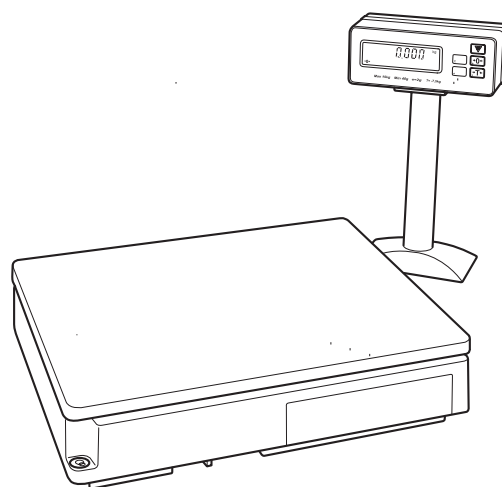


**TEC**

TEC Electronic Computing Scale

# SL-4700 SERIES

## Owner's Manual



**TOSHIBA TEC CORPORATION**



## Declaration of Conformity

Manufacturer	TOSHIBA TEC
Type	SL-4700
No. of EC type approval certificate	T5982

Corresponds to the requirements of the following EC directives:

Non-Automatic Weighing Instruments	Directive 90/384/EEC <sup>1</sup>
EMC Directive	EMC 89/336/EEC
Low Voltage Directive	LVD 73/23/EEC

The applicable harmonised standards are:	EN 45 501 EN50 081-1 EN 60 950
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### EMC Compliance

This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Note 1: This declaration is only valid if the non-automatic weighing instrument was verified by the manufacturer **or** with a certificate of conformity issued by a notified body.

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**CAUTION:**

- 1. This manual may not be copied in whole or in part without prior written permission of TOSHIBA TEC.*
- 2. The contents of this manual may be changed without notification.*
- 3. Please refer to your local Authorised Service representative with regard to queries you may have in this manual.*



# 1 Warnings



For your protection, all mains (110V or 230V) equipment used where damp or wet conditions may occur, must be supplied from a correctly fused source and protected by an approved RCD to BS7071 or BS7288 or IEC1008-2-2 BS EN 61008:1995. IF IN DOUBT SEEK ADVICE FROM A QUALIFIED ELECTRICIAN.

To avoid the possibility of electric shock or damage to the machine, always isolate from the mains power supply before carrying out any routine maintenance.

## **Cleaning the scale**

Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions, such as washing soda, should not be used especially on the display windows. Under no circumstances should you attempt to wipe the inside of the machine.

The outside of the machine may be wiped down with a clean cloth moistened with water containing a small amount of washing up liquid.

# 1 Warnings

## Safety Summary

Personal safety in handling or maintaining the equipment is extremely important. Warnings and Cautions necessary for safe handling are included in this manual. All warnings and cautions contained in this manual should be read and understood before handling or maintaining the equipment. Do not attempt to effect repairs or modifications to this equipment. If a fault occurs that cannot be rectified using the procedures described in this manual, turn off the power, unplug the machine, then contact your authorized TOSHIBA TEC representative for assistance.

## Meanings of Each Symbol



This symbol indicates warning items (including cautions). Specific warning contents are drawn inside the  $\triangle$  symbol. (The symbol on the left indicates a general caution.)



This symbol indicates prohibited actions (prohibited items). Specific prohibited contents are drawn inside or near the  $\odot$  symbol. (The symbol on the left indicates "no disassembling".)



This symbol indicates actions which must be performed. Specific instructions are drawn inside or near the  $\bullet$  symbol. (The symbol on the left indicates "disconnect the power cord plug from the outlet".)



## WARNING

This indicates that there is the risk of **death** or **serious injury** if the machines are improperly handled contrary to this indication.



Any other than the specified AC voltage is prohibited.



■ Do not use voltages other than the voltage (AC) specified on the rating plate, as this may cause **fire** or **electric shock**.



### Prohibited



■ Do not plug in or unplug the power cord plug with wet hands as this may cause **electric shock**.



### Prohibited



■ If the machines share the same outlet with any other electrical appliances that consume large amounts of power, the voltage will fluctuate widely each time these appliances operate. Be sure to provide an exclusive outlet for the machine as this may cause **fire** or **electric shock**.



### Prohibited



■ Do not place metal objects or water-filled containers such as flower vases, flower pots or mugs, etc. on top of the machines. If metal objects or spilled liquid enter the machines, this may cause **fire** or **electric shock**.



### Prohibited



■ Do not insert or drop metal, flammable or other foreign objects into the machines through the ventilation slits, as this may cause **fire** or **electric shock**.



### Prohibited



■ Do not scratch, damage or modify the power cords. Also, do not place heavy objects on, pull on, or excessively bend the cords, as this may cause **fire** or **electrical shock**.



### Disconnect the plug.








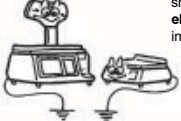



■ If the machines are dropped or their cabinets damaged, first turn off the power switches and disconnect the power cord plugs from the outlet, and then contact your authorized TOSHIBA TEC representative for assistance. Continued use of the machine in that condition may cause **fire** or **electric shock**.



### Disconnect the plug.



■ Continued use of the machines in an abnormal condition such as when the machines are producing smoke or strange smells may cause **fire** or **electric shock**. In these cases, immediately turn off the power switches and disconnect the power cord plugs from the outlet. Then, contact your authorized TOSHIBA TEC representative for assistance.

 <p><b>Disconnect the plug.</b></p> 	 <p><b>Disconnect the plug.</b></p> 
 <p><b>Connect a grounding wire.</b></p> 	 <p><b>No disassembling.</b></p> 
 <p><b>CAUTION</b> This indicates that there is the risk of personal <b>injury</b> or <b>damage</b> to objects if the machines are improperly handled contrary to this indication.</p>	
<p><b>Precautions</b></p> <p>The following precautions will help to ensure that this machine will continue to function correctly.</p> <ul style="list-style-type: none"> <li>• Try to avoid locations that have the following adverse conditions: <ul style="list-style-type: none"> <li style="width: 33%;">* Temperatures out of the specification</li> <li style="width: 33%;">* Direct sunlight</li> <li style="width: 33%;">* High humidity</li> <li style="width: 33%;">* Shared power source</li> <li style="width: 33%;">* Excessive vibration</li> <li style="width: 33%;">* Dust/Gas</li> </ul> </li> <li>• Do not subject the machine to sudden shocks.</li> <li>• Do not press the keys too hard. Keys will operate correctly if they are touched lightly.</li> <li>• Clean the cover and keyboard, etc. by wiping with a dry cloth or a cloth soaked with detergent and wrung out thoroughly. Never use thinner or other volatile solvent for cleaning.</li> <li>• To ensure that the scale is operating correctly, place a known weight on the platter and check it for correct weight measurement. This should be done every morning before starting normal operations.</li> <li>• When moving the machine, take hold of the case and lift the machine. Never hold the remote unit.</li> <li>• Do not place the machines on unstable or slanted surfaces, as they may drop or fall and cause <b>injury</b>.</li> <li>• USE ONLY TOSHIBA TEC SPECIFIED paper.</li> <li>• DO NOT STORE the paper or ribbons where they might be exposed to direct sunlight, high temperatures, high humidity, dust, or gas.</li> <li>• Ensure the machine is operated on a level surface.</li> <li>• Any data stored in the memory of the machine could be lost during a machine fault.</li> <li>• Try to avoid using this equipment on the same power supply as high voltage equipment or equipment likely to cause mains interference.</li> <li>• Unplug the machine whenever you are working inside it or cleaning it.</li> <li>• Keep your work environment static free.</li> <li>• Do not place heavy objects on top of the machines, as these items may become unbalanced and fall causing <b>injury</b>.</li> <li>• Do not block the ventilation slits of the machines, as this will cause heat to build up inside the machines and may cause <b>fire</b>.</li> <li>• Do not lean against the machine. It may fall on you and could cause <b>injury</b>.</li> <li>• Care must be taken not to injure yourself with the printer paper cutter.</li> <li>• Unplug the machine when it is not used for a long period of time.</li> </ul>	
<p><b>Request Regarding Maintenance</b></p> <ul style="list-style-type: none"> <li>• Utilize our maintenance services. After purchasing the machine, contact your authorized TOSHIBA TEC representative for assistance once a year to have the inside of the machine cleaned. Otherwise, dust will build up inside the machines and may cause a <b>fire</b> or a <b>malfunction</b>. Cleaning is particularly effective before humid rainy seasons.</li> <li>• Our preventive maintenance service performs the periodic checks and other work required to maintain the quality and performance of the machines, preventing accidents beforehand. For details, please consult your authorized TOSHIBA TEC representative for assistance.</li> <li>• Using insecticides and other chemicals Do not expose the machines to insecticides or other volatile solvents. This will cause the cabinet or other parts to deteriorate or cause the paint to peel.</li> </ul>	

**2 Specifications**

Item	SL-4700-US
Weigh capacity	30lb x 0.01lb
Tare capacity (maximum)	15lb
Display	4 digits LCD
Power requirement	AC 120V $\pm$ 10%, 60Hz
Operating temperature	14° F to 104° F
Operating humidity	0% to 95% RH (non-condensing)
Dimensions (approx.)	
Built-in type	13.78"(W) x 11.81"(D) x 3.43"(H)
Remote display type	
Scale unit	13.78"(W) x 11.02"(D) x 3.43"(H)
Display unit	5.98"(W) x 2.32"(D) x 15.35"(H)
Platter	13.78"(W) x 11.02"(D)
Weight (approx.)	Built-in type: 9.5lb Remote display type: 10.6lb
Interface	RS-232C, TEC parallel

Item	SL-4700-CA/QP/AU
Weigh capacity	15kg x 5g
Tare capacity (maximum)	7.5kg
Display	5 digits LCD
Power requirement	CA: AC 120V $\pm$ 10%, 60Hz QP: AC 230V $\pm$ 10%, 50Hz (AC adaptor option) AU: AC 100V to 240V, 47Hz to 63Hz
Operating temperature	-10° C to 40° C
Operating humidity	0% to 95% RH (non-condensing)



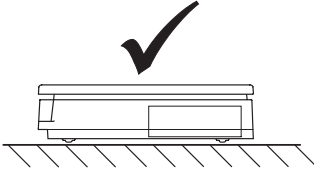
Dimensions (approx.)	
Scale unit	350mm(W) x 280mm(D) x 87mm(H)
Display unit	152mm(W) x 59mm(D) x 390mm(H)
Platter	350mm(W) x 280mm(D)
Weight (approx.)	4.8kg
Interface	RS-232C, TEC parallel

### Options and accessories

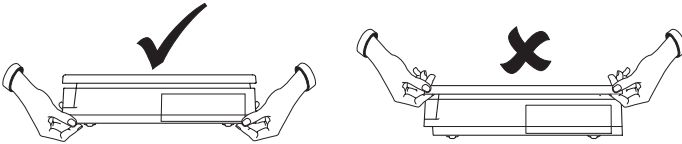
Options	
AC adaptor for QP model	EU plug UK plug
Accessories	
TEC parallel cable for TD/ TP models	
AC adaptor for US/CA/AU models	

### 3 Installation

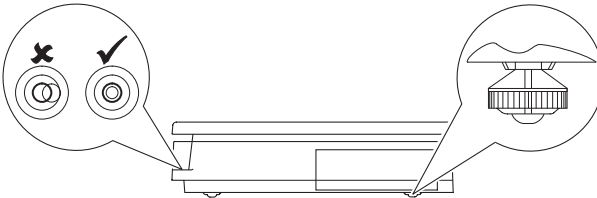
1. Make sure that the work surface is firm, steady and free from vibration and draughts.



2. Hold the scale by the base when picking up. Do not pick up the scale by the weigh plate or cross.



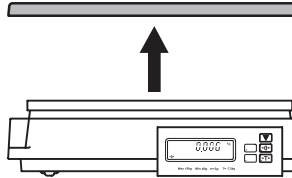
3. Adjust the feet if the scale is not level.



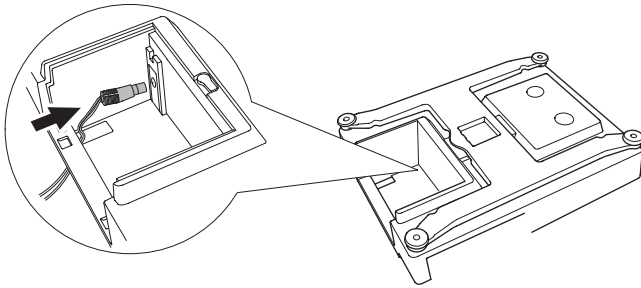
To avoid the risk of RSI (Repetitive Strain Injury) it is important to ensure that the machine is placed on a surface which is ergonomically satisfactory to the user. In cases where usage is prolonged EN614-1 recommends frequent breaks for the user.

## Connections

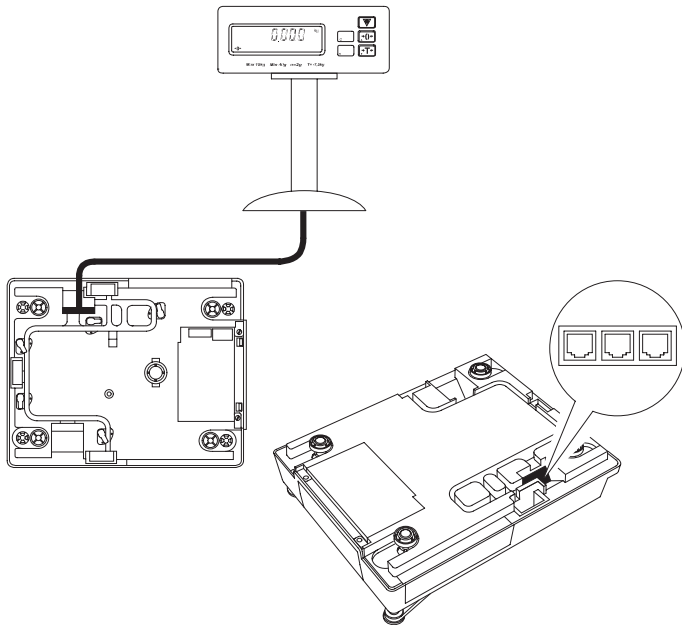
1. Remove the weigh plate.



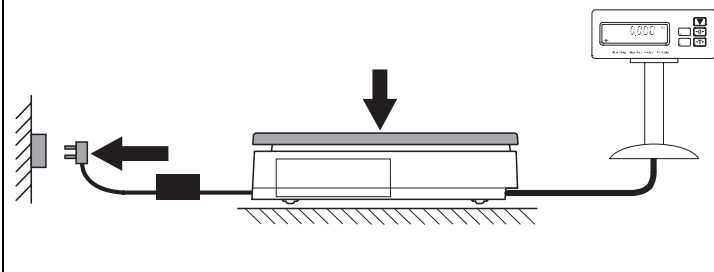
2. Connect the power cable.



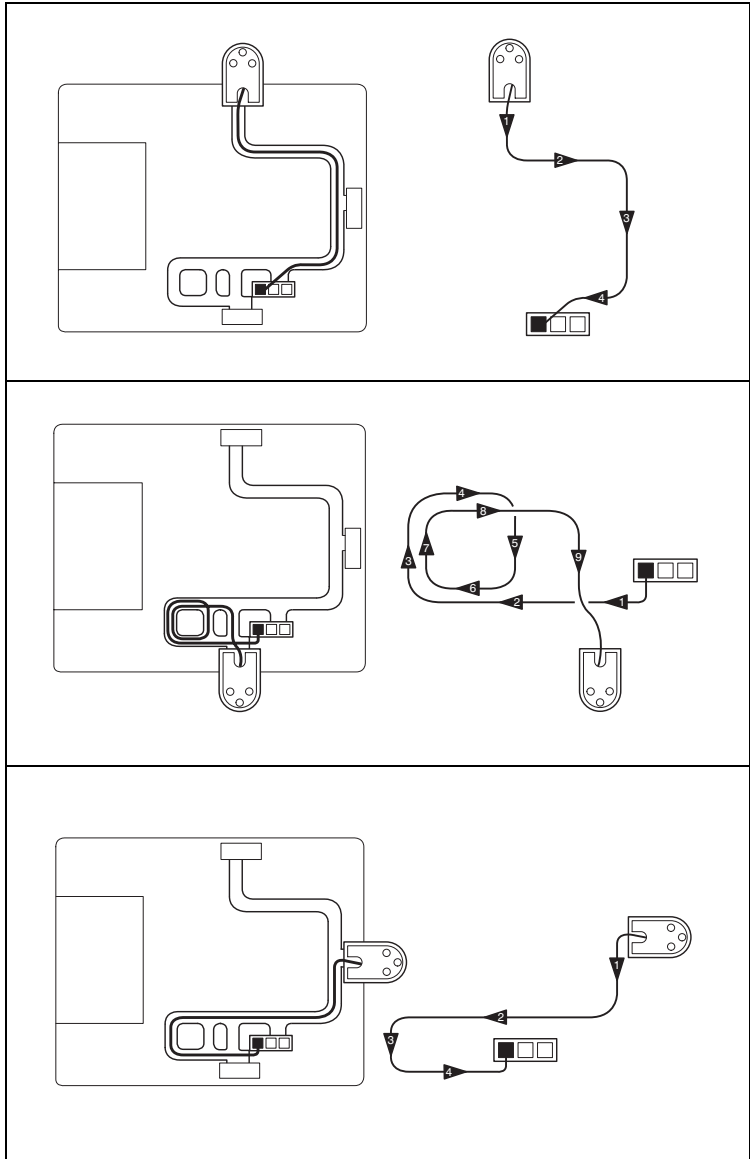
#### 3. Connect the display. (RP/TP models only)



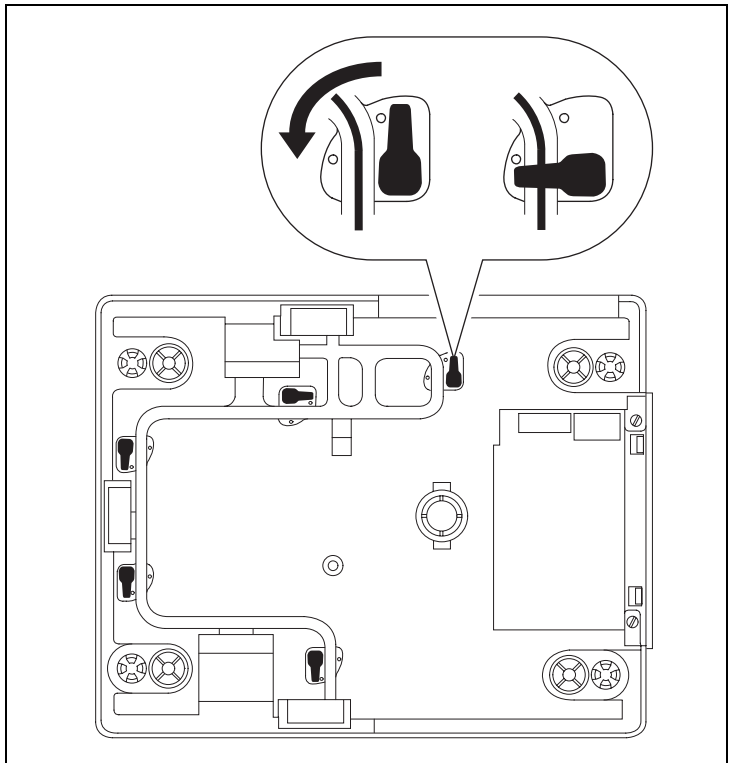
#### 4. Replace the weigh plate. Connect to power supply.



## Cable routing



### Securing cable clips



## 4 Error Messages

E 20

If a persistent error message appears or the scale locks up, disconnect then reconnect the scale to the power supply. If the scale remains inoperative, contact your authorised service agent.

-----  
-----  
-----

**Display  
overflow**

-----

**Weight  
unsteady**

-----  
-----  
-----

**Balance  
failed**

-----

**Under  
range**

-----

**Over  
range**

### Display overflow error

The load on the weighpan exceeds the scale capacity.

### Balance failed error

On power up the weight is out of the allowed zero range. Check there is no load or debris on the weighpan.

#### Error codes:

**E 10** Battery failure. Replace the batteries.

**E 30** Management mode not exited correctly. Re-enter Management mode and repeat the procedure.

**E 35** Prohibited function.

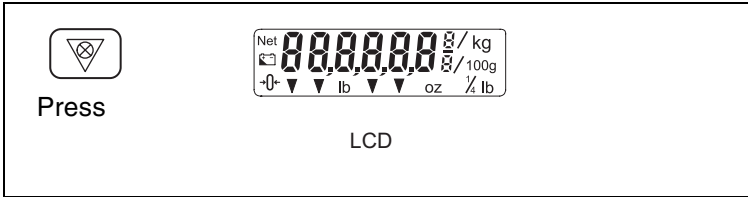
**E 151** Configuration change in Management mode has failed. Re-enter Management mode and repeat the procedure

**E 152** Prohibited function.

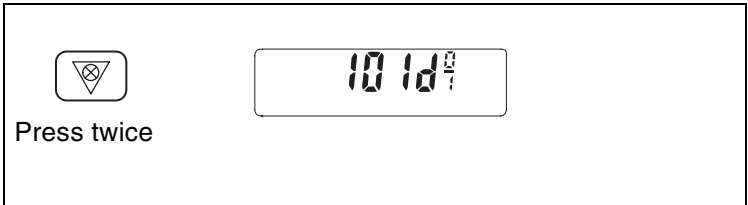
Contact your authorised service agent if the scale remains inoperative or you see any other error message code.

## 5 Using the Scale

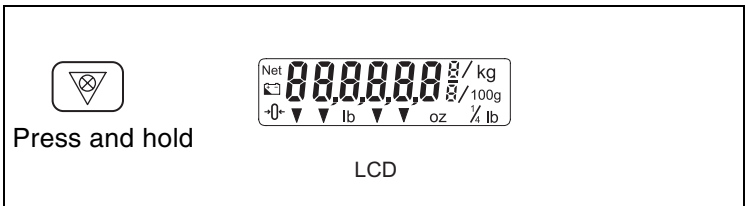
### Testing the display



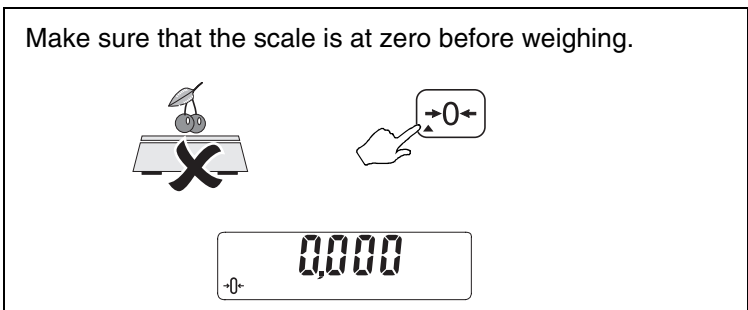
### Displaying service information



### To reset the machine

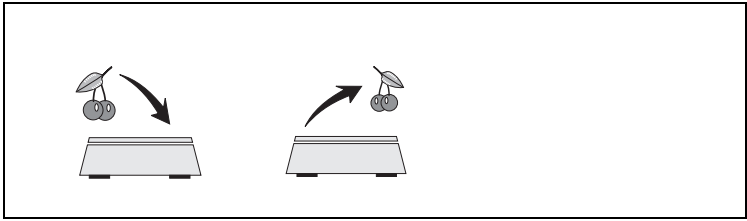


### Zeroing the scale



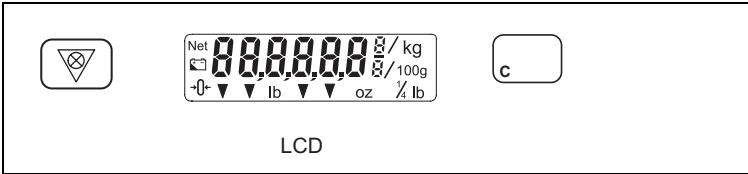


## Weighing goods



## 6 Management Mode

### Entering management mode





### Navigating management mode


Branch - 1295 - Sub-branch  
1 - Value


For Example:

- ├ Branch ( 12 )
  - └ Sub-branch ( 98 )
- ├ Branch ( 13 )
  - └ Sub-branch ( 00 )
  - └ Sub-branch ( 01 )

 Go to the next branch (press and hold).  
Go to next sub-branch.

 Go to the previous branch (press and hold).  
Go to previous sub-branch.

 Sets the value to 0 enabling you to display a new value.  
Return to Branch 00 (press and hold).

 Displays the value. Press again to re-display the branch / sub-branch.

After clearing a value to be changed each key press increments the value displayed. Pressing and holding the key increments the value by 10.

**Note:** After changing a value, you must go to the next branch to accept the value.

## Example

Turn the keyboard bleeper off and change the backlight time to 5 seconds.



## Switching the bleeper alarm on/off

Go to branch 19, Sub-branch 00

1900 0 = Off  
 | 1 = On

## Switching the keyboard bleeper on/off

Go to branch 19, Sub-branch 01

1901 0 = Off  
 | 1 = On

## Target bleep

Branch 19, Sub-branch 02 - Not applicable for this machine.

### Error bleeper

Go to branch 19, Sub-branch 03

1903	0 = Off
1	1 = On

### Changing the bleeper volume

Go to branch 19, Sub-branch 04

1904	0 = Quiet
1	1 = Loud

### Backlight timeout

Branch 20, Sub-branch 00 - Not applicable for this machine.

### Sleep timeout

Branch 20, Sub-branch 01 - Not applicable for this machine.

## Sleep key enable

Branch 20, Sub-branch 02 - Not applicable for this machine.

## LED display brightness

Branch 20, Sub-branch 03 - Not applicable for this machine.

## Changing the duration of a 'Long' press (press and hold)

Go to branch 29, Sub-branch 00

2900  
200

Enter a value in units of 10 milliseconds  
(50 - 255). For example:

200 = 2 seconds

150 = 1½ seconds

100 = 1 second

## Enabling key timeout

Go to branch 74, Sub-branch 01

7401  
1

0 = Disabled

1 = Enabled

### Changing the timeout period

Go to branch 74, Sub-branch 02

7402 Enter a value in units of 10 milliseconds  
20 (1 - 255). For example:  
200 = 2 seconds  
150 = 1½ seconds  
100 = 1 second

## 7 Before you call for service

It is our primary concern to give you full satisfaction and better service. If, however, any problem arises in connection with the operation of this scale, please check the following points before calling for service.

- Is the power plug fully plugged into an AC outlet?
- Is the AC power being properly supplied to the outlet? (Check it using another electrical appliance.)
- Check the circuit breaker.
- Has there been a power failure of any sort?

**WARNING:** *This scale has been manufactured under strict quality control. If you have trouble, however, DO NOT ATTEMPT TO FIX IT BY YOURSELF. Disconnect the power supply and contact your TOSHIBA TEC representative.*





***TEC***

**TOSHIBA TEC CORPORATION**

**E** EO1-31010B