

## CB-1 Concrete Batch Controller Dual-Scale Automated Batching System



PART #	DESCRIPTION
43267	..... CB-1 Concrete Batch Controller, 115 VAC
45093	..... CB-1 Concrete Batch Controller, 230 VAC
45095	..... CB-1 Concrete Batch Controller without indicators, 115 VAC
45094	..... CB-1 Concrete Batch Controller without indicators, 230 VAC

A digital batch controller provides dual-scale control in this automated concrete batching system. Two high-quality Rice Lake weight indicators—one for each hopper—gather weight data used to control the release of four separate aggregates and three cements.

The system also controls water addition and six admixtures by monitoring a pulse from a flow meter. Configurable formula setup and user-definable inputs and outputs allow full control of the batching routine.

### Applications

- Automated concrete batching applications
- Ready-mix plants
- Concrete block plants

### Standard Features

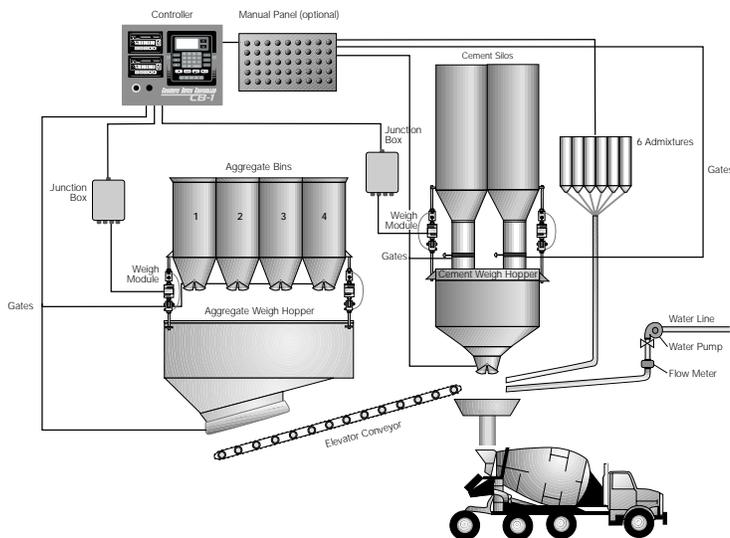
- Controls for 3 types of cement, 4 aggregates, 6 admixtures, 1 metered water control
- Two-speed concrete batching
- Real-time display of batch status
- NEMA 4 mild steel enclosure
- User-friendly backlit touchscreen interface with 32-key tactile membrane keypad
- OPTO 22 G4 I/O module outputs
- Opoisolated inputs
- Gross/net weighing modes
- 100 mix designs
- Autolearn preact algorithms
- Advanced self-test screen
- RATTLETRAP® vibration control
- Configurable ingredient setup
- Reporting includes batch and material usage reports
- Safety interlocks
- System alarm output
- Adjustable control of cement and aggregate inching gates
- Moisture compensation for aggregates
- Controls for cement and aggregate vibrators
- Automatic discharge rate control

### Options/Accessories

- 48418 ..... PC program to upload/download parameter files
- 45045 ..... Additional installation/operation manual

*Consult factory for these additional options:*

- NEMA 4X stainless steel enclosure
- Audible alarms
- Manual panel
- Weighed water control
- Simulator
- Moisture probe
- Printer cable



(Specifications on back)

**LOAD CELL EXCITATION (PER INDICATOR):**

10 ± 0.5 VDC, 6 x 350-ohm load cells or 12 x 700-ohm

**LOAD CURRENT:**

175 mA maximum (6 350-ohm load cells)

**INTERCONNECTION CABLE REQUIREMENTS:**

6-wire selective (jumpers required on sense leads for 4-wire)

**ANALOG SIGNAL INPUT RANGE:**

0.6 mV/V - 3.9 mV/V

**ANALOG SIGNAL SENSITIVITY:**

0.3 microvolts/graduation minimum  
Legal-for-trade recommended minimum 1 microvolt/graduation

**INPUT OVERLOAD:**

±12V continuous, static discharge protected

**CONVERSION RATE AT FULL SCALE:**

50/second, typical

**RESOLUTION:**

Selectable up to 60,000 displayed graduations  
Approximately 1,000,000 graduations internal

**DISPLAY INCREMENTS:**

1, 2, 5

**UNDERRANGE BLANKING:**

-2 mV signal nominal

**OVER/UNDER CAPACITY ANNUNCIATION:**

Overload displayed as: ---  
Underload displayed as: ---

**LEAD ZERO BLANKING:**

Standard, per NIST H-44 requirements

**DISPLAY:**

0.55" 7-digit VFD weight displays,  
5" x 2.5" backlit graphic LCD process display

**POLARITY INDICATION:**

" - " sign

**DECIMAL POINTS:**

8888888, 888888.8, 88888.88, 8888.888, 888.8888,  
88.88888, 8.888888, 8888800, 8888880

**LB/KG SWITCHING:**

Front-panel push button

**FRONT-PANEL KEYPAD:**

32-key membrane keypad

**FRONT-PANEL ANNUNCIATORS:**

Motion, Center of Zero, Units

**SERIAL OUTPUT:**

"Printer" port, duplex RS-232  
"PC" port, duplex RS-232/RS-485

**OPTOISOLATED INPUTS:**

20 inputs

**RELAY OUTPUTS:**

40 outputs

**AZM APERTURE:**

±1.9% of selected full scale capacity or 100%, internal selectable

**DIGITAL FILTERING:**

Standard range software selectable

**MOTION BAND:**

1, 2, 3, off

**MOTION TIME SENSITIVITY:**

Fixed at 1 second

**POWER:**

Line voltages: 115 VAC +10%/-15%  
Frequency: 50 or 60 Hz  
Indicator Fusing: 100-120 VAC-2 x 0.25A SB (UL/CSA) 5 x 20mm  
220-240 VAC-2 x 0.125A (IEC 127) 5 x 20mm  
Output Controller Fusing: 3A TS5 Fastact fuse

**OPERATING TEMPERATURE:**

14°F to 104°F (-10°C to 40°C)

**PACKAGING:**

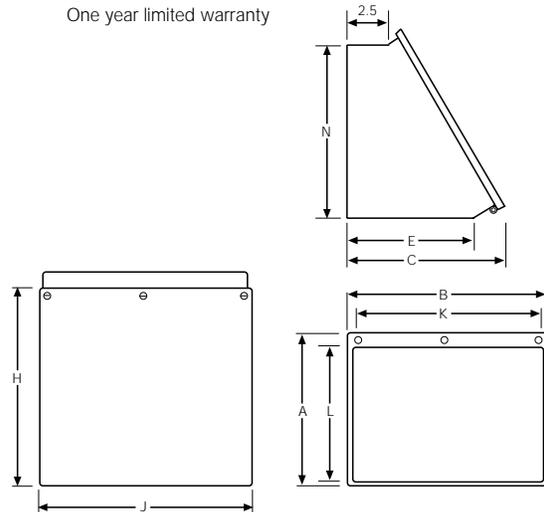
Enclosure: NEMA 4 painted mild steel  
Weight: Approximately 45 lb (20.4 kg)

**APPROVALS:**

NTEP certified Class III/IIL, CC# 98-156

**WARRANTY:**

One year limited warranty



**DIMENSIONS**

A = 20.00" (508mm)	J = 24.28" (617mm)
B = 24.00" (610mm)	K = 22.62" (575mm)
C = 13.09" (332mm)	L = 18.62" (473mm)
E = 11.62" (295mm)	N = 18.00" (457mm)
H = 20.28" (515mm)	