CAKE FEEDER SCALE KIT
CAF9100

SCALE KIT INCLUDES
- 1 -- DIGITAL SCALE DISPLAY
- 1 -- SCALE CONNECTION MODULE
- 4 -- SCALE BEAM ASSEMBLIES

The Digital Scale Display and the Scale Connection Module are connected together before the unit is shipped.

The Scale Beam Assemblies include:
- 1, Scale Beam with wire harness
- 1, Spacer
- 2, 1/2" x 2.5" Hex Bolts
- 2, 1/2" Nylock Nut

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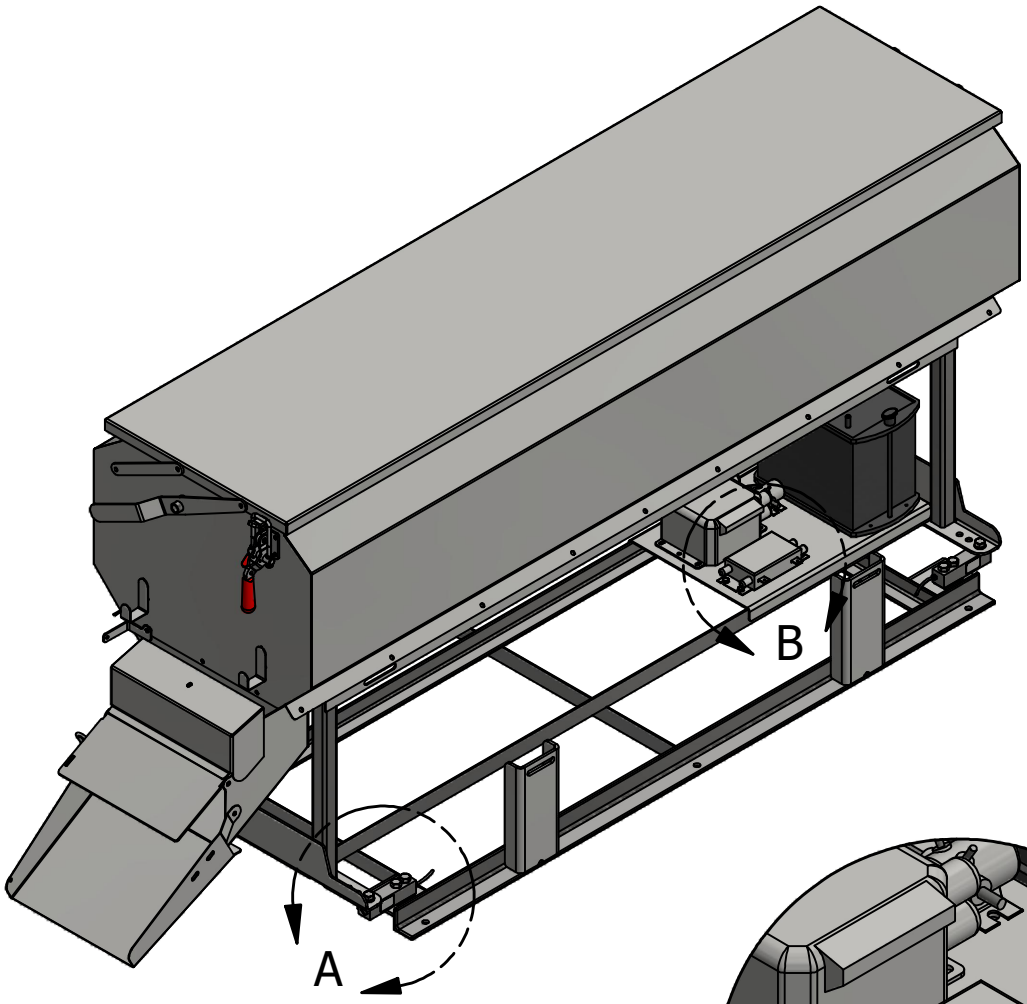
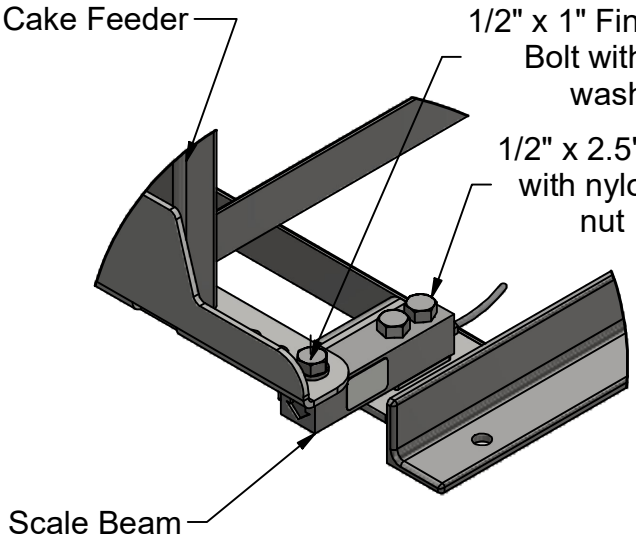
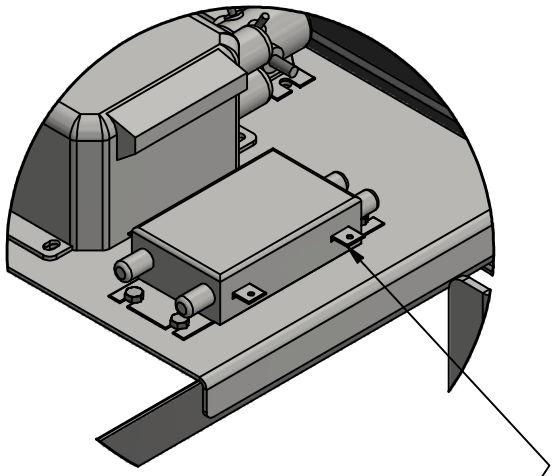
SCALE PARTS LOCATIONS





DETAIL A



DETAIL B

Install components for scale system. Lay wires from the scale beams in a position that is out of the way and can be easily secured to Cake Feeder scale frame to prevent accidental breakage. Scale beams are mounted as shown. Cake Feeder will be attached on the top surface of the scale beams.

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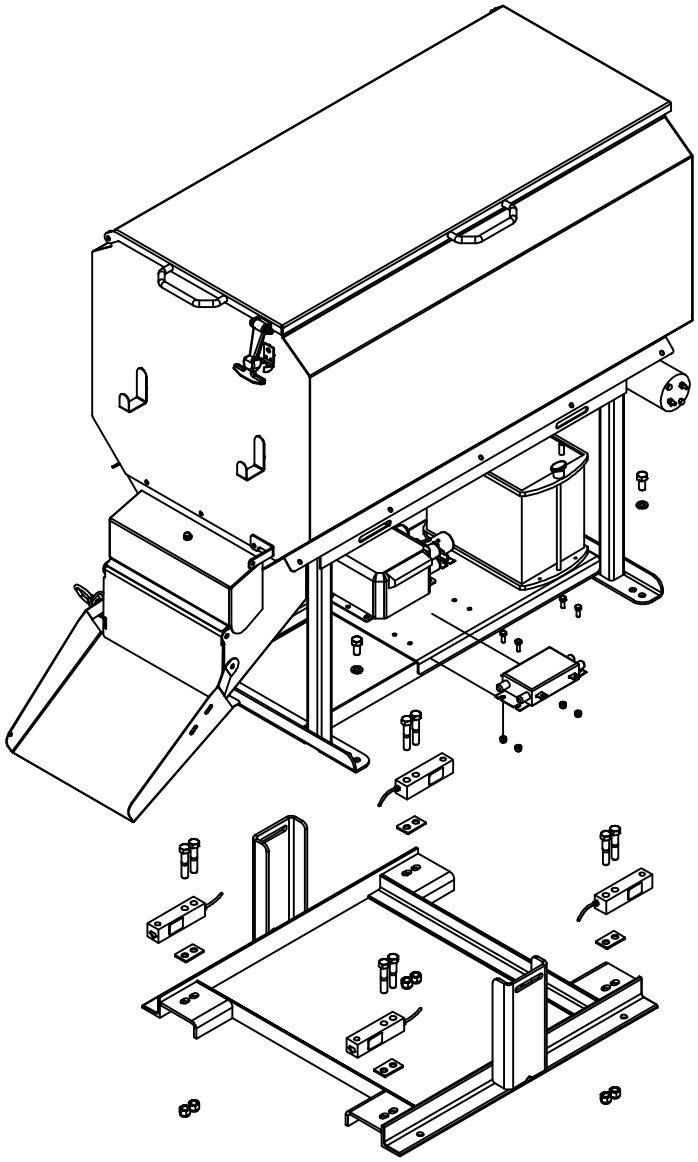
250 AND 500 CAKE FEEDER SCALE SYSTEM

CAF-9102 KIT



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	KF-500	500 Lb Cake Feeder Assembly
2	1	KF-CP-A031	250 500 CF SCALE FRAME
3	4	30310-2k ARTECH Load Cell	Artech Load Cell PN: 30310-2K
4	4	Scale Bar Spacer	SPACER FOR WEIGH BAR FACTORY
5	8	Hex Bolt "1/2" - 2 1/2"" " UNC	Hex Bolt
6	8	Nylock Nut 1/2" UNC	1/2 Std NC Nylock Nut
7	4	Hex Bolt "1/2" - 1"" " UNF	Hex Bolt
8	4	Lock Washer "1/2"	Lock Washer
9	4	Hex Bolt "1/4" - 3/4"" " UNC	Hex Bolt
10	4	Nylock Nut 1/4" UNC	1/4 Std NC Nylock Nut

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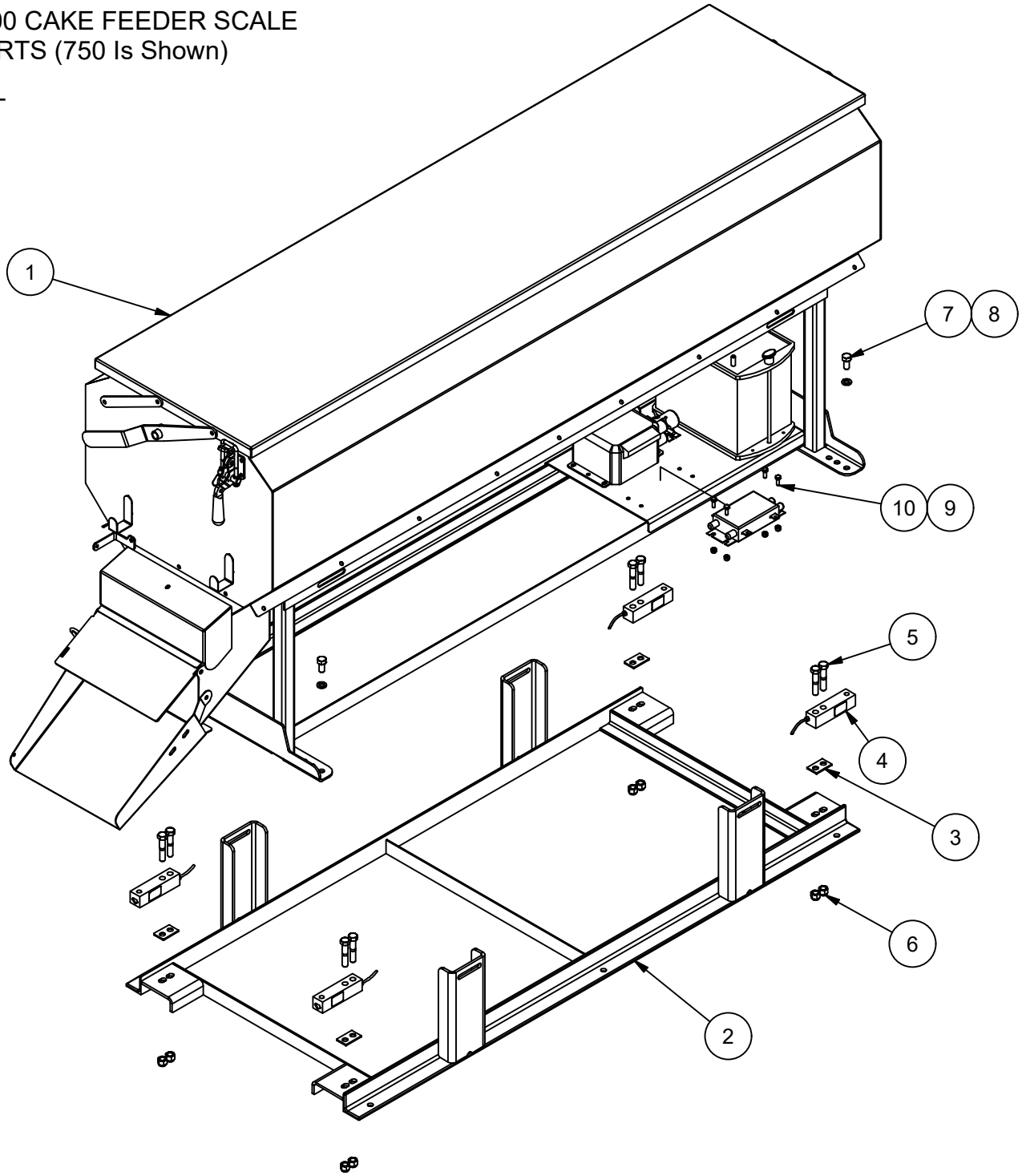
750 AND 1000 CAKE FEEDER SCALE
SYSTEM PARTS (750 Is Shown)

CAF9104-KIT



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	KF-750	750 Cake Feeder Assembly
2	1	KF-CP-A030	750 1000 CF SCALE MOUNT FRAME
3	4	Scale Bar Spacer	SPACER FOR WEIGH BAR FACTORY
4	4	Scale Beam	Scale Beam
5	8	B1/2X2.5	Hex Bolt
6	8	N1/2NYL	1/2 Std NC Nylock Nut
7	4	B1/2X1.0	Hex Bolt Fine Thread
8	4	W1/2L	Lock Washer
9	4	N1/4NYL	1/4 Std NC Nylock Nut
10	4	B1/4X0.75	Hex Bolt

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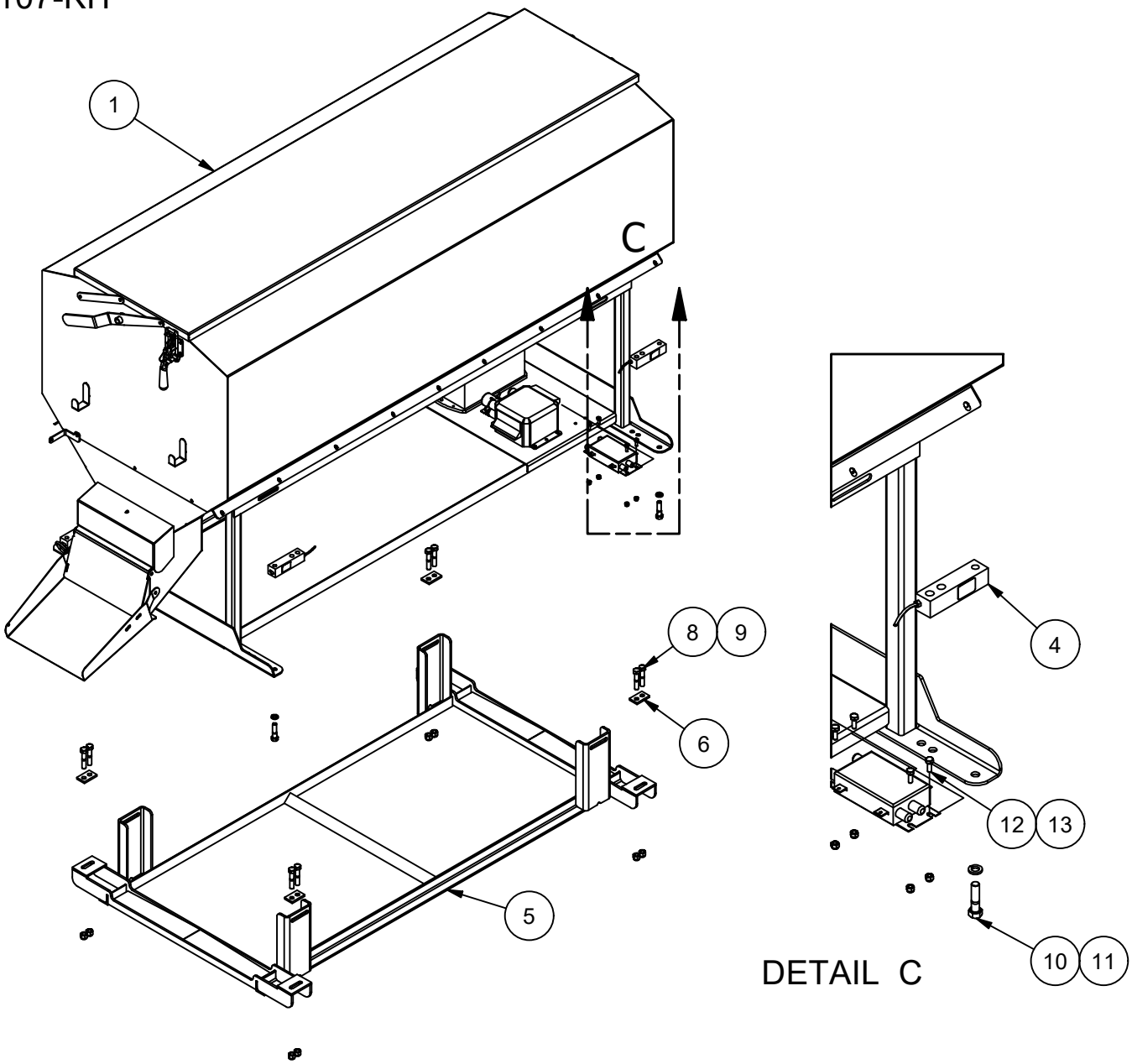
1500 AND 2000 CAKE FEEDER SCALE SYSTEM

CAF9107-KIT



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	KF-1500	1500 Cake Feeder Assembly
4	4	Scale Beam	Scale Beam
5	1	KF-CP-A020	1500 2000 CF SCALE MOUNT FRAME
6	4	Scale Bar Spacer	Spacer for weigh bar (factory)
8	8	B1/2X2.5	Hex Bolt (with Scale Beam)
9	8	N1/2NYL	1/2 Std NC Nylock Nut (with Scale Beam)
10	4	Hex Bolt "1/2" - 2"" " UNF	Hex Bolt
11	4	W1/2L	Lock Washer
12	4	B1/4X0.75	Hex Bolt
13	4	N1/4NYL	1/4 Std NC Nylock Nut

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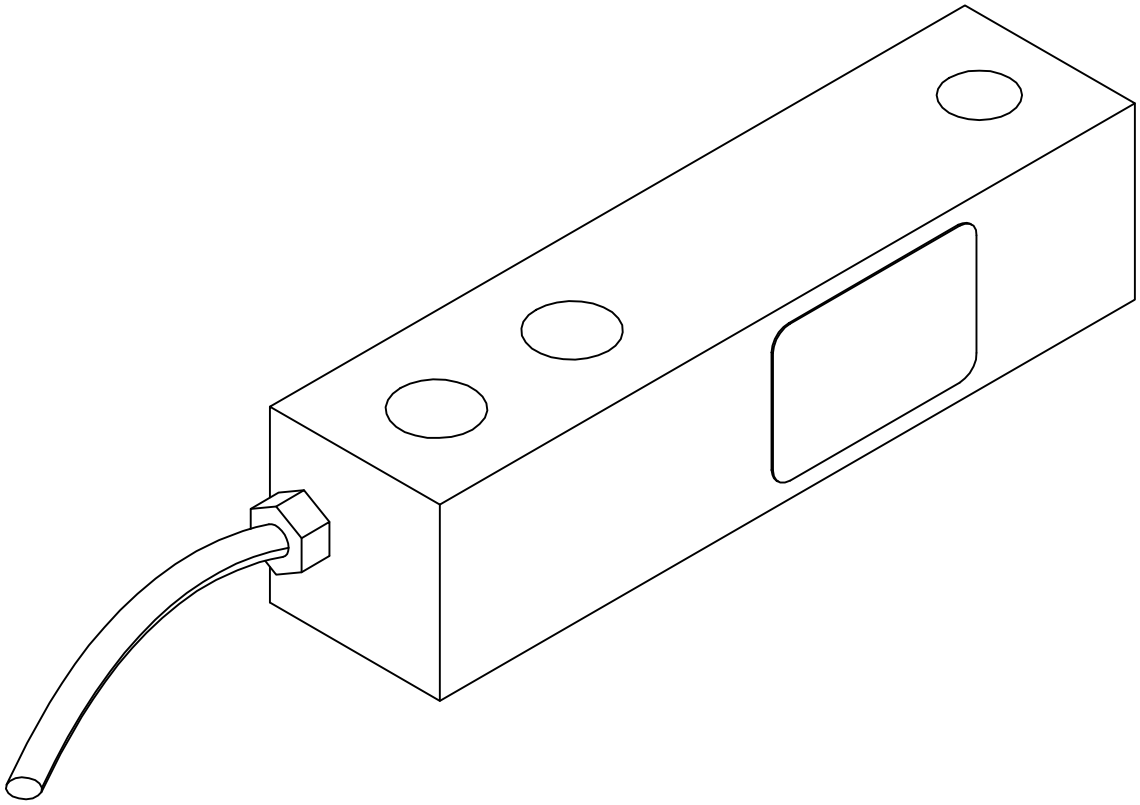
SCALE BEAM



SCALE BEAM WIRING

- RED ..... + EXCITATION
- BLACK ..... - EXCITATION
- GREEN ..... + SIGNAL
- WHITE ..... - SIGNAL

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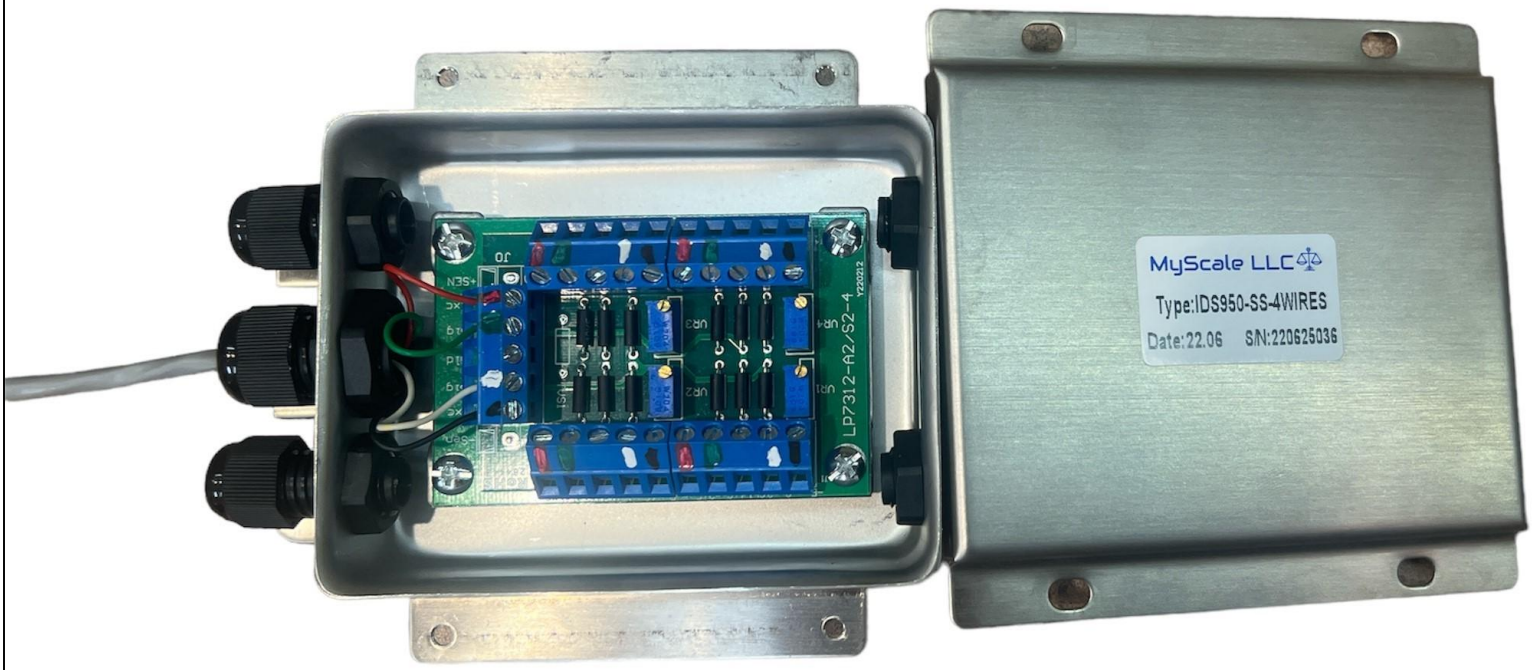
CAKE FEEDER SCALE CONNECTIONS

The scale connection module is shown to the left. Each scale kit will come with one scale module and four scale beams. Remove the cover from the scale connection module to insert the wire looms from the scale beams. The wire looms from the four scale beams will be inserted into one of each of the four open grommets in the scale connection module.



After inserting the wire loom from a scale beam through a grommet, the individual wires will need to be connected to the scale module. The module has been color coded for easy connection. Simply connect the wire to the corresponding color in the scale module or connect the wires to the labeled connection points. Below is the color coded key to the labeled connection points.

- RED ..... + EXCITATION
- BLACK ..... - EXCITATION
- GREEN ..... + SIGNAL
- WHITE ..... - SIGNAL

Each scale beam will be connected to its own area within the scale module. Do not connect two scale beams to the same connection points.

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CAKE FEEDER SCALE DISPLAY PROGRAMMING AND OPERATION INSTRUCTIONS

DIGITAL WEIGHT COMPUTER MODEL TR-1-NK

STANDARD OPERATION FEATURES (MINI295-LBKG-REM SOFTWARE)
This unit has the pounds to kilogram conversion feature
If this feature is enabled, be sure that all calibration is done in pounds.
A second output has been added to provide data to a remote computer or display
Separate from a printer.

ZERO BUTTON:
To bring the scale to a zero balance reading, press the ZERO button. The button will not activate if the MOTION lamp is on.

NOTE: On battery powered units, hold this button to turn the power OFF.

· : Lb/Kg CONVERSION
Push to change between lb and kg display modes. Each time the button is pushed, the tare weight will be automatically cleared.
NOTE: This is the power ON button for battery powered units

GROSS NET:
Press the GROSS/NET button to switch between the GROSS weight display mode and the NET weight display mode. The lamp will light to indicate which mode is being displayed.

PRINT:
To activate an optional printer, press the PRINT button. The printer data output will become active when the weight is not in motion or in an overload condition.

TARE:
This button is used to input a TARE weight value. This value is taken automatically taken as the GROSS weight value.

When the weight is stable (no motion), press the TARE button, and hold for one display update. If the gross weight was not a negative value, the tare weight now equals the gross weight and the display will show a NET weight of zero.

MODEL TR-1-NK CALIBRATION INSTRUCTIONS

Parameter Entry:

1. Open the indicator to access the CAL button.
2. Press the CAL button until the display shows------
3. Press and release the NET/GROSS button.
4. The display will show 00--nn (The 00 denotes parameter number 0 and the nn may be any 2 digit number representing the current value set for parameter number 0.
5. To change the value of this parameter, use the PRINT button to go up or use the TARE button to go down.
6. To cycle to the next parameter, press the NET/GROSS button
8. Continue steps 5 and 6 for all parameters desired.
9. When finished, press the CAL. button again to flash ------ and return to the weight display mode.

Parameter List:

0 = LB/KG enable & startup mode.
Set to 0 to disable the lb to kg conversion
Set to 1 to startup in POUNDS mode
Set to 2 to startup in KILOGRAM mode

1 = Sample rate / Update rate.
The sample rate can be set for the desired operation.
Note that having the continuous data output turned on by parameter 9, will slow down the displayed update rate.
Set this to a value between 1 and 7.
1 is the slowest and most stable update rate
7 is the fastest update and can be used when batching or setpoints are being used.

2 = The displayed graduation size. Set at 05 if a graduation size of 5 is required.
Valid settings are from 01 to 50
NOTE: Graduation size of 1 can only be used up to 14,000
Graduation size of 10 can only be used up to 140,000

3 = The overload trip-point in hundreds of graduations +1%
If the scale is to be 2,500 by a graduation of 1, then a setting of 25 would cause the overload to activate at 2,525.
Set to 99 if no overload point is desired.
Set to 00 for a 10,000 graduation overload.

4 = The motion detection window setting. Set this to the number of graduations that will be allowed as a no-motion condition.
For units with battery, this parameter sets the auto-shutoff time period.

5 = Zero tracking amount. This parameter is set to the number of graduations allowed to be auto-zeroed, when the weight is not in motion and is equal or under this setting.

6 = The decimal point position. ie, 02 will cause 0.00

7 = Relay options: Set to 01 to turn ON the solid state relay when it reaches the low limit and turn OFF when it reaches the high limit.
Set to 00 for opposite operation.

# 8 = Second remote continuous output enable.
00 = No remote data output
01 = Gross weight only remote continuous output

9 = Optional / Printer OR Continuous data output
wire cable direct to main board or ask for data output kit. (contains terminal block and strain relief for enclosure.
00= Printer output of displayed weight only to EPSON TM295 or other epson printer.
01= Same as 00 without the EPSON format codes
02= Printer output of gross tare and net with EPSON printer codes.
03= Printer output of gross tare and net without EPSON format codes.
04= ELTRON form recall TARA for displayed weight print
05= ELTRON form recall TARAGTN for gr/tr/nt print
10= Continuous output of displayed weight. 11 is same with a startup delay
12= Continuous output of gross tare and net
20= Continuous output of GROSS weight only

NOTE: IF THE LB/KG CONVERSION IS ENABLED, THEN ASSURE THAT ALL CALIBRATION IS DONE IN POUNDS

Major Test Weight Calibration:

This procedure is done to set the initial calibration.

1. Open the unit to access the CAL button.
2. Press the CAL button until the display shows. ------
3. Press and release the TARE button.
4. The display will be in the calibrate mode.
5. Assure there is no weight on the scale and press ZERO to remove the dead load.
6. When the display is zeroed, load the known weight on the scale.
7. Press the * button to reset the calibration to the starting point.
8. Press the PRINT button to increase and TARE to decrease until the display is as close to the correct weight as you can get it. (Note: the display will jump in large amounts in the beginning and by pressing the NET/GROSS button, causes it to jump in lesser increments.)
9. If the display is showing the correct weight, go to step 11
10. Press and release the NET/GROSS button to flash ------ to step down to a lesser increment, then go to step #8.

11. If the display is showing the correct weight, press the CAL button to flash ------ and exit to the normal weigh mode.

Minor Calibration Adjustment

This procedure is done to make minor adjustments to the calibration.
NOTE: This can be done with the known weight already on the scale

1. Open the unit to access the CAL button.
2. Press the CAL button until the display shows. ------
3. Press and release the TARE button.
4. The unit is now in the calibration mode.
5. If the test weight is not on the scale and the weight reading is not zero, then press the ZERO button to zero off the dead load.
6. Put the known weight on the scale if necessary.
7. The display will show the gross weight.
8. To make minor corrections:
   Hold in the PRINT button to go UP
   Hold in the TARE button to go DOWN.
9. When the weight is correct, press the CAL button again to flash ------ and return to the normal weigh mode.

LOAD CELL CONNECTION

ASSURE THAT THE LOAD CELL SIGNAL IS POSITIVE. A NEGATIVE SIGNAL WILL NOT REGISTER.

LOAD CELL TERMINAL (BACK VIEW LEFT HAND SIDE)

		COLOR CODE	ALTERNATE
PIN 1 =	NEG EXCITATION	BLACK	BLACK
PIN 2 =	POSITIVE EXCITATION	GREEN	RED
PIN 3 =	POSITIVE SIGNAL	RED	GREEN
PIN 4 =	NEGATIVE SIGNAL	WHITE	WHITE
PIN 5 =	SHIELD	REVERSE SIGNAL LINES IF SCALE OPERATES BACKWARDS	

DATA OUTPUT CONNECTION

*** STANDARD OUTPUTS ***
(DB9P CONECTOR)

PIN 5 ---- DATA GROUND
3 ---- DATA OUTPUT

Terminal block 1 Gnd
2 Main port set by parameter 9
3 Second port set by parameter 8

PRINTER OUTPUT:
Set parameter number 9 for the printer type or continuous data output.
Set for single line of displayed weight or gr/tr/nt
NOTE: For ELTRON printers, use the "Create-a-Label" program to setup the label. Then name the label TARA or TARAGTN and set parameter 9 accordingly. A sample format of these two labels can be sent via email or on diskete upon request.

Baud rate 9600
8 data bits 1 stop bit no parity

In continuous output mode, the data string starts with the addition of a STX (Start of text) character at the beginning

Slave indicator output OPTION:
If a slave model RM-SE is attached, it can read the gross or net weight from the main indicator. Be sure to set the slave parameter #8 accordingly. (for example, disable the slave tare through parameter 8 if it will be receiving NET weight)
Terminal #1 ground
Terminal #2 data
The data stream is a combination of binary and ascii data and is not easily read by a computer.

Second continuous data output enabled by parameter #8
Data sent on this port is continuous at 9600 baud 8 data 1 stop no parity
The data stream is
STX / Sign or Space / 5 to 7 weight digits depending on dead zero and decimal point setting /L for lb or K for kg / G for gross / M of motion or a space / CR /LF
Terminal #1 ground
Terminal #3 data