



**AUTOMATIC SOIL COMPACTOR**

**SOIL**

[www.testmak.com](http://www.testmak.com)

## AUTOMATIC SOIL COMPACTOR



### PRODUCT MODEL

S4165	Automatic Soil Compactor, 220-240V 50/60 Hz
S4165/110	Automatic Soil Compactor, 110 V 60 Hz
S4165/01	ASTM Compaction Rammer, Face Ø 50.8 mm for S4165
S4165/02	EN/BS Compaction Rammer, Face Ø 50 mm for S4165

### STANDARDS

Standards	ASTM D558, D559, D560, D698, D1557, D1883   EN 13286 2, 13286-47   BS 1377:4 AASHTO T99, T134, T135, T136, T180, T193; NLT 107/98, 108/91, 111/87
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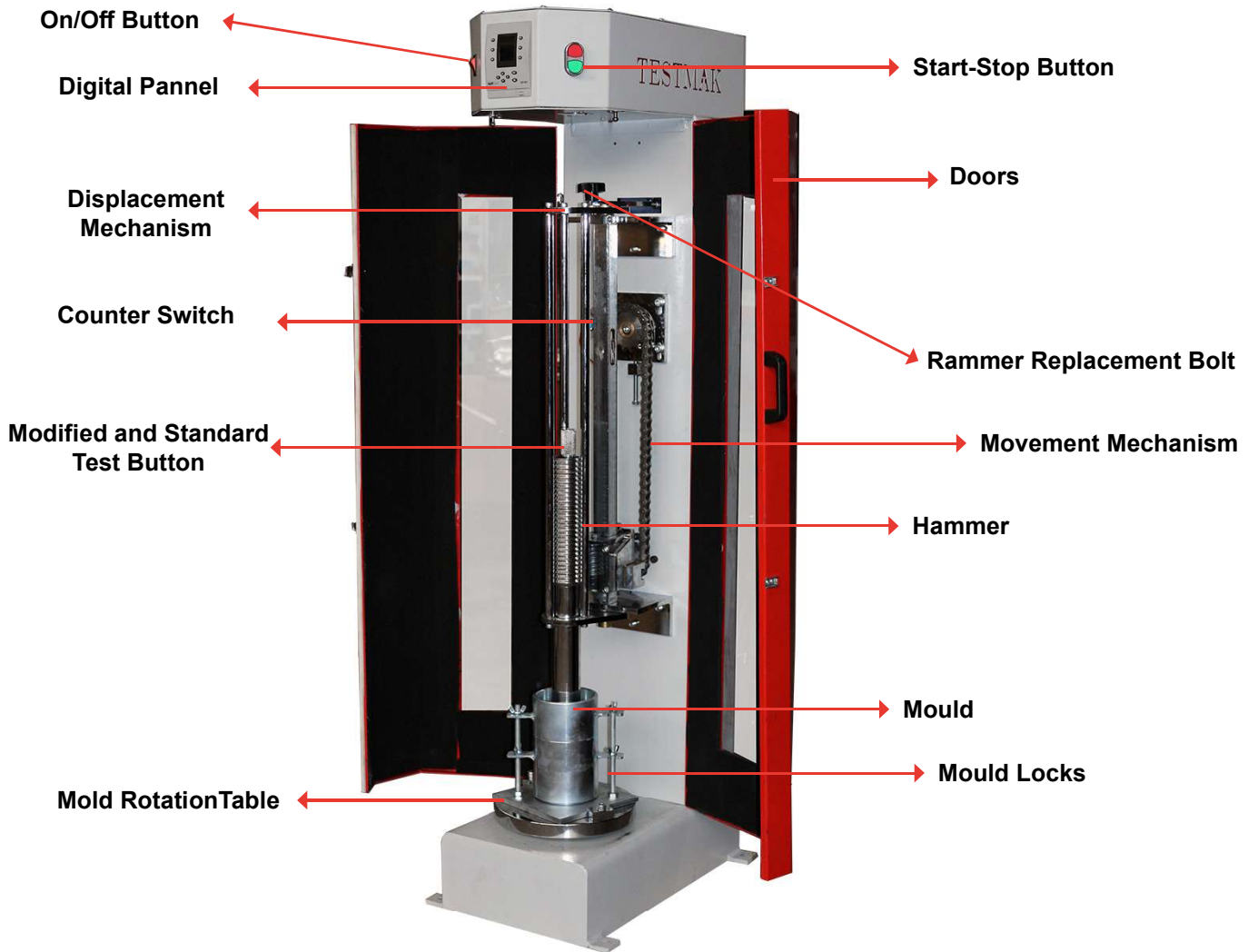
### INFORMATION

Manufacturer	TESTMAK INS.LAB.MAK.SAN.VE TIC. PAZ. ITH. IHR. LTD. STI
Country of Origin	TURKEY
Product Name	Automatic Soil Compactor

## AUTOMATIC SOIL COMPACTOR

### DESCRIPTION

The Automatic Soil Compactor is designed to perform fast and accurate compaction of soil samples automatically to by international standards. The machine is designed to allow the hammer to drop the required height into the soil in the mould which rotates circularly to distribute the blows uniformly over the surface of the specimen in the mould. The drop height is adjustable to for EN Standard 300 mm and 450 mm, for ASTM Standard 305 mm and 457 mm. The compaction rammer is circular faced and interchangeable to for EN Standard 50 mm or for ASTM Standard 50.8 mm diameter. Compaction rammer weight is adjustable to 2.5 kg or 4.5 kg according to reference standard. The number of blows per layer can be set at the beginning of the compaction process by the digital counter according to the standard by user.



## AUTOMATIC SOIL COMPACTOR

### DIGITAL PANEL

The device has a total of 12 keys for 6 programming purposes. The following describes how and for what purposes this 12 keypad is used.







#### SUB-6 KEYPAD USAGE

The sub-6 keypad shown in figure 1 usually used for general routing and transition.



Figure - 1 Sub-6 keypad

The description of each key of the sub-6 keypad is shown below.

-  It is a general selection key and a confirm key.
-  It is an exit key which is used output without numerical change recording.
-  It is used to pass from one variable to the next variable at the sub-6 keypad menu.
-  It is used to return to the previous variable at the sub-6 keypad menu.
-  It is used to increase the parameter value at the sub-6 keypad menu.
-  It is used to decrease the parameter value at the sub-6 keypad menu.

#### TOP-6 KEYPAD USAGE

Figure 2 Shows the top-6 keypad. "F1", "F2", "F3", "F4", "F5"

keys are used to pass from one menu to another menu and also they are used to assign tanks within a program. The following explains how to go to the system menu and other menus.



Figure - 2 Top-6 keypad

## AUTOMATIC SOIL COMPACTOR

### CBR AUTOMATIC SOIL COMPACTOR USE OF THE TESTS

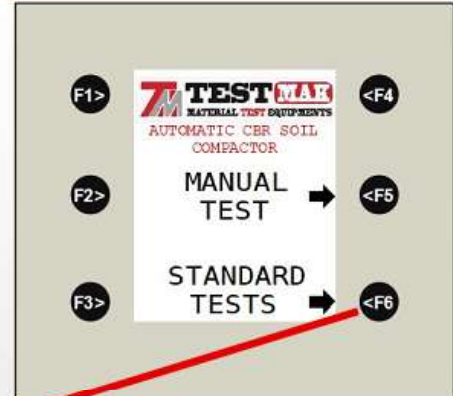
#### Standard Tests Start Guide

Follow the steps described below to perform "standard" tests.

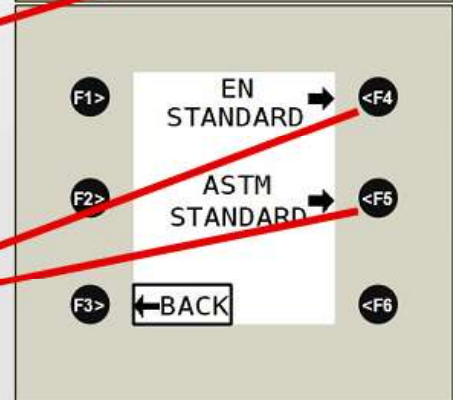
1. Push "I" and wait for control panel running.



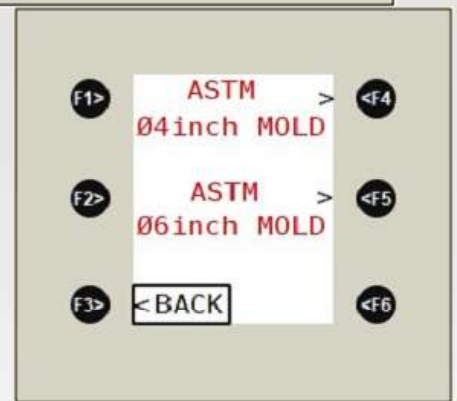
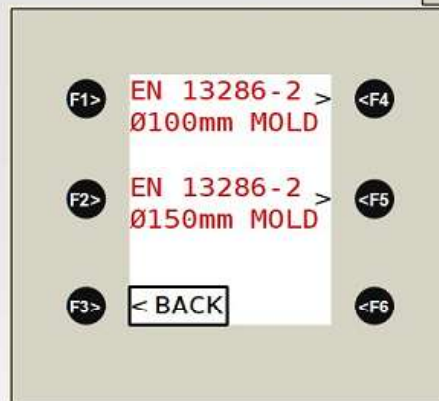
2. Press the "F6" button on Home Page.



3. Select a Test Standard "EN STANDARD" or "ASTM STANDARD" using the F4 and F5 keys.



4. If you choose "EN STANDARD" or "ASTM STANDARD", this screen will appear.



5. You must choose according to the mold size.

6. Press start button and wait finish the test.



-You can stop the test by pressing the stop button and again you can start the test by pressing start button.



## AUTOMATIC SOIL COMPACTOR

### Test Start Guide

These shapes are test screens. Test screen have "Drop Count" and "Layer Count".

Drop Count is sum of center drops and side drops.  
Layer Count shows a test series. Any number of tests can be performed. After the test, press the "ZERO" button. If you don't press "ZERO" button after the test, new test cannot be started.

Cbr Soil Compactor distributes all drops automatically round of mold. You can stop the test by pressing the stop button and again you can start the test by pressing start button.

Standard Tests include,

#### EN Standard Mold Ø 100

Mold Ø 100 ± 1 mm the machine automatically distributes 25 strokes. Three sets of eight blows well distributed over the surface, with a final blow in the centre.

#### EN Standard Mold Ø 150

Mold Ø 150 ± 1 mm the machine automatically distributes 56 strokes.

- 6 strokes spread around the mold
- 1 stroke in the center of the mold
- the sequence is repeated 8 times

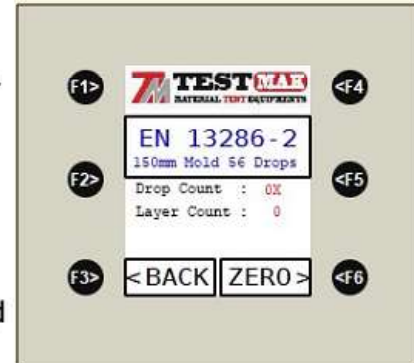
#### ASTM Standard Mold Ø 4"

Mold Ø 4 "(101.6 mm) the machine automatically distributes of 25 strokes around the mold.

#### ASTM Standard Mold Ø 6"

Mold Ø 6 "(152.4 mm) the machine automatically distributes 56 strokes.

- 9 strokes around the mold
- 1 stroke in the center of the mold
- 9 strokes around the mold
- 1 stroke in the center of the mold
- 36 strokes spread around the mold



## AUTOMATIC SOIL COMPACTOR

### CBR AUTOMATIC SOIL COMPACTOR USE OF THE TESTS

#### Manual Test Start Guide

Follow the steps described below to perform "manual" tests.

1. Push "I" and wait for control panel running.



2. Press the "F5" button on Home Page.

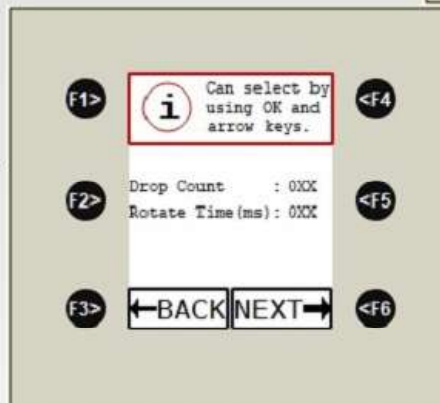
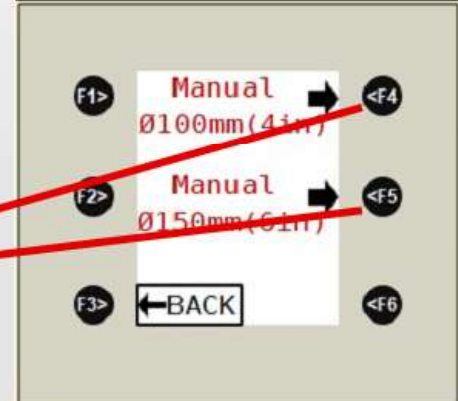
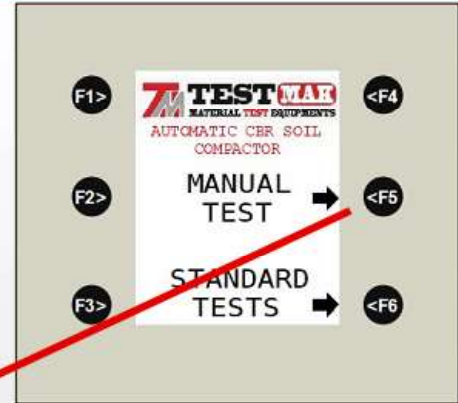
3. Select a Test Mold "Ø100mm(4)" or "Ø150mm(6)" using the F4 and F5 keys.

4. If you choose "Ø100mm(4)" or "Ø150mm(6)", this screen will appear. Selecting can be made with "OK" and Arrow Keys button.

5. Drop Count, Rotate Time can be set to any number for "Ø100mm(4)" mold. Rotate time is mold table rotation time. Rotate time can be set to 0-400ms between.

6. Center Drop, Side Drop, Rotate Time, Repeat Count can be set to any number for "Ø150mm(6)" mold. Rotate time can be set to 0-400ms between.

7. Press "NEXT" button after manual settings.



## AUTOMATIC SOIL COMPACTOR

### Manual Test Start Guide

8. Press start button and wait finish the test.

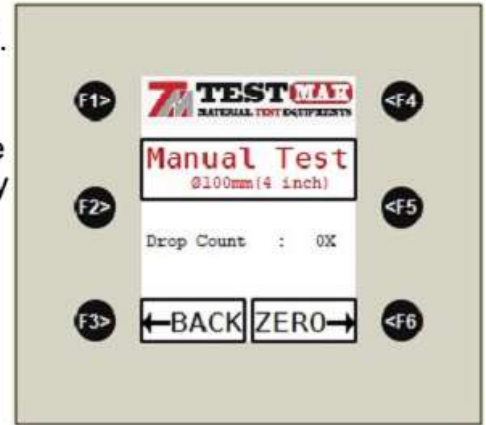
-You can stop the test by pressing the stop button and again you can start the test by pressing start button.



These shapes are test screens. Test screen have "Drop Count".

Manual tests settings can made in different ways. Can be made different test trying different manual settings. Rotate time is very important for every test.

Drop Count is sum of center drops and side drops. Any number of tests can be performed. After the test, press the "ZERO" button. If you don't press "ZERO" button after the test, new test cannot be started.







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