




# BC512-V2 USER MANUAL

**MANUAL** / Reference : MAN\_BC512\_V2\_EN\_V1.0



E-XTEQ provides International engineering / OEM's worldwide connections / High capacity production.

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**E-XTEQ**

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## Revision of the manual

We continuously work on improving our products. This is why the information contained in this manual, the device and the technical specifications may be modified without prior notification.

EDITION / REVISION	REFERENCE	DATE WEEK/YEAR	UPDATED SECTIONS
First edition	MAN_BC512_V2_EN_V1.0	12/2020	-



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# Preamble

## BC512, A SINGLE CHARGER FOR ALL YOUR ACTIVITIES //////////////

The E-XTEQ BC512 is a 50A charger for all 12V lead batteries. It is fully automatic and thanks to its integrated algorithms, no configuration or setting is required.

The BC512 is a universal device with an intuitive text-free graphics interface, which means the various modes of use are simple and quick to understand.

### It is intended for all garage activities:

- Preparation of new vehicles, with its optional printer and scanner;
- Maintenance of Showroom demonstration vehicles in operational condition;
- Taking care of all standard workshop tasks;
- Electronic control unit (ECU), to ensure voltage stability during an update.





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# Precautions

## GOOD PRACTICES AND SAFETY INSTRUCTIONS //////////////

Batteries should not be left unattended during charging.

Batteries contain chemicals. They may therefore produce explosive gases and can explode.

Batteries must be handled with care in a properly ventilated environment.

Batteries must not be placed near to flames or any other source of excessive heat. We recommend the use of PPE, such as safety glasses and gloves during handling.

The BC512 charger contains magnets in order to fix it onto metallic surfaces. The safety strap (SWL: 80 kg) must be used to prevent any risk of the device accidentally falling.

The BC512 charger should be positioned such that there is:

- Free access to the power supply cable and power switch
- Good ventilation of the device (periodically check that the ventilation holes are not obstructed)

These magnets must not be placed near to a person with a pacemaker.

These magnets may affect equipment such as credit cards, cell phones and other smartphones, tablets, USB sticks, SD cards, etc.

To avoid any disruption, we ask users to be aware of the meaning of the safety icons, shown in the box below.

The BC512 charger should be used by those authorized to work with electronic car equipment and trained in the operating instructions and safety regulations thereof.



Equipment to be recycled.

 <b>WARNING</b>	<b>BATTERIES</b>	<b>MAGNETS</b>
	 Wear safety goggles	 <ul style="list-style-type: none"> <li>• Risk of injury by crushing</li> <li>• Hazards caused by magnetic fields</li> </ul>
	 Batteries produce explosive gases and can explode	 <ul style="list-style-type: none"> <li>• Pacemakers</li> <li>• Magnetic data carriers (Credit cards, SD-Memory Cards, etc.)</li> </ul>
	 Keep flames away from batteries	 <ul style="list-style-type: none"> <li>• Electric devices (Mobile phones, computers, displays, etc.)</li> <li>• Fire danger</li> <li>• Health hazards in contact with food and water</li> </ul>



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# Your BC512 charger

## SPECIFICATION //////////////

**Fully automatic /** With the BC512, no user action is required other than connecting the device to the power supply and the clamps to the battery.

**Robust and flexible, all in one /** The BC512 may be used in all areas of the garage and aftersales workshop. It charges and performs diagnostics for 12V batteries.

**Simple to use /** An intuitive, text-free graphics interface, displays all the results to the user. The BC512 can therefore be used without any specific training or skills.

**Safe /** The BC512 has several safety devices, including reverse polarity protection.

## ANODIZED ALUMINUM BODY Guaranteed longevity





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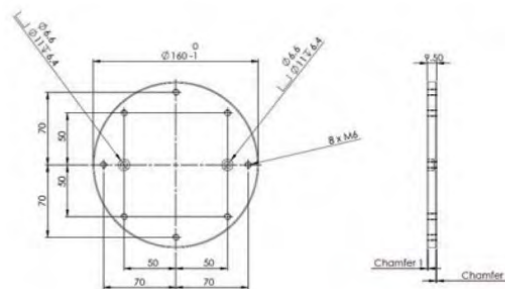
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## INSTALLATION //////////////

It is strongly recommended to hang the safety strap to a fixed support in your facility (hook or other), so as to avoid dropping the device, which could lead to irreparable damage to the device itself or damage to an object that it falls onto (bodywork for example). It may also be fixed using a padlock in order to prevent theft.

Below the dimensions to install the adapter plate:



Connect the power cable to connector CE122 situated on the back of the device, then connect the other end to a standard electric socket. Connect the clip cables (on the front of the device) to the appropriate connector.



Once installed, the charge cable can be fixed with a hook (provided with the charger) to securely prevent cable from being accidentally removed.






## SWITCHING ON //////////////

Switch on the device by setting the switch to position "I". The device starts up by displaying its software version, its serial number and the date and time successively.

When ready, the device can be connected via the camps to a battery. The "standby" mode is shown by a flashing battery icon, situated at the top left of the main screen.



Status LEDs:

-  Charging
-  Charge status
-  Alarm



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## USE //////////

When the clamps are connected, the charger displays the battery voltage while performing initial diagnostics.

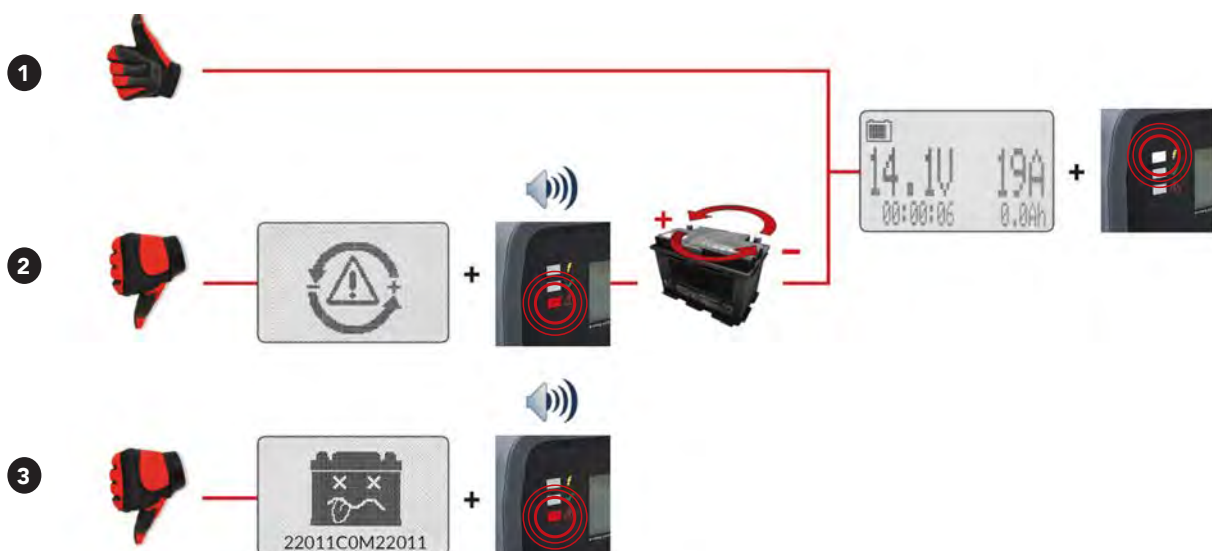
The state of charge (SOC) is also displayed at the top right of the screen.

Please note that the voltage is only measured upon connection of the clamps: it's a fix value, not updated during the charge.



### Three situations may occur:

- 1- The charger is correctly connected and the diagnostics satisfactory: BC512 starts charging and the white LED flashes.
- 2 - There is a reverse polarity: the red LED flashes, the device BEEPs and the associated icon is displayed: the clamps should then be swapped so that the charger relaunches the diagnostics and begins charging.
- 3 - Diagnostics incomplete: the red LED flashes, the device BEEPs and the associated icon is displayed: the cycle is ended.





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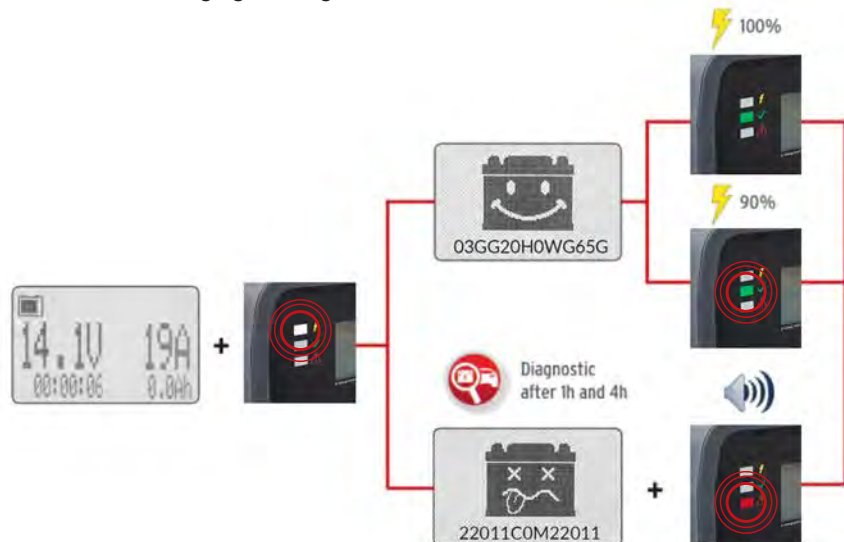
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## DIAGNOSTICS //////////////

During the cycle, the charger carries out several diagnoses using its internal algorithms. The first, upon connecting the clamps, can detect if a battery is in too poor a condition to be charged (short-circuit, etc.); the next, during the charging phase at 1 hour and 4 hours. This is why a battery can be declared poor, even after charging has begun.



## RECOVERY MODE //////////////



In the case of a sulfated battery (generation of lead sulfate when charged for too long or too intensely, which reduces capacity and battery life), the charger may display the "good battery" icon although it is no longer able to accept additional charge, due to modification of its internal structure. If in doubt, use the recovery mode while leaving the charger connected for several hours.

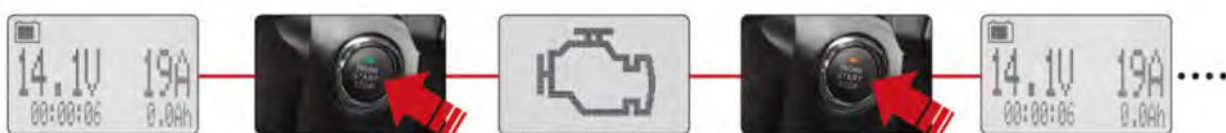
In the case of a sulfated battery or a battery in poor condition, the BC512 may attempt to recover it. The clamps should be connected and the charger left to carry out its cycles for several hours.

### How do I know if recovery is working?

The charging current (on the right of the screen) increases, showing that desulfation has started and that the battery has begun to store current again.

## VEHICLE START-UP DETECTION //////////////

The user may start the vehicle engine, even if the charger is in use. The charger will detect that the vehicle has started and it will stop charging, displaying the associated icon on the screen. It will then recommence charging when the engine is switched off again.







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## STABILIZED SUPPLY MODE //////////

During standard use of the BC512 charger, charging will cut out when the clamps are disconnected.

The charger may be used as a stabilized supply using a special mode associated with the use of the optional 1D/2D scanner (ref.: QD2430BK).

On a computer or Smartphone, go to the following link:  
<https://e-xteq.com/cal.date&time/index>



#### To activate:

Using the scanner, the user scans the barcode directly on the screen. The charger makes a confirmation "BEEP" and awaits connection of a battery to begin the stabilized supply mode. Once connected, the charger provides a voltage and regulates the current depending on the consumer (50A max.). On the screen, a barcode is displayed intermittently to remind the user that it is in a special mode. It is possible to save the barcode in paper format by pressing "print".



#### To deactivate:

The stabilized supply mode only works once. You should therefore switch off and restart the charger so that it goes back into normal mode. The second option is to scan the barcode displayed on BC512 screen.



In this mode, stopping charging by disconnection of the clamps is inactive. Connection of the positive and negative clamps incorrectly will switch the charger into "safe" mode, due to the likelihood of a short-circuit which could damage it.





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# New vehicle preparation (PQB)

## INTRODUCTION //////////////

When preparing a new vehicle, the BC512 device tests and charges the new vehicle battery before delivery to the customer. It ensures that the customer receives a vehicle equipped with a battery in perfect operating condition (correct and charged to the threshold required by the Manufacturer).

Once the required threshold achieved, the charger screen will display a battery icon with a code.

If the optional thermal printer is connected, at the end of the charge, the charge report with the code will be printed.



Device:	BC512
Serial numb:	0512C01ER110069
Soft version:	B5AR1-09
Date:	26/11/2020
Local time:	10:45:40
-----	
Battery Status: Interrupted	
Quality code: 000HJ28MX1S00	
-----	
Start Voltage:	12.5V
Stop Voltage:	14.9V
Stop Amperes:	15.0A
Ah:	0Ah
Duration:	00:00:14



We recommend that you keep the necessary tickets in case of a Manufacturer audit.



Do not forget to print the charge ticket or retrieve the charge code and fill it in on the NV delivery quality sheet as proof of charge (at each charge and during preparation)



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## THERMAL PRINTER //////////////

To use the optional thermal printer (ref.: 6660101), it is first necessary to connect the power supply adapter, situated on the right hand side (1); then the other end to a standard electric socket. Depending on your country, several adapters are available in the printer box.



Then connect the mini-USB cable to the left hand side of the printer (2); and the other end of the cable to the charger at the back (left hand connector under the PC/printer symbol) (3).



To switch on the printer, press the top button for 5s (4). When switching on, the printer will emit a series of sounds, then the 3 horizontal blue LEDs will light up. The lower button enables the paper to be scrolled (5).



If there is no paper (or at the end of a roll), the lower button will flash (5).



Use credit card terminal paper (57 mm wide, 20 m long maximum, depending on density).



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## PRINTER SELF-CHECKING PROCEDURE //////////////

To check if the printer is working correctly, it should be connected but turned off. When switching on, the two buttons should be pressed together for 10s.



The printer turns on then issues a self-test ticket (opposite).

When the clamps are disconnected, the charger displays the "print" icon for 10 seconds before printing the ticket.





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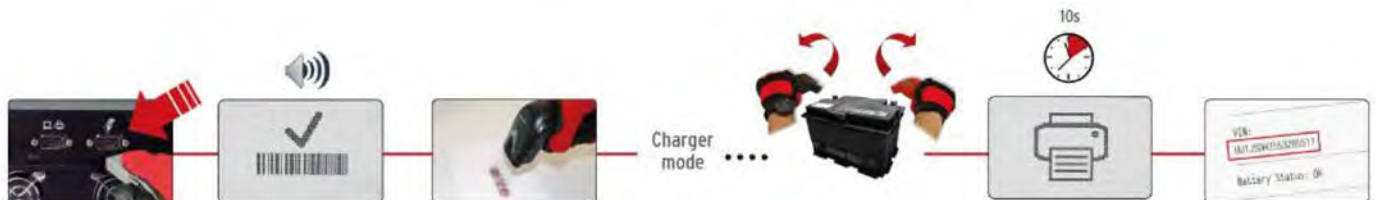
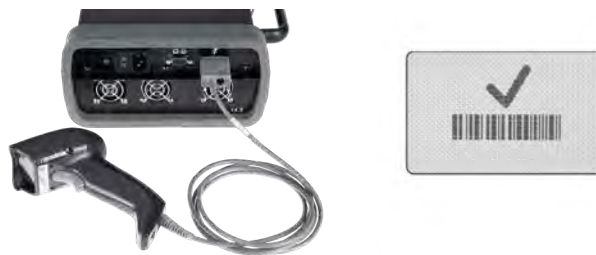
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## ADDITION OF THE VIN //////////////

Optional 1D/2D scanner (ref.: QD2430BK) enables the VIN of the charged vehicle to be added to the ticket, from the barcodes present on the preparation documents.

UPON each scan, the charger makes a "BEEP" and displays the associated icon to confirm that the information has been recorded correctly.

It may be carried out at any time, between the start of charging and printing of the ticket.





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## THE RESULT ON THE TICKET //////////////

The charger automatically runs at the charging current depending on the battery requirements.



Once the battery has reached the thresholds required by OEM, a battery icon will be displayed on the screen together with a Quality code (see Quality Code section).

The result printed on the ticket depends on the value of the current supplied by the charger when the clamps are disconnected.

☛ OK

☛ Interrupted

☛ NOK

+ QUALITY CODE (13 digits code)

#### Charging information:

All charging information is printed on the top part of the ticket:

☛ Start Voltage

Battery voltage upon connecting the clamps.

☛ Stop Voltage

Battery voltage upon disconnecting the clamps.

☛ Stop Current

Charging current value upon disconnecting the clamps.

☛ Ah

Current delivered to the battery.

☛ Duration

Charging time.



In the case of a sulfated battery (generation of lead sulfate due to charging for too long, which reduces capacity and battery life), the charger may however indicate that the battery is good although the charge threshold will be less than 2A. This type of fault may be shown in the case of batteries from Showroom vehicles. For further information, refer to the "Recovery mode" section.



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## QUALITY CODE //////////

Once the battery has reached the thresholds required by OEM, the BC512 screen will display a battery icon.

Upon disconnection of the clamps, a battery icon and the corresponding Quality Code will be displayed as long as the charger is ON and no other charge started. This will allow to copy the code on the vehicle preparation papers. The code will also be printed if the optional thermal printer is connected.

The three possible icons are as follows :



OK (OEM battery standards thresholds reached)



Interrupted (charge interrupted before reaching thresholds)



NOK (bad battery)



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# In the showroom

## INTRODUCTION //////////////

In a showroom, a vehicle may consume up to 50A.

When the battery is fully charged, the device automatically goes into "floating" mode to maintain a state of charge of 100%. The BC512 can therefore remain permanently connected to the vehicle. It will automatically compensate the vehicle requirements up to 50A.

In "floating" mode, the main screen is off so as not to draw attention under the vehicle.

The rubbers situated on the corners of the device protect fragile surfaces on which it may be placed.

The compact size of the BC512 enables it to be put in place without cluttering up the vehicle.

The integrated magnets also enable it to be placed directly on the chassis, making it practically invisible.



The special clamps for difficult access (ref. T1-0262-A) may be left in the vehicle with the hood down, so that the BC512 charger may only be connected if required.







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# In the workshop

## INTRODUCTION //////////////

The BC512 has been designed to meet all workshop requirements. Its patented ergonomics provide an installation that meets your needs as closely as possible and under the best operating conditions.

### Update of the calculator (ECU):

Since September 2016, all calculator reprogramming has had to be carried out on chargers (note CLIP 161), thus ensuring that data is not lost.

The BC512 is referenced for this type of action. It enables the consumption by the vehicle to be compensated and guarantees correct reprogramming of the calculator.



### Diagnostics and charging:

When a customer asks for his/her vehicle to be examined, the mechanic can test the battery and charge it during the work. The device just needs to be connected when the vehicle arrives and thus it is done in a time-efficient manner while other actions are being carried out.





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# Updates

## TIMESTAMPING OF THE CHARGER BY INTERNET //////////////

Timestamping data (date and time) are shown on the ticket. Optional 1D/2D scanner (ref.: QD2430BK) enables this data to be updated using a computer or Smartphone at the following address: <https://e-xteq.com/cal.date&time/index>

Click on "Generate barcode". A barcode will be generated from date/time of your computer. Scan the barcode with the 1D/2D scanner connected to BC512. Date/Time will be updated on your device.

The charger will "BEEP" and display the associated icon to confirm that the information has been stored correctly.

Please note that you can also manually modify the date/time on the updating site before generating the barcode.

**E-XTEQ**

CURRENT DATE (DD/MM/AAAA)  
25/11/2020

CURRENT HOUR (HH/MM/SS)  
10:27:41 AM

**GENERATE BARCODE**

## REGISTRATION AND SOFTWARE DOWNLOAD //////////////

1. Open a web page on the computer dedicated to updating.
2. Copy the full link into the URL bar (or Ctrl + click on the link).

<https://e-xteq.com/bc512-register/register.php?lang=en>



3. Follow the steps shown to confirm the serial number(s) of the charger(s).

**E-XTEQ**

Dealer name:   
Country:

Email address:   
Serial Number:

Renault Dealer Code:   
Serial Number:

**Register**

*For Renault Quality Assit. If you are updating different chargers, click on "+" and add all the serial numbers*

**Serial Number**



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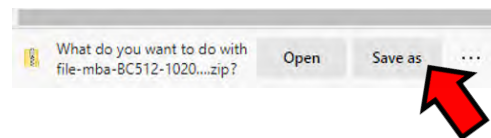
For Renault Quality Audit, please make sure you register all the chargers of you are updating, click on + and add all the serial numbers.

Then click on "Register".

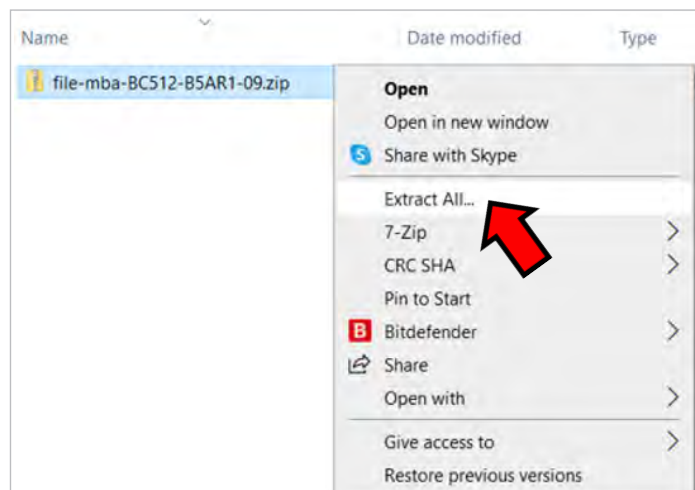
A confirmation message will appear (see below). Click on the banner to download the software.



In the next window select "Save as" then ...



... Click on "Extract All" ...



... And select a destination to extract the folder.



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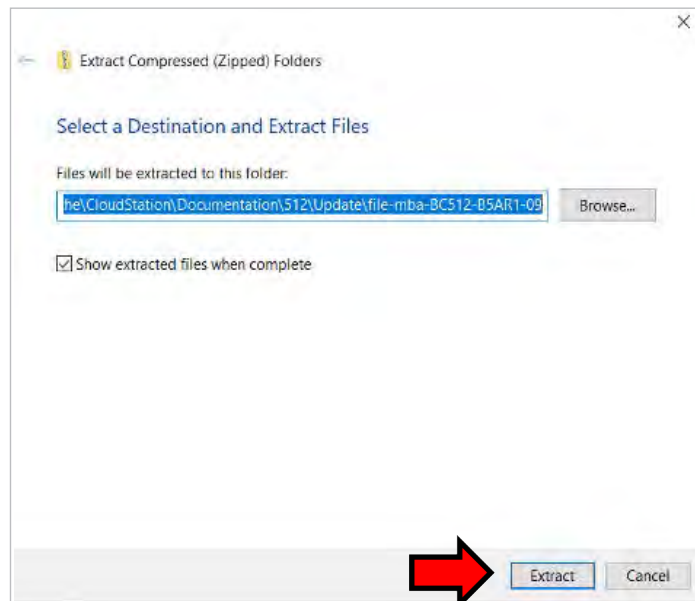
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## INSTALLATION OF THE UPDATE CABLE DRIVER //////////////



During this step, the update cable must not be connected to the computer.

Click on "Drive\_Cable" to execute the program and start the installation.

1. Open the downloaded file then double-click on the "Driver\_cable" icon to start the installation.

Name	Date modified	Type	Size
B5AR1-09.exe	11/26/2020 4:59 PM	Application	1,304 KB
Driver_cable.exe	11/26/2020 4:59 PM	Application	2,077 KB

2. Click on "Extract".





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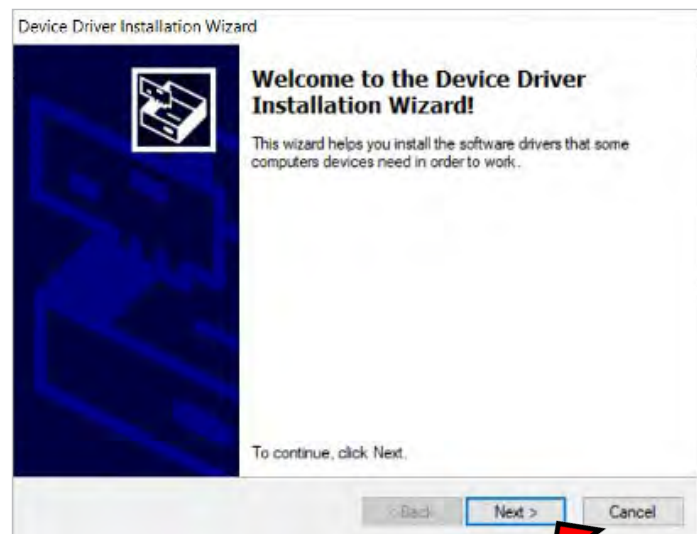
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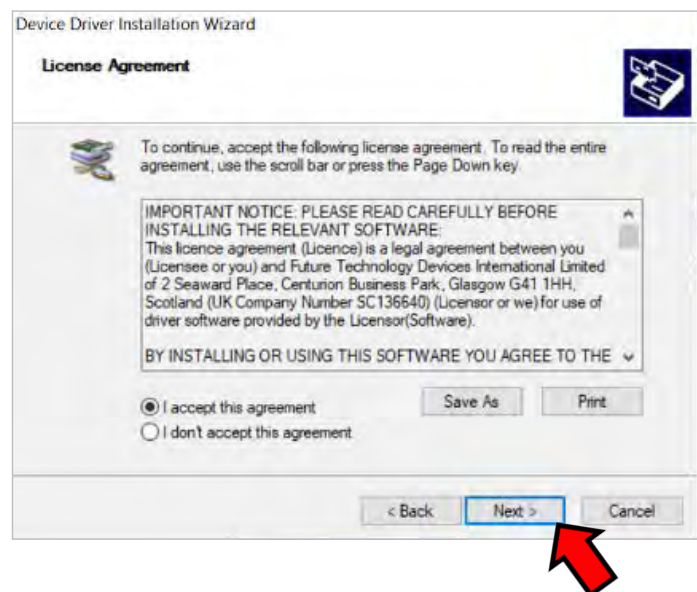
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3. Then "Next".



4. Click on "I accept this agreement" then on "Next".





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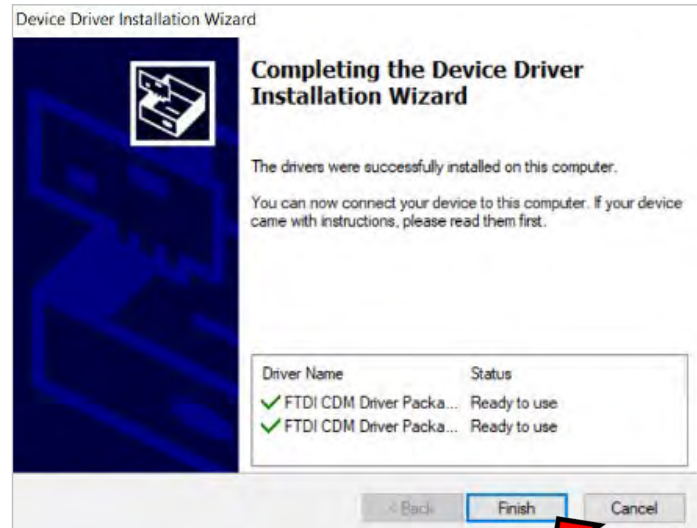
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5. Click on "Finish" in order to finalize the installation of the cable driver.



## SWITCHING ON THE CHARGER //////////////

Connect the power cable and turn on the power switch.





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**CONNECTING THE UPDATE CABLE //**

1. Update cable supplied in the original kit.
2. Connect the cable (charger end) to the PC/printer socket as shown below.



3. Connect the cable (computer end) to an available USB port.

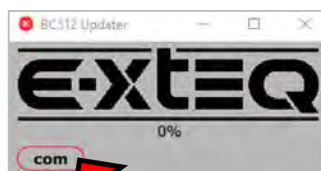


**INSTALLATION OF THE UPDATE SOFTWARE //**

1. In the previously downloaded files, click on the update file: "B5AR1-09".



2. Click on "Com" and then select the appropriate "COM" Port to establish communication between computer and BC512.





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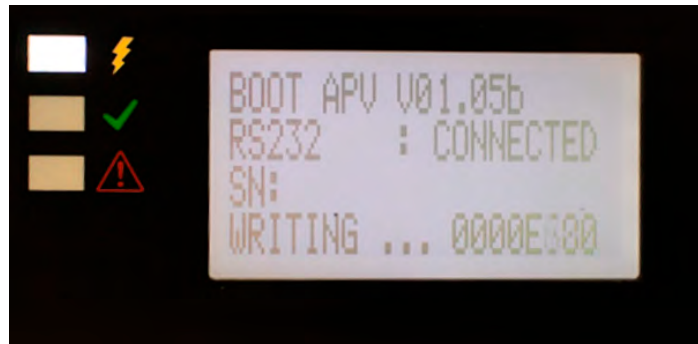
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 During this step, the update cable must not be disconnected.



4. At the end of loading, the E-XTEQ logo will be fully red and 100% will indicate that the update is successfully finished.



5. The charger will make two "BEEPS" then restart. The procedure has been successfully carried out.

6. The charger can now be switched off and the update cable removed.

7. Turn ON charger and check that new software has been loaded.





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# Optimus

## OPTIMUS INSTALLATION //////////////

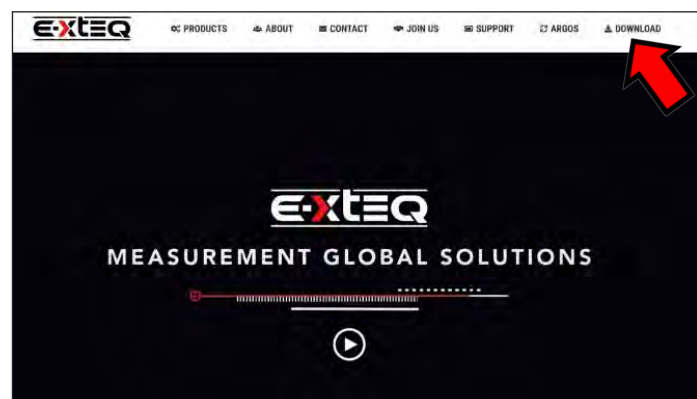
BC512 V2 (grey rubber) includes an internal 4G memory capacity. All charging data (jobs) are stored and can be uploaded into to dedicated program: OPTIMUS.

If a new software update is released, OPTIMUS will update the BC512 automatically upon connection.

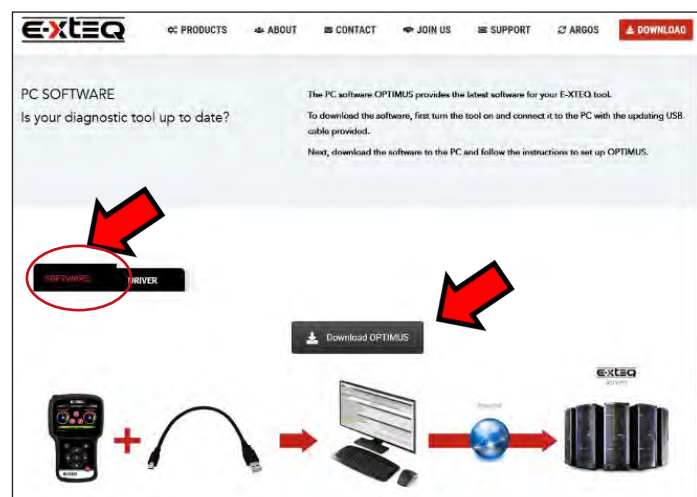
 Please note that OPTIMUS is not compatible with BC512 V1 (blue rubber).

To download OPTIMUS, open a web page on the computer and go to the web site: <http://e-xteq.com>.

Click on the DOWNLOAD tab.



Click on "SOFTWARE" then on « Download OPTIMUS » button and the transfer will begin.





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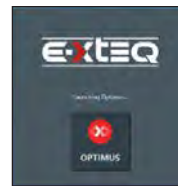
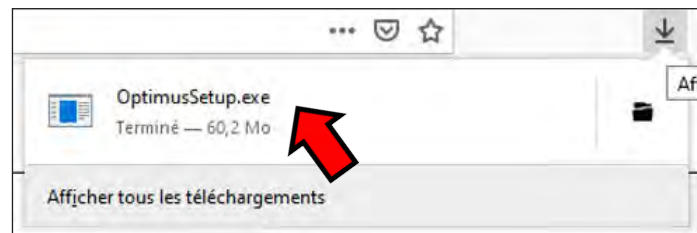
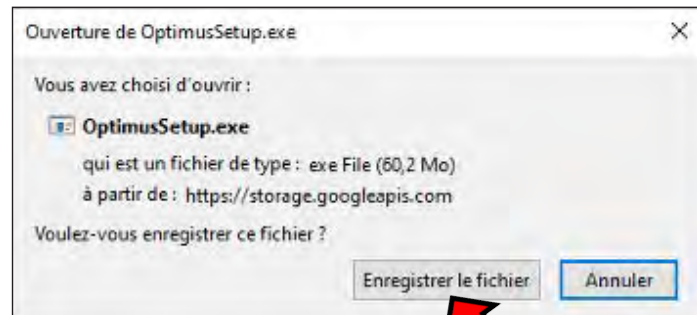
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Once the download is finished, you can save and open the executable file « OptimusSetup.exe ».



The first time you use OPTIMUS, you have to create an account. Click on " You don't have an account ".





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Fill up all the empty fields, tick on "I'm not a robot" then "Register".

An internet page will open with your settings. Meanwhile, you will receive an e-mail to confirm your address.



It's very important to confirm your e-mail address by clicking on the link received (If the link isn't clickable from the mail body, display the view in a web browser).





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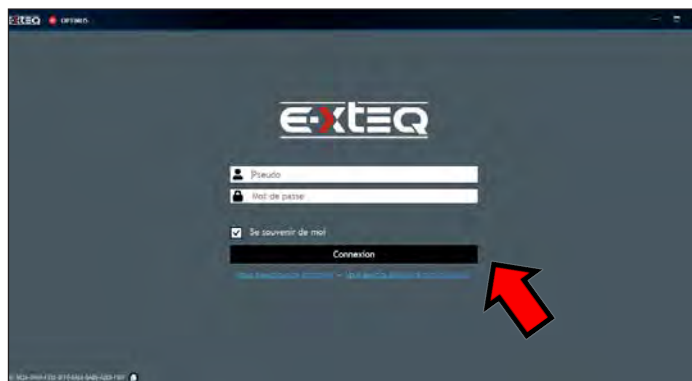
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The window below will corroborate that your email has been confirmed.

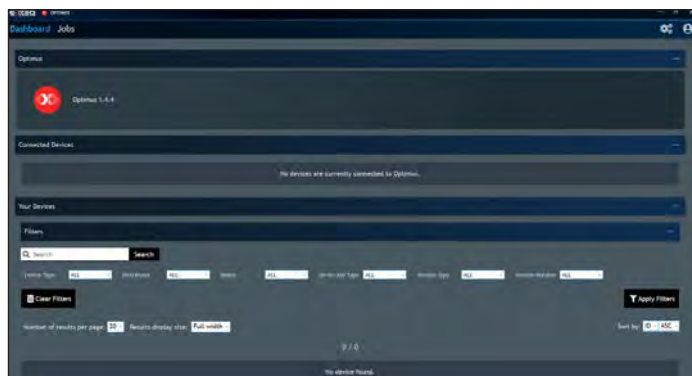


**USING OPTIMUS** // // // // //

You can now use OPTIMUS, using your credentials.



You will then have access to your dashboard.



When connecting your tool, it will appear in « Connected Devices ». All the recorded jobs files will be transferred automatically.





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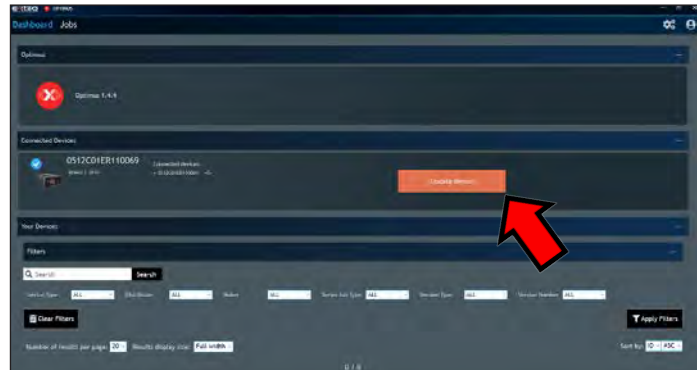
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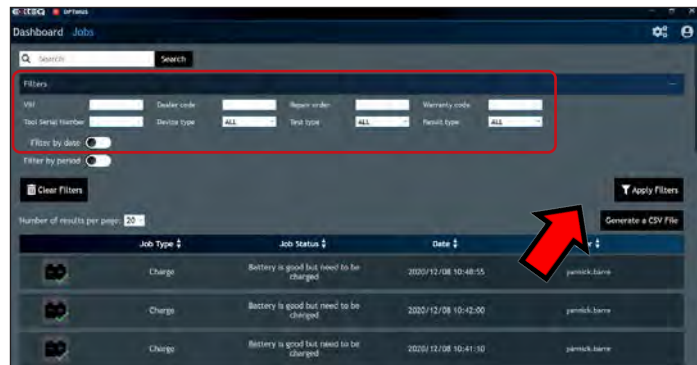
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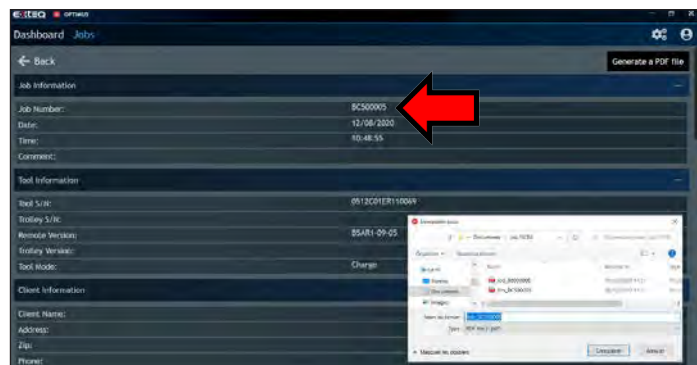
If a new software update is available, update will be proposed.



Jobs can be found under "JOBS" tab, they can be filtered and also exported in a CSV file.



Click on the job to see the detail. It is possible to generate a register a PDF file.





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## Accessories and spare parts

### THERMAL PRINTER

REF.: 6660101



Kit containing the printer, 2 paper rolls, multi-country power adapter and connection cable for the BC512.

### DATALOGIC BAR CODE READER 1/2D

REF.: QD2430BK



Kit containing 1D/2D barcode scanner with RS232 connector for BC512.

### 3.5M CABLE WITH HEAVY DUTY CLAMPS

REF.: T1-0228-A



3.5m charge cable with heavy duty clamps.

### 3.5M CABLE DS TYPE

REF.: T1-0262-A



Charging Cable 3.5m DS Type (for difficult access).

### UPDATE CABLE

REF.: T1-0124-A



Cable for connecting the diagnostics case, updating the software and connecting with CLIP.



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## E-XTEQ TROLLEY FOR BC512 SERIES

REF.: MF-0061-A



E-XTEQ Trolley for BC512 Series, including 15m cable, AC and USB connectors.

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# Technical specifications

**BC512, A SINGLE CHARGER FOR ALL YOUR ACTIVITIES //////////////**

	<b>E-XTEQ BC512 CHARGER</b>
<b>Power supply</b>	100 – 240 VAC 50/60 Hz (for worldwide networks)
<b>Consumption</b>	800W – Less than 10A (115V) / 5A (230V)
<b>Maximum current</b>	50 A of battery charge
<b>Standing Wave Ratio</b>	150mV peak to peak
<b>Power factor</b>	97% P.F.C.
<b>Dimensions (mm)</b>	268 x 120 x 345 (overall)
<b>Weight (kg)</b>	6kg (excluding cables)
<b>Display</b>	LCD 4 lines 60mm x 32mm
<b>Protection index</b>	IP22
<b>Sound level</b>	65dB at 50A
<b>Temperatures</b>	
<b>Use</b>	-15°C to +40°C
<b>Storage</b>	-30°C to +60°C
<b>Relative humidity</b>	20 to 80% without condensation



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**YOUR BC512 IS GUARANTEED BY E-XTEQ. //////////**

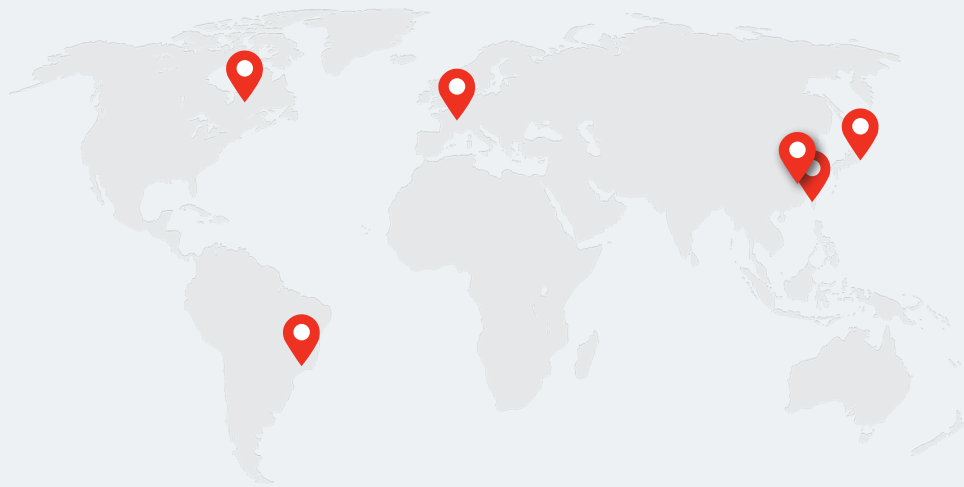
The warranty within E-XTEQ workshops (parts and labor) covers all faults or manufacturing defects for 1 year, from the date of purchase.

The warranty does not cover incidents and damage linked to improper use of the device, normal wear and tear of parts and accessories, accidents linked to transportation of the equipment.

In case of breakdown or need of support, please contact your Distributor to log your request and to initiate a request for support with one of our departments.

For any request for support, a copy of the purchase receipt as well as a return slip from your Distributor will be requested.

When returning equipment, do not send user guides, notices or any other accessory with the device.



*Detroit, Sao Paólo, Paris, Yokohama, Shanghai, Taiwan.*

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