Kodak

Automatic Pallet Loader

Load Cell Calibration

30 May 2008

Copyright 2008 Kodak. All rights reserved.

Kodak

Automatic Pallet Loader
Load Cell Calibration

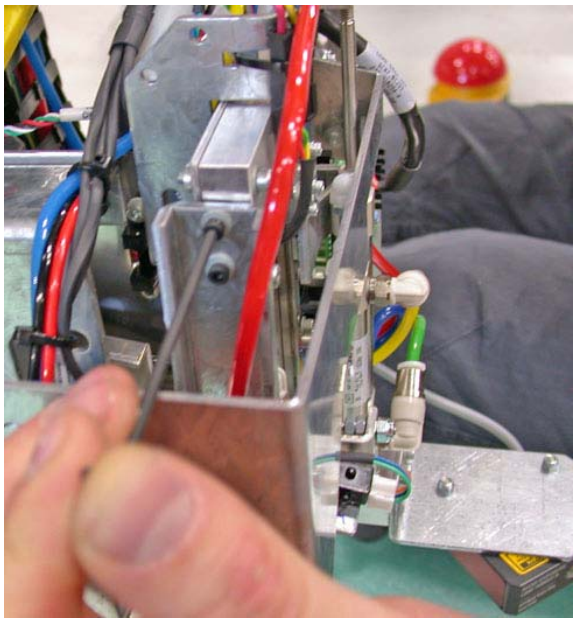
1. OVERVIEW

There are two load cells, one per picker tower, that must be calibrated using the weight of the P-cup assemblies from that APL. Perform this procedure when a load cell or amplifier board has been replaced.

2. CALIBRATING THE LOAD CELLS

1. Move the picker down to access the picker load cells.
   Type `>>apl picker z move 200 .`

2. On both of the picker towers, remove the two screws (imperial) holding the P-cup bracket to the load cell. Disconnect the tube from the P-cup and remove the bracket completely.



3. On one of the picker towers, locate the load cell amplifier board and identify the two adjustable potentiometers (pots) labeled **BAL** and **GAIN**.



4. Adjust the BAL or zero adjustment:

   a) Using a voltmeter, measure between pins 2 and 4 on the amplifier board's upper terminal block—positive terminal on pin 4.

   b) Using a small slot screwdriver, adjust the **BAL** pot to achieve a reading of 0V ± 0.005V.

5. Re-install the P-cup bracket onto the load cell. Do not connect the P-cup tube yet.

6. Rest the other side's P-cup with bracket and screws on the P-cup assembly. We are using the other side's P-cup as a calibrated weight. Do not let this other P-cup touch any other parts besides the P-cup assembly.

Note: Each P-cup assembly (with screws) weighs 122 grams, so two such assemblies weigh 144 grams. The expected voltage on pins 2 and 4 of the amplifier board is: Voltage = 5 Volts x (244 / 1000) = 1.22 Volts.

7. Adjust the **GAIN** pot on the amplifier board to get the expected voltage (1.22 V).

8. Repeat the calibration procedure for the load cell on the other picker tower.

9. Re-attach the other P-cup assembly and connect both P-cup tubes.