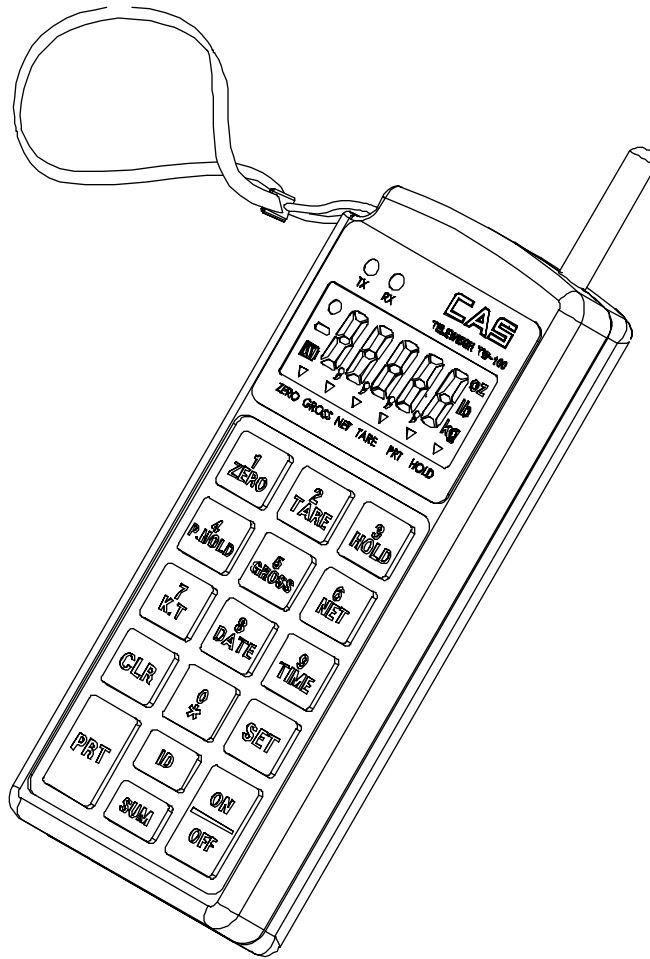


**ATTACHMENT F.**  
**- USER'S MANUAL**

# 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  
UNDESIRE OPERATION.

# Content

1. Introduction	- - - - -
Page 4	
2. Features-	- - - - -
Page 5	
3. Technical Specification	- - - - -
Page 6	
4. Front Side	- - - - -
Page 7	
5. Charging Part	- - - - -
Page 11	
6. Installation & Connection (Print, RS232)-	- - - -
Page 12	
7. Method of Channel change	- - - - -
Page 12	
8. Set Mode	- - - - -
Page 13	
9. Test Mode	- - - - -
Page 14	
10. Explanation for Error Message	- - - - -
Page 16	

# 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

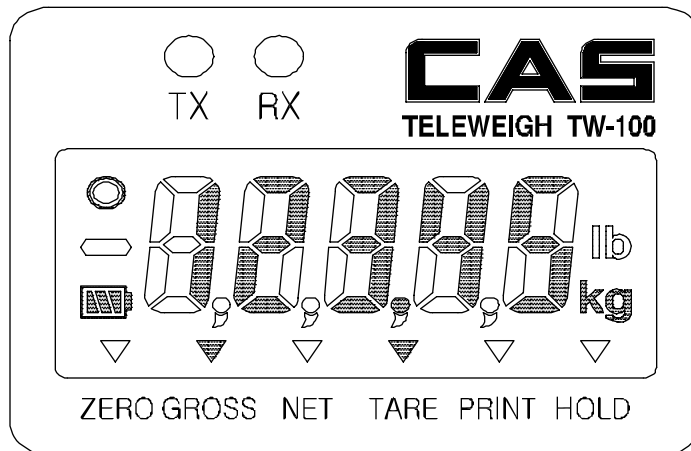
Storing up to the 100th of weight, date and time, and printing total weight.

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.



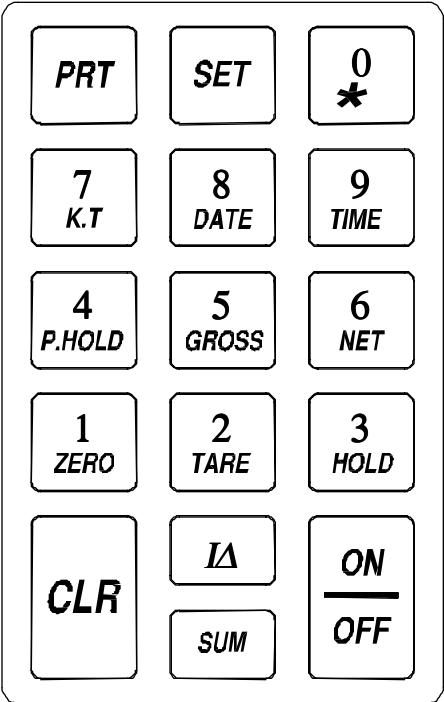
TX Lamp: Sending the data to CASTON



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:
* Return to 0(zero) weight

 It means the number "0" in the set-mode.

Y 

1:
ZERO

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

Y 

2:
TARE

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

3
HOLD

Y
: Hold the we  
It m

Y 

4:
P.HOLD

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

5
GROSS

Y
: Gross weigh  
It m

6
NET

Y
: When you wa  
It me

7
K . T

Y
: When you wa  
It me

7
TARE

NUMBER
--------

SET
-----

➔ How to enter

Y 

8:
DATE

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

➔ How to enter

8
DATE

NUMBER
--------

SET
-----

Υ 

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
------

Υ 

CLR
-----

 Used to correct a mistake.

Υ 

ID
----

 Entering the product-id.

➔ How to enter 

ID
----

 ➔ 

NUMBER
--------

 ➔ 

SET
-----

Υ 

SUM:
------

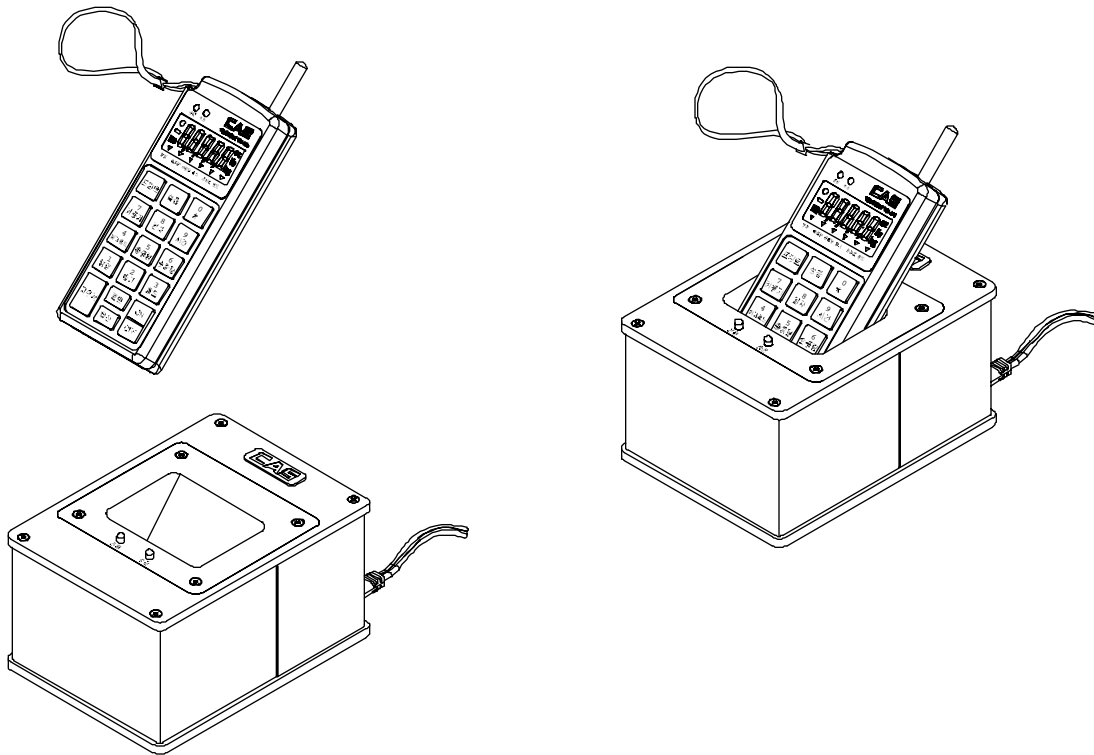
 storing the data of current weight, date, time and  
ID  
(caution) 1. store up to the 100th-ID  
2. When the weight is 0(zero),

Υ 

⏻
ON
OFF

 : Power on/off key  
(γεν. τιον) Ωθεν ψου δο νοτ υσε ιτ φορ α λογ τιμε, τυρν οφφ τηε μαιν  
ποωερ σωιτχη

## 5 .RECHARGER



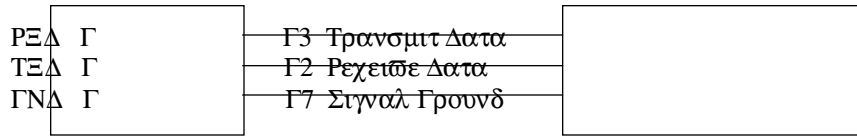
- ≤ Insert a TW-100 to a charger and then plug-in as you can see in the picture.
- ≤ Power lamp : Power lamp(red) is on, when you plug in
- ≤ Charger lamp : When TW-100 is charged completely, the lamp color is changed from red to green
- ≤ Charging time : It takes about 1~2 hours, but It depends on discharging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

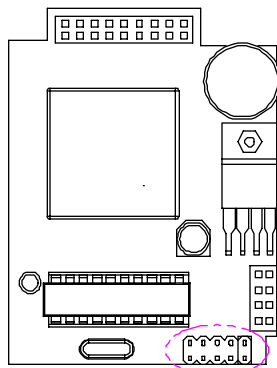
(Female)

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	

Μοδυλε

ΑΒ

## 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	
<b>Set value</b>  (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

Y 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

7:06701

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

7:06702

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

## 7:67□□

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

## 7:67□□

Function : Wireless communication (Transmit/Receive) test		
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