

MC8022+ FAQ

1 Can I find rebar with the MC8022+?

Yes, you can see and/or hear when the MC8022+ probe gets close to a reinforcing bar. The user manual explains a simple process to survey an area to locate rebar.

2 Can I find the direction of rebar?

Yes, first you locate the rebar and then rotate the probe until you see and/or hear the strongest signal. The probe will now be aligned with the rebar direction. The process is shown in detail in the user manual.

3 Can I measure the depth of concrete cover over reinforcing bars?

Yes, this is the primary purpose of the MC8022+. It is formally known as an *electromagnetic concrete covermeter*. It lets you estimate the position, depth and size of reinforcement buried in concrete, e.g. as recommended by British Standard BS1881-204:1988.

4 What is the maximum concrete cover that I can measure?

That depends on the size of the reinforcing bar; the signal detected by the MC8022+ cover meter is related to the diameter of the rebar, so deeper cover can be measured over thick bars than over thin bars. For typical 8 mm rebar, the maximum cover you can measure is about 110 mm, and for 40 mm diameter rebar the maximum is about 180 mm.

5 Do I need to know the size of the bar before I can make cover measurements?

It depends. If you know the size of the rebar, you can enter the value directly on the MC8022+ and the cover measurements will be made assuming this value. Of course, if the value you enter is not the actual size of the bar, the cover reading you see may not be correct.

If you don't know the bar size, MC8022+ can automatically estimate it by making a special measurement, providing the concrete cover is not too deep. Automatic bar sizing depends on the diameter of the bar, and is effective up to about 60 mm for 8 mm bar, and up to about 80 mm for 40 mm bars. There are techniques which a skilled operator can use to determine good estimates of bar size and cover for unknown bars at greater depths.

6 Can I search for concrete cover that is too shallow?

Yes, you can set a low-cover audio alert and then sweep an area with the probe; if rebar is detected with less than the amount of cover you have set, an alarm will sound.

7 I've used an MC8020 micro covermeter. How is the MC8022+ different?

The MC8022+ is an improved version of the MC8020 and will be very familiar to you. The measurement performance is the same, so you can easily swap from the older product to the new one, but we have made some other important improvements:

- New industrial-strength probe connectors and cable; much tougher, no pins to break.
- Faster battery charging with new high output power supply.
- Improved user interface; even faster and easier to use.
- USB data download option to match new PCs.
- Custom equipment bag as standard; smaller, lighter and easier to carry.
- Fully waterproof carry case available as an option; total protection for your equipment.

We've changed a few things which customers told us were not always needed, making MC8022+ even better value:

- Instrument dust-jacket now available as an option (not included in standard kit)
- Download kit (software and USB cable) available as an option
- No earpiece

8 Does the MC8022+ detect stainless steel rebar?

Please contact us if you want to work with stainless steel rebar. The MC8022+ is not calibrated to give accurate cover readings with stainless steel, even though it may indicate its presence.

9 Can I use the MC8022+ with composite reinforcement?

No, the MC8022+ is designed to work with the electromagnetic signals produced by metal (steel) reinforcing bars; these signals are not present with glass- or carbon-fibre reinforcement.

10 What batteries do I need?

The Kolectric MC8022+ has a built-in rechargeable battery, which is designed to last as long as the equipment so you don't need to keep buying alkaline batteries (dry-cells). This can save £100 – £150 over the life of the instrument. The supplied battery charger works from 100 – 240V AC outlets in most countries around the world and you'll get around 20 hours of measurement from one recharge.

11 How do I calibrate my MC8022+ covermeter?

Many of our customers have quality systems which require measurement equipment to be checked regularly to make sure the readings are within specification. Kolectric Research can perform this check and issue a certificate of conformity. We recommend having this done every 12 months. Call or email us to arrange certification.

12 Where are Kolectric Research covermeters made?

The MC8022+ is designed and made in the UK.

13 I'm not in the UK, how do I buy Kolectric products?

We have sales partner companies around the world. Email or call us and we'll make sure your closest reseller looks after you.

14 Can I rent a covermeter?

There are numerous equipment rental firms carrying Kolectric products; you can hire a covermeter for a week, a month or even longer. Call or email us for details.

15 Someone has broken our covermeter but we have an urgent job to do. Can you help?

Call us! We'll try to find you a short term rental unit, either from one of our partners or from our own emergency stock while we assess your unit for repair.

16 Does the MC8022+ record the measurements I make?

Yes, MC8022+ will record or "log" a cover measurement when you press the logging button on the probe. You can store up to 2,000 measurements. You can review the measurements on the MC8022+ display or you can download them to a PC using the optional download cable and software. The download cable connects to your PC's USB port and the software works with Window 10 or Windows 7 to produce a file that you can open in a spreadsheet like MS Excel.

17 I have a question that's not listed here.

Send us an email, enter an enquiry on our website or call us. We'll do our best to help.