

Road Weigher

MODEL : RW Series

OWNER'S MANUAL

(kg/lb Version)

CAS



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1. Introduction

We greatly appreciate your purchase of CAS Road Weigher, which is used for displaying the value of weight loaded on each shaft of vehicle.

These goods have hold excellent performance and splendid properties through strike tests as well as devoting ourselves under severe quality management.

Also, it is programmed on the basic of the user's convenience help display functions to be used easily.

Before using road Weigher, It is recommended to read this manual carefully and to apply the function application fully.

■ CAUTIONS

- ◆ Do not press the keys hardly, for the keys are in operation with soft touch.
- ◆ Do not use ignitable material for cleaning.
- ◆ Avoid sudden temperature change.
- ◆ Do not install Road Weigher in a place with high voltage and excessive electrical noises.
- ◆ Keep it in dry place.
- ◆ Do not use at the place with excessive electrical noises and vibration.





2 . Feature

- ◆ small size & Slim(height 60mm) type
- ◆ built in high accuracy loadcell



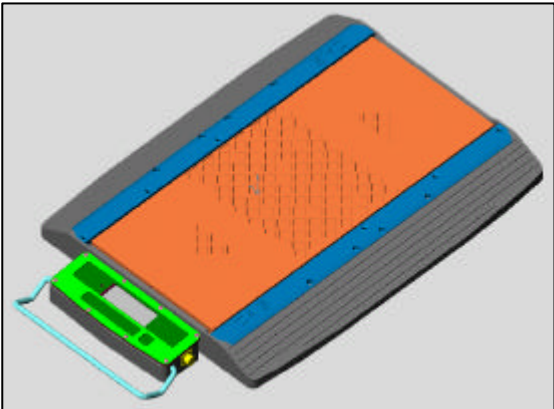


3. Technical Specification

◆ Overview

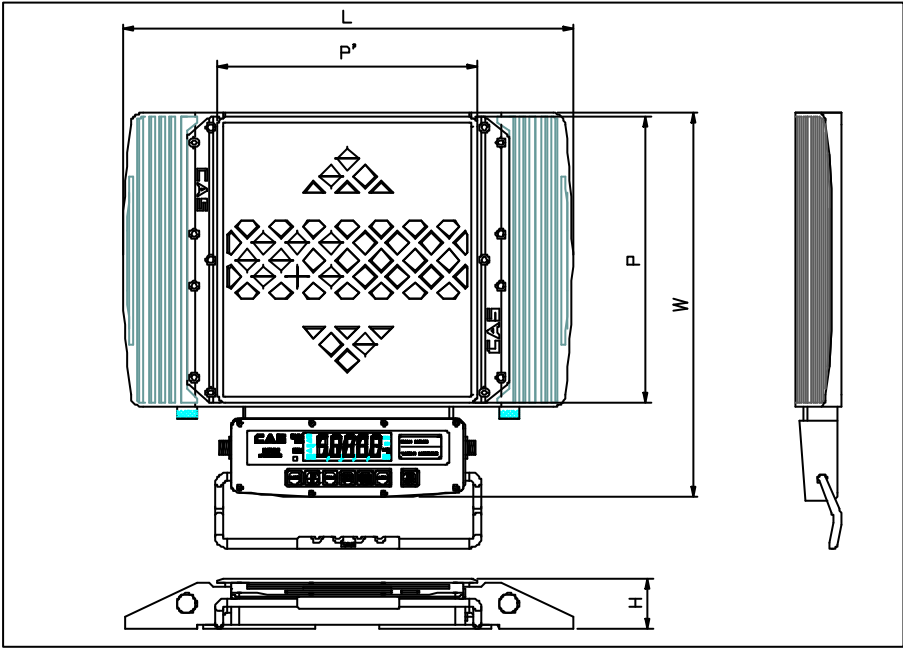


RW-S TYPE



RW-L TYPE

◆ Dimension

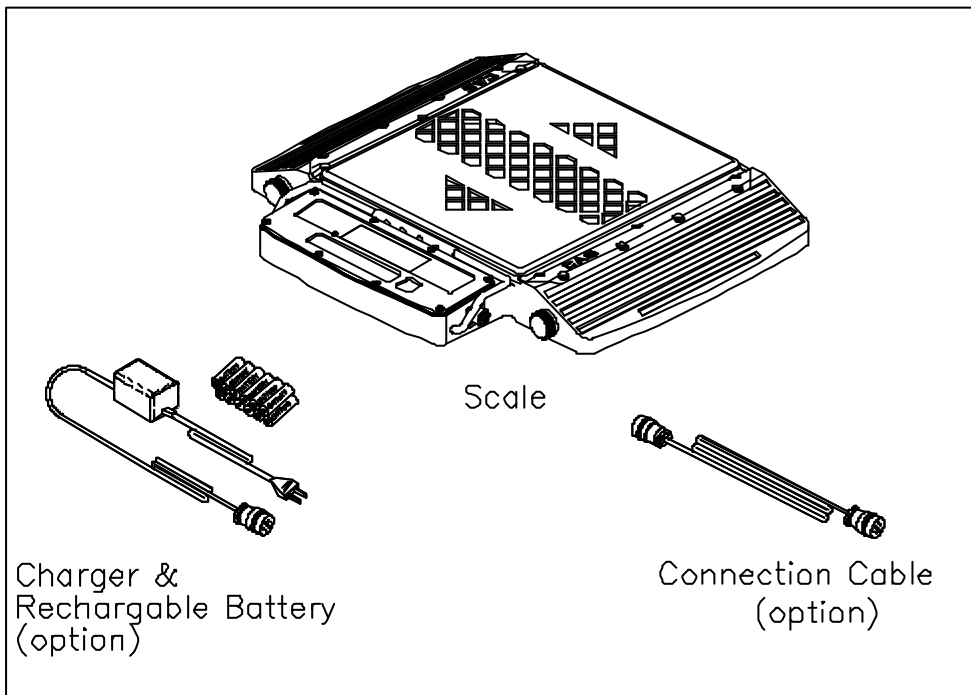




◆ Specification

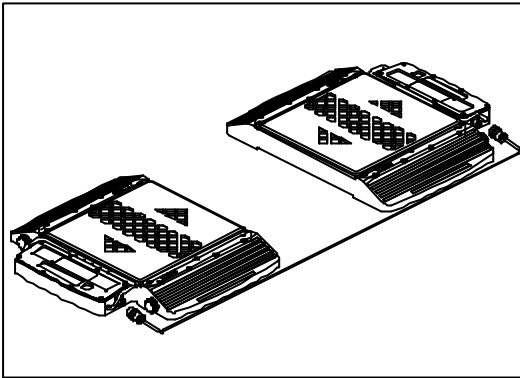
MODEL	RW-02S	RW-05S	RW-10S	RW-05L	RW-10L
MAX. CAPACITY	2,000kg	5,000kg	10,000kg	5,000kg	10,000kg
MIN. DIVISION	1kg	2kg	5kg	2kg	5kg
ACCURACY	0.1%				
SIZE	P× P'	340× 310		340× 600	
	W	458		718	
	L	536		566	
	H	60		60	
POWER	NORMAL	1.5V AA size 12EA			
	OPTION	DC7.2V 2.6Ah BATTERY (AA size 12EA) (AC 110V/220V Include Charger)			
RUNING TIME	20hour (only charging battery,charging time 8hour)				
DISPLAY	5digit LCD (height 25mm)				
TEMPERATURE	-10℃ ~ 40℃				

◆ Product

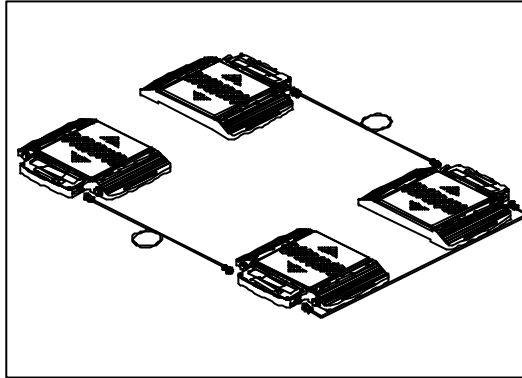




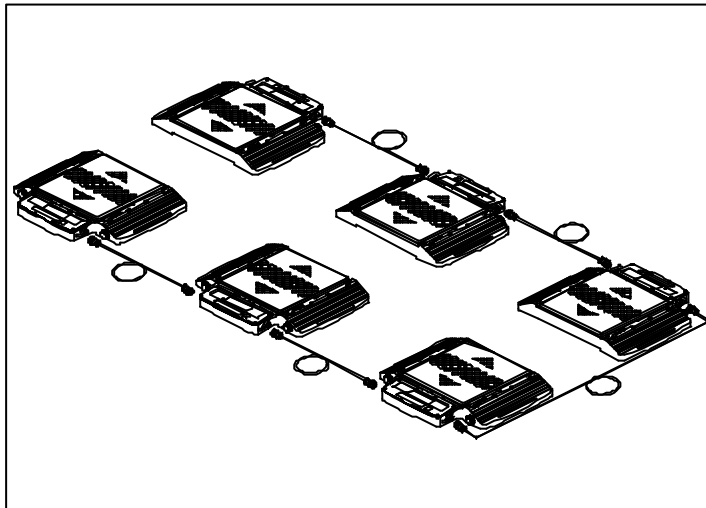
4. Connection for scales



for 2 scales



for 4 scales



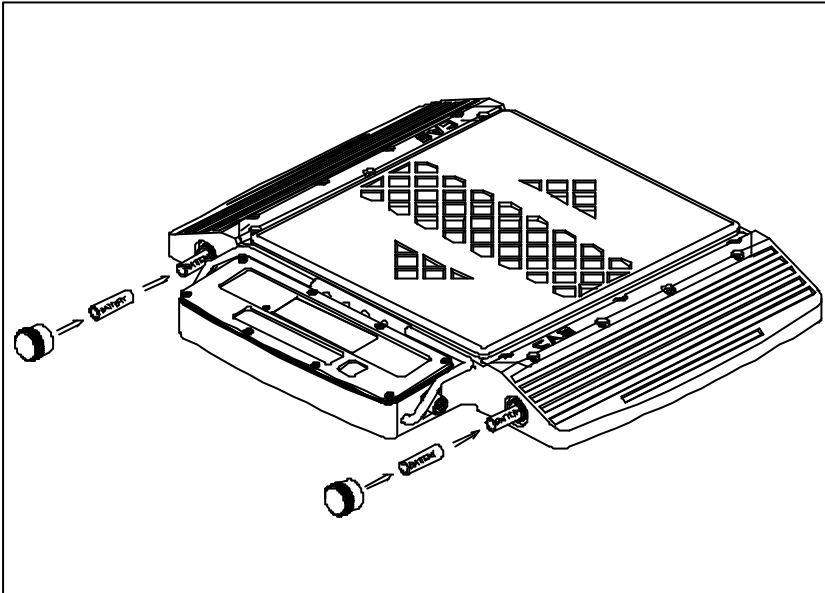
for 6 scales



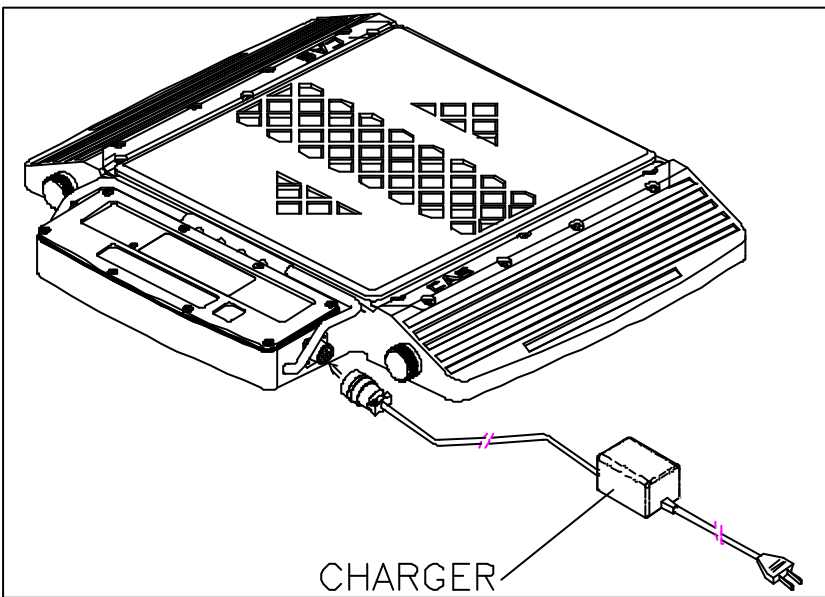


5. Charging

◆ changing battery

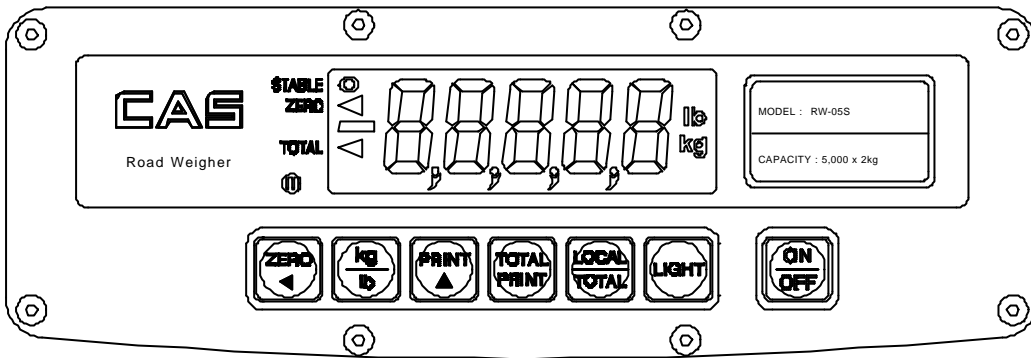


◆ Charger Connection

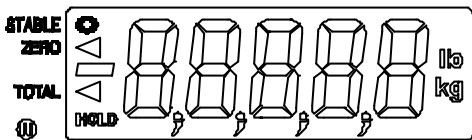




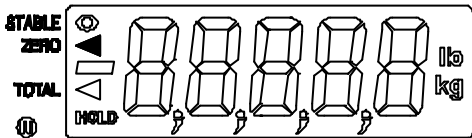
6. Front Panel Description



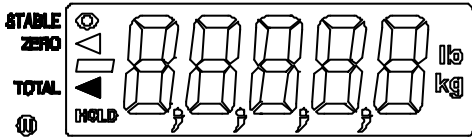
■ DISPLAY




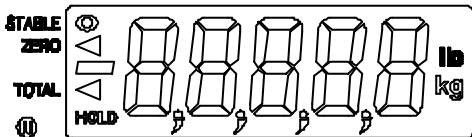
STABLE : lights up when the weight to be in stable condition.



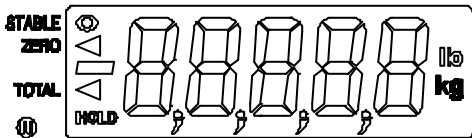
ZERO : lights up when current weight is 0 kg.



TOTAL : lights up when press 



lb : current weight is lb



kg : current weight is kg





■ KEY



ZERO key : Used to return the display to the center of ZERO when the platform is empty



kg/lb key : Display kg/lb by turn (U.S.A version)



Printer key : Using printer



TOTAL PRINT key: Total weight printer



LOCAL/TOTAL key : Display local weight / total weight by turn




LIGHT key : ON or OFF light by turn




ON/OFF key : power on or off

* How to enter TEST mode

Turn on the Power while pressing the  key and TEST mode starts

* How to enter SET mode


Turn on the Power while pressing the  key and SET mode starts





7 . Test Mode

(1) HOW TO ENTER

Press the "ON/OFF" key while pressing the  key and TEST menu starts.

(2) AVAILABLE KEYS



Key : Increase the first place set value to 1



Key : Move to the left by 1 place of the set value.



Key : Move into next menu.

(3) Test Menu(TEST 1 - TEST 5)

Test 1 : Key test

Test 2 : LCD display test

Test 3 : Load cell test and A/D conversion test

Test 4 : Serial interface test(RS-232)

Test 5 : Printer test

TEST 1

FUNCTION : Key test		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT key : Next menu	tEST1 1	Test 1 condition
Other key : Perform test		Press the key to be test and the no. and code of the key is displayed.

< Key Code >

key	CODE	KEY	CODE	KEY	CODE
ZERO	1	TARE	2	GROSS/NET	3
PRINT	4	*	5	LIGHT	6





TEST 2

FUNCTION : LCD display test		
KEY	LCD DISPLAY	DESCRIPTION
	tEst2 88888	Test 2 condition Test 2 is performed automatically.

REF 1. Program is automatically shifted to menu selection mode after completing

TEST 3

FUNCTION : Load cell test and A/D conversion		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT key: Next menu	tEst3 5500	Test 3 condition Display digital value of current weight This value means converted digital value.

REF 1. Check whether digital value is changing
If the digital value is fixed or zero is displayed, please check the connection of the load cell.

TEST 4

FUNCTION : Serial interface test		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT key : Next menu Other key : Perform Test	tEst4	Test 4 condition
	0---0	Wait for transmission and reception
	0---1	transmit : 1, Receive : none
	13--01	transmit : 1, Receive : 13





- REF 1 Do this test after the connection between serial port of computer and serial port of indicator
- REF 2 Send no. 1 in computer keyboard and check if indicator receive no. 1
Send no. 1 in indicator keyboard and check if computer receive no. 1

TEST 5

FUNCTION : Printer test		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT key : Exit test mode	tEst5	Test 5 condition
Other key : Perform	GOOD	No error in printer
	ERRO6	Check printer connector

- REF 1. "GOOD" message is displayed if the printer connector and specification os done correctly. if not, " error 06" message is displayed.
- REF 2. The test output format of printer is like follows.

TEST OK

* PR NTER FORM *

1999. 3. 1	10:15:20
WEI GHT 1	1200 kg
WEI GHT 2	1200 kg
WEI GHT 3	1100 kg
WEI GHT 4	1100 kg


TOTAL	4600 kg





8. Set Mode

(1) HOW TO ENTER

Press the "ON/OFF" key while pressing the  key and TEST menu starts.

(2) AVAILABLE KEYS



Key : Increase the first place set value to 1



Key : Move to the left by 1 place of the set value.



Key : Move into next menu.

(3) SET MENU(F01 - F14)

F01 : Select primary base unit (kg/lb)-U.S.A version

F02 : Designation of serial port usage(RS-232C)

F03 : Automatic Zero Tracking

F04 : Digital filter

F07 : Weight Back-up

F09 : Select the Back Light Mode

F10 : Device ID

F13 : Quantity of scales

F14 : Select option Clock





Select the primary base unit		
F01	0	Primary unit is kg
	1	Primary unit is lb

Serial port usage		
F02	0	Not used
	1	Connection with Serial printer

Automatic Zero Tracking			
F03	0	Not used.	
	1	1 : 0,5 digit	Auto zero tracking will automatically bring the displayed back to "0" when there are small deviations
	~ 9	~ 9 : 4,5 digit	

Digital Filter			
F04	1	1 : Less Vibration	Adjust the set value according to the condition.
	~	~	
	9	9 : Much Vibration	

Select the wight Back-Up mode		
F07	0	Weight Back-up is off
	1	Weight Back-up is on

Select the Back Light mode		
F09	0	Manual Back Light Mode
	1	Automatic Back Light Mode





Device ID			
F10	00	00 :	It is used the no. of indicator when system is connected.
	~	Device ID ~	
	99	99 :	
		Device ID 99	

Quantity of scales		
F13	1	one scale
	2	two scales
	4	four scales
	6	six scales

Select option Clock		
F14	0	Not used
	1	Used

Change Date/Time (Ex. 1999/12/11 13:10:01)		
▲ : Increase of no. ◀ : Shift of digit LIGHT : Store and move into next menu	LCD Display	DESCRIPTION
	C1 99	YEAR : 99
	C2 12	MONTH : 12
	C3 11	DAY : 11
	C4 13	HOUR : 13
	C5 10	MINUTE : 10
	C6 01	SECOND : 01







9 . Ca l i b r a t i o n M o d e


(1) HOW TO ENTER


Open the front cover of RW and Press the "ON/OFF" key while pressing the CAL s/w on the Display PCB.


Another : Turn on the Power while pressing the  key and press

 key and CAL mode starts

(2) AVAILABLE KEYS

 Key : Increase the first place set value to 1

 Key : Move to the left by 1 place of the set value.

 Key : Move into next menu.

(3) Calibration Menu(CAL 1 - CAL 5)

- CAL 1 : Maximum capacity setting
- CAL 2 : Minimum division setting
- CAL 3 : Span weight setting
- CAL 4 : Zero calibration
- CAL 5 : Span calibration

CAL 1

FUNCTION : Maximum Capacity SET		
RANGE --> 1 ~ 99,999 kg/lb		
KEY	LCD DISPLAY	DESCRIPTION
▲ : Increase of no. ◀ : Shift of digit LIGHT : Store and move into next menu	CAL 1	CAL 1 condition
	100	100 kg/lb
	10000	10000 kg/lb

REF 1. The maximum capa. means the maximum weight that scale can measure.





CAL 2

FUNCTION : Minimum Division SET		
RANGE --> 0.0005 ~ 100 kg/lb		
KEY	LCD DISPLAY	DESCRIPTION
▲ : Input the next division. LIGHT : Store and move into next menu	CAL 2	CAL 2 condition
	1	1 kg/lb
	0.01	0.01 kg/lb

- REF 1. The minimum division means the value of one division.
- REF 2. External resolution is obtained by division the min. division by the maximum capacity. Set the resolution to be within 1/10,000.

CAL 3

FUNCTION : Setting Weight In Span CALIBRATION		
RANGE --> 1 ~ 99,999 kg/lb		
KEY	LCD DISPLAY	DESCRIPTION
▲ : Increase of no. ◀ : Shift of digit LIGHT :Store and move into next menu	CAL 3	CAL 3 condition
	100	100 kg/lb
	10000	10000 kg/lb

- REF 1. The weight shall be within the range of 10 % ~ 100 % of maximum weight.
- REF 2. If the Setting Weight is under the 10% of the Maximum Capacity, Error message ("ERR 22") will occur.
- REF 3. If the Setting Weight over the Maximum Capacity, Error message ("ERR 23") will occur.





CAL 4

FUNCTION : Zero Calibration		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT: Zero calibration and Move into next menu.	CAL 4	CAL 4 condition
	ULoAd	Unload the tray and press ENTER
	- - -	Under zero calibration
	GOOD	Zero calibration is completed.

REF 1. If Zero calibration is done without any error, GOOD message is displayed and program moves into CAL 5 automatically.

CAL 5

FUNCTION : Span Calibration		
KEY	LED DISPLAY	DESCRIPTION
LIGHT: Span calibration and Move into next menu.	CAL 5	CAL 5 condition
	LoAd	Load the weight which was set in CAL 3 and press LIGHT.
	- - -	Under span calibration.
	GOOD	Span calibration is completed. Press LIGHT key. (Save & Exit CAL Mode)

REF 1. If Span calibration is done without any error, GOOD message is displayed
The weight of setting weight is displayed on LCD screen.
Check the weight.

REF 2. If the span is low, Error message (ERR 24) is displayed.
Calibrate with lower resolution.





9. Error message and Trouble Shooting

Err 02

- ▣ Reason
Load cell connection failure or error in A/D conversion part.
- ▣ Trouble shooting
Check the load cell connector to see if the polarity of signal is reversed.

Err 06

- ▣ Reason
Error in printer connection
- ▣ Trouble shooting
Check with printer connector
If there is no problem with printer connector, please request A/S to head office.

Err 13

- ▣ Reason
Tare weight exceeds the maximum capacity of the scale.
- ▣ Trouble shooting
Set the tare to be smaller than maximum capacity.
Otherwise the maximum capacity is reset to be larger than the tare to be set in the calibration menu, and reset the calibration using weight.

Over

- ▣ Reason
The weight on platform is too heavy to be measured.
- ▣ Trouble shooting
Do not load cell item exceeds the maximum tolerance.
If the load cell is damaged, the load cell should be replaced.

