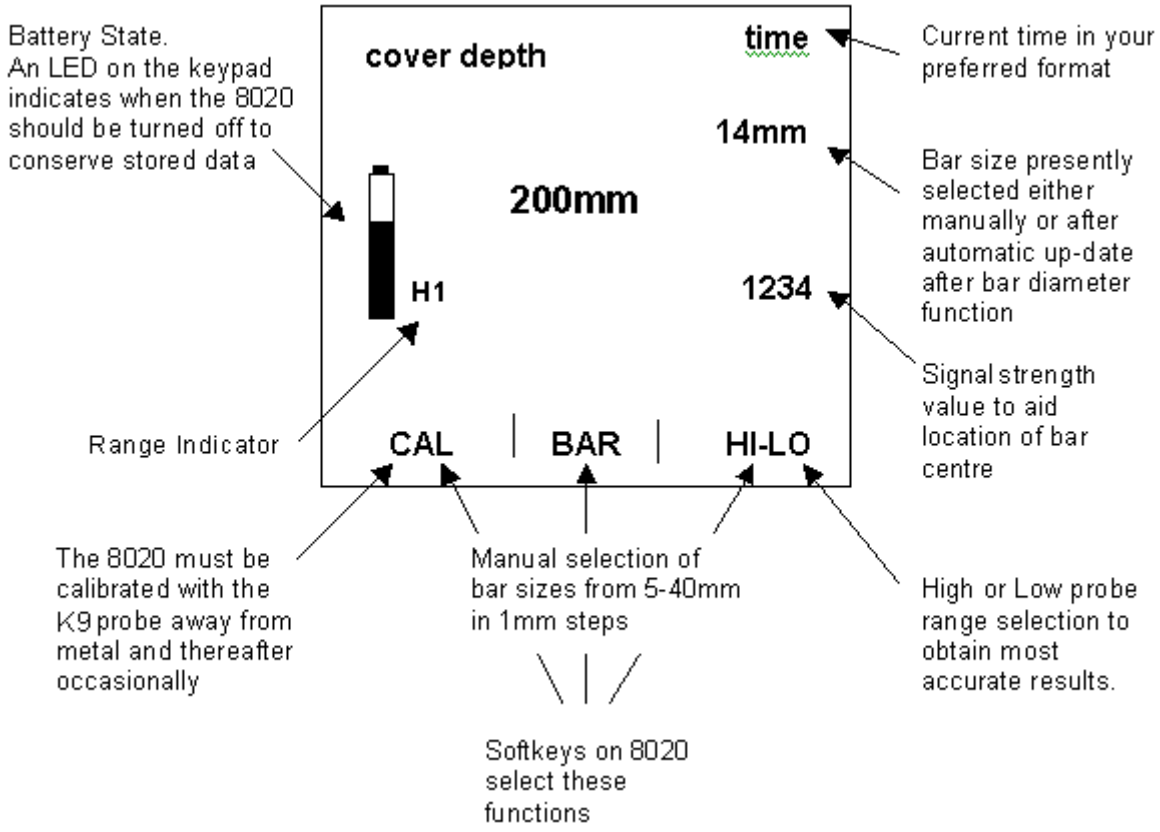
8020 Micro Covermeter

The worlds first microprocessor-controlled reinforcement bar locator now with Datalogging.

- Handheld Unit with Screen Display
- Lightweight K9 Probe With Keypad
- Auto Rebar Diameter Determination
- Depth Displayed in High/Low Range
- Accurate Discrimination of Close Bars
- Audio and Visual Bar Location Aids
- Data Logging
- Quick Scanning Facility to Preset Depth
- Data Logging to Spreadsheet
- Soft key User Programmable
- Carry case, Harness and Charger
- IP65 Rated. Screen Backlight
- Instructions and Optional Software

Using high-powered processors in conjunction with pulse induction search technology, automatic bar diameter determination within the parameters defined below enables very precise depth readings and bar orientation to be obtained even where there is the need to discriminate between bars on close centres. Several Menu and Set-up screens are available to tailor the 8020 to your local requirements, and the unit remembers these settings at switch on until modified, even after power-down for battery conservation. Battery life is shown on screen but an additional visual indication is given when to continue work might compromise stored data, and that re-charging is essential.

A typical operating screen is shown below.



On/Off-Function switch on keypad selects Menus as required. The screen appearing immediately after the Cover depth screen shown above is for Bar Sizing. A further screen is available for examining data that has been logged from the K9 probe. This probe also has an LED for assisting in finding the top dead centre position of bars as the probe is swept across the surface.

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Technical Specifications

Bar Sizing Accuracy **± 0,5mm to ± 1.5 mm**
Dependent on bar size and cover depth and the closeness of other bars. Error codes indicate to the user if there is too much or too little cover for a bar size to be estimated. Otherwise the bar size is indicated and the current bar size used by the 8020 is updated automatically, resulting in greater depth indication accuracy.

Bar Sizing Resolution **0.1 mm**

Bar Sizing The minimum depths of between **8-22** mm of cover, which are dependent on the bar size, can be overcome by the introduction of any spacer when the bar is too close to the surface.
Typically a **6**mm bar can be sized down to **60**mm of cover
and a **40**mm bar can be sized down to **80**mm of cover.

Cover Depth Measurement Range
From **5** to **185**mm dependent on bar size. Readings closer to zero can be achieved by insertion of spacer of known thickness to increase distance of probe from target.

Cover Depth Accuracy **to 1 mm**

Examples of Accuracy	±**1**mm up to **60**mm cover	±**3**mm up to **160**mm
	±**2**mm up to **120**mm	±**4**mm over **160**mm

Better than BS1881 part 204 over full range of Instrument

Bar Resolution Dependent on bar size and cover. Some examples are shown here.

Bar Diameter:	**Cover:**	**Minimum Spacing:**
16mm	**60** mm	**70**mm
16mm	**100** mm	**110**mm
25mm	**130** mm	**150**mm

Data Logging Capability The logging capacity is 10000 bits of information comprising:

Cover measurement
Bar size
Date
Time
Log Number
The PC application communicates with the **8020** via a serial port and enables the downloading directly into a Microsoft Excel spreadsheet format (*.csv file). This will include the facility to download a selected range of logged data "points" such that only the required data is transferred to the spreadsheet. This program is simple to install and works with Windows 2000, ME & XP.

Technical Comparison

Features	**8010**	**8020**
Auto Bar Sizing Using Raw Signal Strength		Y
K9 Probe with Auto Log and Visual Indicator of Bar		Y
Automatic Update of Measured Bar Size	Y	Y
Probe for Deep Bars	Y	
Manual Bar Sizing Using Spacer and Auto Calculation	Y	
Data Logging with Software for Download To Excel	Y	Y
Signal Strength Display		Y
High-Low Range Selector for Discrimination Accuracy		Y
Quick Scan Mode with Low Cover Alarm	Y	Y
Screen Backlighting		Y
Metric/Imperial Measurements	Y	Y
Battery State Indicator and Re-Charge Warning	Y	Y
Earpiece	Opt	Y
Audio Bar Location with Adjustable Volume	Y	Y
Date and Time in International formats	Y	Y
Bar Diameter Determination to 0,1 mm		Y
Meets or Exceeds Requirements of BS1881 Part 204	Y	
Much Greater Accuracy Than Requirements of BS1881		Y
Instrument with Probe Weighs Only 700 Grams		Y
Carry Case, Instrument Harness and Manual	Y	Y
Charger	Y	Y
IP65 Rated Housings	Y	Y

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