



INSTRUCTION MANUAL

DIGITAL SHORE TESTER

DSAS/DSDS

PARTNERS IN PRECISION



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1. OPERATION

- The test specimen should be at least 6mm (0.25") in thickness for the Shore A models and at least 3mm (0.12") in thickness for the Shore D models.
- The lateral dimensions of the specimen should be sufficient to permit measurements at least 12mm (0.5") from any edge.
- The surface of the specimen should be flat and parallel over a sufficient area to permit the presser foot to contact the specimen over an area having a radius of at least 6mm (0.25") from the indenter point.
- A specimen may be composed of plyed pieces to obtain the necessary thickness, but determinations made on such specimens may not agree with those made on solid specimens because the surface faces between plies may not be in complete contact

1.1 TESTING PROCEDURE

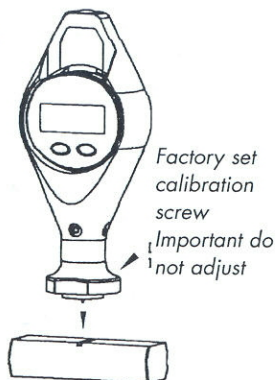
- Ensure the tester is set to zero before commencing any tests.
- Change to REF I mode when using the durometer.
- Place the specimen on a hard, horizontal surface.
- Hold the durometer in a vertical position with the point of the indenter at least 12mm (0.5") from any edge.
- Apply the presser foot to the specimen as rapidly as possible, without shock, keeping the foot parallel to the surface of the specimen. Apply just sufficient pressure to obtain firm contact between presser foot and specimen.
- The hardness should be read off 1 second after the presser foot of the durometer has made contact.
- In case of the specimen exhibiting a marked flow propensity, the reading may also be taken after 15 seconds.

1.2 USING THE SUPPLIED ALUMINIUM REFERENCE BLOCK



To check the tester has not been damaged simply place the indenter of the tester in the slot of the test block. Apply gentle pressure keeping the tester vertical, then simply read off the value obtained. This should be within ± 2 units.

Please note:

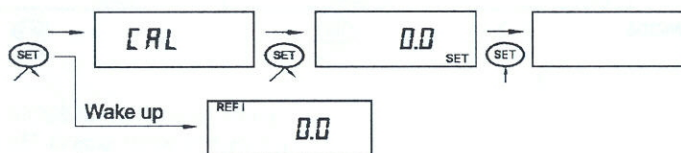
CV Instruments recommend that the unit is returned annually for re-calibration.



2. THE DISPLAY

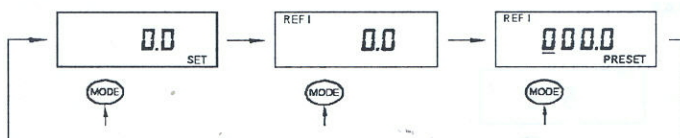
- Button pressed less than 1 second 
- Button pressed more than 1 second 

- To switch on press SET briefly. CAL is displayed.
Press SET briefly to activate electronics.
To switch off press SET and hold.



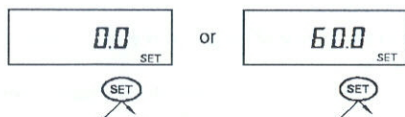
Automatic sleep condition occurs after 4 hours (display off), press MODE or SET to wake up electronics.

- There are three electronic functions available:
SET, REF I or PRESET



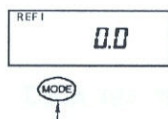
To change between each mode, press MODE and hold

2.1 SET MODE



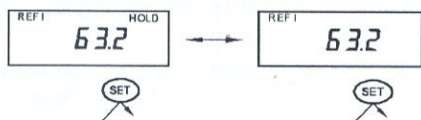
To zero the display press SET (000.0 must be entered in the preset).
If a calibration value is entered in the preset, pressing SET will display this value.

2.2 REFERENCE MODE



Press and hold MODE until REF I is displayed.

2.3 FREEZE DISPLAY



To freeze the display press SET briefly and HOLD will appear.
To unfreeze the display, press SET briefly again.

2.4 PRESET MODE



Press and hold MODE until PRESET appears



Press MODE to move cursor along.
Press SET to enter value or zero digit.

Press MODE and hold to store value and return to SET.

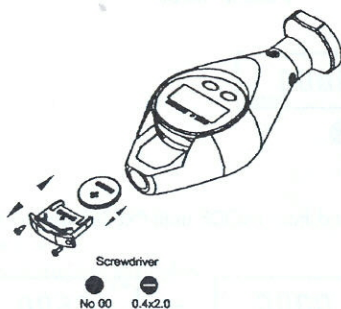
3. BATTERY CHANGING

If display shows a B, the battery requires changing.

Insert battery as shown.

Ensure correct polarity.

Lithium 3V battery, part no. 2032
(20mm diameter, 3.2mm thick)



Note:

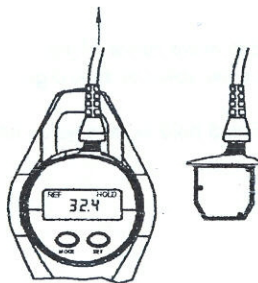
Removing the battery will provoke a general reset of the instrument.

4. DATA TRANSMISSION

Remove battery to connect

Power Lead/Opto cable.

Pressing SET, sends a data transmission.



5. IP65 PROTECTION

Please note the IP65 protection rating for the instrument contained in these instructions applies to the electronics only.

6. WARRANTY

Except for battery exchange only the manufacturer has the ability to dismount the electronics.

Any tampering will invalidate warranty.

7. BENCH STAND

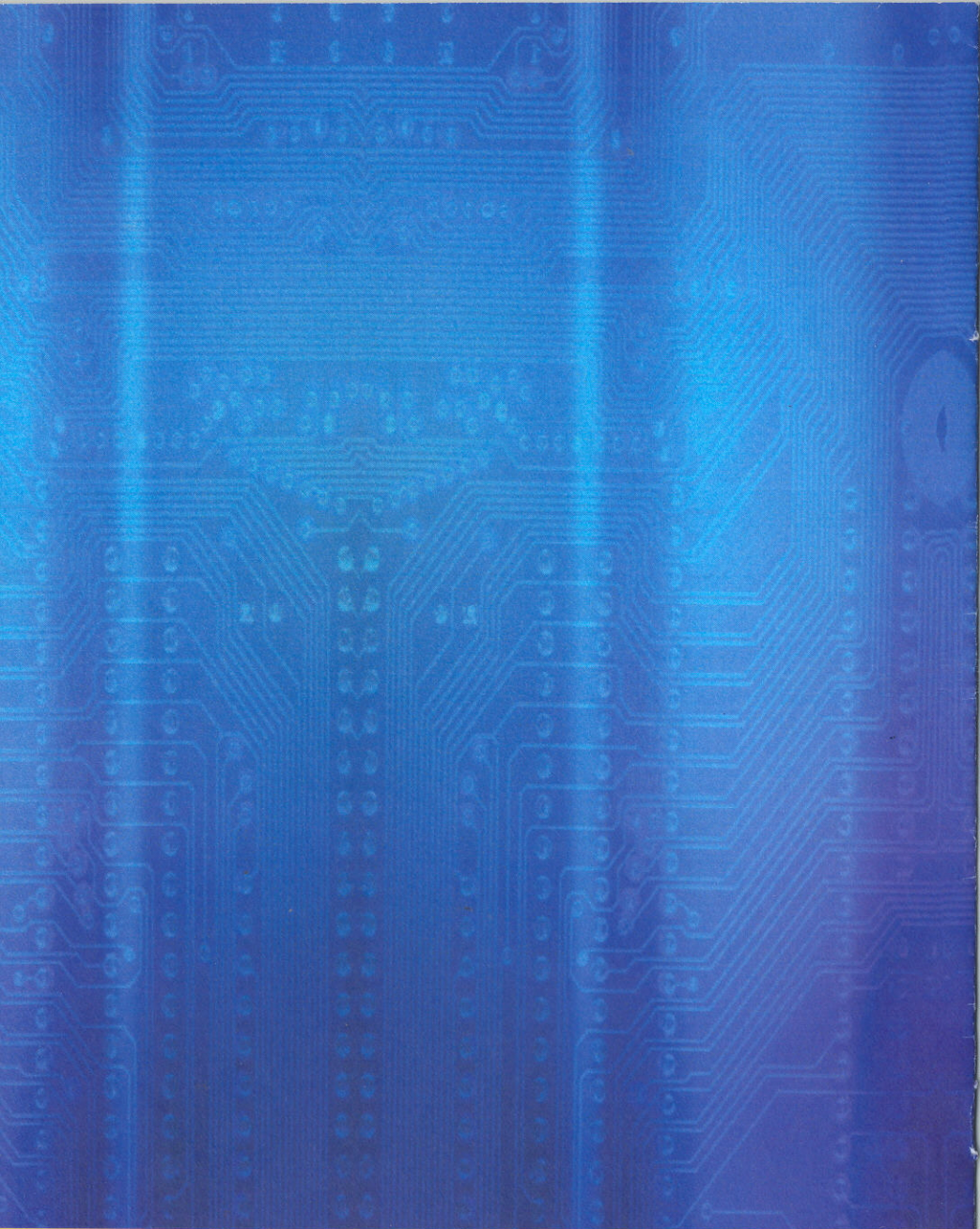
Using the tester with the Shore bench stand.

The tester used in conjunction with the Shore Bench Stand will give better reproducibility and accuracy when being used by either experienced or inexperienced operator.

The Shore Bench Stand comes with 2 different masses, namely a 1kg mass for Shore A and a 4kg mass which is added to the 1kg mass to produce 5kg for Shore D.

Flip-off the plastic dust cover from the top of the tester and screw in the adaptor with an M8 thread into the tester. Place the test piece on the anvil of the bench stand and apply pressure to the operating lever, so as to lift the anvil and test piece into the indenter of the tester. Continue to apply pressure to the operating handle, lifting the mass upwards so as to apply the full mass to the tester. The reading can now be taken.





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