Instructions for Installation of HC-1000
Hydraulic/Electronic Conversion Assembly

INTRODUCTION

The Eagle Microsystems Hydraulic/Electronic Conversion Assembly is specifically designed to convert Force Flow ton container scales from hydraulic load cell to electronic strain gage load cell operation. The HC-1000 Conversion assembly is suitable for use on ton container scales having capacities of 4000 lbs (1815 kg) through 16,000 lbs (7250 kg).

MECHANICAL INSTALLATION

Bearing Plate/Shock Pad Installation

1. With the ton container(s) removed form the scale lift the frame member with the tongue so as to gain access to the underside of the scale frame. Remove the old hydraulic load cell assembly and discard.
2. The Bearing Plate/Shock Pad is to be located on the underside of the tongue of the weigh frame which transmits the scale load to the load cell. The Bearing Plate/Shock Pad is provided with double-sided tape to permit ease of installation
3. Clean the underside of the tongue with a suitable solvent and wipe dry, leaving no solvent which may be incompatible with the adhesive on the tape.
4. Remove the paper from the double sided tape and center the bearing plate/shock pad on the hole in the tongue. Press the bearing plate/shock pad to the under side of the tongue.
5. The center of the Bearing Plate/Shock Pad should be centered over the load button on the load cell of the HC-1000 assembly.

Base Plate Installation

1. Once bearing plate is attached to the weigh frame tongue, align the load cell/base plate assembly on the level floor so that the load button on the top of the load cell will be centered under the bearing plate/shock pad (now installed on the tongue of the weigh frame). Align the long dimension of the base plate perpendicular to the long dimension of the scale frame.
2. Mark the bolt locations on the floor.
3. Raise weigh frame to gain access to base plate.
4. Drill anchor holes in floor and secure base to floor.
5. Install four (4) ½" anchor bolts (by others) of a type suitable for the type of floor on which the scale is installed.

ELECTRICAL CONNNECTION OF ASSEMBLIES

1. Route the load cell cables to Summing J Box so that they will not be damaged of cut.
2. Connect load cell cables to terminals on the Summing J Board.
3. Connect the 4-conductor load cell hook-up cable from the Summing J Board to the load cell terminals in the Weigh Indicator according to the color coding indicated in the weigh indicator manual.

SERVICE INFORMATION

A. Load Cell resistance test:

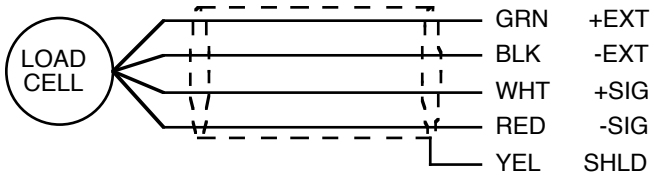
1. Disconnect the load cells from the Junction Box and measure the resistance as shown in figure 1.
2. Any leakage between the leads and the load cell case is usually caused by water leakage into the cell or by water in a damaged load cell cable.
3. If a load cell does not pass the above resistance tests, replace it with a known good one.

B. Load Cell zero shift test:

1. Remove load cell from Weigh Assembly.
2. Connect a DC power supply of 5 volts to the Green (+) and Black (-) load cell leads.
3. The measured output between the White (+) and Red (-) leads should be less than 5 millivolts.
4. An output signal greater than 5 millivolts indicates a zero shift caused by mechanical overload.
5. If the output signal is between 5 and 15 millivolts, the load cells zero has shifted, but will probably still continue to work.
6. If the output signal is greater than 15 millivolts, the load cell should be replaced with a known good one.

NOTE: If the load cell's zero has shifted due to a mechanical overload, the reason for the over load should be determined before new load cell is installed.

LOAD CELL WIRING



LOAD CELL RESISTANCE CHECK

	BK2
GREEN TO BLACK	1100 ±50 Ω
WHITE TO RED	1000 ±2 Ω
RED, BLACK, GREEN, WHITE OR YELLOW TO CASE	200 MEGOHMS

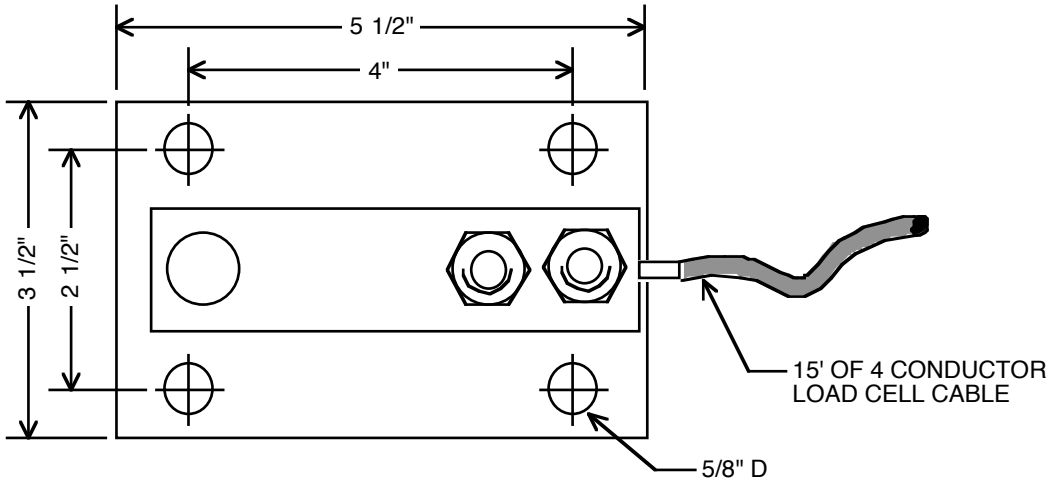
LOAD CELL VOLTAGE CHECK (WITH 5V EXCITATION)

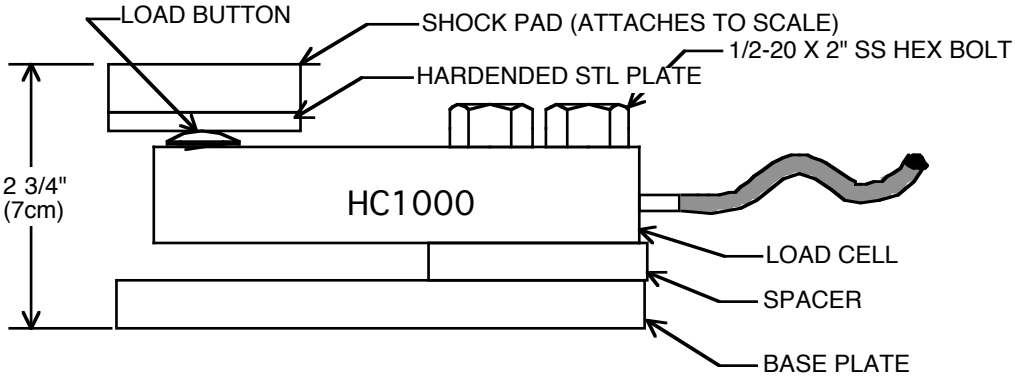
BLACK TO RED	+2.5V (EXCITATION /2)
BLACK TO WHITE	+2.5V (EXCITATION /2)
BLACK TO GREEN	+5V

LOAD CELL OUTPUT

WHITE TO RED	LESS THAN ± 5 MILLIVOLTS (NO DEAD LOAD) LESS THAN 25 MILLIVOLTS (exact output voltage depends on dead load weight)

HC 1000 DATA SHEET GRAPHICS





Notes:

1. Kit Furnished With 15' Of Cable.
2. Kit Suitable For Installations Up To 4 Ton Containers.
3. Height Adjustable From 7cm min. To 8cm Maximum.