

# Model CS Crane Scale

## User Instructions

### 1.0 General Information

Thank you for purchasing the Model CS crane scale. Please read all operating instructions carefully before using and note the following safety items:

- Do not overload the scale. This will damage the loadcell and void the warranty.
- Do not leave weights hanging from the scale for long periods. This could decrease the accuracy of the scale and shorten the life of the loadcell.
- Inspect the shackle and hook regularly.
- Check the battery visually periodically and recharge as needed.
- To maximize battery life, charge it periodically, with the included charger, when not in use for long periods of time
- Do not attempt to repair the scale if you have a problem. Contact your local Salter Brecknell representative.

### 2.0 Battery and Recharging

To save battery power, the unit will enter a low power mode after a few minutes of stable weight reading. During low power mode, the display will show a flashing segment in the right most part of the display.

If there is no scale activity within 60 minutes, the scale shuts off completely.

When you first receive your scale, plug the AC adapter into a properly grounded 120VAC outlet and plug the charging jack into the receptacle at the top of the scale on the back panel. The red light should come on next to the receptacle to show that charging is taking place. When the light turns green the battery is fully charged.

Battery life should be at least eight hours after charging.

### 3.0 Key Functions and Annunciators

The Model CS has keys on the front panel and a remote control with keys for more functions. In this manual, instructions that include key names will refer to front panel keys unless **RC** precedes the key name. That will mean the key being referred to is the remote control key of that name.

Figure 1.1 shows the front panel of the scale.



Figure 1.1 Model CS front panel

Figure 1.2 shows the remote control keypad.

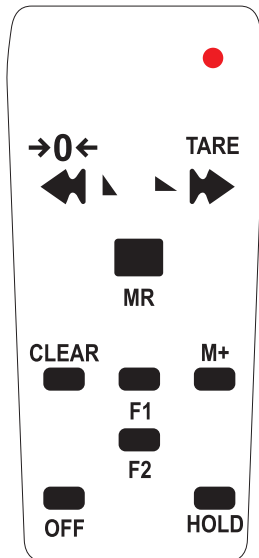


Figure 1.2 Remote control keypad

Below are the functions of each of the keys:

- ON/OFF** Press to turn the unit on. Press and hold to turn the unit off.
- TARE** Press to tare the weight of a container from the scale. The tare light will illuminate and the display will show net weight. **Warning: Be sure total weight of the container and the contents does not exceed the capacity of the scale.**
- ZERO** Press to zero weight from the scale. You can zero up to 75% of the scale capacity. **Warning: Be sure total weight does not exceed the capacity of the scale.**
- RC 0** Press this remote control key to zero the scale. This is also used when entering a known tare weight. See “Entering a Known Tare Weight With the Remote Control” on page 5.
- RC TARE** Press this remote control key to tare the weight of a container on the scale. See “Performing a Tare Weighment” on page 4.
- RC MR** Press this remote control key to access several scale functions. See “Scale Operation” on page 4.
- RC CLEAR** Press this remote control key to clear the accumulator. See “Clearing the Accumulator” on page 7.
- RC M+** Press this remote control key to add the displayed weight to the memory accumulator. See “Performing, Viewing and Clearing Weight Accumulation” on page 6.
- RC F1** Press this remote control key as part of viewing the battery voltage level. See “Viewing Battery Voltage” on page 7.
- RC F2** Not used at this time.
- RC OFF** Press and hold this remote control key to turn the scale off.
- RC HOLD** Press this remote control key to hold the weight on the display even after the weight is removed from the scale. Press this key again to cancel the hold function. Also used when changing the unit of measure. See “Changing Unit of Measure” on page 7.

In addition to keys, the front panel has annunciators; small lights next to words that light when that function is active. Each is described below:

- HOLD** This lights when the hold function is active.
- STABLE** This lights when the weight on the scale is stable.
- Center of Zero** This lights when the weight on the scale is zero.
- lb** This lights when pounds is the unit of measure.
- kg** This lights when kilograms is the unit of measure.
- TARE** This lights when a tare is active. Net weight is displayed when this annunciator is lit.

## 4.0 Scale Operation

1. Turn the scale on using the **ON/OFF** key on the front panel...  
The unit will beep and the display will do a startup test, show the capacity, the battery voltage and then display **0.0** weight.
2. Apply the load to the hook at the bottom of the scale...  
The weight is displayed.
3. Remove the weight...  
**0.0** is displayed.
4. Repeat steps 2 and 3 to weigh the next object.

### Performing a Tare Weighment

1. With the scale on and showing **0.0** weight, hang the load to be tared from the hook...  
The gross weight is displayed.
2. Press the **TARE** or **RC TARE** key...  
The *TARE* annunciator lights and **0.0** is displayed.
3. Apply the load to be weighed on the hook...  
The net weight is displayed.
4. Remove the net load and repeat step 3 to weigh the next object.
5. To cancel a tare, remove all weight from the scale and press the **TARE** or **RC TARE** key...  
The *TARE* annunciator turns off and the display shows **0.0** weight.

## Entering a Known Tare Weight With the Remote Control

You can key in a tare weight before placing an item on the scale by using the remote control. Follow these steps:

1. With the scale on and showing **0.0** weight, press the **RC MR** key...  
**SHIFt** is displayed.
2. Press the **RC TARE** key...  
**0000.0** is displayed with the left digit flashing. This is a prompt for you to enter a known tare weight.
3. Press the **RC TARE** key to move the flashing digit to the right. Press the **RC M+** key to move the flashing digit to the left. When the digit you want to change is flashing, press the **RC 0** key...  
The digit will increment each time you press the **RC 0** key.
4. Repeat step 3 until you've finished entering the known tare value. Press the **RC MR** key to accept this value and return to net weighing mode...  
The **TARE** annunciator lights and the value you entered is displayed as a negative number.
5. Hang the container, of the known tare weight you've entered, from the hook...  
**0.0** is displayed.
6. Place the load to be weighed into the container...  
The net weight is displayed.
7. To cancel the tare, press the **TARE** or **RC TARE** key. Repeat the process as needed.

## Using the HOLD Function

To hold a weight display after the load is removed, use the Hold function described below.

1. With the scale on and showing **0.0** weight, hang the load from the hook...  
The gross weight is displayed.
2. Press the **RC HOLD** key...  
The scale beeps, the **HOLD** annunciator lights and the gross weight is still displayed.
3. Remove the load from the hook...  
The display remains unchanged. The weight will remain on the display until you press the **RC HOLD** key again.
4. Repeat steps 1 through 3 to perform another hold weighing.

## Performing, Viewing and Clearing Weight Accumulation

You can accumulate displayed weight to a memory channel. The minimum weight that can be accumulated each time is 10 lb / 4 kg. **Err 10** will be displayed if you try to accumulate a weight less than the minimum.

You can view the accumulation data by using the remote control. You can see the last accumulated weight, the number of weighments accumulated and the total weight accumulated.

**Remember, a new weight cannot be added to the accumulation memory until the previous weight has been removed from the scale and the display has dropped to 0.**

1. With the scale on and showing **0.0** weight, hang a load greater than the minimum (10 lb / 4 kg) from the hook...

The gross weight is displayed.

2. To accumulate the weight, press the **RC M+** key...

As the weight is accumulated to memory the scale beeps, **no 001** is displayed, then **HXXXX** is displayed briefly then **LXXX.X** is displayed. These displays repeat and then the scale returns to normal weighing mode with the current weight displayed.

**no 001** is the number of accumulations done so far.

The **HXXXX** is the first four digits of the accumulated weight. **LXXX.X** is the last four digits of the accumulated weight. For example, if you had accumulated 615.5 lbs, the display would show **H0000** then **L615.5**.

3. Remove the weight from the scale and repeat steps 2 and 3 for each weighment you want to accumulate.

### To View the Accumulated Weight Information

Once you've accumulated weight to memory you can view the information by following these steps:

1. With weight accumulated, press the **RC MR** key...

**SHIFt** is displayed.

2. Press the **RC M+** key...

The display will continuously cycle through the following information:

The number of accumulated weighments.

The last accumulated weight.

The first four digits of the accumulated weight.

The last four digits of the accumulated weight.

3. Press the **RC MR** key to cancel the cycling of information and the scale returns to normal weighing mode.

## Clearing the Accumulator

1. To clear accumulated weight from the scale, press the **RC CLEAR** key...  
**CLr** is displayed.
- 2a). To exit without clearing the accumulator, press the **RC CLEAR** key again.  
**no CLr** is briefly displayed and then the scale returns to normal weighing mode.  
**OR**
- 2b). To clear the accumulator, press the **RC MR** key...  
**CLr** is briefly displayed, the accumulator is cleared and then the scale returns to normal weighing mode.

## Changing Unit of Measure

You can change the displayed weight from lb to kg by following these steps:

1. With the scale on, press the **RC MR** key...  
**SHIFt** is displayed.
2. Press the **RC HOLD** key...  
If the unit is in kg unit of measure, the display will show **un=1** briefly, the *lb* annunciator lights, and the scale returns to normal weighing mode with lb as the active unit of measure.  
If the unit is in lb unit of measure, the display will show **un=0** briefly, the *kg* annunciator lights, and the scale returns to normal weighing mode with kg as the active unit of measure.

## Check Number of Overloads

You can check the number of times that the weight applied to the scale has exceeded the maximum limit (9 divisions over full capacity).

1. With the scale on, press the **RC MR** key...  
**SHIFt** is displayed.
2. Press the **CLEAR** key...  
**OL=XX** is displayed. **XX** being the number of times the scale has been overloaded.

## Viewing Battery Voltage

To see the current battery voltage level, follow these steps:

1. With the scale on, press the **RC MR** key...  
**SHIFt** is displayed.

2. Press the **RC F1** key...

*U X.XX* is displayed. This stands for the voltage.

3. Press the **RC MR** key again to cancel the display and return to normal weighing mode.

## Turning the Scale Off

To turn the scale off, press and hold the **ON/OFF** key or **RC OFF** key until the unit beeps. The scale will briefly show the battery voltage and then will turn off.

## Adjusting the Display Brightness

To set the brightness of the display, follow these steps:

1. Press the **RC F1** key...

bL=X is displayed. X stands for the brightness level (X =1 through 5).

2. Press the **RC F1** key to increment the brightness. When the level you want is shown, stop pressing the key and the display will automatically return to normal weighing mode.



## 5.0 Troubleshooting

**Table 1: Troubleshooting Guide**

Symptom	Reason	Solution
No display when turned on	Battery dead or loose contact	Check the battery Tighten the contacts
Display flashes	Low battery	Recharge the battery
Scale won't turn on or off	ON/OFF button damaged	Return unit for service
Scale won't tare	TARE button damaged	Return unit for service
Recharge light does not come on	The recharger may be damaged or it is not plugged into proper outlet	Check the recharger and the connection to the AC power source
Displayed reading changes	The load is unsteady	Stabilize the load
	The loadcell is damaged	Check and replace loadcell
	Humidity too high	Place unit in dry environment
Scale will not show 0	Scale has not had sufficient time to warm up after power up	Let the scale stand for 3-5 minutes after power up before weighing
	Scale has been off the hook for too long	Hang the scale and wait 3-5 minutes
Large weighing error	Scale is not hung properly.	Check the scale and the shackle
Battery won't recharge	Battery is damaged or outlet is not working properly	Replace the battery or check the outlet
Remote distance reduced	Receiver window obscured by soil	Clean receiver window
	Batteries low in remote.	Replace batteries

## 6.0 Display messages

There are several messages which may appear on the scale display. Below is a list of those messages and what they mean.

- Err10** You are trying to accumulate a weight smaller than the minimum required.
- Err11** You are trying to accumulate more than 30 weighments. 30 is the limit.
- Err12** Accumulated weight exceeds 99999. 99999 is the upper accumulated weight limit.
- CLr** This is a prompt to see if you really want to clear the accumulated weight.
- noCLr** This means you aborted the clearing process.
- 8.8.8.8.8.8.** This confirms deletion of the accumulated weight.
- noACC** Displayed when you check accumulated weight and none has been accumulated yet.
- SHIFt** Displayed after pressing the **RC MR** key.
- U X.XX** The current battery voltage.
- OL-** Displayed when the scale is overloaded.
- LB-** Low battery warning.
- OFF** Displayed as unit powers off.

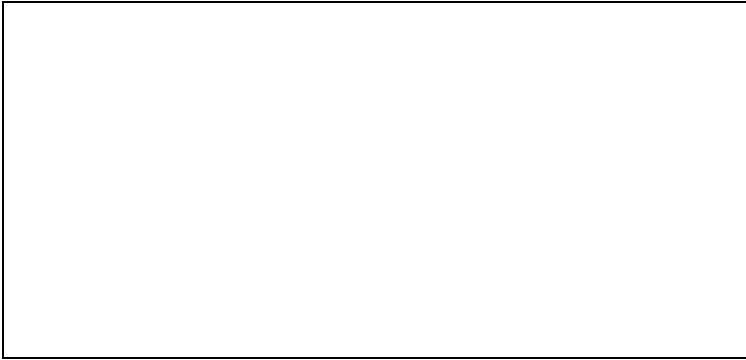
## 7.0 Specifications

<b>Capacity</b>	1000lb x 0.5lb / 500kg x 0.2kg or 2000lb X 1 lb/1000kg x 0.5kg
<b>Display</b>	Five digits, 1.2" / 3cm character height LED
<b>Accuracy</b>	±0.3% of reading
<b>Zero range</b>	4% of full capacity
<b>Tare range</b>	100% of full capacity
<b>Overload</b>	9 divisions over full capacity
<b>Max. safety factor</b>	125% of full capacity
<b>Ultimate load</b>	400% full capacity
<b>Battery life</b>	Approximately 20 hours (room temp.)
<b>Battery type</b>	Sealed lead-acid, 6V / 5Ah
<b>Adapter</b>	DC9V / 1500mA
<b>Operating Temp.</b>	-10° F to 104°F (-10° C to 40°C)
<b>Operating Humidity</b>	≤85% RH under 68°F (20°C)
<b>Remote Distance</b>	Up to 10 yards / meters
<b>Remote Batteries</b>	2 AA Alkaline
<b>Unit Weight</b>	10lb / 5kg
<b>Headroom</b>	17.2inches / 360mm (measured from bearing surfaces on top and bottom hook.

### FCC Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.



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### **CS1000/ CS2000 Crane scale calibration:**

Please note: remote control is needed to do calibration.

- 1) Make sure the crane scale is in LBS.
- 2) Enter Setting by pressing F1 and F2 together on the Remote
- 3) Enter Password P8416; On the remote: 0 key with the two arrows will scroll through your number section and Tare key will advance your digit to the right.
- 4) Select MR to get into calibration
- 5) With no load let scale stable and then select MR
- 6) Select MR
- 7) Load1, please applied 20% of scale capacity if scale is only lite in KG's you will need to do a conversion to lbs.
- 8) Key in the weight being applied by using the Tare and <0>
- 9) Select MR display will go to dashes then select MR
- 10) Load2 please applied 50% of scale capacity if scale is only lite in KG's you will need to do a conversion to lbs
- 11) Key in the weight being applied by using the Tare and <0>
- 12) Select MR display will go to dashes then select MR
- 13) Load3 please applied 100% of scale capacity if scale is only lite in KG's you will need to do a conversion to lbs
- 14) Key in the weight being applied by using the Tare and <0>
- 15) Select MR display will go to dashes then End.

Calibration is finished and turn the crane scale off then on again to recycle the power. Please do your sample weight testing.

You can span different test loads percentage of full capacity (weights) on Load 2 and 3 but keep in mind that you will need to keep increasing in weight. Calibration point 1 needs to be at least 20% of capacity of total crane scale capacity.