

## INSTALLATION GUIDE

RebaGuard

RebaGuard Plus

RebaGuard Ultra



**IMPORTANT:** This installation methodology is a general guide. Modifications will be necessary to reflect local site requirements.

### Equipment Checklist

Multimeter, wire brush/file, bucket, pliers or wire twisting tool and appropriate PPE.

### Preliminaries

Break-out the concrete in the areas where the RebaGuard anodes are to be installed as per standard practice, fully exposing the reinforcing steel.



### Installation

1. The anode locations should be identified as close to the edge of the repair as practicable.
2. Clean the steel, using a wire brush or file, in the vicinity of the proposed location of each RebaGuard anode to facilitate electrical connection.



3. Check the resistivity of the multimeter and cables prior to use by touching the pins together as shown. Subtract this value from subsequent measurements to give a true resistivity reading.

Confirm steel reinforcement continuity in areas to be treated by checking a sample of bars within the patch.

**The resistivity between the reinforcing bars must be 1 ohm or less**



To obtain the required resistivity it may be necessary to use metal tie wires to connect the reinforcing bar to achieve electrical continuity.



**4.** Soak the RebaGuard anodes in clean water for 10 to 30 minutes prior to installation.

Once sufficiently soaked ensure that the water is disposed of safely and in accordance with site conditions.



**5.** Immediately apply the pre-soaked RebaGuard anodes (see table for sizes) to the reinforcing steel at the specified locations using the steel tie wires provided.

Name	Unit Size
<b>RebaGuard</b>	55mm x 60mm x 35mm ( 2 3/16" x 2 3/8" x 1 3/8" )
<b>RebaGuard Plus</b>	70mm x 60mm x 35mm ( 2 3/4" x 2 3/8" x 1 3/8" )
<b>RebaGuard Ultra</b>	70mm x 60mm x 45mm ( 2 3/4" x 2 3/8" x 1 3/4" )

Tighten the steel ties of the RebaGuard anodes around the reinforcing steel bar using pliers or a wire twisting tool.

Additional steel wire ties should be applied if the RebaGuard unit is to be applied between reinforcement bars or if the anode exhibits significant movement relative to the steel bar which may compromise the patch repair.

**6.** Once the anode is in position confirm that the RebaGuard unit is electrically connected to the reinforcement.



Use a multimeter to measure the resistance between the (clean) steel bar and the wire protruding from the RebaGuard unit. Resistance must be **less than 0.50 ohm**, if not, then the anode must be removed and re-attached.



The electrical resistance of all anodes should be recorded as follows:

Unit	Date Test	Electrical Resistance ohm
Beam 3 Unit 12	05/07/17	0.15

Note: A copy of this data shall be handed to the engineer/ client and Concrete Preservation Technologies Ltd at the end of the project.

**7.** A bridging mortar can be used to initially embed the RebaGuard anodes ensuring complete coverage of the anode surface, prior to reinstatement of the complete repair with EN1504 approved repair mortar. The bridging mortar has a low resistivity which allows current to more easily flow from the sacrificial anode unit to the adjacent reinforcing steel.



**8.** Patch repair material cover to the RebaGuard unit must be a minimum of 20mm. The patch repair should be completed ensuring the RebaGuard unit is not disturbed.

**NOTE: Insulating patch repair materials and primers (eg. Epoxy modified) shall not be used with the RebaGuard anodes as this compromise current flow from the anodes to the parent concrete outside the patch.**



For technical and sales support please contact us at:

**Concrete Preservation Technologies**

1 Palmer Business Court, Manor House Road, Nottingham, UK, NG10 1LZ

(T) +44 (0) 115 9724 238 (E) [general@cp-tech.co.uk](mailto:general@cp-tech.co.uk)

[www.cp-tech.co.uk](http://www.cp-tech.co.uk)