Road Weigher

MODEL : RW-2601P

OWNER'S MANUAL

(kg/lb Version)

CAS

Table of Contents

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.

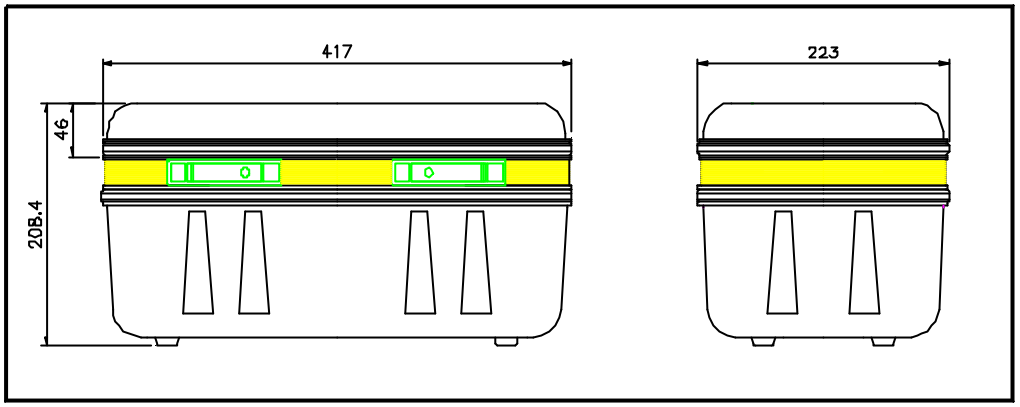
2 . Features

- ◆ Up to 6 axle(P/F) scales
- ◆ Compact size & light weight Box type
- ◆ Built in inner clock for date/time print
- ◆ Built in Printer
- ◆ Built in Battery Charger & Large capacity Battery
  (6V/10A x 2 ea)

3. Technical Specification

◆ Overview

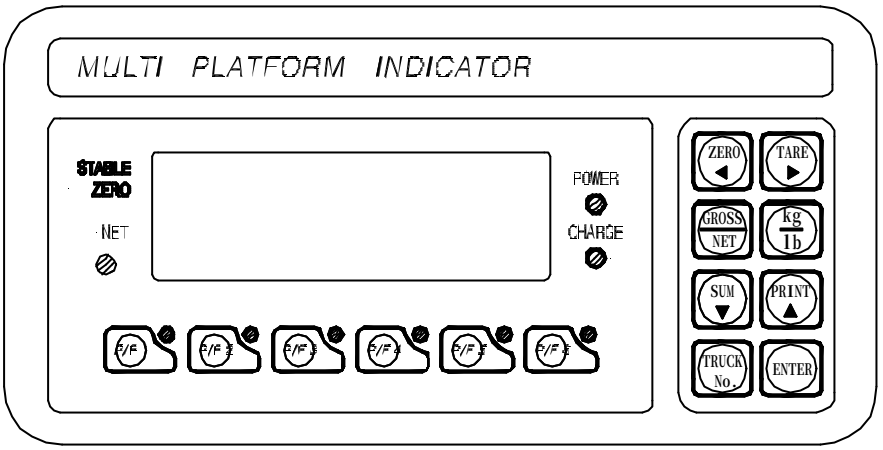
◆ Dimension



◆ Specification

Model Name	PW-2601p	RW-Printer Box	Accessory Box
Operating Power	- Inner Battery Operation.(DC6V)		Cable, AC Cord, Adaptor,
Power Source	AC 110/220V, 50/60 Hz (For Battery Charger)		
Display Type	LCD	Built In Printer without Display	
Display Designators	Stable, Zero, kg/lb		
Product Weight	9.2 kg	6.5 kg	3.5 kg

4. Front Panel Description



■ Display lamp

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

ZERO : lights up when the current weight is 0 kg.

NET : lights up when the current weight is NET weight.

lb : lights up when the weight unit is lb.

kg : lights up when the weight unit is kg.

■ KEY

TARE key : Current weight is memorized as TARE weight. If you press TARE key in unload condition. Tare setting is released.

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

GROSS/NET key : Display gross and net weight by turn.

kg/lb key : Toggles between lb and kg units. (only USA Version)

SUM key

PRINT key

TRUCK No. key

ENTER key

P/F1 key

P/F2 key

P/F3 key

P/F4 key

P/F5 key

P/F6 key

* 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

* How to enter CAL mode

Turn on the Power while pressing the 

key and press 

key
and CAL mode starts

5. 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 / Printer test(RS-232)

TEST 1

FUNCTION : Key test		
KEY	LCD DISPLAY	DESCRIPTION
ENTER key : Next menu Other key : Perform test	tESt1 1	Test 1 condition Press the key to be test and the no. and code of the key is displayed.

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
ENTER 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 / Printer test		
KEY	LCD DISPLAY	DESCRIPTION
LIGHT key : Exit test mode Other key : Perform	tESt4 GOOD ERR06	Test 5 condition No error in printer 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
WEIGHT 1	1200 kg
WEIGHT 2	1200 kg
WEIGHT 3	1100 kg
WEIGHT 4	1100 kg
TOTAL	4600 kg

6. 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
F13 : Quantity of scales (P/F, Axle Scale)
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 ~ 9	1 : 0,5 digit ~ 9 : 4,5 digit	Auto zero tracking will automatically bring the displayed back to "0" when there are small deviations

Designation of the velocity change on weight.			
F04	1 ~ 9	1 : Less Vibration ~ 9 : Much Vibration	Adjust the set value according to the condition.

Select the Back-Light usage		
F08	0	Manual Back Light
	1	Automatic Back Light

Quantity of scales		
F13	1	one scale
	2	two scales
	3	three scales
	4	four scales
	5	five 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

7. Calibration Mode

(1) HOW TO ENTER

Turn on the Power while pressing the ZERO key and then press TARE 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 ENTER : Store and move into next menu	CAL 1 100 10000	CAL 1 condition 100 kg/lb 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. ENTER : Store and move into next menu	CAL 2 1 0.01	CAL 2 condition 1 kg/lb 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 ENTER :Store and move into next menu	CAL 3 100 10000	CAL 3 condition 100 kg/lb 10000 kg/lb

REF 1. The weight shall be within the range of 1 % ~ 100 % of maximum weight.

REF 2. If the Setting Weight is under the 1% 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
ENTER: 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
ENTER: 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.

8. 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
The zero range deviates from the set range.

☞ Trouble shooting
Confirm that there is nothing on the weighing platform.
If nothing exist, do calibration in CAL mode.

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.

Err 21

▣ Reason
The resolution is set to be exceeded the limit 1/10,000.

☞ Trouble shooting
Lower the resolution.
The resolution = allowed weight/one division
Modify the allowed weight in CAL1 or modify the division in CAL2 so that

the resolution should be below 1/10,000.

Err 22

▣ Reason
The weight for span calibration is set to be lower than 10 % of the maximum capacity of the scale.

☞ Trouble shooting
Set the weight for span calibration in CAL3 to be more than 10% of the maximum capacity.

Err 23

▣ Reason
The weight for span calibration is set to be exceeded 100 % of the maximum capacity of the scale.

☞ Trouble shooting
Set the weight for span calibration to be within the maximum capacity of the scale in CAL 1.

Err 24

▣ Reason
The load cell output is too small at SPAN calibration.

☞ Trouble shooting
Setting of current resolution is not possible due to the error in load cell. Proceed calibration again with less resolution.

Loadcell Sense Voltage for 5V Excitation Voltage	Recommended Resolution
2 mV	1/1,000
4 mV	1/2,000
10 mV	1/5,000

Err 25

▣ Reason
The load cell output is too large at SPAN calibration.

☞ Trouble shooting
Setting of current resolution is not possible due to the error in load cell. Proceed calibration again with less resolution.

Err 26

▣ Reason

The load cell output is too large at ZERO calibration.

☞ Trouble shooting

Check whether the platform empty.

Proceed calibration again after checking in A/D TEST mode.