CIST / 882 highway application 4.5 Kg impact hammer (SDI soil tester)

Clegg Impact Soil tester Model CIST / 882 produced by SD Instrumentation (SDI)

A method for measuring and controlling soil strength and consolidation levels during ditch restoration is provided.It is also used to determine uniform compaction on a wide range of ground, identifying areas of poor compaction and rolling of materials.The lighter version of the gauge is also suitable for detecting sports fields, and the heavier version is used to detect harder materials and roads.

The New Road and Street Engineering Act 1991 details the restoration of highway gaps, thus creating a demand for testing tools to detect the performance of trench filling operations and the firmness of filling materials, while imposing fines on contractors where the project does not meet the prescribed standards.The Clegg Impact Soil Tester is used to monitor and control the quality of recovery work under engineering, robust and credible, and the Clegg Soil Impact Tester provides solid and reliable equipment

for operation.Avoid re-excavation testing due to unqualified quality.

It performed a simple research laboratory experiment with the Clegg impact soil tester in the field and at killingworth (Killingworth).Thousands of the instruments are currently being used in the UK and overseas, with the operators using exactly the recommended method.Instructions of these test methods are available on our website.

The tester consists of a 4.5kg compaction hammer operated within a vertical catheter.When the hammer is released from a fixed height, it falls through the tube and hits the measured surface, slowing down at a rate determined by the stiffness of the material within the impact area.A precision accelerometer mounted on the hammer generates a charge that is transmitted via a cable to a handheld digital reader.The fast microcontroller in the reading scans and filters the signal and records the deceleration in impact value (IV).This impact value is an indicator of soil strength and correlated well with the CBR test results.Data from the impact soil tester can be used in a similar manner for the results of laboratory and field CBR tests.The tester is powered by a single 9V PP3 battery and is mounted in a pull-out drawer next to the reader.

The tester has been approved by the American Association for Testing and Materials, and in 1995 issued a standard named D5874, fully known as: Standard Test Method for Soil IV Value determination.We can give a copy of the standard if required.The Clegg Soil Impact tester is manufactured and marketed by Trowbridge's SDi under the exclusive license of Australian inventor Dr Baden Clegg.

CIST / 882 Handheld reader

The CIST / 882 reading units display the impact value (IV) reading, and also show the number of times the hammer is dropped during each test operation.

For testing, gently brush the ground with a foot to remove loose material and place the catheter in place.One hand holds the open digital reading unit, the hammer rises until the hammer head shows a height of 450mm, and then falls freely.This procedure was repeated four times, and the readings at the last drop were recorded as shock values.

The operation manual gives a table of target IV of fill and sub-grade materials, enables the operator to check whether the compound raw materials meet the specification level.

Specification and Ordering Code

CIST/882 Specification:- **Order Code:- CIST/882/4.5K**

Model Number	:	CIST/882/4.5K
Hammer Weight	:	4.5 Kg.
Bumble Bee Guide Tube	:	Strong Anodised Yellow Aluminium, Black Acetal Base Flange & Handle.
Readout Display *(alphanumeric)*	:	Backlit – easy to view. Hand held readout unit.
Readout Range	:	Up to 101 Impact Values (IV).
Power Source	:	3V : 2 x AA batteries located behind detachable rear sealed panel.
Battery Life	:	12 Month typical battery life - dependant upon frequency of usage.
Power 'On' & Controls	:	Single momentary push button - also enables / disables %CBR Display.
Data Storage in Readout	:	Not available. (But available with the CIST/883 and CIST/884 models).
Readout Displaying %CBR	:	Enabled / disabled by pressing & holding the 'On' button. When enabled displays 4th drop %CBR value (with Inter-drop IV check TREND algorithm).
Transit & Storage Case	:	Type CIST/ATS/15. Aluminium framed case for added protection in transit.
Size & Weight (approx).	:	71 x 13 x 13 cm. Packed weight in case 13 Kg.

Specifications subject to change without prior notice