

## Motor Installation and Setup

The original servo motor used for the Packman pusher has been obsolete since 2008. The new motor, Model AKM33H is the replacement for the obsolete motor. Unfortunately, this motor has different pin configuration on the connectors. Consequently, the cable between the Servo Drive and the motor need to be replaced.

## Steps for Installation

- 1. Remove Power and Air from the Packman
- 2. Remove cables from the connectors on the motor.
- 3. Remove motor from the mounting.
- 4. Install the new motor.
- 5. Route the new cables from the Servo Drive to the Motor.
- 6. Connect the cables at both ends.
  - a. The power cable is labeled with terminal connector IDs (U, V, W and GND)
  - b. The resolver cable connects to the DB15 connector.
- 7. Download the "setup\_PC800Tools\_1\_023\_0.zip" and "Packman Pusher AKM33H Motor.cfg".
- 8. When the cables between the Drive and the Motor are connected at both ends, the configuration on the drive must be changed.
  - a. Install "setup\_PC800Tools\_1\_023\_0.zip" on a computer that is close to the Packman.
    - i. To install the software, you must unzip the file. The resulting file is "setup\_PC800Tools\_1\_023.exe". Install this file on your computer. You may have to override any security questions that come up during this process.
  - b. The computer must have an RS-232 serial port. The comm port must be between COM1 and COM4. If the computer does not have an RS-232 port you must use a USB to RS-232 converter.
  - c. Connect a RS-232 cable with DB9 connectors to the computer port and the drive port. This must be a straight through cable. (pin2 is connected to pin2, pin3 connected to pin3 etc.)
  - d. Power on the Packman with e-stop on.
  - e. Start the PC800Tools Software.
  - f. Check to make sure the correct serial port is selected.
    - PacSci 800Tools

Communication		Edit	Utilities	Help
	Port/Axis			
	Upload Edit Online		figura	tion
	Exit			

g. Make sure that the correct serial port is selected by pressing Port/Axis. The following screen will appear.

Comm Port and Axis Selection		
Port Selection C Port 1 C Port 2 Port 3 C Port 4	Axis Address  Automatic Detected  Select Axis Range 1-255	
Ok	Test <u>H</u> elp	

- h. Select the correct port and Press the Test button to see if you have a connection with the drive. If not try and diagnose the problem, cable, port etc
- i. If you do have a connection the press "Ok"
- j. Select the "Edit File" button.

Configuration
🔁 Upload
😂 Edit File
🗒 Edit Online
👿 Oscilloscope
Diagnostics

- k. The software will ask you to select a configuration file. Navigate to the file "Packman Pusher AKM33H Motor.cfg", which you previously downloaded. Select and open.
- 1. The following Dialog will appear. Select the Next button.

E\\Program Files\Pacific Scientific\800Tools\cfg\Packman Pusher AKM33H Motor.cfg	×
Drive Drive Type PC834 Motor Type AKM33H	
Mode of Operation Position Node Step and Direction	
Digital I/O   Analog I/O   Loop Gains   Position Controller   Predefined Moves   Feedback	
Velocity Limits	
High 9974.26367 RPM Positive 30 % of peak	
Low -9974-26367 RPM Negative 30 % of peak	
Gearing Ratio Step and Direction	
Pulses Out  16384 Pulses In  94 (Default value is Steps Per Revolution /4)	
Ţ	
Cancel Holp	

m. The next dialog will appear. Select "Download to Drive."

Deint				
Ennt				
Save To Eile				
Your configuration is complete now, but you should either save it in a file, or download it to a drive.				
Press one of the buttons above to save this configuration.				
<u>Einish</u> <u>H</u> elp				

n. When the download of the configuration is complete, you will see the following dialog. Press the "Yes" button to save the configuration in the drive.

C:\Program Files\Pacil	ic Scientific\800Tools\cfg\Packman Pusher AKM33H 🗙
	Print
Confirm	
2	Your configuration has been downloaded.
Ý	Do you want to have it saved in the drive's non-volable memory?
	(If you answer 'NO', the changes will be lost when the drive is powered down.)
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eith	Ye.
Pre	configuration.
<< <u>B</u> acl	Einish >> Help

o. The drive setup is now complete. Power the stacker down and restart.

## **Testing the new Motor and Servo drive**

- 1. With the E-Stop on there should be no power to the drive. (Make sure the plexiglass door by the motor is closed and the Packman has air.
- 2. When you press the start button, the Packman should begin its startup sequence. The stacking section homes first then the pusher homes. If the pusher homes then you are finished.
- 3. If the startup does not complete, then look at the HMI for any errors. If it is a pusher drive error then clear it on the screen.
  - a. Try moving the pusher by hand. If it moves easily then you have a problem with the power cable. Re-check all connections.
  - b. If you are still having a problem call Quipp/Signode service for support. 305-623-8700 Press 1 for parts, if no answer then press 2 for support.