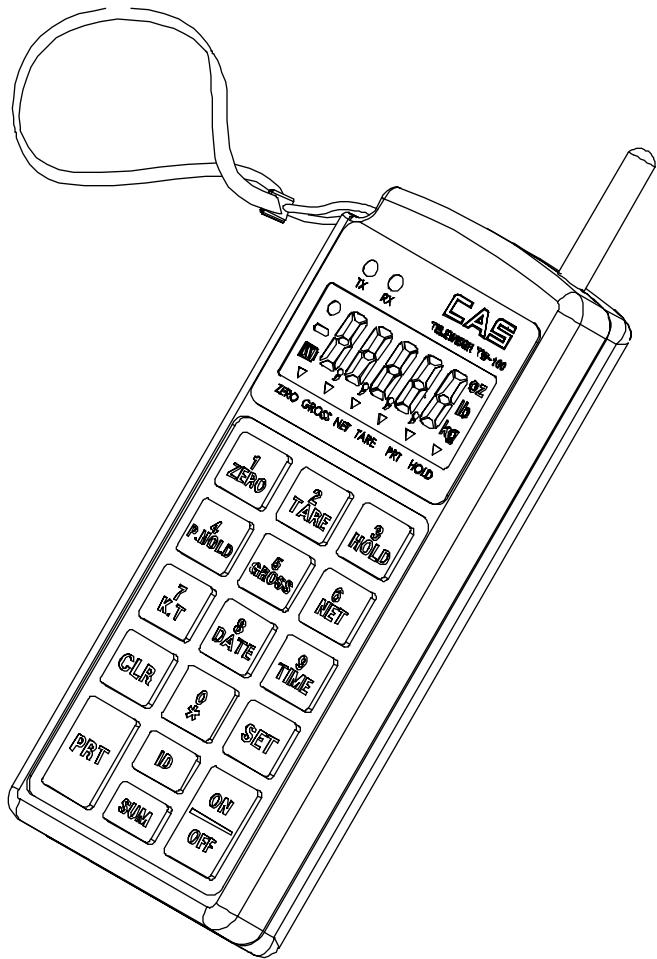


ATTACHMENT F.
- USER'S MANUAL

TW-100

OWNER'S MANUAL



CAS
CORPORATION

Federal Communications Commission Requirements

Warning : Changes or modifications not expressly approved by the party responsible for compliance with the FCC'S rules could void the user's authority to operate the equipment.

THIS DEVICE COMPLIES WITH PARTS 15 OF 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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1. Introduction

Thanks for purchasing TW-100.

This goods has held excellent performance and splendid properties through strike tests as well as devoting ourselves under severe quality management.

Before using TW-100, It is recommended to read this manual carefully and to use TW-100 completely.

Cautions

Do not press the keys hard, for it will operate with soft touch.

Do not use ignitable materials for cleaning.

Avoid sudden temperature change.

Keep it in a dry place.

Do not use under the direct sunshine and on the dust place for a long time.

Shift power switch to "ON" position, when you use it.

(Power switch is located on right-top corner.)

Shift power switch to "OFF" position, when you don't use it for a long time.

2. FEATURES OF TW-100

(1) Features

It is connected with CASTON(crane scale) by use of wireless communication.

Simple operation.

WATCHDOG circuitry (system restoration)

Adapting high capacity rechargeable battery(DC7.2V, 720mA)

(2) Main Function

RS232C serial communication(standard)

Connectable with serial print.

Auto power off

Manual/Auto hold, peak hold

It is possible to set tare weight with keys

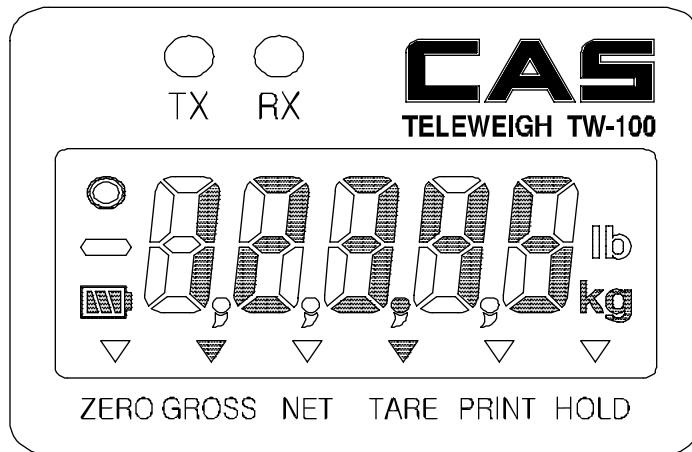
Storing up to the 100th of weight, date and time, and printing total weight.

Key operation by use of wireless communication

3. TECHNICAL SPECIFICATION

Display	LCD (5 digit)
Size of letter	12 mm (Height)
Display below zero	“-” displayed
Status lamp	Zero, Tare, Gross, Net, Hold, Stable, Print
Power	TW-100 : Rechargeable DC Battery 7.2V 720mA Charger: AC220V/60Hz
Power consumption	0.5 W
Operation	-10 to +40
Frequency	903Mhz < 918.5Mhz
Channel	32 channels
Channel interval	500Khz
Generating power(comm.)	Maximum 10mW
Communication	FSK(Frequency Shift Keying fsk)
Comm. speed	9600bps
Comm. distance	Maximum (50M~100M)

4. FRONT DISPLAY VIEW



(1)

Display lamp

Lamp: Weight is stable.



ZERO Lamp: Current weight is 0 kg.

GROSS Lamp: Current weight is GROSS.

NET Lamp: Current weight is NET.

TARE Lamp: TARE weight is stored.

PRINT Lamp: On printing.

HOLD Lamp: Lamp is on when weighing a moving object.

Lamp: Charged to 80%~100%.

Lamp: Charged to 50%~80%.

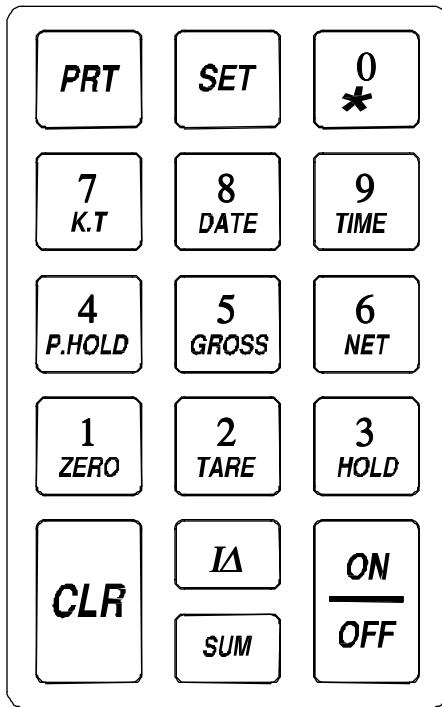
 Lamp: Charged to 0%~50%.

 Lamp: Discharged completely. It should be charged.

 TX Lamp: Sending the data to CASTON

 RX Lamp: Receiving the data from CASTON

(2) KEYBOARD



Y **PRT** : Printing the list of weights

Displayed on the screen like this "Print", on pressing PRT key.

Print format

NO 001 2000 kg
ID:20 00.03.01 12:12:12
NO 002 1000 kg
ID:16 00.03.01 12:22:12
NO 003 3000 kg
ID:35 00.03.01 12:32:12

TOTAL : 6000 kg

Y **SET** : When you complete the set-mode or setting a key tare value .

It is used to enter the set-mode.

Y

0:	It means the number "0" in the set-mode.
* Return to 0(zero) weight	

Y

1:	When you enter test-mode.
ZERO means the number "1" in the set-mode.	

Y

2:	It is used to TARE key in the normal status.
TARE It means the number "2" in the set-mode	

3
HOLD

Y : Hold the weight
It means

Y

4:	Peak hold function in the normal status.
P.HOLD It means the number "4" in the set-mode	

5
GROSS

Y : Gross weight
It means

6
NET

Y : When you want to weight
It means

7
K . T

Y : When you want to weight
It means

7
TARE

NUMBER

SET

→ How to enter

Y

8:	Net weight function.
DATE It means the number "6" in the set-mode	

→ How to enter

8
DATE

NUMBER

SET

γ

9
TIME

 When you want to change the time.
It means the number "9" in the set-mode

➔ How to enter

9
TIME

NUMBER
⇒

SET
⇒

γ

CLR

 Used to correct a mistake.

γ

ID

 Entering the product-id.

➔ How to enter

ID

NUMBER
⇒

SET
⇒

γ

SUM:
ID

 storing the data of current weight, date, time and ID

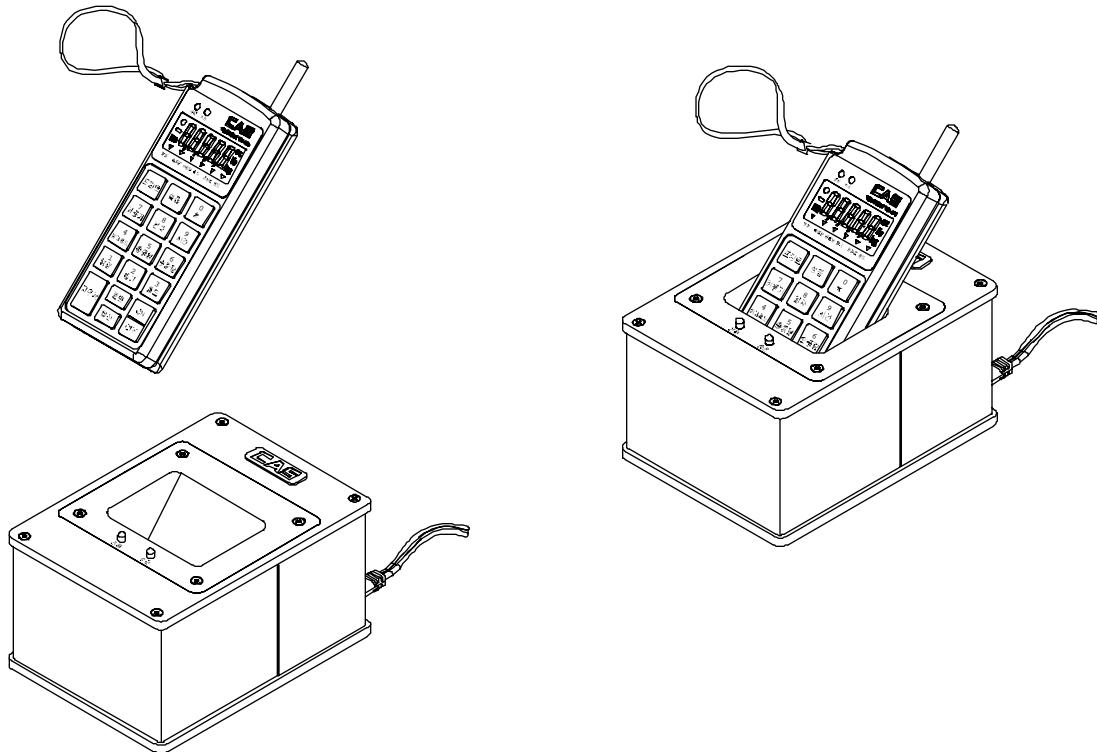
(caution) 1. store up to the 100th-ID
2. When the weight is 0(zero),

γ

POWER
ON
(Ενεργον)
OFF

 Power on/off key
ποωερ σωιτχη

5. RECHARGER



- ≤ Insert a TW-100 to a charger and then plug-in as you can see in the picture.
- ≤ Power lamp : Power lamp(red) is on, when you plug in
- ≤ Charger lamp : When TW-100 is charged completely, the lamp color is changed from red to green
- ≤ Charging time : It takes about 1~2 hours, but It depends on discharging state.

6. Print & RS232 port connection

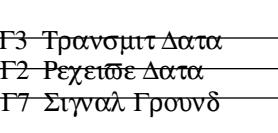
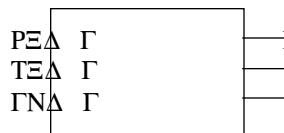
≤ Print & RS 232 port connection

1) Connect rs232 port of the charger to print.

(RS 232port is located on the rear of the charger)

2)

ND-T102, ND-192, YS-360S print



9 pin port

(Female)

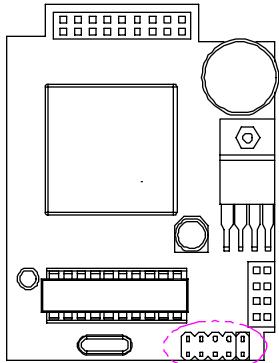
TW-100 charger RS-232C port

Print port

7. Method to change channel

€ Open the case and separate RF Module PCB.

€ Perform a change channel as shown in the below figure



ΡΦ

Channel	Jump DIP
1	
4	
8	
12	
16	
20	
24	
28	
32	

8. SET MODE

(1) How to enter

€ Turn on the power with pressing the SET key
It will be displayed on the screen like this "SET".

(2) SET MENU

	Initialize the stored weights	
Set value (00-01)	LCD SCREEN	Meaning
	F1-00	Storing
	F1-01	Initialize the weights

⇒ Setting

Number key : change number.
SET key : complete the setting

9. TEST MODE

(1) How to enter

€ Turn on power with pressing the "ZERO" key
It will be displayed on the screen like this " TEST1".

(2) Key

€ SET key: moving to next menu

(3) Test menu

TEST 1 : LCD display test
TEST 2 : Received weight display test
TEST 3 : Key test
TEST 4 : serial communication test

□7167□1

Function : LCD display test		
KEY	LCD	DESCRIPTION
SET key: to next menu	tEST 1 888888	TEST 1 procedure TEST 1 operating

7167□2

Function : Received weight display test (from CASTON)		
KEY	LCD SCREEN	DESCRIPTION
SET key: TEST 2 condition. to next	tEST 2 5500	TEST 2 condition. Display the weight received from CASTON

716700

Function : Key test		
KEY	LCD SCREEN	DESCRIPTION
SET key: to next menu the other key : test	tEST 3 1	Test 3 condition Display the key number pressed

< Key code >

KEY	CODE	KEY	CODE	KEY	CODE
PRINT	C0	SET	A0	0	60
1	C1	2	A1	3	61
4	C2	5	A2	6	62
7	C3	8	A3	9	63
CLR	C4	ID	A4	SUM	64

716700

Function : Wireless communication		
KEY	LCD SCREEN	DESCRIPTION
SET key: to normal mode	tEST 4 -----	Test 4 condition Checking transmit/receiving

10 ERROR MESSAGE

rFErr

≤ Reason for error
When TW-100 can't communicate with CASTON in 5 seconds
Treatment
Turn off and then on.

nO-dA

≤ Reason for error
There is no data to print (When pressing PRINT key)

LO-u

≤ Reason for error
The weight is 0(zero)(When pressing SUM key)

mEm-F

≤ Reason for error
The number of stored data is over 100.
Treatment
After printing, start again