pillow block). Liberally inject grease into both fittings on both flaps.
 - ii. Compactor. Brush on the grease onto the ram of the compactor to ensure that it is properly lubricated.

5. TROUBLESHOOTING

Following are troubleshooting tips for Wilkinson TRISORTER recycling system.

! WARNING

ONLY QUALIFIED TECHNICIANS SHOULD CARRY ADJUSTMENTS ON THE TURNTABLE SYSTEM AND ITS COMPONENTS

– Intake door does not open

1. Check to see if power is ON to the system. If not, turn on power as needed.
2. Check the RED STOP push-button is pulled out. If not, PULL OUT to energize system.
3. Check to see if SELECTOR switch is in the SORT or NO SORT position. If not, place in proper position.
4. Check to see if other intake doors in the system are functioning properly. If so, the intake doors in question may have problem with the locking mechanism or keypad electronics. Contact your local Wilkinson representative for service.

- TRISORTER IS NOT WORKING

1. Check to see if power is ON to the system. If not, turn on power as needed.
2. Check the RED STOP push-button is pulled out. If not, PULL OUT to energize system.
3. Check to see if SELECTOR switch is in the SORT or NO SORT position. If not, place in proper position.
4. Check to see if GREEN power light on MCP is illuminated. If not, contact your local Wilkinson representative.
5. Check to see if turntable drive motor is operating but turntable is not turning. If so, the problem is most likely the chain being off of the drive sprocket or a broken chain. Contact your local Wilkinson representative for service.

- Compactor does not operate

1. Check to see if power is ON to the system or check to see if the circuit breaker is tripped. If not, turn on power or reset breaker as needed.
2. Check the RED STOP push-button is pulled out. If not, PULL OUT to energize system.
3. Check to see if SELECTOR switch is in the AUTO position. If not, place in proper position.
4. Refer to O&M Manual for 350-C5 compactor.
5. Contact your local Wilkinson representative for service.

6. SCHEMATICS AND DRAWINGS

Attachments: **O&M Manual for 350-C5 Trash Compactor**
 TRISORTER WIRING DETAILS



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Chapter 1: SAFETY

MOUNT A COPY OF THIS PAGE IN THE TRASH COMPACTOR ROOM

- 1. NEVER PLACE ANY PORTION OF THE BODY INSIDE THE COMPACTOR. THE MOVING RAM MAY CAUSE SERIOUS BODILY INJURY.**
- 2. ALWAYS WEAR SAFETY GLASSES, GLOVES, STEEL-TIPPED SHOES AND A HARD HAT WHEN OPERATING A COMPACTOR.**
- 3. IF, FOR ANY REASON, THE COMPACTOR DOES NOT FUNCTION PROPERLY, DO NOT ATTEMPT TO REPAIR IT. SHUT OFF POWER AT THE MAIN DISCONNECT AND ON THE COMPACTOR CONTROL PANEL AND CONTACT A FACTORY CERTIFIED TECHNICIAN TO REPAIR THIS EQUIPMENT.**
- 4. NEVER CLIMB OR REACH INTO THE COMPACTOR TO RETRIEVE OBJECTS OR ARTICLES. IF NECESSARY, TO PREVENT AN OBJECT FROM BEING COMPACTED, SHUT OFF POWER AT MAIN DISCONNECT AND ON POWER PACK CONTROL PANEL AND CONTACT A FACTORY CERTIFIED TECHNICIAN TO REPAIR THIS EQUIPMENT.**
- 5. NO PERSON SHALL OPERATE THE COMPACTOR UNTIL HE / SHE IS THOROUGHLY TRAINED IN PROPER AND SAFE OPERATING PROCEDURES.**
- 6. OPERATORS SHALL USE ALL APPLICABLE SAFETY FEATURES PROVIDED ON THE COMPACTION EQUIPMENT. BY-PASSING THESE SAFETY FEATURES WILL VOID THE MANUFACTURER'S WARRANTY FOR THIS EQUIPMENT.**
- 7. OPERATORS SHALL BE CERTAIN THAT ALL INDIVIDUALS ARE CLEAR OF THE POINT OF OPERATION AND PINCH POINT AREA BEFORE STARTING THE COMPACTOR.**
- 8. OPERATORS SHOULD REPORT ANY DAMAGE TO, OR MALFUNCTION OF, THE COMPACTION EQUIPMENT BY SUBMITTING A REPORT TO THE EMPLOYER OR RESPONSIBLE AUTHORITY.**
- 9. THE WORK AREA MUST ALWAYS BE KEPT CLEAN AND BE MAINTAINED IN A SAFE CONDITION.**
- 10. NEVER RENDER INOPERATIVE, DAMAGE OR REMOVE ANY MECHANICAL, HYDRAULIC OR ELECTRIC DEVICE USED TO PROVIDE SAFE OPERATING CONDITION.**
- 11. COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE FOLLOWING DOCUMENTS:**
 - A. ANSI Z245.1-1984 - SAFETY REQUIREMENTS FOR WASTE COLLECTION AND COMPACTION EQUIPMENT.**
 - B. ANSI A12.1-1973 - SAFETY REQUIREMENTS FOR FLOOR AND WALL OPENINGS, RAILINGS AND TOE BOARDS.**
 - C. OCCUPATIONAL HEALTH AND SAFETY ACT- (OSHA)**

Chapter 2: Installation

WARNING

Only experienced personnel should attempt to install, service, or operate this equipment. Installing this equipment requires the installer to work with high voltage electrical connections, which can cause serious injury or death.

2.1 Introduction

This instruction manual includes information detailing the installation, operation and maintenance of **Wilkinson Hi-Rise 350-C5 / 400-C5 / 600-C5 Compactors**. This compaction system is designed for use in building that has a level access to waste pickup point. Ramps or sills can only be navigated with special handling equipment to accommodate the wheeled waste containers used in the system.

Sufficient information is included to aid qualified personnel in correctly installing, operating and maintaining the compactor. Added technical help is available through your local manufacturer's representative or directly from the manufacturer. Refer to the appropriate sources as required.

Read the entire Installation Chapter before installing Wilkinson 350-C5 / 400-C5 / 600-C5 Compactors. It is assumed that a specific location for the compactor has already been established with the assistance of the Wilkinson distributor and qualified personnel will be utilized to install this equipment.

2.2 Compactor Placement

Position the compactor with its hopper under the building's waste chute.

2.2.1 New Construction

In new construction involving a metal waste chute, the chute will normally have been supplied in a configuration to feed directly into the compactor without modification or addition.

2.2.2 Retrofit Construction

In existing installations, a transition section is generally required to connect the compactor hopper to the bottom delivery end of the building waste chute.

If a transition section is used, it should be constructed of welded material to prevent waste getting stuck on exposed bolts, rivets or screws. Use welded angle iron sections as corner elements and hang the component from the ceiling of the compactor room, if possible. If the transition is to be welded to the compactor hopper, brace the hopper as needed.

2.3 Anchoring the Compactor

Mounting holes are located in the all legs of the compactor. The Compactor must be installed on a level floor with the four legs on the same level plane.

Using a spirit level to check, place shims under the legs of the machine to level it to its final horizontal position.

NOTE: ½” expansion bolts can be used at each leg to anchor the machine with the bolts passing through the shims to prevent future slippage of the shims. If the holes permit larger bolts to be used, use larger size.

2.4 Electrical Installation

All electrical work must be carried out in accordance with the National Electrical Code (NEC) and all State and Local Electrical Codes. Only Licensed Electricians should perform the work.

2.4.1 Interconnection

Refer ATTACHMENT 2: POWER PACK WIRING DIAGRAM

A 30 Amp, 208 / 240 / 480V, 4-wire, fused power supply is required for the compactor.

Install the conduit run with 10 AWG (or larger) conductors between the fused power disconnect and the POWER UNIT control panel.

Connect the three power supply conductors per the POWER PACK WIRING DIAGRAM.

WARNING: DO NOT ATTEMPT TO TEST RUN THE COMPACTOR AT THIS TIME

2.5 Installing the Power Pack

The Power Pack is the hydraulic system used to operate the compactor. It is a self-contained unit that includes motor, pump, valves and associated controls.

Installation of the Power Pack must meet local mechanical and electrical codes and should be installed by qualified personnel.

2.5.1 Locating and Mounting

Locate the Power Pack within six (6) feet of the compactor

1. Leave adequate clearance around the unit for both service access and for ventilation.
2. Attach the unit to the floor (or shelf) using the appropriate fasteners.

2.5.2 The Hydraulic Fittings and Oil

Connect the hoses attached to the power pack to the compactor:

1. Attach same color hose fitting from the power pack to the same color fitting on the compactor.

2. Fill the Power Pack reservoir tank with hydraulic oil (Mobil DTE13 or equivalent) to the top mark on the oil level on the sight gauge mounted on the front of the oil reservoir.

2.5.3 System Wiring

Connect the wiring between the compactor electrical disconnect and the power pack in accordance with the referenced wiring diagram contained in this document in ATTACHMENT 2. Follow local codes for the installation.

1. Connect all similarly colored wires together (black to black, white to white, red to red, etc.)
2. ALWAYS connect the GREEN ground wires to ensure that the unit is properly grounded.

2.6 Checks before Initial Start-up

After all wiring is complete and power has been connected to the electrical disconnect, check to ensure that connection are in compliance with local codes and safety requirements.

2.6.1 Power Pack Oil Level Check

Before powering up the system, check the oil level in the power pack reservoir via sight glass on the front of the reservoir tank. If oil is needed, add Mobil DTE13 or equivalent.

2.6.2 Electrical Checks (Motor Rotation)

Place MODE switch in MANUAL mode and turn the MANUAL SWITCH to the forward position momentarily. Observe the rotation of the motor while performing this procedure. The motor should rotate in the direction of the arrow on top of the motor. If rotation is in the opposite direction, **shut off power** at the electrical disconnect and, **CAREFULLY**, interchange any two of the three main electrical wires leading from the power pack control panel to the electrical disconnect. Turn power ON and REPEAT procedure. Motor should operate in the reverse the direction and should be in the proper direction now.

2.6.3 Installing the Waste Container

To connect the wheeled waste container to accept waste from the compactor in the standard configuration, follow the following instructions:

CHAIN BINDERS

1. Press the red MASTER SWITCH button to turn off power to system.
2. Clear floor of waste in front of the compactor.
3. Move the container's open end over the open end of the compactor. Engage the ratchet hooks into the container rings.
4. Work each ratchet to bring the container to within ½" of the compactor.

5. Pull out the red MASTER SWITCH push button.
6. Push START button.
7. System is ready for operation.

SINGLE SIDE LATCH

1. Press the red MASTER SWITCH button to turn off power to system.
2. Clear floor of waste in front of the compactor.
3. Push the latching lever fully to the rear of the compactor to raise the latches.
4. Roll the container against the compactor as closely as possible.
5. Draw lever forward to latch the hooks on the container. Ensure that the hooks are properly engaged and locked on both sides.
6. Lock the lever on the guide protruding from the side of the compactor.
7. Pull out the red MASTER SWITCH push-button.
8. Push START button.
9. System is ready for operation.

Chapter 3: Operation of Compactor

3.1 Description of Operation

Overview

- The Wilkinson 350-C5 / 400-C5 / 600-C5 Compactors are designed for loading and compaction of waste into totally enclosed wheeled waste containers.
- The waste containers are removed from the compactor when full. These containers can then be rolled to an intermediate storage area or directly to the location where the local trash authority will unload the containers.
- The hopper on top of the compactor receives the waste and directs it into the compaction chamber. A photocell, installed in the lower portion of this chamber, detects waste and initiates the moving of the ram that compacts the waste.
- The hydraulically actuated ram is energized and driven forward for a controlled period of time to force the waste into the wheeled container. The ram continues to travel back and forth, compacting the waste against the material already compacted in the container until the photocell no longer detects waste in the body of the compactor. The ram will stop in the rear-most position until waste is again detected.
- When the container is packed to a pre-determined density, the compactor automatically shuts down. The RED FULL light illuminates to indicate the need to switch containers. The system also provides a YELLOW warning light when the containers are 80% full to alert the operator that it is almost time to switch out the waste containers.

3.2 Preparation for Operation

Prior to operating a Wilkinson 350-C5 / 400-C5 / 600-C5 Compactors, the hopper safety gate (if applicable) or all waste intake doors must be closed before continuing with the following start-up activities.

3.2.1 Start-up

For normal operation of the Wilkinson 350-C5 / 400-C5 / 600-C5 Compactors:

1. Lock an empty waste container in position per Section 2.6.3 of this manual. Ensure the hold-down bar on top of the container is in place.
2. Turn on the main power at the electrical disconnect switch.
3. Pull out the red MASTER SWITCH push-button.
4. If the hopper has been sealed off from delivery of waste, withdraw the stop rod to permit the hopper gate to open. Lock the gate in the open position with the stop rod. (If applicable, some compactors do not come equipped with a lock gate.)
5. Press the green START button. The compactor will perform one test cycle and return the ram to the rear of the compactor.
6. The compactor is ready to accept waste and will continue to operate

automatically.

7. When the waste container become about 80% full, the YELLOW light on the power pack control panel will illuminate to alert the operator of the system that the container will need to be replaced shortly.
8. When the container is full, the system will shut down and the RED LIGHT on the power pack control panel will illuminate.
9. The container must now be changed out.

3.2.2 Replacing a Full Container

Once the RED LIGHT illuminates, replace the full container as follows:

1. Place the machine in the MANUAL MODE.
2. Reverse the ram several inches to relieve pressure on the waste that is contained in the container by using the MANUAL switch REVERSE. The ram will reverse.
3. Push the RED STOP button and if applicable, swing the hopper gate to its shut position to stop further delivery of waste. OR; be sure to LOCK OUT each intake door so no waste is deposited into the chute while the container is being changed.
4. Release tension on the ratchets or release the single side latch until the container is free to move.
5. Pull the container from the compactor and close the door on the end of the container. Move the container to the desired location for pick up.
6. Roll in and lock an empty container in place per Section 2.6.3 or this manual.
7. Swing the hopper gate back to its standby position or unlock chute intake doors.
8. Pull out the RED STOP push-button.
9. Push START button.
10. System is ready for operation.

Chapter 4: Periodic & Preventive Maintenance

4.1 Introduction

As with any mechanical device, this system must be regularly maintained to ensure the system will operate long-term and trouble-free.

The periodic maintenance is regular cleaning and inspection of the systems and its accessories. Like most mechanical devices, they need to keep free of build-up of dust, lint or other foreign objects. It is recommended the following procedures be followed:

4.2 Daily Maintenance

On a daily basis, perform the following tasks:

1. Clean the photocell reflector with a soft damp cloth
2. Clean the photocell lens with a soft damp cloth
3. Clean the compactor and power pack
4. Clean the compactor room
5. Check for hydraulic oil leaks
6. Check for unsafe conditions such as:
 - a. Broken or malfunctioning safety equipment, either electrical or mechanical
 - b. Parts of the compactor worn or requiring repair or replacement
 - c. Missing or misplaced guards, enclosures, etc., that might permit injury
 - d. Frayed hoses or cables, loose conduit

These conditions must be reported to the proper personnel for correction IMMEDIATELY. DO NOT OPERATE THE COMPACTOR UNTIL THESE ISSUES HAVE BEEN CORRECTED.

4.3 Weekly Maintenance

In addition to the daily maintenance procedures listed above, perform the following tasks weekly:

1. Check oil level in the hydraulic oil reservoir utilizing the sight gauge installed on the front of the reservoir tank. If oil is required, add Mobil DTE13 or equivalent to the reservoir until the gauge reads FULL.

4.4 Periodic Maintenance

It is the recommended that the following tasks should be performed as specified:

4.4.1 Hydraulic Fluid Contamination

The hydraulic oil reservoir should be checked for water contamination every three (3)

months. This task is performed as follows:

1. Shut down the system for a minimum of 2 hours prior to oil test
2. Wipe off the top of the reservoir carefully so no impurities will drop into the reservoir
3. Remove the dipstick/breather cap
4. Remove a sample of the oil in the reservoir from the bottom to the tank. This is done using a plastic tube and aspirator bulb, which can be used to collect oil at the bottom of the tank. (A plastic tube/aspirator bulb and gas siphoning kit works well)
5. Check the oil sample color. If it has a milky white appearance, water is present in the hydraulic fluid and the fluid in the hydraulic system must be drained and flushed and replaced with new oil.

4.4.2 Hydraulic Fluid Replacement

The hydraulic system must be drained, flushed and refilled with clean oil at least once per year. The suction screen on the end of the hydraulic pump be changed too.

It is recommended that a factory certified service representative perform this service.

Chapter 5: Troubleshooting

5.0 Introduction

Following are troubleshooting tips for Wilkinson 350-C5 / 400-C5 / 600-C5 Compactors.

WARNING

ONLY QUALIFIED TECHNICIANS SHOULD CARRY OUT HYDRAULIC AND ELECTRICAL ADJUSTMENTS ON THE COMPACTOR AND ITS COMPONENTS.

- Ram does not go FORWARD or REVERSE

1. Be sure that the photo eye is clean and operable. The three indicators on the photocell (red, yellow and green) should be illuminated. If not, check system wiring and voltage and, if correct, replace the photocell.
2. Check to see if the motor starter is not tripped or defective.
3. Check to see that the RED stop button is not pushed in.
4. Check to see if container is full. If the bulb in the RED light is bad, it will not illuminate thus not allowing the operator to know if the container is FULL.
5. Call a factory certified technician for service if the items listed above does not fix the problem.

- Motor does not start when photocell beam is activated

1. Check the power to the unit is turned on.
2. Check the RED STOP push-button is pulled out.
3. Check that the hopper access door is closed and locked.
4. Call a factory certified technician for service if the items listed above does not fix the problem.

- Motor starts but ram does not move in either direction

1. Check hydraulic oil level in sight gauge and to be sure oil level is between indicator marks on the on gauge. Replenish oil as necessary.
2. If the System has been idle for an extended period, the pump may need to be primed.
 - a. Remove the cap from the quick disconnect fitting on top of the pump and place a folded piece of cloth over this fitting.
 - b. Cycle motor on and off to prime system.
 - c. Repeat this several times until oil comes out of the quick disconnect.
3. Be sure that the photo eye is clean and operable. The three indicators on the photocell (red, yellow and green) should be illuminated. If not, check system wiring and voltage and, if correct, replace the photocell.
4. Check to see if the motor starter is not tripped or defective.
5. Check to see that the MASTER SWITCH button is not pushed in.
6. Check to see if container is full. If the bulb in the RED light is bad, it will not

illuminate thus not allowing the operator to know if the container is FULL.

7. Call a factory certified technician for service if the items listed above does not fix the problem.

- Power Pack circuit breaker keeps tripping

1. Check wires supplying the power pack and compactor for possible shorts to ground or to adjacent wiring.
2. Check to see if something is stuck in the compactor chamber. Follow necessary shut-down requirements before checking the compactor chamber.
3. Call a factory certified technician for service if the items listed above does not fix the problem.

- The system doesn't work in manual / automatic mode when internal display is ON

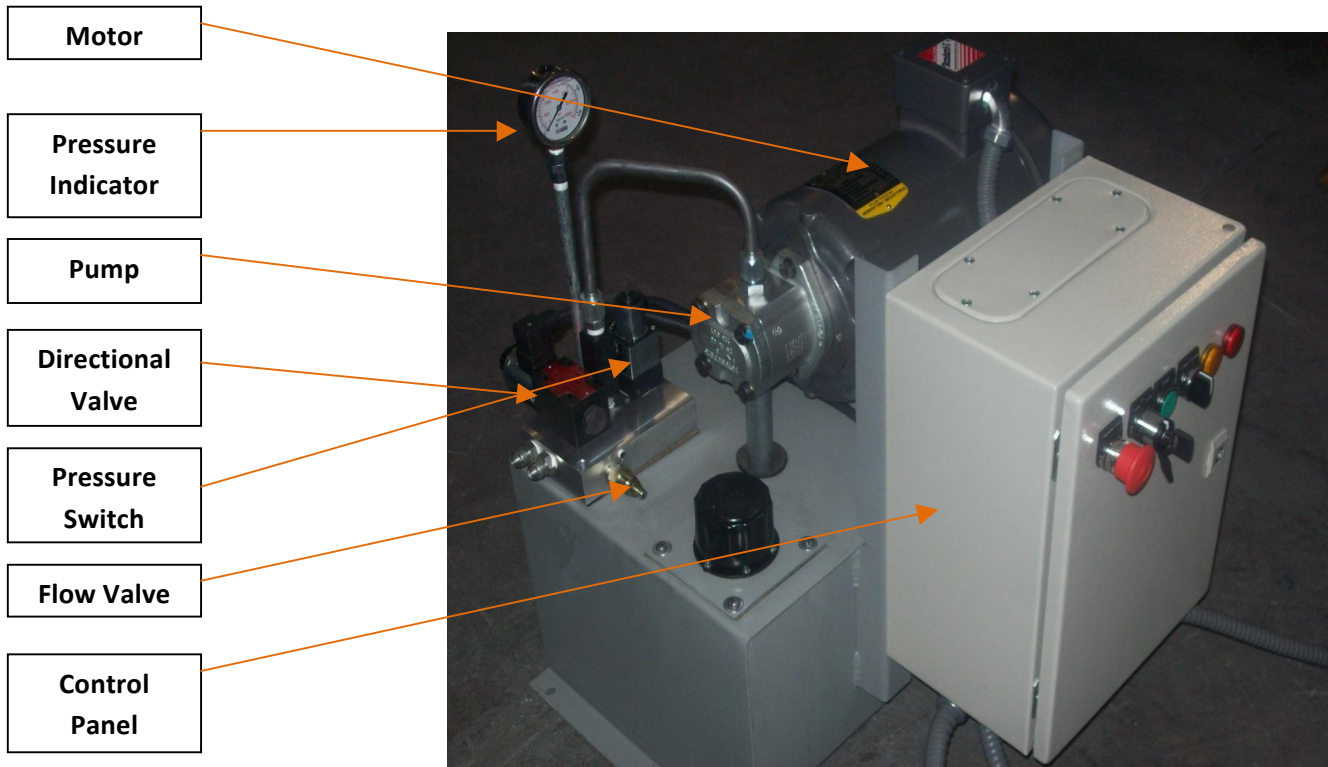
1. Turn OFF the control panel.
2. Locate the thermal reset button in the Motor starter Module .
3. Press the reset button located on the motor starter just below the coil.
4. Check wires supplying the power pack and compactor for possible shorts to ground or to adjacent wiring.
5. Check to see if something is stuck in the compactor chamber. Follow necessary shut-down requirements before checking the compactor chamber.
6. Turn ON the MASTER SWITCH.
7. Place compactor in MANUAL MODE and test to see if motor is working.
8. Call a factory certified technician for service if the items listed above does not fix the problem.

- Internal display does not illuminate when system is turned on

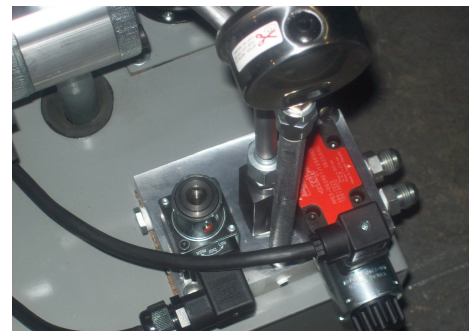
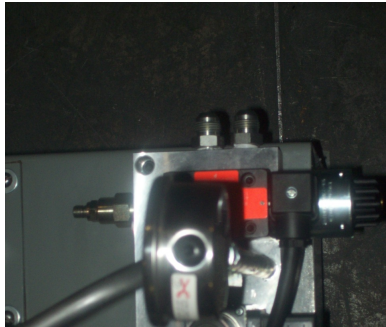
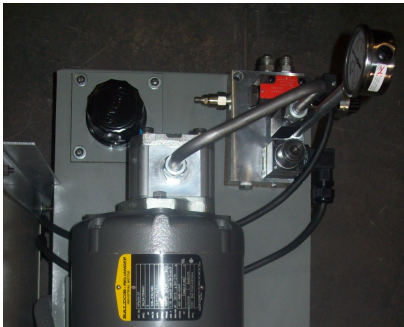
1. Turn OFF the control panel.
2. Check the fuses located in the top of the control panel to ensure that there are not blown; change as necessary.
3. Turn ON the MASTER SWITCH.
4. Check to see if internal display.
5. Test system in MANUAL and AUTOMATIC MODE to ensure proper operation.
6. Call a factory certified technician for service if the items listed above does not fix the problem.

- CHECK QUICK USER GUIDE included with this manual for additional troubleshooting tips

ATTACHMENT 1: QUICK USER GUIDE



Other Views



Components



Proximity Switch

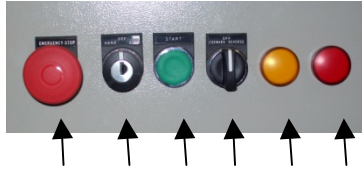


Photo Eye



**Bag Proximity Switch
Only Included for the
45k Power pack**

POWER PACK (CONTROL PANEL)



1. **MASTER SWITCH:** Power ON the system.
2. **MODE SWITCH:**
 - Manual:* The compactor will be operated by the MANUAL SWITCH (4)
 - AUTO:* The compactor will be operated AUTOMATIC, The PHOTO EYE has been Activated, the start Button is available, Yellow and Red Lights are ready.
3. **START BUTTON:** The compactor will go back, and then will begin 1 complete cycle.
4. **MANUAL SWITCH:** This switch has two selections:
 - *FORWARD:* Move the ram to the Front.
 - *REVERSE:* Move the ram to the Back.
5. **YELLOW LIGHT:** Indicates Container 80% full or there is something jammed into the compactor.
6. **RED LIGHT:** Indicates Container 100% Full and the system will be stopped, or the sensor has detected something jamming the compactor and shut down after 3 attempts to cycle.

Checking Hose Connection

To check if the hoses have been connected correctly you need to operate the compactor in MANUAL MODE, Turn the MANUAL SWITCH to FORWARD, the ram should move forward, Turn the MANUAL SWITCH to REVERSE, the ram should move back, If the ram moves in opposite directions of the selections then hoses are connected backward. Reverse the hoses and retest.

Additional Adjustments

FLOW VALVE: to adjust this valve, Put in MANUAL MODE, and take the ram to the start position.

1.- turn the MANUAL SWITCH to REVERSE and note the pressure on the pressure indicator, 1000 pounds is needed.

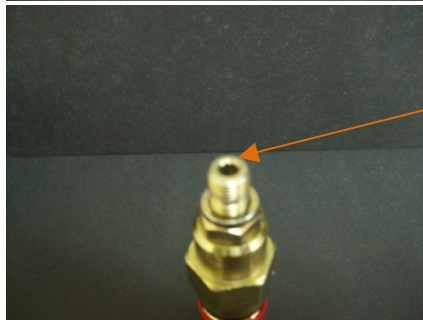


2.- If you don't have 1000 pounds adjust the flow valve using the Allen key.

- Unscrew the lock nut; turn center of this valve clockwise to give more flow and pressure. Repeat step 1 to re-check the pressure you have now. Once you have the correct pressure in the pressure indicator, tighten the lock nut.



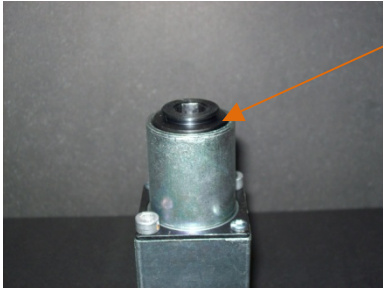
Security Nut



Turn right to give more flow and more pressure

Pressure Switch

1.-Unscrew the Pressure Switch's Cover to the top.

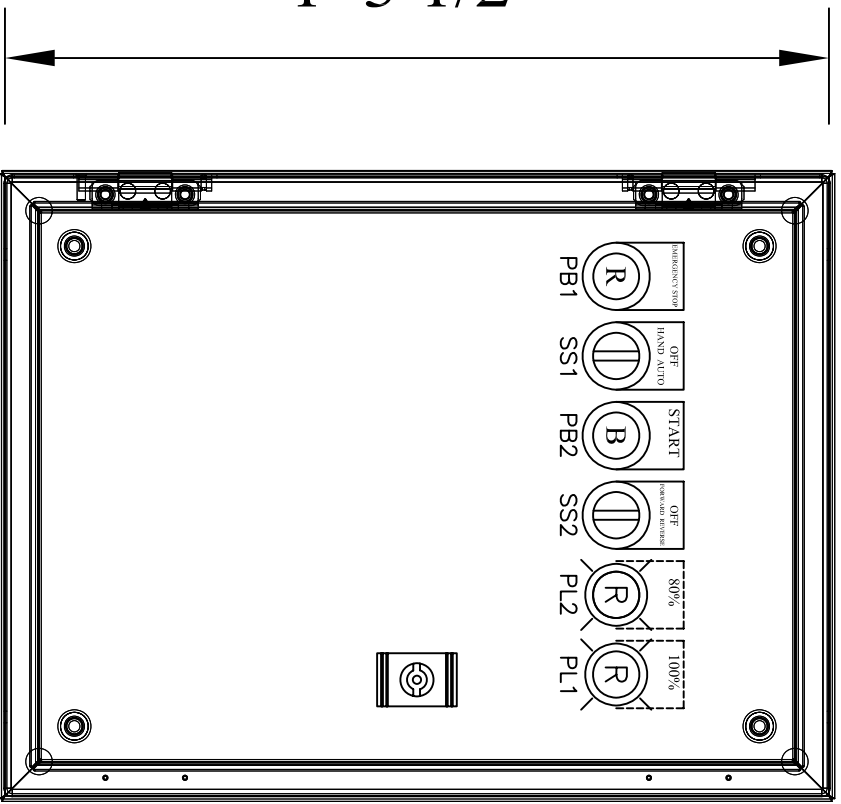


2.- Then turn the Pressure Switch's clockwise, $\frac{3}{4}$ time.(To set the pressure switch in 1000 psi)



ATTACHMENT 2: ELECTRICAL WIRING DIAGRAM

292.1 mm
11 1/2"



393.7mm
1'-3 1/2"

↓ ALL CONDUIT ENTRY ↓
↓ THIS SIDE ONLY!! ↓

XX THIS NUMBER DENOTES DETAIL #
SEE STOCKLIST SHEET#1

THIS DRAWING IS THE PROPERTY OF WILKINSON-HIRISE.
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WILKINSON-HIRISE

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Hollywood, FL 33020
Tel: 800 231 3888 Fax: 954 342 43 38

DWG. **SCALE** NTS **SHEET** 1 OF 1

**UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
FRACTIONAL DIMENSIONS ±1/32"
DECIMAL DIMENSIONS ±.010"
ANGULARITY ±1°** 250 / ✓
MACHINED SURFACES

TRASH COMPACTOR POWER PACK

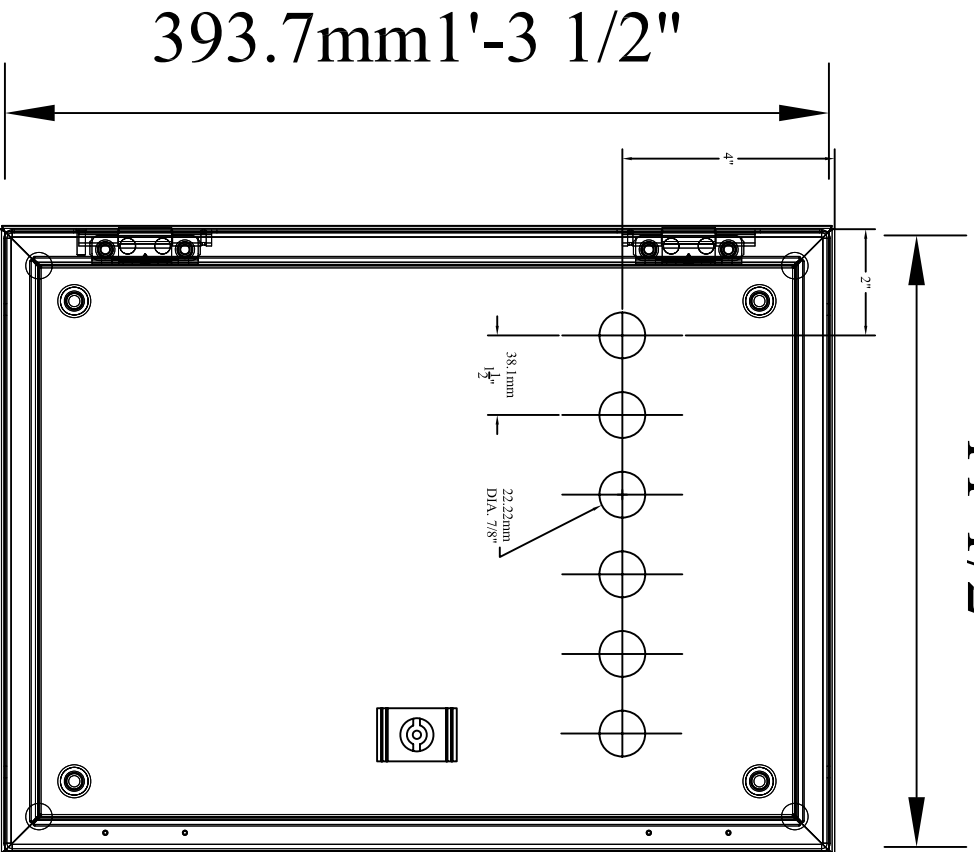
DRAWING NAME: ENCLOSURE DETAIL

DRAWING #:

DESCRIPTION	REV.	DATE	INIT.
FIRST DRAWING	A	08/27/09	CJS

292.1mm

11 1/2"



ALL CONDUIT ENTRY THIS SIDE ONLY!!

THIS NUMBER DENOTES DETAIL # SEE STOCKLIST SHEET#1

2 3 4

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DWG.

SCALE NTS

SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES FRACTIONAL DIMENSIONS ±1/32" DECIMAL DIMENSIONS ±.010" ANGULARITY ±1° MACHINED SURFACES 250 /

TRASH COMPACTOR POWER PACK

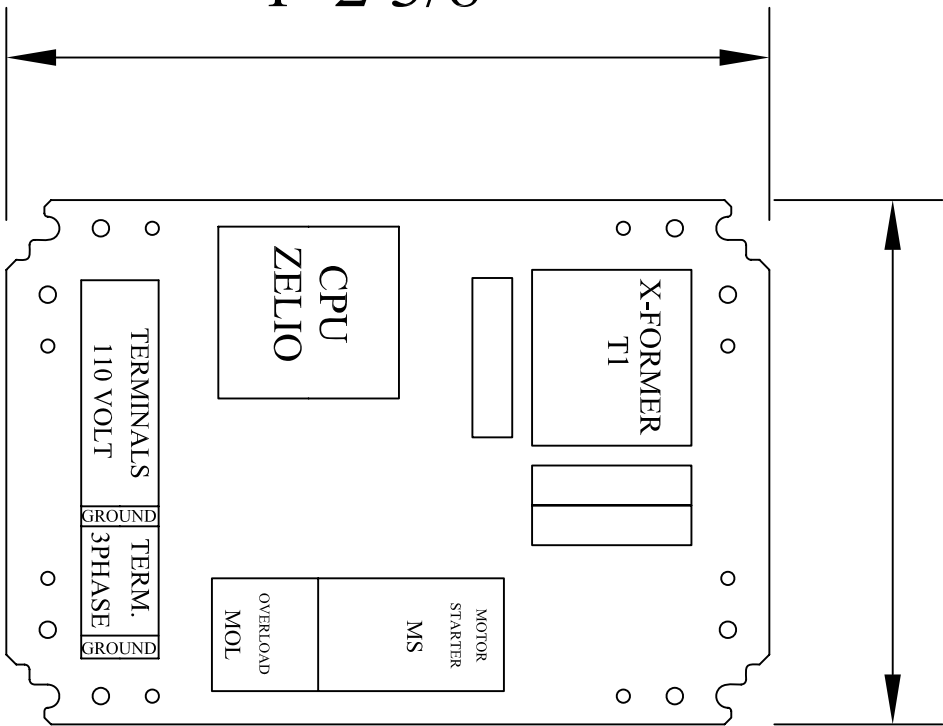
DESCRIPTION	REV.	DATE	INIT.
FIRST DRAWING	A	08/27/09	CJS

DRAWING NAME: ENCLOSURE CUTOUT

DRAWING #:

250.82mm
9 7/8"

390.125mm
1'-2 3/8"



⊠XX THIS NUMBER DENOTES DETAIL #
SEE STOCKLIST SHEET#1

⊠2 ⊠3 ⊠4

DESCRIPTION	REV.	DATE	INIT.
FIRST DRAWING	A	08/27/09	CJS

TRASH COMPACTOR POWER PACK

DRAWING NAME: BACKPLATE LAYOUT

DRAWING #:

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WILKINSON-HI-RISE

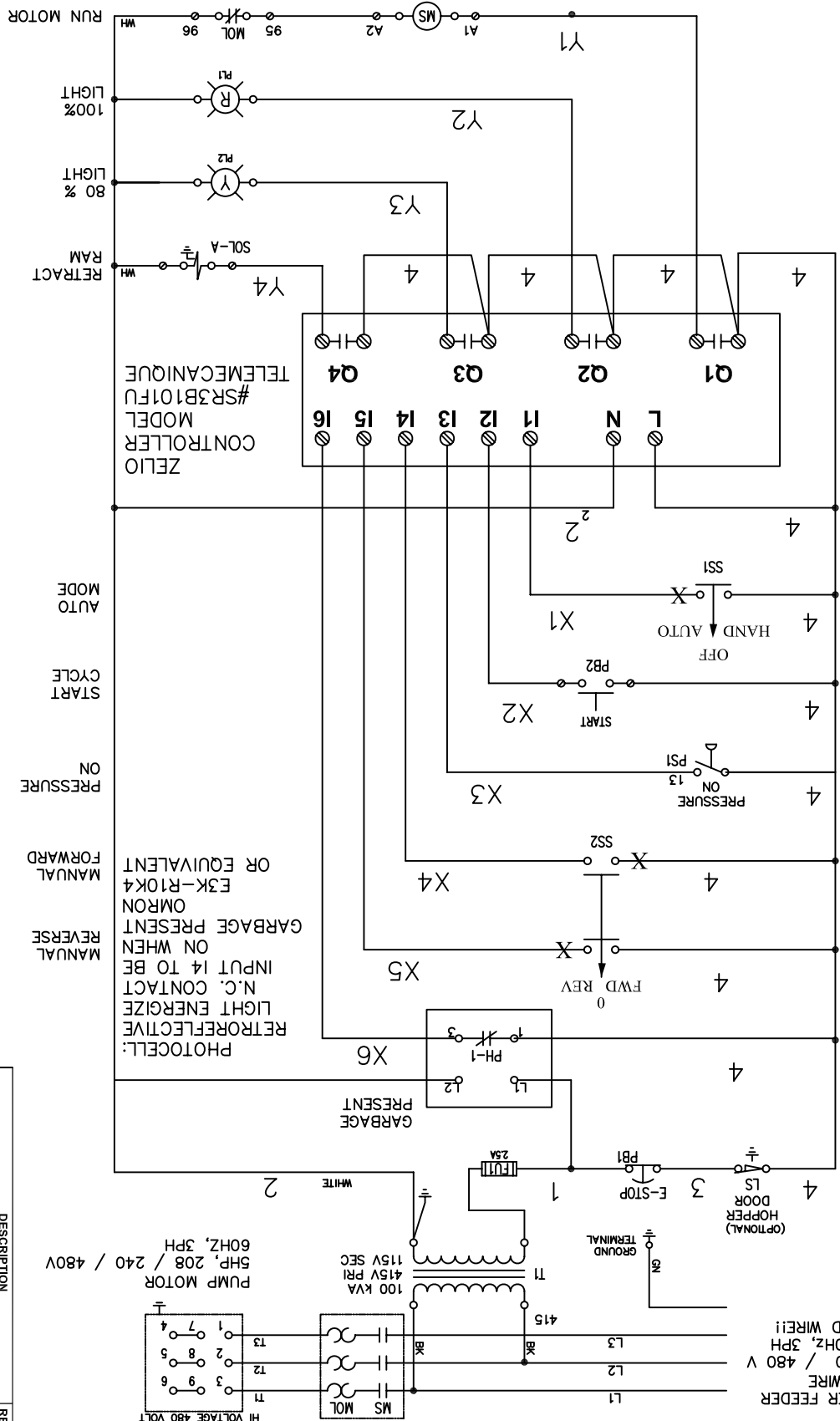
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DWG.

SCALE NTS

SHEET 1 OF 1

CUSTOMER FEEDER
4 WIRE
208 / 240 V / 480 V
30A, 60Hz, 3PH
GROUND WIRE!!



REV.	DATE	INIT.
A	08/27/09	CJS

DESCRIPTION
FIRST DRAWING

TRASH COMPACTOR POWER PACK

DRAWING NAME: WIRING DIAGRAM

DRAWING #:

WILKINSON-HI-RISE

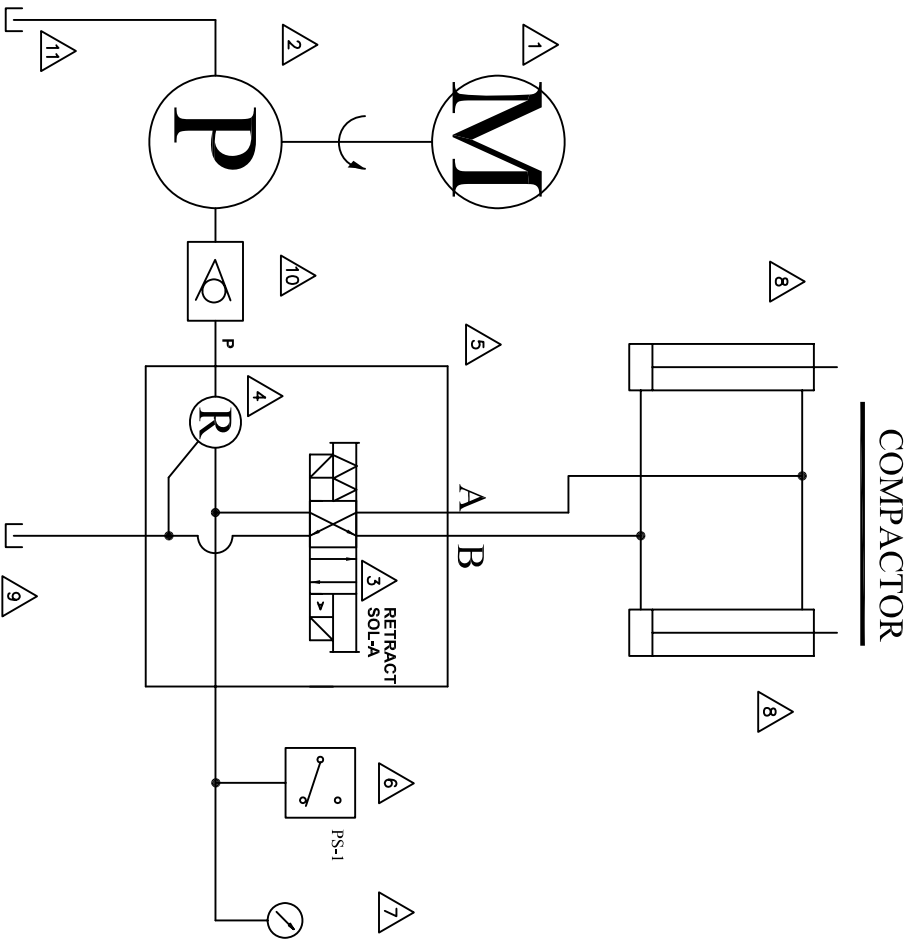
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DWG. NTS 1 OF 1

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QTY	DET #	MANUFACTURER	PART NUMBER	DESCRIPTION
1	1	BALDOR	HPM1615T	5HP, 230 V, 480V, 150 HZ, 60 HZ, 3PH, MOTOR
1	2	WILKINSON		HYDRAULIC PUMP 3.0 GPM @ 1500RPM
1	3	WILKINSON		4 WAY VALVE, SINGLE SOL., 120 VAC
1	4	WILKINSON	GPR10-130-N-10	RELIEF VALVE ADJUSTABLE
1	5	WILKINSON		MANIFOLD, BOTTOM P&T, SIDE A&B&G&H
1	6	WILKINSON	R901106512	PRESSURE SWITCH 3000-3000 PSI NO.N.C.
1	7	PARKER	0-3000 PSI	GAUGE 2 1/2" BOTTOM PORT 1/4" NPT LIQUID HILL.
1	8	WILKINSON	C600	COMPACTOR DOUBLE CYLINDER
1	9	WILKINSON	XXXXXX	TANK ASSEMBLY
1	10	PARKER	XXXXXX	CHECK VALVE 5000PSI
1	11	ARGO HYTOS	ASC-34006-260	OIL FILTER



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DWG. _____ SCALE NTS _____ SHEET 1 OF 1

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FRACTIONAL DIMENSIONS ±1/32"
DECIMAL DIMENSIONS ±.010"
ANGULARITY ±1°
MACHINED SURFACES 250 /

TRASH COMPACTOR POWER PACK

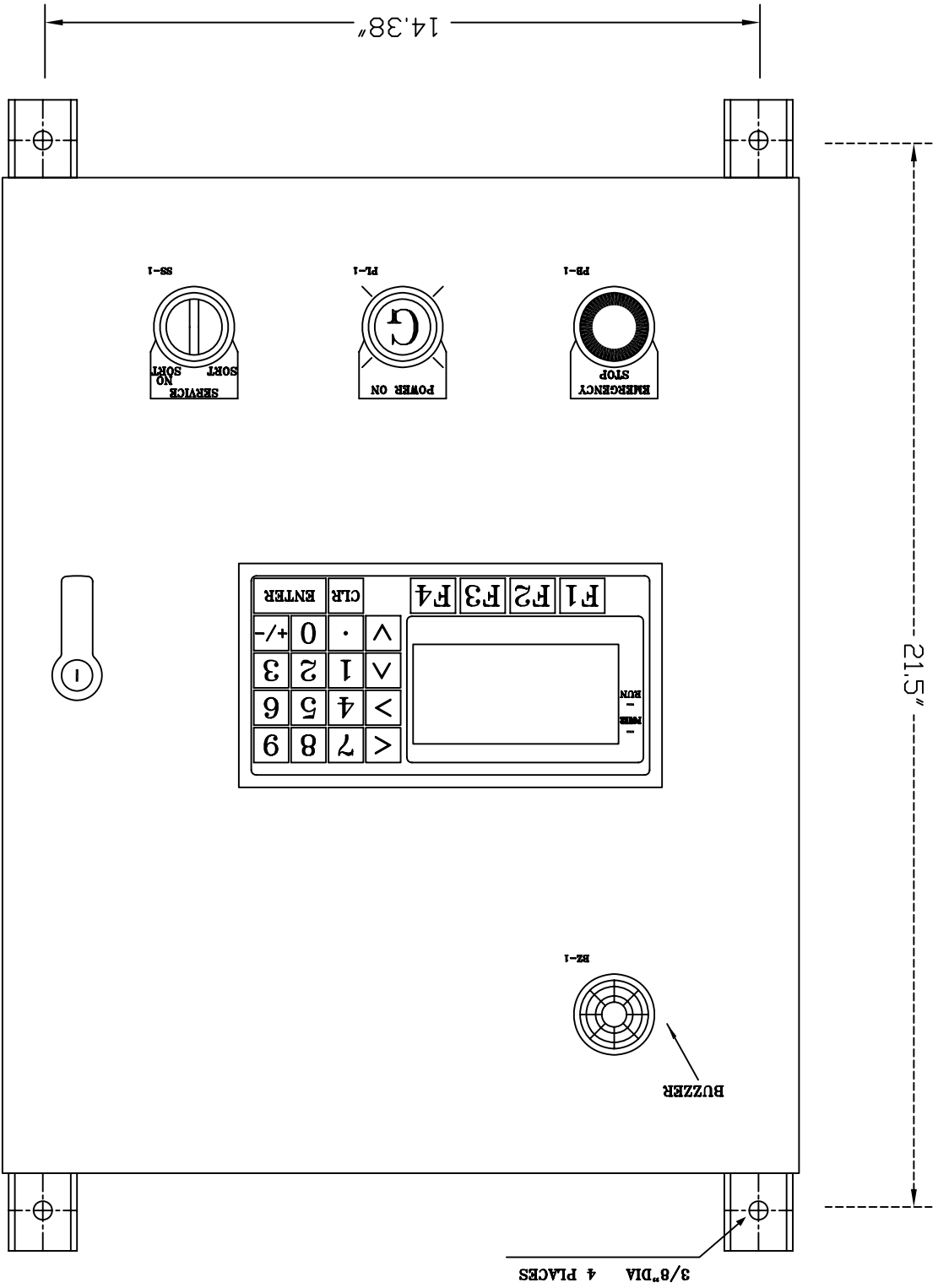
DESCRIPTION	REV.	DATE	INIT.
FIRST DRAWING	A	08/27/09	CJS

DRAWING NAME: HYDRAULICS

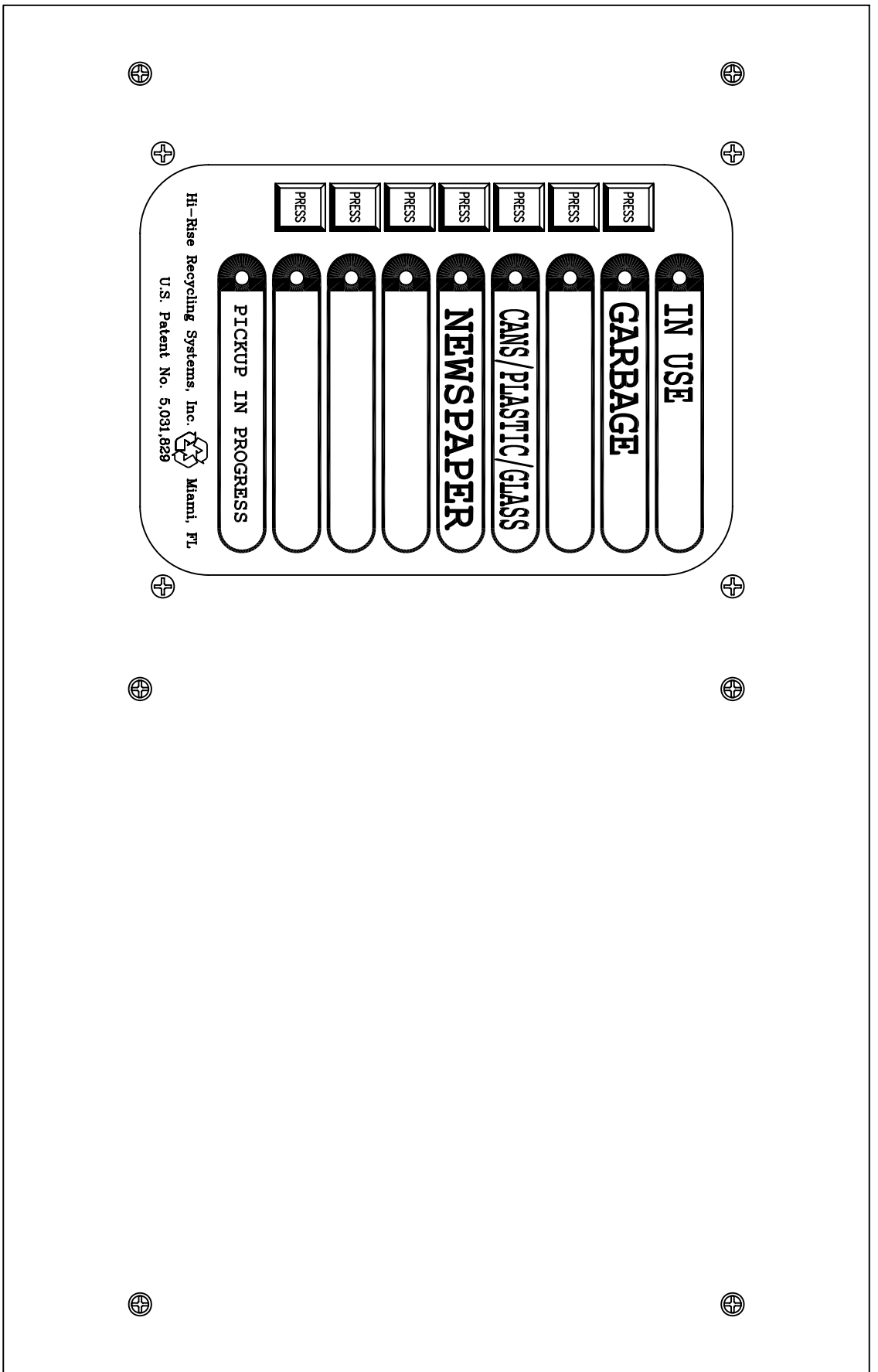
DRAWING #:

MAIN CONTROL PANEL

20" H x 16" W x 9" D



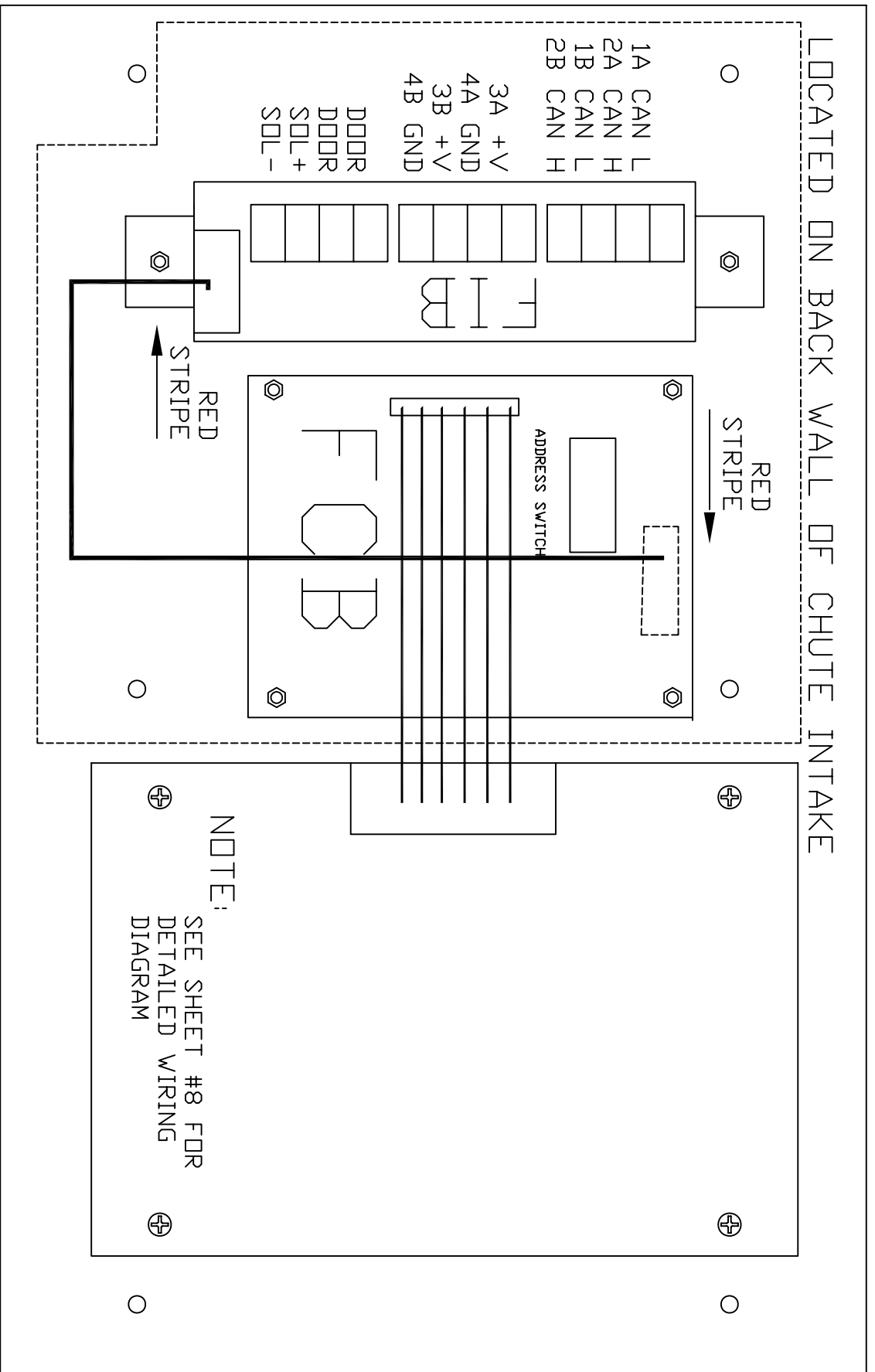
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES.	
DATE	11/8
DESIGNER	CPM2A02
CHECKED BY	PM
DATE	7/8/03
SCALE	1:1
WILKINSON-HI-RISE TRISORTER PIONEER RECYCLING SYSTEM	
DOOR LAYOUT	
SHEET 2 OF 1	



FLOOR PANEL - FRONT VIEW

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES.	
THIS IS A PRELIMINARY DRAWING. IT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS AND SPECIFICATIONS OF THE PRODUCT BEFORE USE.	
DATE	11/8
REV	D
DATE	7/8/03
DESIGN NO.	CPM2A04NYC KEYPAD
DESIGNED BY	MINIKA
WILKINSON-HI-RISE TRISORTER PIONEER RECYCLING SYSTEM	
SHEET 4 OF 1	

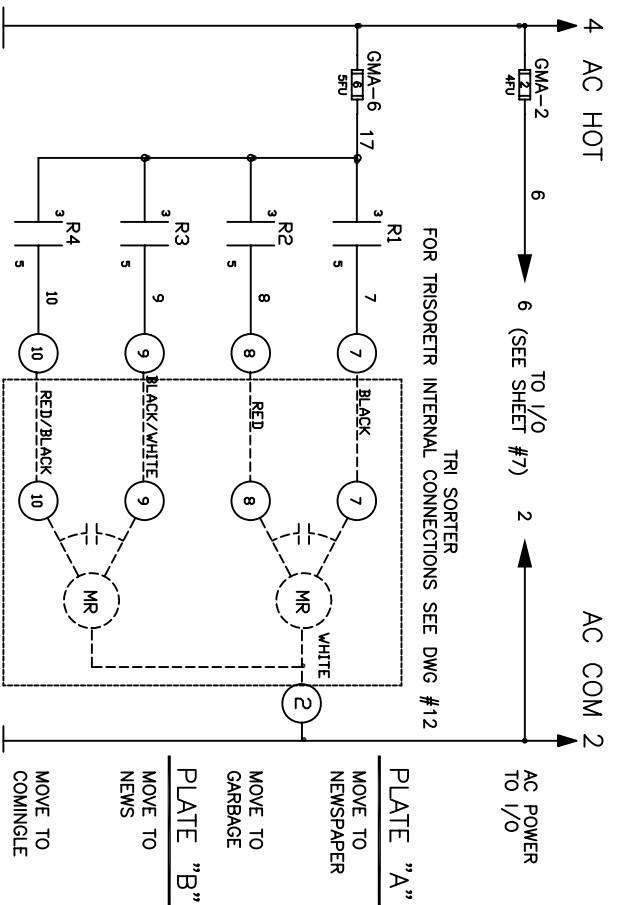
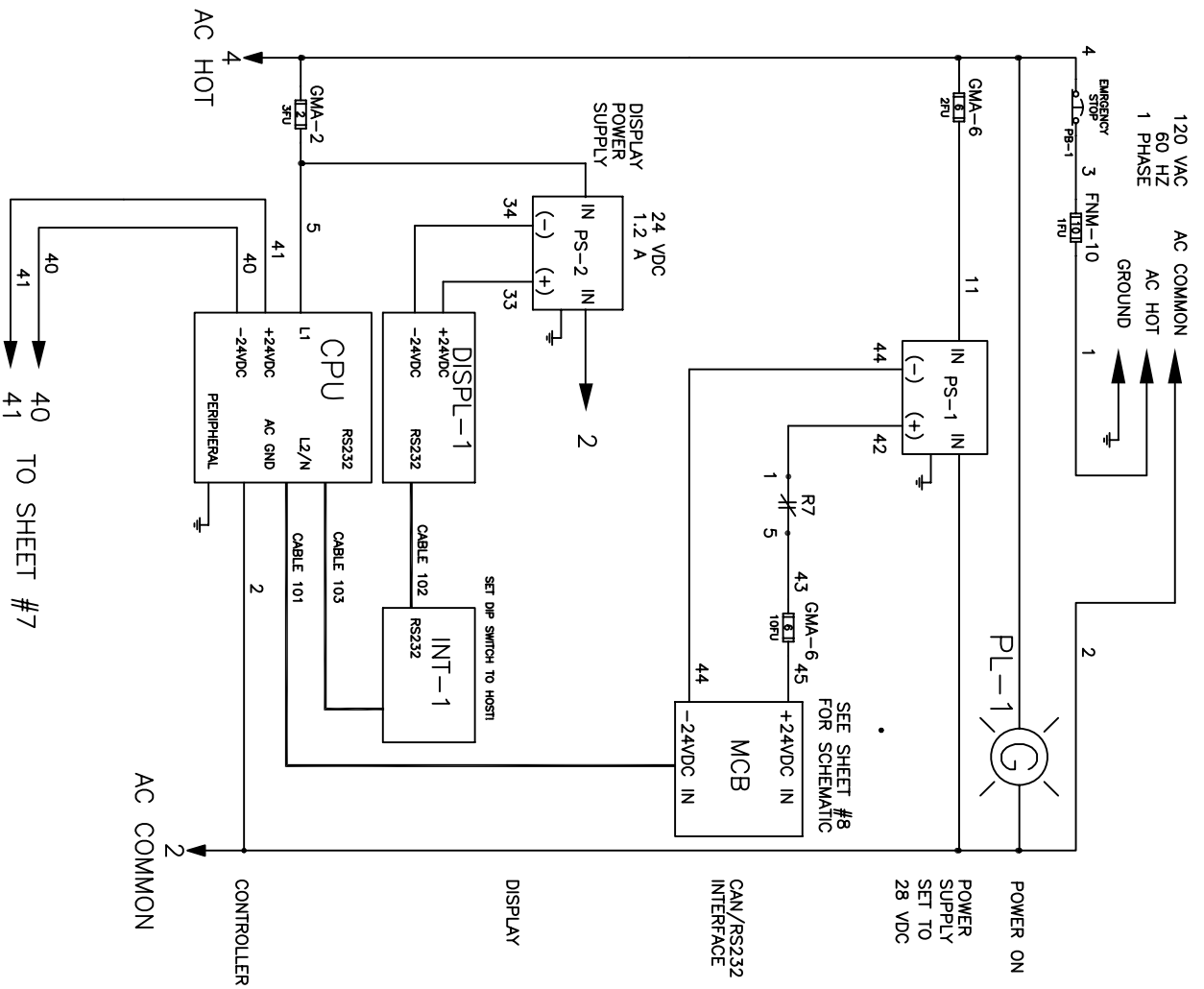
LOCATED ON BACK WALL OF CHUTE INTAKE



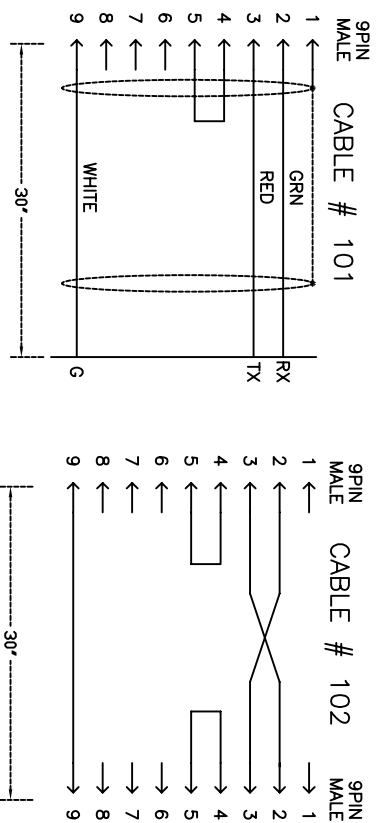
NOTE:
SEE SHEET #8 FOR
DETAILED WIRING
DIAGRAM

FLOOR PANEL - REAR VIEW

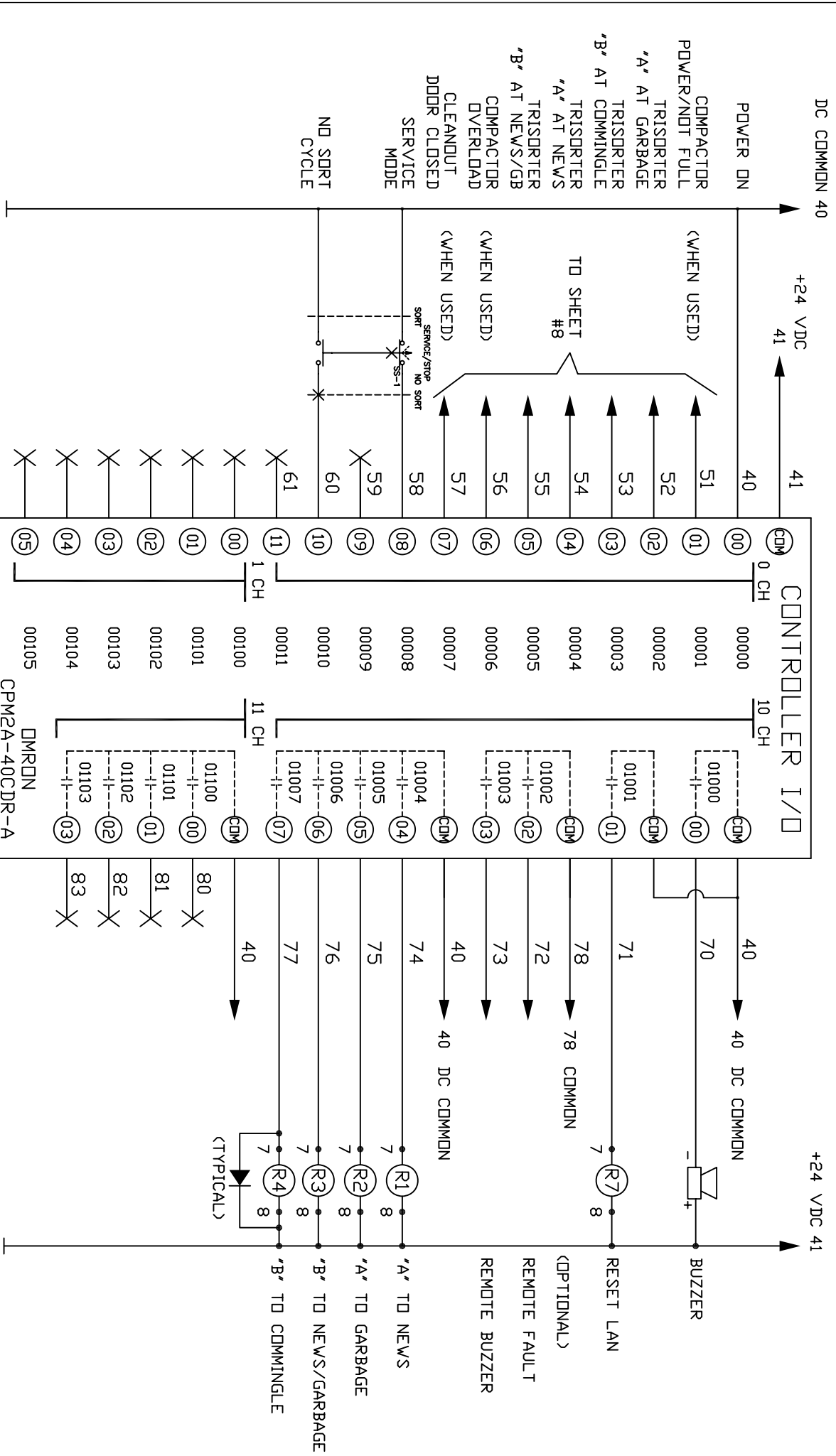
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES.		WILKINSON - HI - RISE	
THIS IS A "TRISORTER" SYSTEM It is designed to sort and recycle plastic waste. It is not a sorting system. It is a recycling system. It is not a sorting system.		PIONEER TRISORTER PIONEER RECYCLING SYSTEM	
DATE	11/84	DATE	7/8/03
REV	D	REV	CPM2A05
SHEET 5 OF 1		FLOOR PANEL	
DRAWN BY P.M.		SHEET 5 OF 1	



THIS IS DEFAULT CONFIGURATION GNC. UNIT MUST BE WIRED AS SHOWN. TO CHANGE CONFIGURATION REMOVE JUMPERS AS REQUIRED. SEE DWG #7.



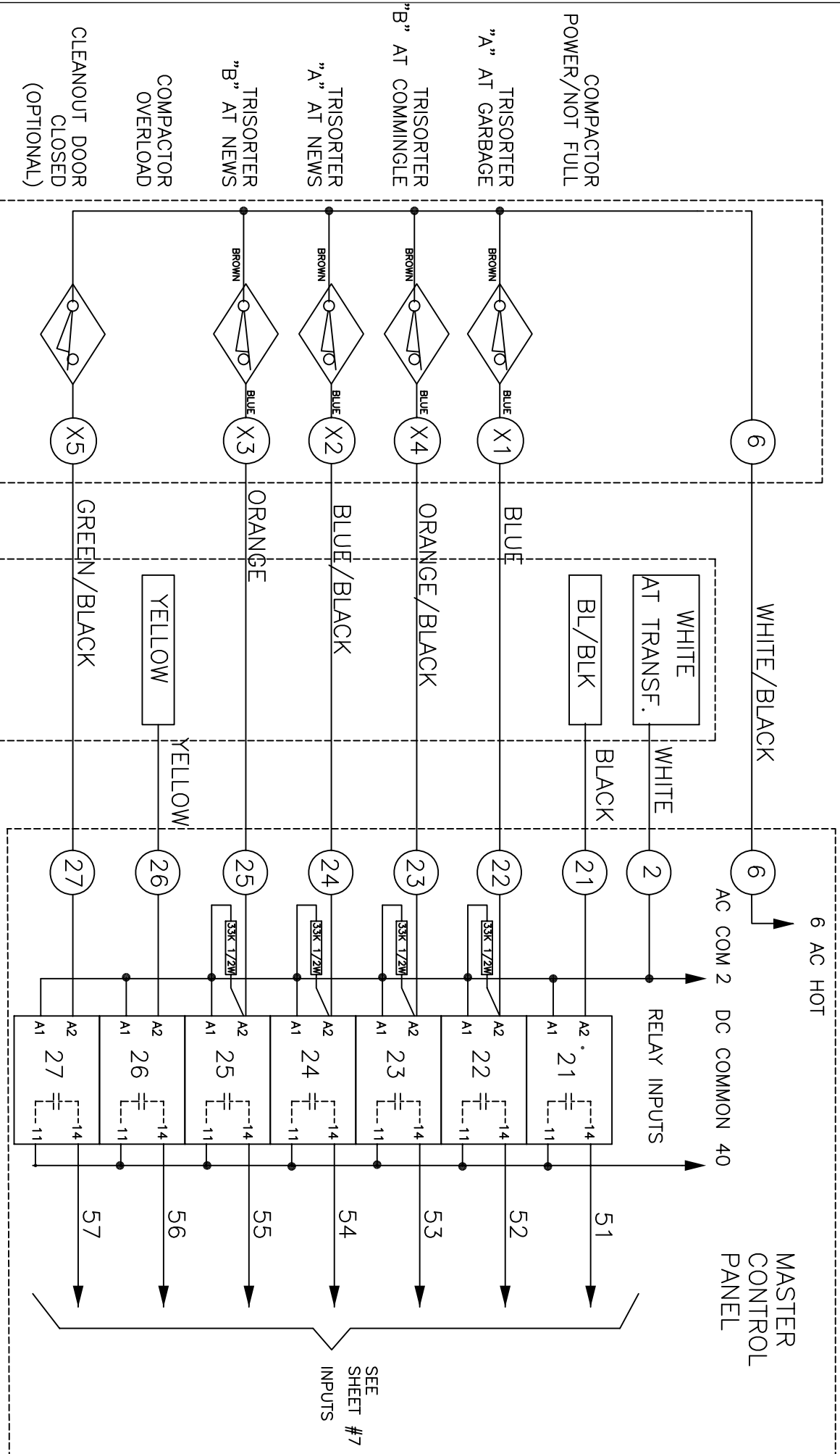
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		WILKINSON-HI-RISE	
DRAWN BY: TRISORTER		DATE: 7/8/03	
CHECKED BY: MINKA		DRAWN BY: MINKA	
PIONEER RECYCLING SYSTEM		POWER	
SIZE: D	DATE: 7/8/03	REV: 1	SHEET 6 OF 6



CONTROLLER I/O LAYOUT CONTINUE ON SHT. #8

TRISORTER I/O VALID FOR GNC CONFIGURATION! SEE SHEET #8 TO CHANGE CFG.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		WILKINSON-HI-RISE	
DATE	REV	DATE	REV
7/14/03	D	7/14/03	D
PIONEER TRISORTER		PIONEER TRISORTER	
PIONEER RECYCLING SYSTEM		PIONEER RECYCLING SYSTEM	
DESIGNED BY	MINIKA	DATE	7/14/03
CHECKED BY	MINIKA	DATE	7/14/03
SCALE	N/A	SHEET	7 OF 7



TRISORTER

COMPACTOR C350 (C400)
(OPTIONAL)

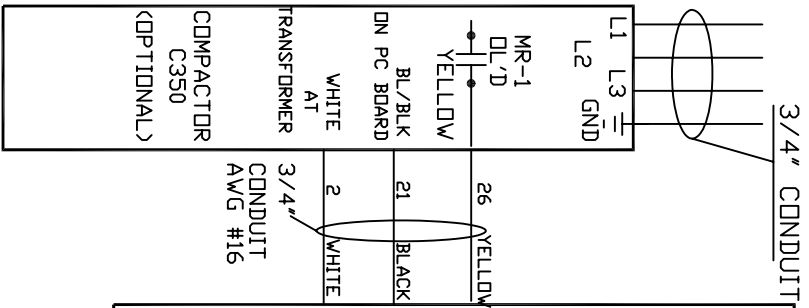
RELAY TERMINALS LAYOUT AND WIRING

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES.		WILKINSON-HI-RISE	
THIS IS A TRISORTER SYSTEM. It is designed for use in a recycling system. It is not to be used for any other purpose. It is not to be used for any other purpose. It is not to be used for any other purpose.		TRISORTER	
DATE: 7/14/03		DATE: 7/14/03	
DRAWN BY: CP/M2A15		DRAWN BY: CP/M2A15	
CHECKED BY: MINIKA		CHECKED BY: MINIKA	
SHEET 8 OF 1		SHEET 8 OF 1	

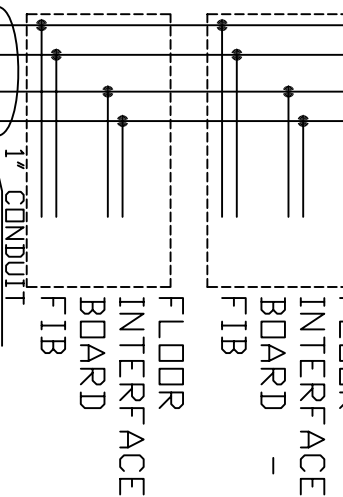
120VAC, 10A, 60HZ
AC COMMON
AC HDT
GROUND

3/4" CONDUIT
AWG #12

3x208/220VAC
20A, 3PH, 60HZ
FRDM LOAD CENTER

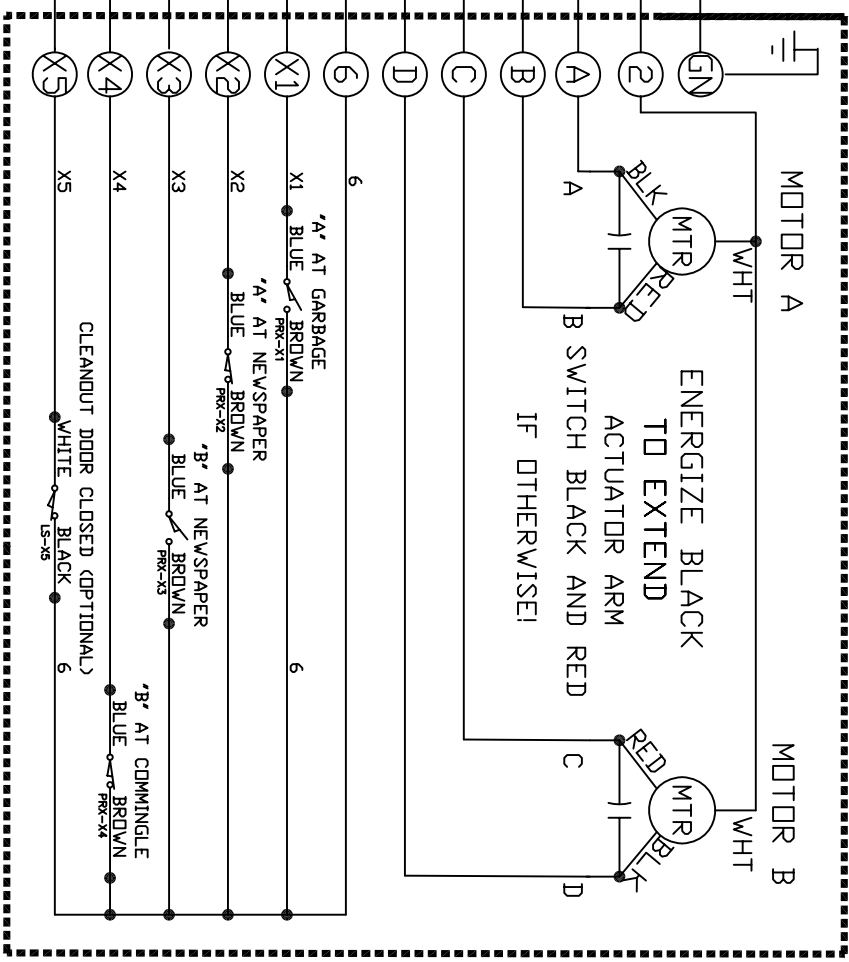


THHN STRANDED AWG 12 BLUE&RED
BELDEN #8205 or ALPHA #1895C DR EQUIV. W/SHIELD
TWISTED PAIR AWG 20
FLOOR
INTERFACE BOARD - SEE DWG #8
FIB



CABLE USED
CAROL CM18AWG75+4
E111240-8 (ULL)
AWM STYLE 2464
CSA LL69381 PCC FT4

LOCATED ON TRISORTER



UNLESS OTHERWISE SPECIFIED:		DIMENSIONS ARE IN INCHES.	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		FINISH	
FRAMES	N/A	FRAMES	N/A
WELDING	N/A	WELDING	N/A
PIONEER TRISORTER		WILKINSON-HI-RISE	
PIONEER RECYCLING SYSTEM		PIONEER RECYCLING SYSTEM	
DATE	7/17/09	DATE	7/17/09
BY	CPM2A10	BY	CPM2A10
SCALE	1	SCALE	1
SHEET 10		SHEET 10	

