



Product Code

**UTS-0856.ACPR Automatic CBR Test Machine
with U-Touch PRO Control Unit**

Models for 220-240V 50-60 Hz, 1 ph.	UTS-0856.ACPR
Models for 110-120V 60 Hz, 1 ph.	UTS-0856.ACPR-N

Standards

**EN 13286-47; BS 1377-4; ASTM D1883; AASHTO T193;
NF P94-078; AS 1289.6.1.1; UNI CNR 10009**

The UTS-0856.ACPR Automatic CBR Test Machine is designed for performing laboratory evaluation of the CBR value of highway sub-bases and sub-grade, and determination of the strength of cohesive materials which have maximum particle sizes less than 19 mm (3/4").

The UTS-0856.ACPR is composed of a robust and compact two column frame with adjustable upper crossbeam driven by an electromechanical ram with a maximum capacity of 50 kN and a data acquisition and processing system.

The UTS-0856.ACPR is designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals. This main feature allows the user to perform tests complying to BS, EN, ASTM or AASHTO standards with the same machine.

Rapid adjustment of the platen is also provided by up and down buttons which are located on the front panel of the machine. The UTS-0856.ACPR is supplied complete with a 50 kN load cell, penetration piston, linear potentiometric displacement transducer (25 mm x 0.001 mm).

U-Touch PRO Control Unit

U-Touch PRO Control Unit is designed to control CBR test machine UTS-0856.ACPR to perform acc. to EN, ASTM/AASHTO and BS standards.

The Unit can perform CBR tests as a stand-alone without the use of a PC or with the USOFT-0856 software and a PC. Control of machine, acquisition of load and displacement data in real time are provided by the unit

The control unit has easy to use menu options. It displays all menu option listings simultaneously, allowing the operator to access the required option in a seamless manner to activate the option or enter a numeric value to set the test parameters and see all the data while the test running.

Control Unit offers many addition unique features. You can save test results in its internal memory and can be controlled remotely from anywhere around the world.

The CBR Test Machine is supplied complete with;

- Load Cell, 50 kN
- Penetration Piston (UTS-0870)
- Linear potentiometric displacement transducer 25 mm x 0.001 mm (UTGM-0062) with holder (UTM-0114)
- Computer Software
- LAN Connection Cable

Dimensions	470x600x1180 mm
Weight (approx.)	102 kg
Power	370 W



Main Features

- Can make the test with displacement control
- Real time display of test graph.
- 4 analog channels for load cell and displacement sensors
- Can control second frame
- Calibration function for channels.
- Programmable digital gain adjustment for load-cell and potentiometric sensors, voltage and current transmitters
- Closed-loop PID for steady pace rate
- Calculates corrected CBR value at 2.5 and 5 mm the digital unit saves the load value at user defined displacement values such as 0.625, 1.25, 1.875, 2.5, 3.75, 5, 7.5, 10, 12.5 mm
- The load corresponds to the displacements corrected respect to the linear region of the data has also saved
- The % CBR at 2.5 mm and % CBR at 5 mm is also automatically calculated and saved.

PLEASE see the pages of "General Properties of U-Touch PRO Control Units" for details of the properties of software of the unit.

USOFT-0856 UTEST Software for CBR Test

USOFT-0856.CBR Test Software is developed for EN/ASTM/AASHTO/BS CBR Test. The software includes control of machine, acquisition of load and displacement data, generating and saving reports.

The software prepares a summary result for the user that will only need some specific loads such as at 0.625 mm, 1.25 mm, 2.5 mm and 5 mm. The software continuously updates load, stress and displacement till the end of test. Software can automatically draw the best tangent line and perform the upward concave correction as suggested by ASTM D 1883. The corrected stress values are then calculated respect to this offset.

The CBR value at 2.5mm and 5.0mm are calculated by using the standart load values at those penetrations. On the general information tab, by entering necessary information, dry density calculations can be made through the software. The software supports metric, SI and Imperial unit system.

See the pages of "General Properties of Utest USOFT Softwares" for details of the properties of software and hardware.