



## **PSI Waste Equipment Services, Inc.**



**Versa-Pak V4.5 SUPPORT**

**PSI Waste Equipment Services, Inc.  
31130 Industry Dr. Bldg A, Tavares, FL 32778**

**Phone: 352-742-4774 Fax: 407-992-9389**

**E-mail: [support@versa-pak.net](mailto:support@versa-pak.net)**

**[www.versa-pak.net](http://www.versa-pak.net)**

## Versa-Pak V4.5- Getting Started

The Versa-Pak is a universal compactor control system that will run most stationary or self contained compactor from most manufacturers. It is a timer shifting unit and has a smart-shift feature that shifts the compactor into reverse if it deadheads for more than a few seconds. This system is easy to install, troubleshoot, and understand. It's best to read the included information so you get the most out of your system. There are a lot of great features for field techs such as indicator lights and control buttons on the ZEN panel to bypass the remote and run the power unit from the ZEN.

A few things to remember

- Get familiar with the Versa-Pak system by studying the drawings included. It will not only save you time, but there are a lot of great features you'll want to use. Refer to it frequently.
- You will use OK, Esc, Up, Down, Left, and Right Keys
- Most user adjustable settings are in PARAMETERS. Press OK, Select PARAMETERS using Down arrow.
- You change digits not numbers. In other words if the number is 10 and you are on the zero and press down one time it will be 19 because the 0 will turn into a 9.
- When setting counter, you will go to PARAMETERS, press OK, and then select LEFT and then go up until you see C0.
- When changing settings or navigating through PARAMETERS you will use OK a lot. OK indicates you want to change the setting or parameter or you are done changing the setting or parameter.
- When you use the panel buttons to operate the compactor, you are also navigating the menu. So after each command, press escape (Button 0).

Parameters most commonly set:

Forward- T0  
Reverse- T1  
Multi-Cycle- T2  
Auto Shut-Down- T3

Auto Count: REQUIRES WARNING LIGHT AND BUZZER! REQUIRES LIMITED ACCESS TO CHARGEBOX AND INTERLOCKS ON ALL DOORS!

Counter- C0 (set for # of counts before unit starts).

On version 4.1 and later, you must initiate the auto-count feature by pressing Buttons 6 and 7 at the same time. Also, if compactor has no power for more than 2 days, you'll have to re-initiate count.

As always, if you have any problems, please go to [www.versa-pak.net](http://www.versa-pak.net), email [support@versa-pak.net](mailto:support@versa-pak.net), or call 352-742-4774!

Versa-Pak V4 is the 4<sup>th</sup> generation of PSI Waste's aftermarket compactor control system designed especially for used stationary, self-contained and apartment style compactors. It provides all of your favorite features including safety and equipment longevity features you won't find in OEM units. Versa-Pak was designed by Kevin Long at PSI Waste Equipment Services, Inc. many years ago and can be found all over the US and Canada. It's simple, powerful, and universal.

- It's basically a Timer Shifting system so it is universal and works well with bypassing cylinders and in the winter
- It is also Pressure Shifting (Smart Shift)- if the unit deadheads forward for 3 seconds it shifts into reverse, so it works well with pressure shifting cylinders. INSTALL PRESSURE SWITCH ON MAIN PRESSURE to enable all features.
- Includes Multi-Cycle Timer and Auto Shut Down (shuts down if unit runs for 10mins (adjustable) continuously)
- Has Auto Count built in and works well with photo eyes.
- Reverse button is momentary (hold to reverse) for safety and serves as an alternate means of stopping the unit (like when the Stop button head is missing or the maintenance guy puts a screw clamp behind it!)
- Works well with Motor Drives and 1 phase motors (time delay forward, time delay motor off)
- Will fit in most any panel and run most any compactor as good or better than the OEM system.
- It's simple to install and troubleshooting is easy- simple wiring and indicator lights help to diagnose problems.

Basic Timer Settings (at the top of screen you'll see either "S" (seconds) or "M:S" (minutes.seconds). This has changed since V3. It enables more accurate timer settings to prevent deadheading of cylinders- especially on shorter strokes.

- T0- Forward Time (S) (in seconds so 20.50 equals 20 ½ seconds)
- T1- Reverse Time (S)
- T2- Multi Cycle Timer (MM.SS)
- T3- Auto Shut Down (MM.SS) (Shuts unit down if continuously running- default is 10min)
- T4- (MM.SS) Full Shut Down (to enable 100% full shut down set at 1 or 2 seconds. Unit will shut off when full. Reset with E-Stop. Default 6seconds- Disables feature)
- T5- (S) Forward Delay. For 1phase motors or motor drives (requires open or tandem center valve). Allows motor to start under a no load condition.
- Tf- (S) Reverse Delay. For 1phase motors or motor drives (requires open or tandem center valve). Allows motor to start under a no load condition.
- T6- (S) Motor Off Delay. For 1phase motors (requires open or tandem center valve). Prevents motor from stopping and starting every time the door is opened. Set for 20 or 30 seconds and when the door is opened the unit will shift into neutral and wait for the signal to start again. After time is up unit will shut off.
- T7- (S) Auto Start Warning Delay- this is set for 20 seconds. This is the time required for warning light and buzzer when compactor is starting automatically.
- Tb- (S) Time delay for forward pressure override (ends forward stroke if pressure switch senses pressure for time set).
- #4- (S) Time delay for reverse pressure override (ends reverse stroke if pressure switch senses pressure for time set).
- **Auto Count-** Auto-Count starts the compactor automatically when the interlocked door (wired to I1) is opened and closed the number of times set on C0. Loss of power, e-stop, reverse and start all reset the counts (C0) to 0.

With few exceptions that rarely apply- **YOU MUST INSTALL A WARNING LIGHT AND HORN** according to ANSI standards and common sense! **Safety First!** Also DO NOT install Auto Count with time delay on and horn disconnected. This may fool a tech, maintenance man, etc. into thinking the unit is not running and put him in harm's way!!!

Once you have ensured it is safe, you can enable auto count by doing the following.

- Push B7 and B6 at the same time. This will enable Auto Count. (new to V4.1)
- Install light and buzzer to Q3 (new to V4- in V3 and earlier this was used for 80% and full light but rarely used)
- C0 is the counter. If this is set the unit will start automatically (Default setting is 9999). C1 is the cycle interrupted counter. If you want the unit to start again on the first door close after the cycle was interrupted, then set this for 1. If cycle is interrupted the unit will start after the 20 second warning is up.
- To cancel Auto Count Push B7 and B5 at the same time. Remember to set C0 to 9999 also as an additional precaution.
- DO NOT change any other settings or you'll wish you didn't!!!

## **Buttons**

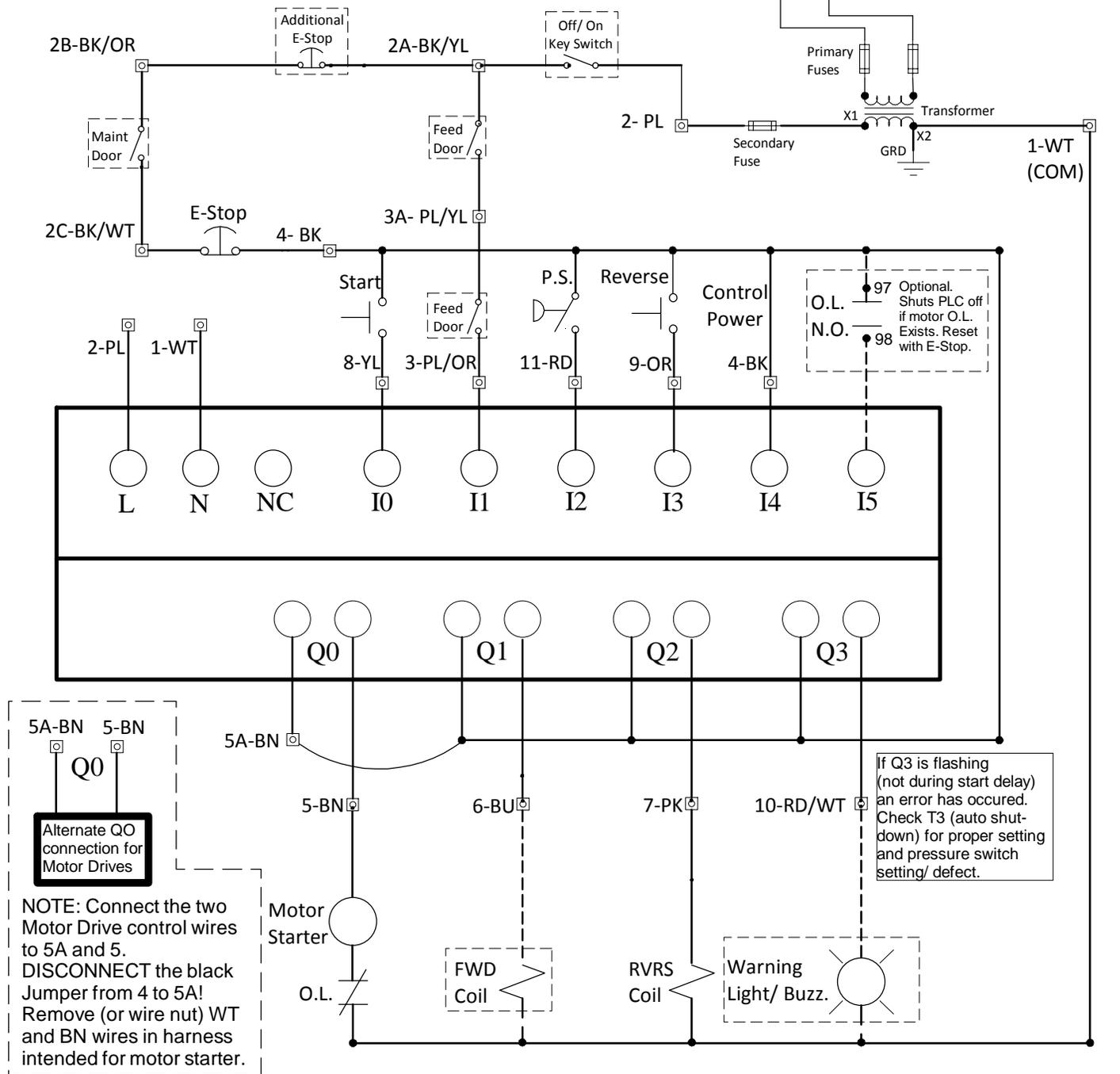
Buttons on the front of the ZEN perform multiple functions. In addition to setting parameters you can operate the compactor using these buttons. Before attempting this make sure you know where the power disconnect is. Press the indicated combination of buttons below to perform the listed task. FYI- the buttons still navigate the menu screen so after each command hit the "ESC 0" button to exit the menu so you don't accidentally change a parameter or something. Some commands available in V3 are no longer available because of programming limits.

- 0 and 1 - START
- 0 and 2 - STOP
- 0 and 5 - LIGHT
- 0 and 7 - PROGRAM VERSION **ALWAYS VERIFY VERSION BEFORE CHANGING SETTINGS!**

\*\*For single phase jump T2 to L3 on starter, connect motor to T1 and T3.

Notes:  
 Both E-stops act the same.  
 Both feed doors act the same.  
 Maint door acts like E-stop. It does NOT count.  
 Wire Start and Reverse parallel for additional stations.  
 Dotted line boxes are optional connections- Jump if solid line connection, omit if dotted line connection.  
 \*\*For single phase jump T2 to L3 on starter, connect motor to T1 and T3.

Main disconnect/ branch circuit protection must be supplied by customer. Refer to fuse and breaker chart and local codes.



O.L. 97 Optional. Shuts PLC off if motor O.L. Exists. Reset with E-Stop.  
 N.O. 98

If Q3 is flashing (not during start delay) an error has occurred. Check T3 (auto shut-down) for proper setting and pressure switch setting/ defect.

Alternate Q0 connection for Motor Drives

NOTE: Connect the two Motor Drive control wires to 5A and 5.  
 DISCONNECT the black Jumper from 4 to 5A!  
 Remove (or wire nut) WT and BN wires in harness intended for motor starter.

Description: Versa-Pak V4.5 Wiring. For support go to [www.psiwaste.com](http://www.psiwaste.com) or call 352-742-4774.