elcometer®

inspection equipment

Concrete Inspection & Metal Detection

A covermeter, or rebar locator, is a gauge that measures the thickness of concrete cover over steel reinforcement bars and metal pipes. The covermeter can tell you the depth of the rebar, the location and orientation of reinforcement bar (rebar) and determine the diameter of the rebar.

A rebar locator is used to determine the presence and orientation of steel reinforcement rebars under the surface of the concrete.

A contractor engaged in maintenance work will be familiar with the problem of accurately locating the exact position of rebar, wall ties, studs and other metal fasteners. These low cost, simple to use gauges can meet their everyday requirements.

Test hammers are used to determine the surface hardness of concrete and are one of the most widely used instruments to assess concrete compressive strength. It is the quickest, simplest and least expensive method to obtain an estimate of the quality and strength of the concrete.

Test Hammers with both analogue and digital displays are available.

Many concrete structures have a protective or cosmetic coating. Premature failure of this coating can, at the very least, result in additional costs of rework.

Adhesion tests verify that both surface preparation and coating application are within specification.

Concrete structures are porous and will absorb moisture, our range of moisture meters and climate monitoring gauges allows moisture content to be measured.

More extensive range includes gauges used for the measurement of crack width in concrete and other structures.

The Elcometer Metal Detection range includes Valve Box Locators that are rugged and simple to use making them the ideal choice for all location work in all types of terrain.

Elcometer 181

STANDARDS:
ASTM C805, BS 1881:202, DIN 1048, EN 12504-2, ISO 8045, NFP18-417, UNI 9189

Analogue Concrete Test Hammer

The concrete test hammer provides a quick, simple and inexpensive method for non-destructive evaluation of concrete compression strength and other masonry materials.

Concrete test hammers are one of the most widely used instruments in the field of non-destructive testing and Elcometer offer both mechanical and digital models.

This gauge consists of a spring loaded plunger which, when released, strikes the surface with fixed and constant impact energy. During the rebound stroke, the mass moves a pointer that indicates the maximum point of return and at the same time indicates a reference value called Rebound Number.

This number, converted by the correlations available on the hammer, gives the compression resistance value in respect of the impact angle.

Key Features:

- Impact Energy 2.207 Nm
- Supplied with grinding stone to prepare test surface
- Aluminium body
- Rebound value indicated on test hammer
- Rebound value chart on body, for quick calculation of compressive strength
- Curve selection on chart dependant on testing angle

Technical Specification

Part Number	Description	Certificate
W181----1	Elcometer 181 Analogue Concrete Test Hammer - MPa / PSI Scale	○
Accuracy	Better than ±2 Rebound Number (When tested on Calibration Anvil at 80)	
Resolution	2 Rebound Number(s)	
Range	10 to 100 Rebound Number(s)	
Dimensions	Hammer: 280mm (11.02") length x 55mm (2.17") diameter In Case: 350mm (13.78") length x 80mm (3.15") diameter	
Weight	1.5kg (3.3lbs) with case	
Packing List	Elcometer 181 analogue concrete test hammer, plastic storage case, abrasive stone & operating instructions	

Accessories

TW99919563	Calibration Anvil (supplied complete with Test Certificate)

○ Optional Calibration Certificate available.

Concrete Inspection - Rebound Hammer

Digital Concrete Test Hammer

Elcometer 182

The Elcometer 182 Digital Concrete Test Hammer is equipped with an electronic transducer which converts the rebound values into a reading on the digital display. It displays a range of statistics and there is a facility to download to a PC.

The software and digital display are integrated into the design of the hammer.

- Light and easy to use
- High resolution and accuracy
- Possibility to store measurements and download data to PC
- Setting of test parameters and factors (age, shape, correction factors)
- Rapid and simple calibration procedure
- Selection of testing angle
- Selection of unit (N/mm², MPa, PSI, kgf/cm²) Automatic conversion of rebound index to equivalent compression strength
- Selection between 7 different correlation curves between rebound index and compressive strength, 2 pre-set and 5 user definable
- Statistical evaluation of test results (mean value, standard deviation, concrete strength estimation)
- Supplied with abrasive stone to prepare test surface
- Storage of up to 5,000 results
- RS 232 output to PC
- Rechargeable internal battery

STANDARDS:
ASTM C805, BS 1881:202, DIN 1048, EN 12504-2, ISO 8045, NFP18-417, UNI 9189

Technical Specification

Part Number	Description	Certificate
W182---4	Elcometer 182 Digital Concrete Test Hammer	●
Impact Energy	2.207 Nm	
Accuracy	Better than ± 2 Rebound Number(s) (When tested on Calibration Anvil at 80)	
Resolution	0.1 Rebound Number	
Range	10 to 70 MPa	
Memory	5,000 tests	
Unit Selection	N/mm²; MPa; kgf/cm²; PSI	
Autonomy (Continuous Use)	>5 Hours	
Dimensions	Hammer: 280mm (11.02”) length x 55mm (2.17”) diameter In Case: 190 x 100 x 350mm (7.48” x 3.94” x 13.78”)	
Weight	2kg (4.4lbs) with case	
Packing List	Hammer, battery charger (UK, EUR & US), serial cable for PC, abrasive stone, instruction manual, calibration certificate and carry case	

Accessories

TW99919563	Calibration Anvil (supplied complete with Test Certificate)
TW18219475-1	Replacement Mains Adaptor, UK 240V
TW18219475-2	Replacement Mains Adaptor, EUR 220V
TW18219475-3	Replacement Mains Adaptor, US 110V

● Calibration certificate supplied as standard

Elcometer 331

Covermeters & Half-Cell Meters

STANDARDS:
ACI 318, ASTM C876-91, BS1881:201, BS1881:204, BS8110, CP 110, DGZfP:B2, DGZfP:B3, DIN 1045, EC2, SIA 262, SS-EN 206, Concrete Society Technical Report 60, UNI 10174

Intuitive menus in multiple languages:
Clear on-screen instructions

Fast and accurate:
Locate and determine orientation of rebar quickly, easily & accurately

Large, easy to read backlit display:
For easy viewing in dark environments

Range of fully interchangeable search heads including standard, narrow pitch, deep cover, borehole probe and half cell.

Concrete Inspection - Covermeter & Half-Cell

Covermeters & Half-Cell Meters

Elcometer 331

Single handed operation:
All functions can be accessed & controlled through 4 simple keys on both the main unit and search head

International bar sizes:
User selectable bar sizes: metric, US Bar Numbers, ASTM/Canadian and Japanese

Rechargeable battery supply:
Battery packs can be charged in the unit or externally

Ergonomically designed:
For ease of use and comfort

Probe Storage Locator on base unit for portability

An easy to use gauge that quickly and accurately locates/orientates reinforcement bars and measures the depth of cover over the rebar.

Designed to meet IP65 this rugged waterproof gauge can be used in the harshest of environments.

Elcometer 331 Covermeters & Half-Cell Meters

Elcometer have seven covermeters in their range, The Elcometer 331² H & HM are Half-Cell only instruments, the Elcometer 331² Model B is a Covermeter only and the Elcometer 331² Models BH, SH and TH incorporate the Half-Cell technology required to assess potential corrosion of rebar. Finally, the THD model can accurately locate stainless steel rebar.

User Friendly

- Easy to transport and store
- Ergonomically shaped case for comfort
- Single handed operation: All functions can be accessed & controlled through 4 simple keys/ buttons

Accurate

- Locate and determine orientation of rebar quickly, easily & accurately
- Up to 240,000 readings can be stored on the gauge for detailed reporting*
- Memory and data logging with data output to PC or direct to printer*
- Graph Plotting allows an immediate visual indication of results

Reliable

- Stainless Steel rebars can be located by the THD Model
- Battery packs can be charged in the unit or externally. Additional batteries allow continued use

Tough

- Specifically designed for use on-site
- Rugged, waterproof IP65 case provides protection against the elements.
- Backlit screen for viewing in dark environments

Efficient

- Rebar locator, concrete covermeter and half-cell measurement all available in a single gauge - (selected models)
- Intuitive menus enable each gauge to be used straight from the box

Powerful

- Links to Covermaster™ software
- Ultimate data management tool to store cover & half cell readings and produce professional reports
- On Screen graphic display provides visual assessment of readings allowing identification of areas of low concrete cover or potential areas of corrosion

Elcometer 331 Covermeter

Elcometer 331 Half-Cell Meter

* Selected models only

Concrete Inspection - Covermeter & Half-Cell

Covermeters & Half-Cell Meters Elcometer 331

Product Features

Models	H	HM	B	BH	SH	TH	THD
Covermeter /rebar location			■	■	■	■	■
Half-Cell measurement	■	■		■	■	■	■
Rebar orientation			■	■	■	■	■
Depth of cover			■	■	■	■	■
Large cover (thickness) reading mm or inches			■	■	■	■	■
Large graphics display with backlight	■	■	■	■	■	■	■
Multiple language menu structure	■	■	■	■	■	■	■
Signal strength bar			■	■	■	■	■
Interchangeable heads with LED & keypad			■	■	■	■	■
User selectable bar range sizes & numbers			■	■	■	■	■
Rugged waterproof case (IP65)	■	■	■	■	■	■	■
Adjustable beep volume & earphone socket	■	■	■	■	■	■	■
Measurement sound modes			■	■	■	■	■
Locate *(tone increases as head approaches rebar)*			■	■	■	■	■
Under Cover *(tone only sound for low cover)*					■	■	■
Maxpip *(tone only as head passes rebar centre)*					■	■	■
Large half cell reading mV				■	■	■	■
Automatic bar size estimate					■	■	■
Orthogonal bar size calculation					■	■	■
RS232 Output - direct to printer or PC					■	■	■
Covermaster™ software		■			■	■	■
Statistics		■			■	■	■
Minimum & maximum cover limits					■	■	■
Date & Time		■			■	■	■
Memory					■	■	■
Linear batch memory		Up to 200 batches of 1000 readings#			10 linear batches of 1,000 readings each	Up to 200 batches of 1000 readings#	Up to 200 batches of 1000 readings#
Grid batch memory		Up to 240,000 readings#				Up to 240,000 readings#	Up to 240,000 readings#
User certified batch size						■	■
Graphics plot						■	■
Threshold plot						■	■
Stainless steel measurement mode							■

Linear batch mode: up to 200 batches of 1,000 readings each Grid batch mode: up to 1,000 batches, maximum number of readings: 240,000

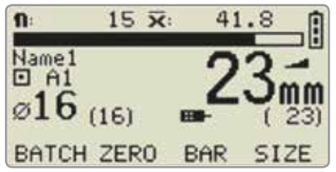
Technical Specification

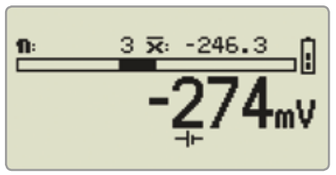
	Model H	Model HM	Model B	Model BH	Model SH	Model TH	Model THD
Part Numbers	W331H---4	W331HM--4	W331B---4	W331BH--4	W331SH--4	W331TH--4	W331THD-4
Power supply	7.4V battery pack provides up to 32 hours of continuous use (20 hrs if backlight is on). Rechargeable in 4 hours either inside or outside the gauge using an external charger.						
Operating temperature	0 to 50°C (32 to 120°F)						
Dimensions	230 x 130 x 125mm (9 x 5.1 x 4.9")				Weight	1.54kg (3.4lbs)	
Packing List	Standard Items: Rechargeable battery pack & charger (UK, US & EU), earphone, shoulder strap, plastic carry case & operating instructions. Model H & HM: Half Cell Meter, 25m extension cable on spool, 1.7m red rebar connecting cable with connecting clip & 1.7m black half-cell connecting cable. Model B: Concrete Covermeter, standard search head & search head connecting cable. Model BH, SH, TH & THD*: Concrete Covermeter with Half-Cell & search head connecting cable. Model HM, SH, TH & THD are also supplied with Covermaster™ software and PC cable.						

* Search Heads and Half-Cell Probes are not included as standard and must be ordered separately

Elcometer 331

Covermeters & Half-Cell Meters

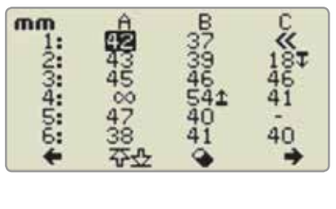




Cover Display Screen -

Alternative / Typical Data Review Screen View

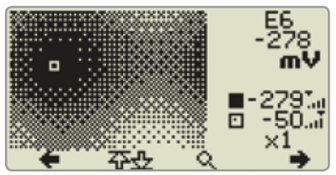
- Backlit screens for use in dark conditions
- Easy to use menus, in multiple languages to enable access to all data needed whilst on site without constant reference to the instruction book
- Alternative view shows the typical display when using the deep cover search head
- Bar size and depth of cover can be manually inputted to suit specific requirements
- Typical data review screen clearly displays where readings are below or above a user specified tolerance, where a reading has not been taken
- Units of measurement can be displayed in mm or inches for cover, or mV for Half Cell



Half-Cell Mode -

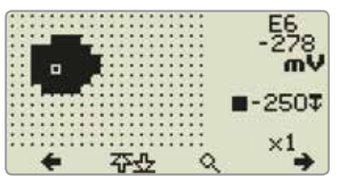
Typical Screen View

- Elcometer 331 Model BH/SH/TH/THD can read both Cover and Half-Cell Values
- Elcometer 331 Model B can read Cover Values only
- Data logging information displayed on screen
- Menu soft keys are visible in Elcometer 331 Model SH and TH



Graphics Plot Mode

- Half-Cell Mode - the gauge indicates the areas with the most potential for corrosion
- Covermeter mode - the gauge indicates the depth of cover
- Black indicates most potential for corrosion
- White indicates least potential for corrosion with varying greyscale shade in between
- Zoom feature allows the user to take a closer look at different areas that are of interest



Threshold View

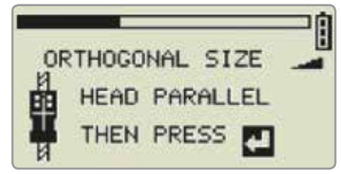
- Ideal method for a simple pass or fail analysis
- Once the threshold value has been set, anything before the value is shown in black, while anything over the value is shown in white

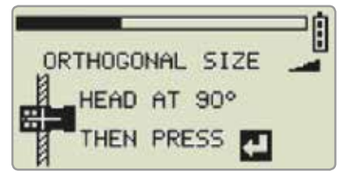
Covermeters & Half-Cell Meters

Elcometer 331

Autosizing and orthogonal function

- Autosizing automatically estimates the size of rebar and the depth of cover
- If this estimated figure differs greatly from your expected rebar size or you do not know the expected rebar size, the orthogonal size function provides an accurate measurement of bar size
- The step by step directions for orthogonal function on the covermeter make the accurate sizing of bars quick and easy





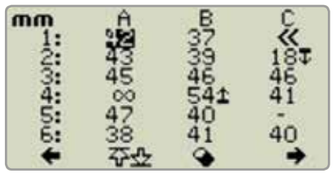
Bar Size Dimensions

Selecting a bar size

Dimensions of reinforcement bars are stored in the covermeter and includes the following four standards bar series: Metric, US Bar, ASTM/Canadian and Japanese. Due to this wide selection of bar sizing, the Elcometer 331 Covermeters can be utilised worldwide with accurate results. When taking measurements for high tensile steel or Grades 304, 316 and Duplex Stainless Steel, details for the Bar Grade and Bar Size can be manually input into the covermeter, alternatively the gauge can be used in autosizing mode.

Metric		US Bar		ASTM/Canadian		Japanese	
Bar Size	Diam. (mm)	Bar Size	Diam. (Inch)	Bar Size	Diam. (mm^2)	Bar Size	Diam. (mm)
5	5	#2	0.250	10M	100	6	6
5.5	5.5	#3	0.375	15M	200	10	10
6	6	#4	0.500	20M	300	13	13
7	7	#5	0.625	25M	500	16	16
8	8	#6	0.750	30M	700	19	19
9	9	#7	0.875	35M	1000	22	22
10	10	#8	1.000	45M	1500	25	25
11	11	#9	1.125	55M	2500	29	29
12	12	#10	1.250			32	32
14	14	#11	1.375			35	35
16	16	#12	1.500			38	38
18	18	#13	1.625			41	41
20	20	#14	1.750			44	44
22	22	#15	1.875			48	48
25	25	#16	2.000			51	51
28	28	#18	2.250			57	57
32	32						
36	36						
40	40						
44	44						
50	50						

Elcometer 331



Covermeters & Half-Cell Meters

Data Logging Feature

- Simple Data Management on the Elcometer 331 Models SH, TH and THD
- The Elcometer 331 Model SH can store up to 10 batches of 1,000 cover or half-cell readings, with batch statistics, ready for evaluation and report generation using Covermaster™ software package
- The Elcometer 331 TH and THD models have user definable memory batches with either linear and grid batch data logging modes. (Linear batching is where data is stored in a batch one reading after another)
- Grid batches allow data to be stored in a 'spreadsheet format' with each cell relating to the survey area typically mapped out on the structure prior to inspection. The grid batch feature facilitates fast surveying for both cover and half-cell readings. Problem areas that do not fall within specification can be immediately identified and marked directly on the concrete
- Cover and half-cell readings can be recorded and 'overlaid' in each grid location

Powerful Statistics Feature

- Continually calculates and displays the statistical analysis of readings as they are taken. So, while the covermeter is in use, you are always informed and know exactly how your site survey is progressing
- Statistics values are also calculated for the readings within each batch and these values are stored in the batch along with all individual readings

The following statistics and values can be viewed and stored within the gauge:

Icon	Icon Meaning	Description
η	Number of readings	The running value for the number of readings taken in a group
$\bar{x}$	Mean	The average of a group of readings; the sum of the individual readings divided by the numbers of readings
σ	Standard deviation	A statistical measure of the spread of values in a group of readings
CV%	Coefficient of Variation	The standard deviation divided by the mean for a group of readings expressed as a percentage
	Lowest Reading	The value of the lowest reading taken in a group of readings
	Highest Reading	The value of the highest reading taken in a group of readings
<<	Under Range	The number and percentage of readings under range
or <	Low Limit	The number and percentage of readings below the limit
	Within Limits	The number and percentage of readings within limits
or >	High Limit	The number and percentage of readings above the high limit
∞	Over Range	The number and percentage of readings over range (or infinite)
	Blank Readings	Number and percentage of blank readings (skipped/ not recorded /deleted)

Covermaster™ Software

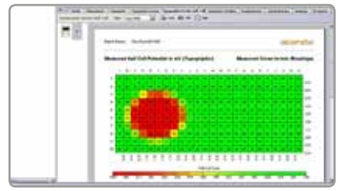
Elcometer's Covermaster™ software will manage your data efficiently and effectively.

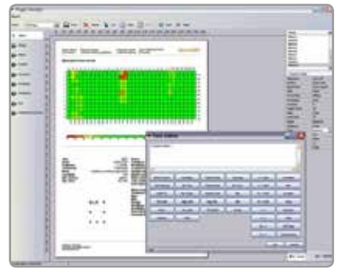
Data is transferred quickly into the Covermaster™ software data management system via RS232 connection. Both Covermeter and half-cell readings can be stored together with associated photographs, Word documents, Excel spreadsheets and other files.

Covermaster™ software is supplied free of charge with all Elcometer 331 models that have batch data storage.

Features:

- Data easily translated into a typographic view giving you all the information you need at a glance
- Data for each reading can be presented in colour or can be shown in greyscale, complete with reading values in each grid.
- Site survey data from both cover and half cell measurements can be shown on the same typographic (or gradient) chart.
- Reports can be fully customised giving the ability to add corporate logos, photos, memos and to provide a fully comprehensive report for clients.
- All survey information in one place, Covermaster™ links directly with Excel™, Word™ and PowerPoint™ files, it is simple to analyse and assess your results.
- Covermaster™ - one platform for the storage of data, notes, photographs, PDF files for the creation of comprehensive reports.





Elcometer 331

Accessories

For the Elcometer 331 BH, SH, TH and THD models, all search heads, the borehole probe and half-cell probes are fully interchangeable there is no requirement to return your gauge to Elcometer.

Elcometer 331 SH, TH and THD models are also supplied with Covermaster® & EDTS Excel link transfer software and PC Cable.

The Elcometer 331 Model B does not have half-cell capability and cannot be used with the half-cell probes.

Standard Search Head
Design to meet most of your measurement requirements.

Part Number	TW33119124-1A
Range	40mm / 1.6" bar 15mm to 95mm / 0.6" to 3.75" 8mm / 0.3" bar 8mm to 70mm / 0.3" to 2.75"
Dimensions	155 x 88 x 42mm / 6.1 x 3.5 x 1.65"
Sensing area	120 x 60mm / 4.72 x 2.36"

Narrow Pitch Search Head
Accurately measures the cover thickness when the gaps (pitch) between each of the rebars are close together.

Part Number	TW33119124-2A
Range	40mm / 1.6" bar 8mm to 80mm / 0.3" to 3.1" 8mm / 0.3" bar 5mm to 60mm / 0.2" to 2.4"
Dimensions	155 x 88 x 42mm / 6.1 x 3.5 x 1.65"
Sensing area	120 x 60mm / 4.72 x 2.36"

Deep Cover Search Head
The ideal search head for accurately measuring rebars that are deep within the structure.

Part Number	TW33119171A
Range	40mm /1.6" bar 35mm to 180mm / 1.4" to 7" 8mm / 0.3" bar 25mm to 160mm / 1" to 6.3"
Dimensions	170 x 94 x 54mm / 6.7 x 3.7 x 2.1"
Sensing area	160 x 80mm / 6.3 x 3.15"

Dual Search Head for high tensile and stainless steels
The search head specifically designed to locate High Tensile and Stainless Steel.

Part Number	TW33120014D
Range	40mm /1.6" bar 35mm to 180mm / 1.4" to 7" 8mm / 0.3" bar 25mm to 160mm / 1" to 6.3"
Dimensions	170 x 94 x 54mm / 6.7 x 3.7 x 2.1"
Sensing area	160 x 80mm / 6.3 x 3.15"

Accessories

Elcometer 331

Borehole Probe
The solution for locating tendon ducts and multiple layers of rebar lying deep within the concrete.

		Metric	Imperial
Part Number	Short	TW33119223-1A	TW33119223-3A
	Long	TW33119223-2A	TW33119223-4A
Measurement depth	Short Probe: 0 - 40cm / 0 - 16" Long Probe: 0 - 100cm / 0 - 40"		
Approximate detection ranges	Tendon duct (70mm / 2.75" diameter): up to 90mm / 3.54"		

Half-Cell Kit
Consisting of either a copper electrode in a copper sulphate solution or a silver electrode in a silver chloride solution, each half cell is a sealed unit - no need to mix chemicals. Supplied with a 25m / 80' cable, every half-cell probe is guaranteed for 5 years.

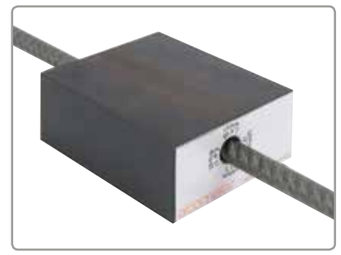
Part Number	TW331CUKIT	Copper/Copper Sulphate
	TW331AGKIT	Silver/Silver Chloride

Extension Cable 100m / 325ft
The extension cable for use with the half-cell kits gives the flexibility to take readings in difficult to reach areas.

Part Number	TW33119683

Verification Block
The verification block allows the user to check the calibration of their gauge in order to ensure maximum measurement accuracy.

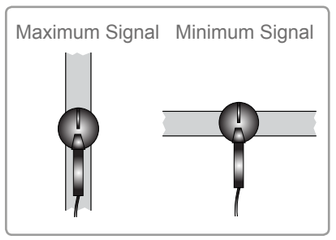
Part Number	TW33119218



Extension Arm Kit
This kit allows the user to scan bridge decks and floor areas using the hand held search heads from a standing position. Both the standard or narrow pitch search head can be attached to the extension arm.

Part Number	TW33119222

Elcometer P100



'Imp' Rebar Locator

The Elcometer P100 is a robust and economical gauge designed to identify the location and orientation of reinforcement bars and metal pipes.

Mild steel and stainless steel galvanised wall ties can also be found with an optional search coil (or probe).

Simple to use, the Elcometer P100 is supplied in an ABS plastic carry case, together with a 100mm (4") search coil and batteries.

- Fast and accurate - gives a loud audible signal when the exact location of the rebar has been found
- Directional search field - distinguishes between horizontal and vertical bars – see diagram
- No need to re-zero - unaffected by moisture, temperature changes and electrical interference

Technical Specification

Part Number	Description
W100157A9D	Elcometer P100 Imp Rebar Locator
Packing List	Elcometer 100 Imp Rebar Locator, search head, 4 x LR6 (AA) batteries, leather carry case, operating instructions

Accessories

TW999198F	100mm (4") Directional Search Coil for Rebar
TW999198G	200mm (8") Hi-Depth Locator Search Coil - Short-handled (250mm)
TW999198H	200mm (8") Hi-Depth Locator Search Coil - Long-handled (650mm)

Detection Ranges For Single Reinforcement Bars

Rebar Diameter		Detection Depth	
mm	inches	mm	inches
8	0.32	90	3.5
16	0.63	100	3.9
32	1.25	110	4.3

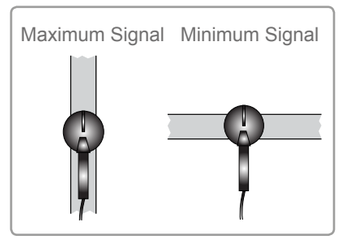
Concrete Inspection - Rebar & Stud Locators

Rebar Locator

Elcometer P120

The Elcometer P120 Rebar Locator provides a simple means to detect reinforcement bars in concrete, identifying the rebar's location, direction and an indication of the depth of concrete over the rebar.

Supplied together with a 100mm (4") search coil, leather carry case and batteries the Elcometer P120 is available in both metric and imperial versions.



- Fast, accurate and stable - Loud audio tone and clear analogue meter, with no need to re-zero the instrument during use
- High resolution controlled field search head - The strongest signal is in the centre of the search head making it accurate even when working at very close reinforcement bar centres or near metal objects, e.g. close to scaffolding or metal window frames
- Versatile - Supplied with a standard 100mm (4") head it will also accept a 150mm (6") head and a Borehole Probe for locating rebars and locating tendon ducts at great depths
- Rebar Plus rebar locators can quickly and easily distinguish between horizontal and vertical bars due to their highly directional detection field
- Clear Instrument Display - High quality meter shows signal strength and battery state
- Headphone socket - Clearly detect the rebar in noisy environments

Identification and Orientation of the bar

The Elcometer P120 can distinguish between horizontal and vertical bars. After locating the steel reinforcement bars in the concrete, rotate the rebar locator's search coil (probe) until the maximum and minimum signals are found. The maximum signal indicates the bar is running parallel to the search coil's handle, the minimum signal indicates that the bar is running at 90° to the search coil's handle – see diagram.

Technical Specification

Part Number	Description
W120155I	Elcometer 120 Imp Rebar Plus Locator - Metric
W120155J	Elcometer 120 Imp Rebar Plus Locator - Imperial
Packing List	Elcometer 120 Imp Rebar Plus Locator, search head, 4 x LR6 (AA) batteries, leather carry case, operating instructions

Accessories

TW999165G	Probe Lead for Elcometer P120
TW999198F	100mm (4") Directional Search Coil for Elcometer P120
TW999198E	150mm (6") Extra-Depth Directional Search Coil for Elcometer P120

Detection Ranges For Single Reinforcement Bars

Rebar Diameter		Detection Depth		Resolution of Parallel Bars	
mm	inches	mm	inches	mm	inches
8	0.32	120	4.72	60mm pitch at up to 35mm	2.36" pitch at up to 1.37"
16	0.63	140	5.50	75mm pitch at up to 50mm	2.95" pitch at up to 1.97"
32	1.25	160	6.30	150mm pitch at up to 85mm	5.90" pitch at up to 3.35"

Elcometer P130

Wall Tie & Stud Locator

The Elcometer P130 will rapidly and precisely locate mild steel or stainless steel wall tie and also make an excellent stud locator / stud detector.

This small, battery operated gauge has:

- High-impact ABS control unit in tough leather case
- Search coils encapsulated in epoxy resin for unmatched ruggedness
- Built-in loudspeaker for clear audio signal; Standard 3.5mm (0.14") stereo jack socket for headphones if required
- Single control button for on/off and sensitivity/backoff control

Key Features:

- Fast and accurate - the strongest signal is in the middle of the search head making it easy to pin point the wall ties. A clear audio tone helps to identify the quick and precise location without the need to keep looking at the meter
- No need to re-zero - the Elcometer P130 is very stable in all weather conditions.
- Designed with the needs of the operator in mind - easy to use, built to last, supplied with leather case and shoulder strap
- Single Handed Operation - for safety and convenience when working on scaffold or ladders

Technical Specification

Part Number	Description
W130157B9D	Elcometer P130/D Wall-Tie Locator - Mild-Steel
W130157C9E	Elcometer P130/E Wall-Tie Locator – Mild & Stainless Steel with shoulder strap
Packing List	Elcometer P130/D: complete with 100mm (4") Locator Search Coil , Leather Case & Plastic Carry Case, 4 x LR6 (AA) batteries, operating instructions
	Elcometer P130/E: complete with 100mm (4") Locator Search Coil, 150mm (6") Stainless Steel Search Coil, Leather case with shoulder strap, Plastic Carry Case, 4 x LR6 (AA) batteries, operating instructions

Accessories

TW999198D	100mm (4") Locator Search Head
TW999198F	100mm (4") Directional Search Head - for Elcometer P130/D only
TW999198E	150mm (6") Stainless Steel Search Head – for Elcometer P130E only

Elcometer P150

Rebar & Wall Tie Locator

This fast, combined rugged gauge is supplied with three detector heads to determine both rebar and wall tie location and can also be used as an excellent stud locator / stud detector making it an extremely versatile instrument.

Supplied with two mild steel 100mm (4”) search heads and an additional 150mm (6”) search head which allows the gauge to locate phosphor-bronze, copper and some types of stainless steel* wall tie.

The Elcometer P150 can detect mild and stainless steel rebars, bed joint reinforcement, hoops irons, and can locate wiring in plaster walls.

- High-impact ABS control unit in a tough leather case
- Search coils encapsulated in epoxy resin for unmatched ruggedness
- Unit is switchable to detect or ignore stainless steel
- Single control button for on/off and sensitivity/back off control
- Built-in loudspeaker for clear audio signals; Standard 3.5mm stereo jack socket for headphones if required
- Fast and accurate - Strongest signal is in the middle of the search head which makes it easy to pin point wall ties. A clear audio tone assists in the quick and precise location - no need to keep looking at the meter
- No need to re-zero and stable in all weather conditions
- Designed with the operator in mind, easy to use, single handed operation with leather carry case and shoulder strap for safety and convenience

Technical Specification

Part Number	Description
W150157E9E	Elcometer P150 Rebar Locator, Mild-Steel & Stainless-steel Wall-Tie Locator
Packing List	Elcometer P150/E, 100mm (4") Locator Search Coil, 100mm (4") Directional Search Coil, 150mm (6") Stainless Steel Search Coil, Leather Case with shoulder strap & Plastic Carry Case, 4 x LR6 (AA) batteries, operating instructions

Accessories

TW999198D	100mm (4") Locator Search Head for Elcometer P150
TW999198F	100mm (4") Directional Search Head for Elcometer P150
TW999198E	150mm (6") Search Head for Stainless Steel Wall-Ties

Approximate Detection Ranges

Mild Steel / Galvanised Fishtail Wall Ties (100mm/4” Search Head)	130mm (5.11”)
Mild Steel / Galvanised Butterfly Wall Ties (100mm/4” Search Head)	130mm (5.11”)
Stainless Steel Fishtail Wall Ties (with 150mm/6” Search Head)	80mm (3.15”)

*Stainless steel does not give a strong signal. Please either send a drawing or ideally a sample of stainless steel wall tie you need to locate so we can test and advise as necessary.

Elcometer P500

Metal Box Locator

Although originally designed to accurately locate valve boxes and manhole covers, the Elcometer P500 can also be used as a general metal detector. The Elcometer P500 is straight forward to use and very rugged making it a popular choice in the market.

Detecting metal objects to a maximum depth of 1m (39.4”), the Elcometer P500 has a number of key unique features:

- Strong focused search field ensures the accurate location of objects close to metal fencing and vehicles
- Ignores any ghost signals from cigarette packets, drinks cans and other metallic waste materials
- Manufactured from a single moulded design, in high impact ABS plastic, the Elcometer P500 stands up to a tough environment
- Balanced, lightweight unit with a single control button for ease of use
- Audio signal with headphone socket and an ultra-bright LED visual indicator identify when metal has been detected

Technical Specification

Part Number	Description
W500157F	Elcometer P500 Imp Box Locator
Overall Length	96cm (38”)
Search Head Diameter	21cm (8”)
Weight	1.1kg (2.5lb)
Power Supply	4 x 1.5V AA Cells or 4 x 1.5V NiMH Rechargeable Cells
Packing List	Elcometer P500 Imp Box Locator, 4 x LR6 (AA) batteries, operating instructions

Approximate Detection Ranges

Typical Object Type	Metric	Imperial
Stop Top Box	50cm	19”
Fire Hydrant Cover	87cm	34”
Inspection Cover	95cm	37”

Deep Cover Metal Detector

Elcometer P520

The Elcometer P520 Metal Detector is very high powered for increased depth detection.

Originally designed to locate water mains, pipes and cables, the Elcometer P520 is also the perfect choice for location work in cluttered areas and at depths where other metal detectors simply do not work.

- Deep-seeking and accurate - can locate a 100mm (4”) metal water main at 1.20m (46”) and unlike traditional metal detectors will locate valves even when the frame and cover are missing
- Unaffected by temperature changes or power lines - the Elcometer P520 water main locator is unaffected by changes in temperature and moisture, and the presence of overhead power lines (where normal tracing can not be used)
- Stable and reliable - the Elcometer P520 does not need constant zeroing or recalibrating
- Clear Audio Signal – loudspeaker with a clear audio tone. In loud environments, simply connect headphones to the socket point
- Internal Battery – no need to find replacement batteries

Technical Specification

Part Number			Description
UK 240V	EUR 220V	USA 110V	
W520162H	W520162I	W520162J	Elcometer P520 Metal Detector – TS62
Overall Length			96cm (38”)
Main Unit Dimensions			23.3 x 18 x 10cm (9.2 x 7 x 4”)
Search Head Diameter			22 cm (8.7”)
Weight			850g (1.87lb)
Power Supply			Internal Rechargeable Battery (supplied with charger unit)
Packing List			Elcometer P520 Metal Detector, Search head, leather carry case, charger, operating instructions

Accessories

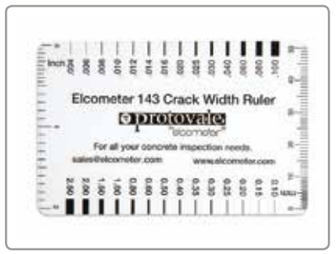
TW999060C	Replacement Mains Charger, UK 240V
TW999060F	Replacement Mains Charger, EUR 220V
TW999060G	Replacement Mains Charger, US 110V
TW520197B	Replacement 8" Search Coil for the Elcometer P520

Approximate Detection Ranges

Typical Object Type	Metric	Imperial
Cast Iron Main - 80mm (3")	100cm	39”
Cast Iron Main - 100mm (4")	118cm	46"
Valve Only - 100mm (4")	83cm	33"
Cast Iron Main - 150mm (6")	127cm	50”
Washout / Fire Hydrant Cover	121cm	47”
Plate - 140mm (5½") Diameter	70cm	27"

Elcometer 143

Crack Width Ruler



This simple gauge is designed specifically to provide inspectors with a low cost alternative to a graduated microscope when determining the width of a crack in concrete or other building materials.

Similar in size to a standard credit card, this transparent gauge is marked with a range of graded line. Each line is a specified width.

To use, position the gauge over the crack and identify which line is a similar width to the crack. Read off the width value.

Technical Specification

Part Number	Description
E143----1	Elcometer 143 Crack Width Ruler
Range	0.10 - 2.50 mm / 0.004 - 0.100 inches

elcometer®

Elcometer has a range of test equipment for:

Coating Inspection
A comprehensive range of test equipment from the laboratory to the field.

Corrosion & Flaw Detection
Ultrasonic corrosion thickness gauges, flaw detectors, velocity gauges, bolt tension monitors, etc.

Concrete Inspection
Rebar locators, covermeters, half-cell measurement, etc.

Industrial Metal Detection
Box locators, metal detectors, wall tie locators, etc.

For more information please contact Elcometer.

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