



HAWKER® BB NANO™

BATTERY MONITORING DEVICE

Model No.
300Q / 300B8 / 310Q / 310S / 301Q





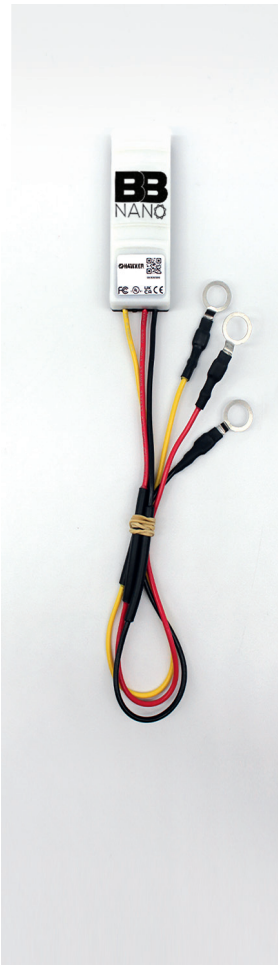
HAWKER® BB NANO™ BATTERY MONITORING DEVICE OWNER'S MANUAL

TABLE OF CONTENTS

1.	Features	3
2.	Technical Specifications	3
3.	Dimensions	4
4.	Installation	5 - 25
	4a. 300Q	5
	4b. 300B8	9
	4c. 310Q	13
	4d. 310S	17
	4e. 301Q	22
5.	Visual LED Indication	26
6.	Connectivity	27 - 29
7.	Frequently Ask Questions (FAQs)	30
8.	Spare Parts	32



Model no. 300Q



Model no. 300B8



Model no. 310Q



Model no. 310S



Model no. 301Q

SECTION 1: FEATURES

- Real time status
- Low voltage alert
- HAWKER® BB NANO™ Battery Monitoring Device can be installed on multiple battery types
- Single polarity input, reverse protected
- External voltage tap – measuring total battery voltage and number of cells
- Super bright LED indicators
- HAWKER® BB NANO™ Battery Monitoring Device mode status indicators
- Multiple connection types
- Small and slim fit
- Simple to use
- Easy to install
- Automatic data upload

SECTION 2: TECHNICAL SPECIFICATIONS

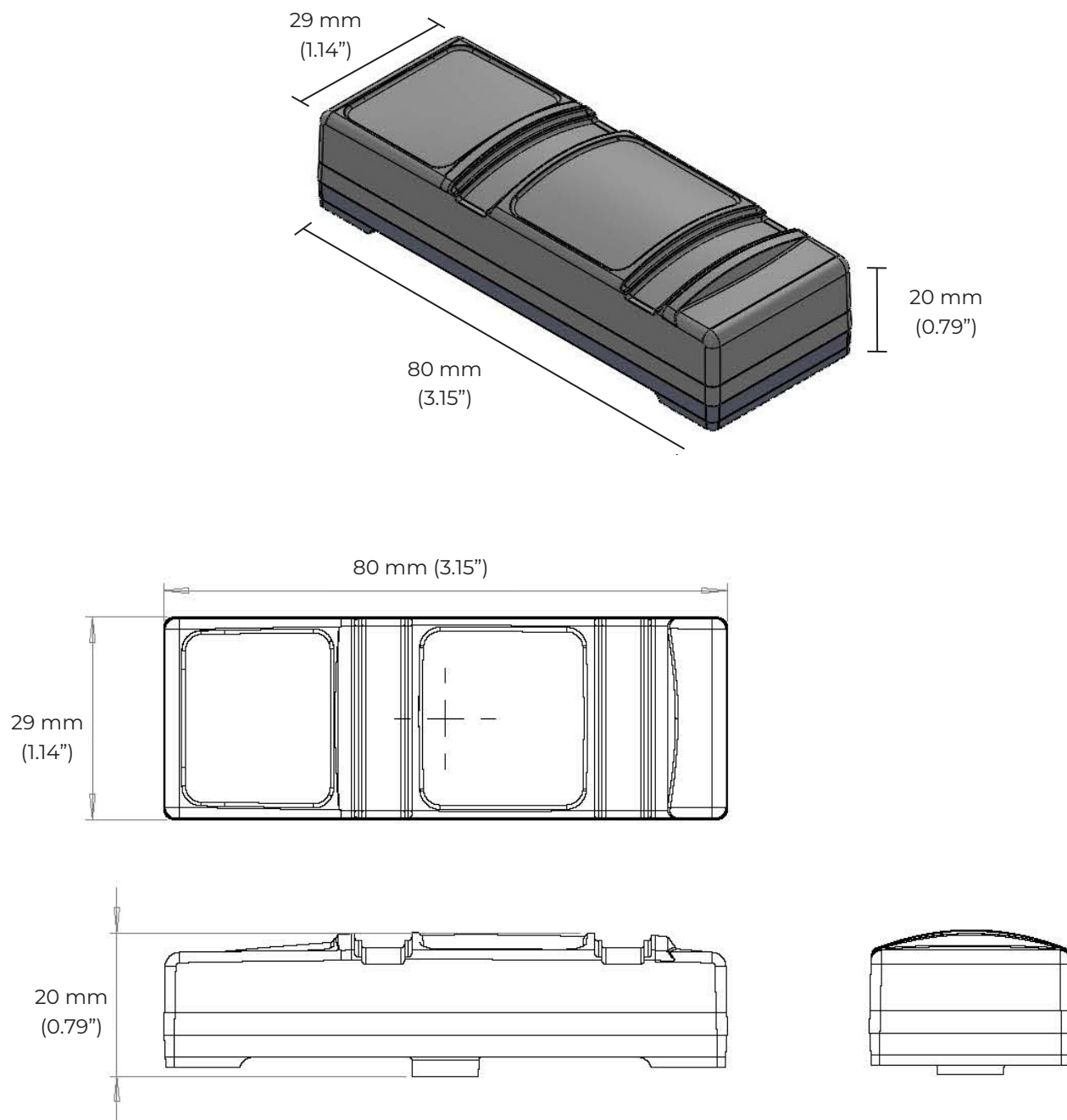
Table 1: Technical Specifications

	300Q	300B8	310Q	310S	301Q
Battery Technology	TPPL Battery		Flooded Battery		TPPL Battery
Connection Types	FlexiTap (Q)	Bolt (B8)	FlexiTap (Q)	M4 Screw (S)	FlexiTap (Q)
Nominal Battery Voltage	12V, 24V, 36V, 48V, 80V *Voltage is locked in after 30 mins.		12V, 24V, 36V, 48V, 80V *Voltage is locked in after 30 mins.		12V, 24V, 36V, 48V, 80V *Voltage is locked in after 30 mins.
Operating Voltage	4.5V - 38V MAX		4.5V - 38V MAX		4.5V - 38V MAX
Voltage Measurement	4.5V - 120V		4.5V - 120V		4.5V - 120V
Operating Current	1.6mA - 10mA		1.6mA - 10mA		1.6mA - 10mA
Operating Temperature	-20°C to +60°C / - 4°F to +140°F		-20°C to +60°C / - 4°F to +140°F		-20°C to +60°C / - 4°F to +140°F
Temperature Monitoring	Internal sensor		Internal sensor		External sensor
Wireless Range	Up to 100m / 328ft (Unobstructed)		Up to 100m / 328ft (Unobstructed)		Up to 100m / 328ft (Unobstructed)
Data Storage	Cumulative data and last 9 cycle data packets		Cumulative data and last 9 cycle data packets		Cumulative data and last 9 cycle data packets
Data Collection	Via gateway / app		Via gateway / app		Via gateway / app
Power Consumption	Nominal current		Nominal current		Nominal current
Protection	Overvoltage and reverse polarity protection		Overvoltage and reverse polarity protection		Overvoltage and reverse polarity protection
Physical Dimensions	80 mm (L) x 29 mm (W) x 20 mm (H) / 3.14 in (L) x 1.14 in (W) x 0.79 in (H)		80 mm (L) x 29 mm (W) x 20 mm (H) / 3.14 in (L) x 1.14 in (W) x 0.79 in (H)		80 mm (L) x 29 mm (W) x 20 mm (H) / 3.14 in (L) x 1.14 in (W) x 0.79 in (H)
	300Q	300B8	310Q	310S	301Q
Compliance	2014/53/EU - Radio Equipment Safety: EN 62368-1:2014+A11:2017 EMC: EN IEC 61326-1:2021 Radio Frequency: EN IEC 62311:2020 / EN 50385:2017 / EN 50665:2017 EN 300 328 V2.1.1 (2016-11) EN 300 328 V2.2.2 EN 301 489-17 - V3.2.0 2011/65/EU - Restriction of the use of certain hazardous substances RoHS: EN 62321-8:2017 EN 62321-3-1:2013 EN 62321-4:2013/AMD1:2017 EN 62321-5:2013 EN 62321-6:2015 EN 62321-7-1:2015, EN 62321-7-2:2017				

SECTION 3: DIMENSIONS

HAWKER® BB NANO™ BATTERY MONITORING DEVICE OVERALL DIMENSIONS

Figure 1: HAWKER® BB NANO™ Battery Monitoring Device Dimensions



*All dimensions are given in mm (inch).

MODEL NO. 300Q



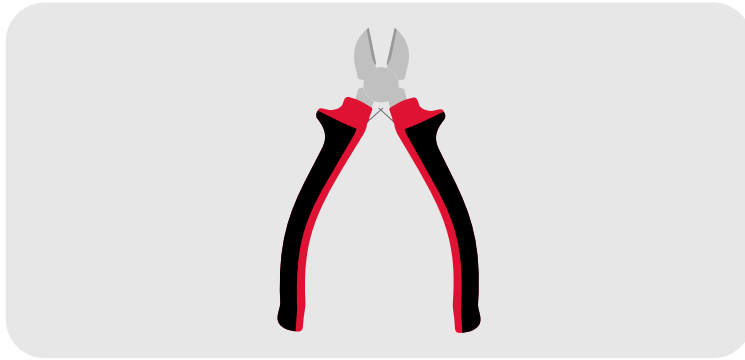
The HAWKER® BB NANO™ Battery Monitoring Device - 300Q is a battery life monitor that provides a real-time status and is intended for use on 12V to 80V TPPL batteries.

The HAWKER® BB NANO™ Battery Monitoring Device monitors and records cycles, temperatures and automatically sends this data to a gateway or app for visualisation online.

It provides LED indications for overtemperature and communication.
If the status of the battery is OK and the device is working OK, it will flash green every 10 seconds.

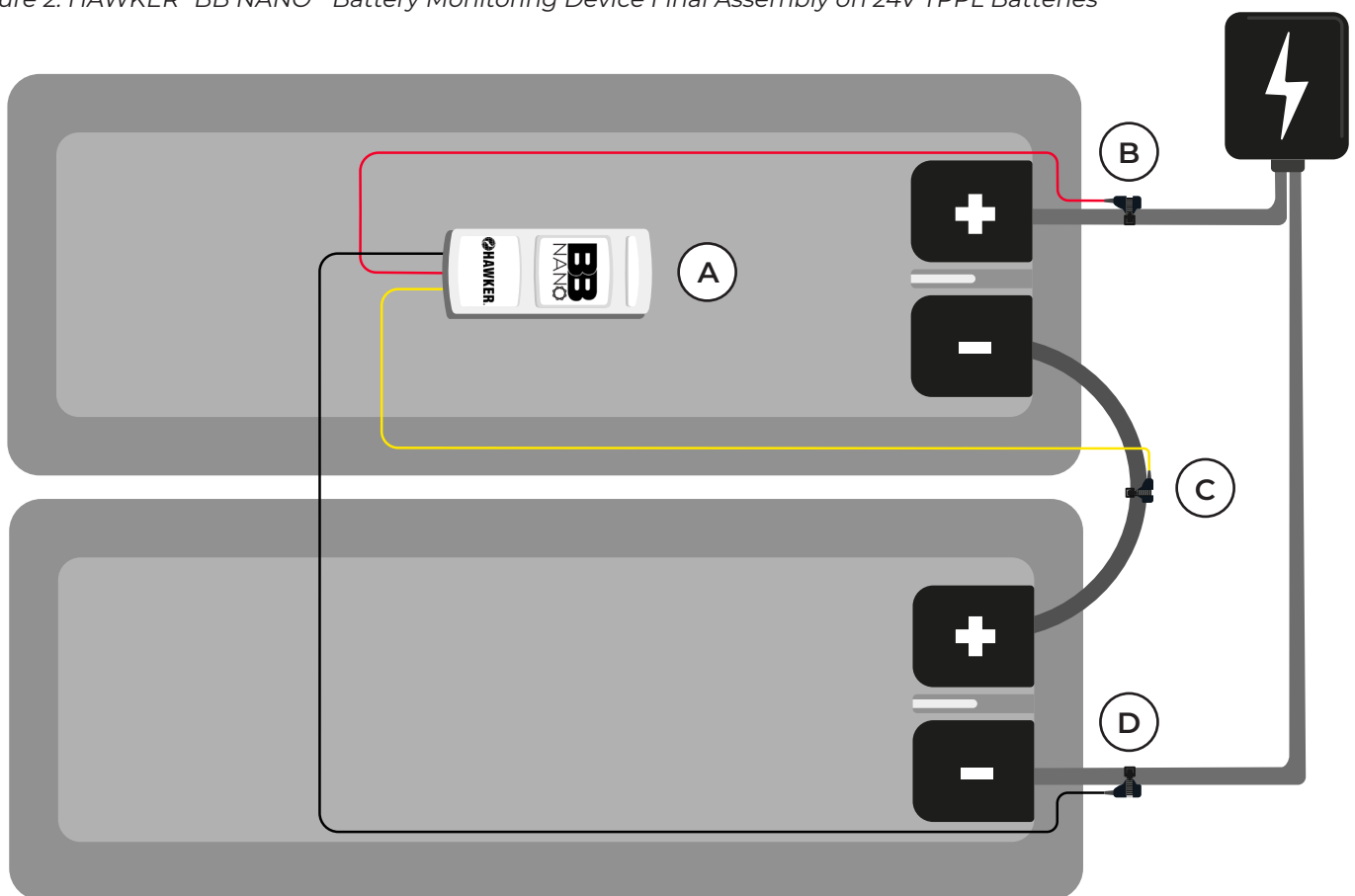
SECTION 4A: 300Q INSTALLATION (CONTINUED)

TOOLS REQUIRED



SAMPLE CELLS LAYOUT

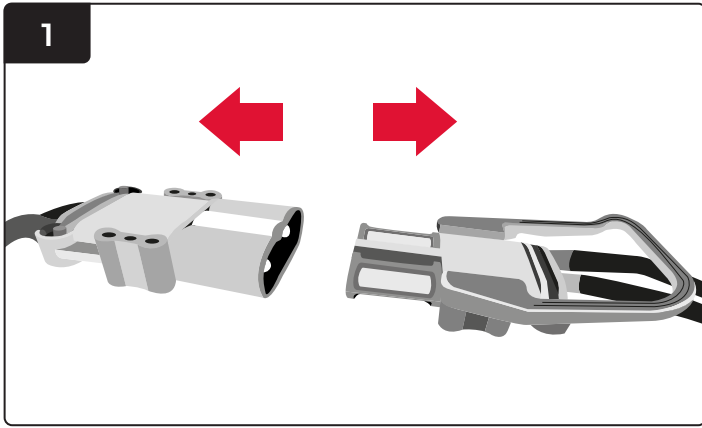
Figure 2: HAWKER® BB NANO™ Battery Monitoring Device Final Assembly on 24V TPPL Batteries



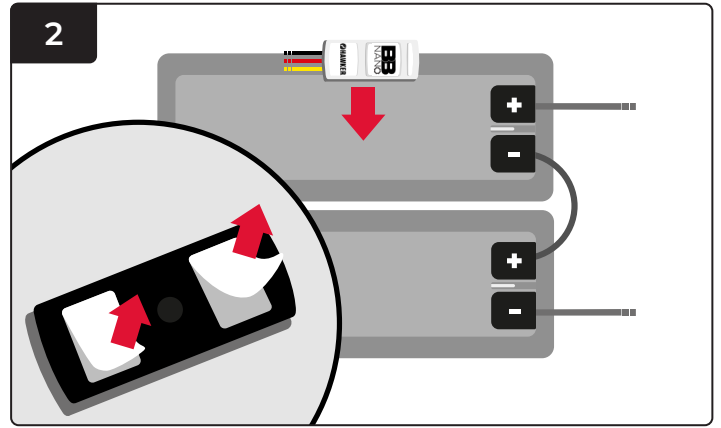
A HAWKER® BB NANO™
Battery Monitoring Device - 300Q

B **C** **D** Connection - Q

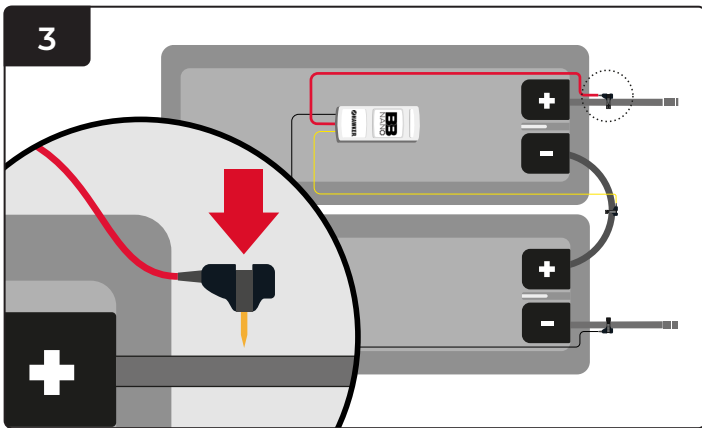
SECTION 4A: 300Q INSTALLATION (CONTINUED)



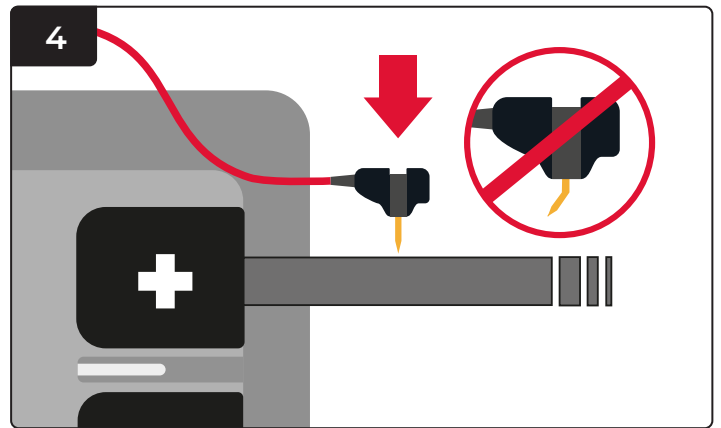
Ensure the voltage is between 2.0 and 2.25 volts per cell before installation.



Attach the HAWKER® BB NANO™ Battery Monitoring Device to the top of the battery.

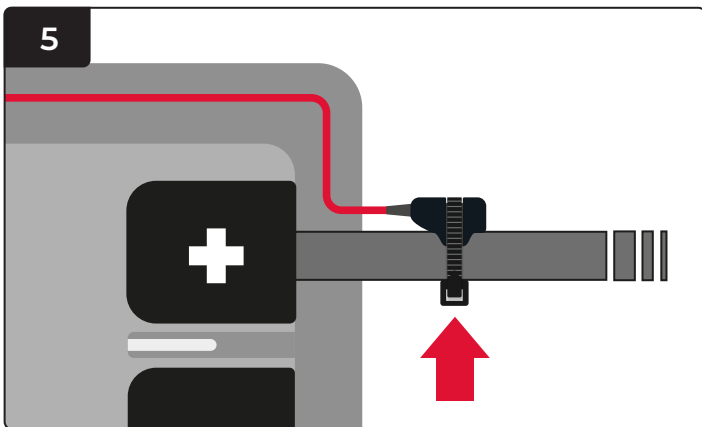


Connect the red cable to the positive terminal.

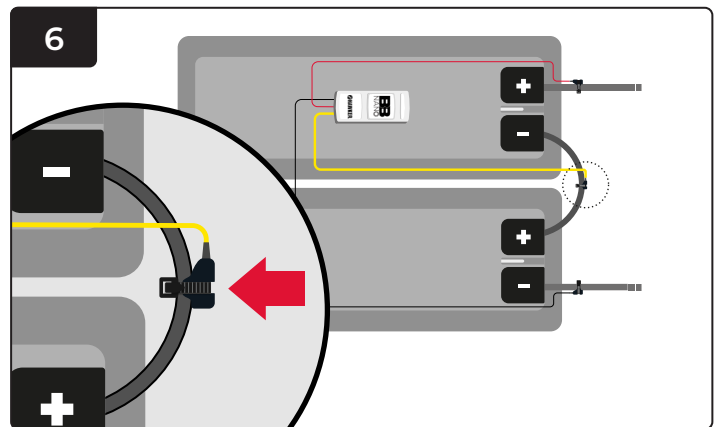


Insert the FlexiTap into the centre of the cable to ensure a good connection.

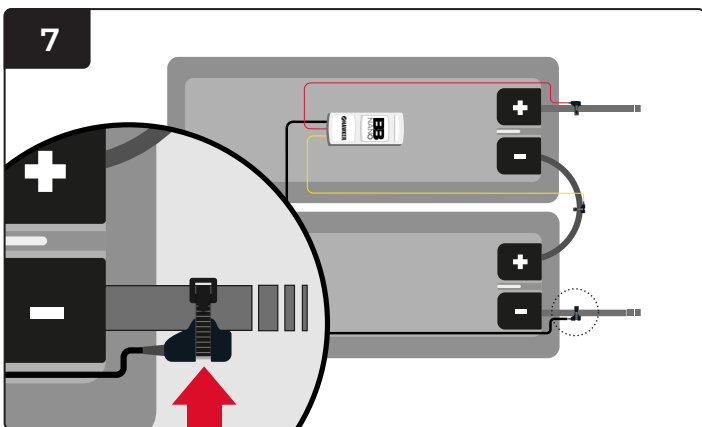
*Make sure it is positioned in the centre of the cable, taking care not to bend the pin.



Secure the FlexiTap with a cable tie.

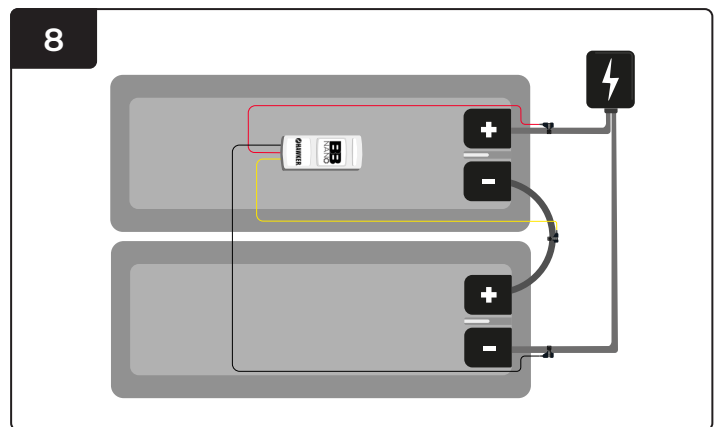


Connect the yellow cable to 12V / 24V from the negative terminal.
(*N.B. Only connect at 24V for 80V batteries)



Connect the black cable to the negative terminal.

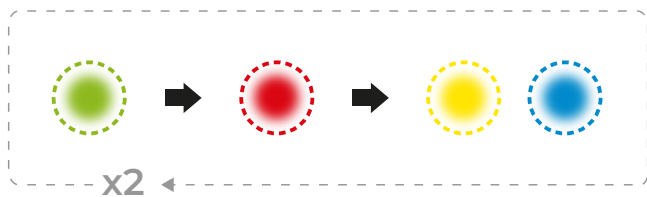
The black cable must be connected last.



Once the power has been connected, check the following start up LED sequence.

SECTION 4A: 300Q INSTALLATION (CONTINUED)

LED Check | Stage ONE



1 green > 1 red > 1 amber & 1 blue
This flashing pattern will repeat twice before the next stage.

Voltage Check | Stage TWO



x1 = 12v
x2 = 24v
x3 = 36v
x4 = 48v
x8 = 80v

Check the number of flashes for voltage.

Start up LED sequence | Stage THREE



The LED flashes once to show the current battery status.
(*For LED indications please refer to [Figure 7 or 8.](#))

MODEL NO. 300B8



The HAWKER® BB NANO™ Battery Monitoring Device - 300B8 is a battery life monitor that provides a real-time status and is intended for use on 12V to 80V TPPL batteries.

The HAWKER® BB NANO™ Battery Monitoring Device monitors and records cycles, temperatures and automatically sends this data to a gateway or app for visualisation online.

It provides LED indications for overtemperature and communication.
If the status of the battery is OK and the device is working OK, it will flash green every 10 seconds.

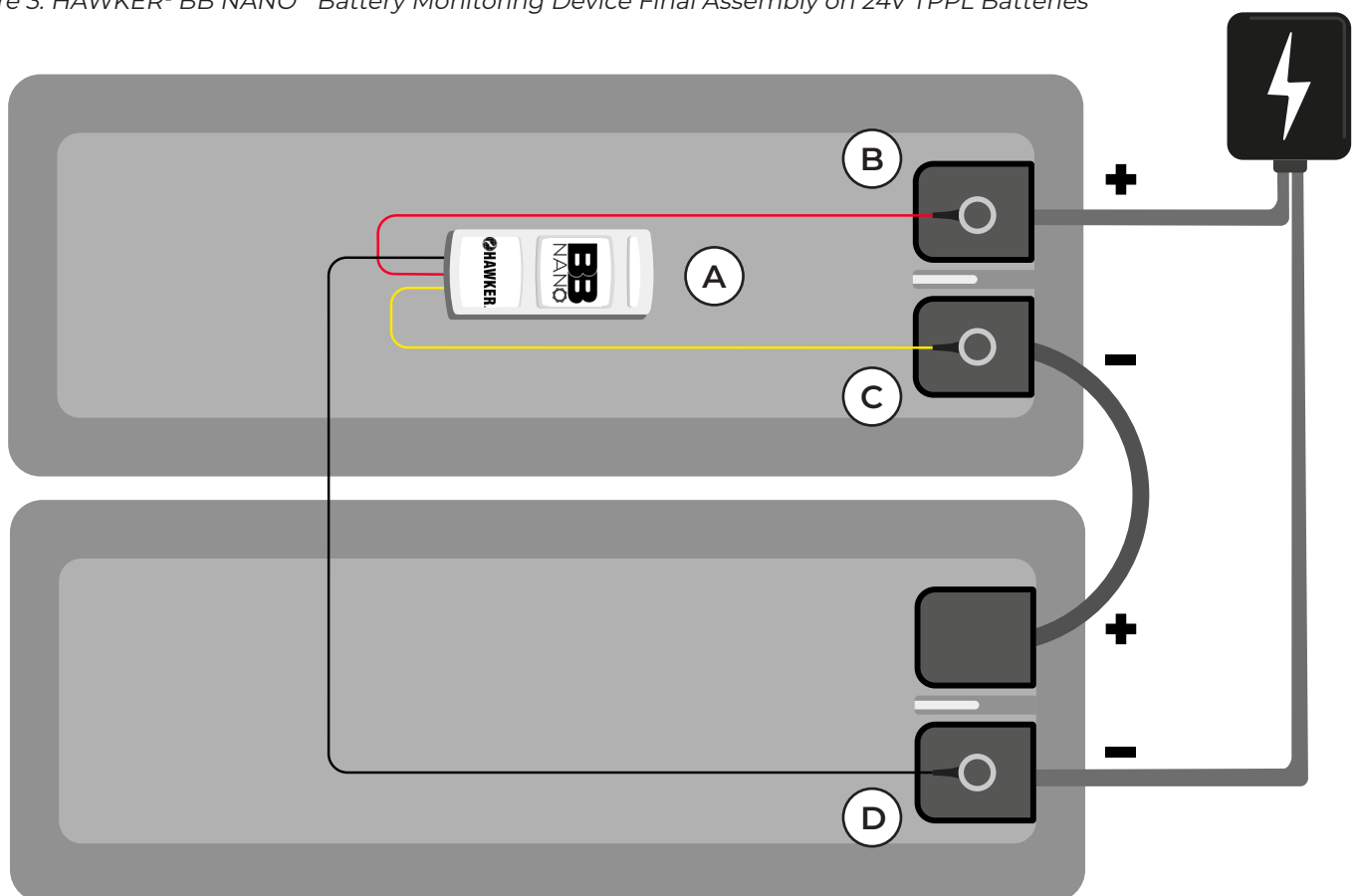
SECTION 4B: 300B8 INSTALLATION (CONTINUED)

TOOLS REQUIRED



SAMPLE CELLS LAYOUT

Figure 3: HAWKER® BB NANO™ Battery Monitoring Device Final Assembly on 24V TPPL Batteries

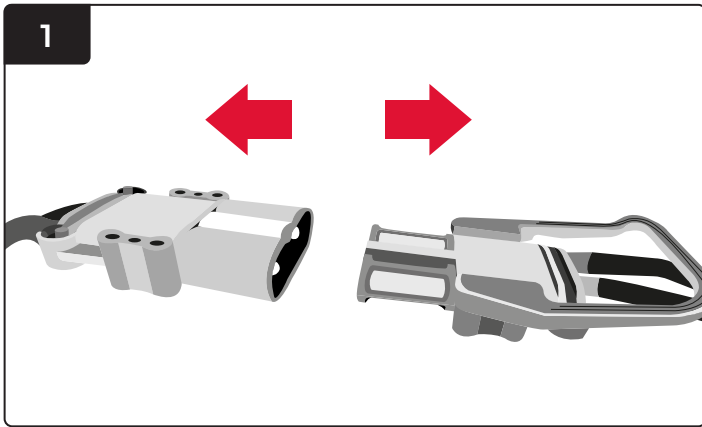


A HAWKER® BB NANO™
Battery Monitoring Device - 300B8

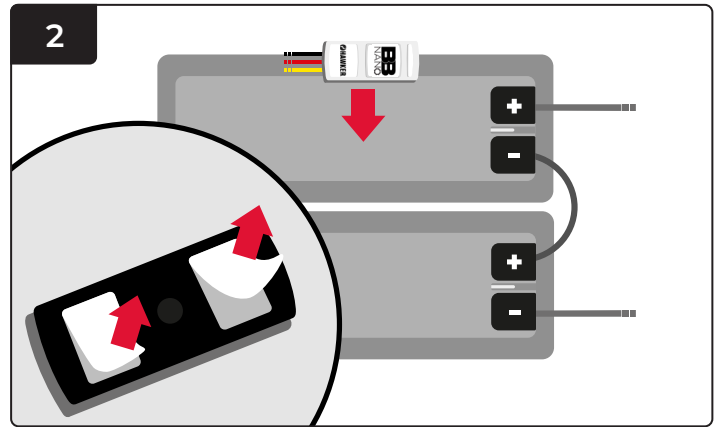


B C D Connection - B8

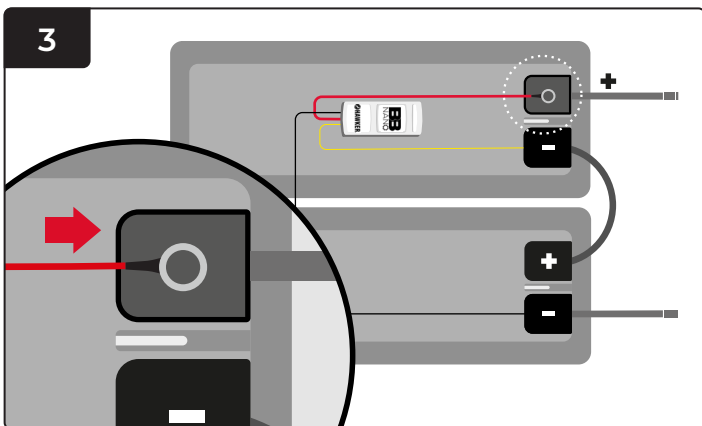
SECTION 4B: 300B8 INSTALLATION (CONTINUED)



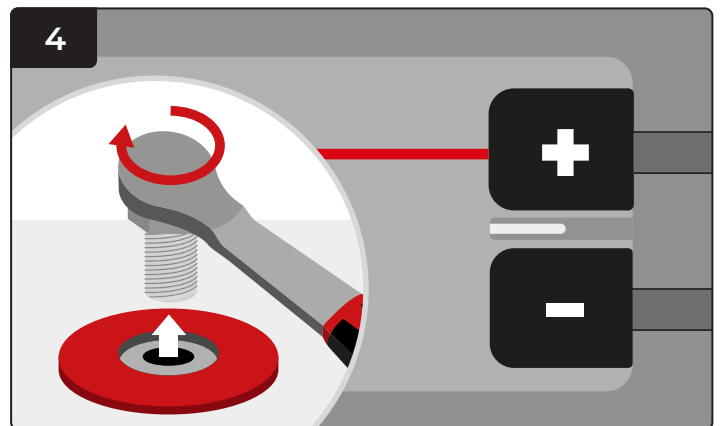
Ensure the voltage is between 2.0 and 2.25 volts per cell before installation.



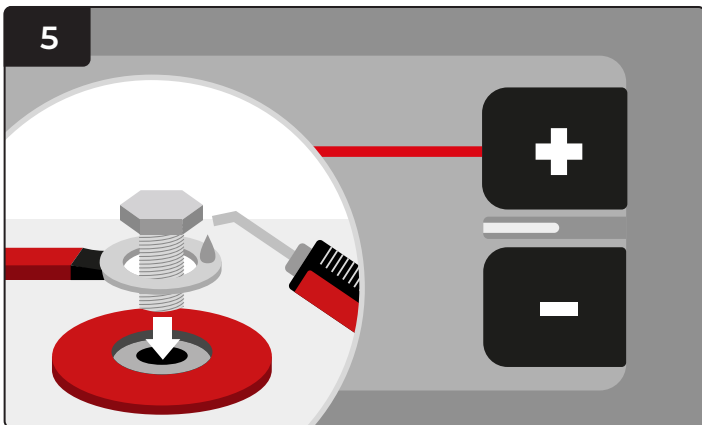
Attach the HAWKER® BB NANO™ Battery Monitoring Device to the top of the battery.



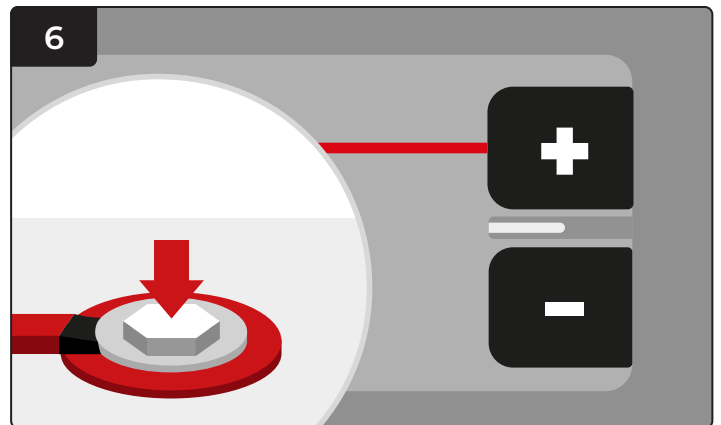
Connect the red cable to the positive terminal.



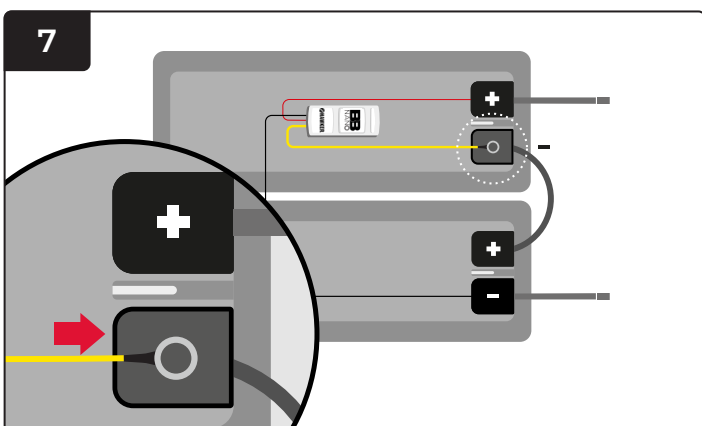
Remove the terminal bolt.



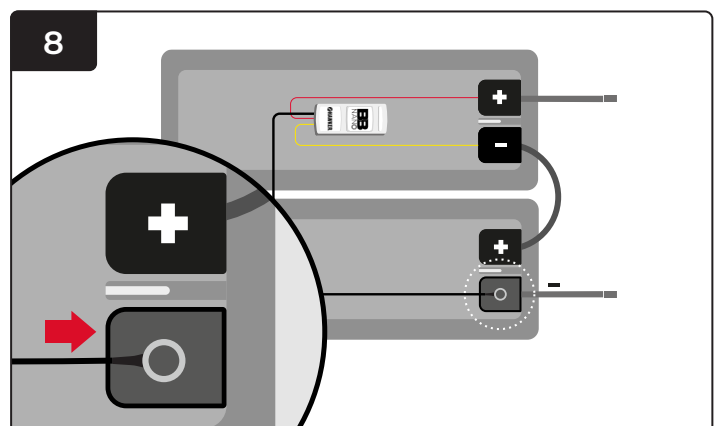
Apply the grease between the bolt and the ring terminal.



Make sure the bolt is firmly attached to the terminal.
(*N.B. Tighten the bolt to manufacturer-recommended torque settings.)



Connect the yellow cable to 12V / 24V from the negative terminal.
(*N.B. Only connect at 24V for 80V batteries)

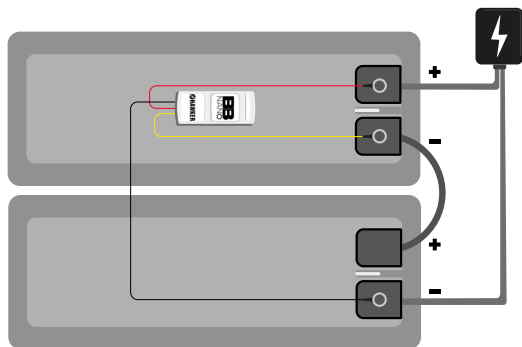


Connect the black cable to the negative terminal.

The black cable must be connected last.

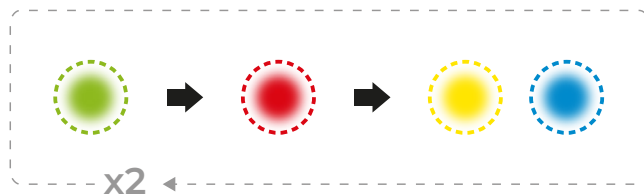
SECTION 4B: 300B8 INSTALLATION (CONTINUED)

9



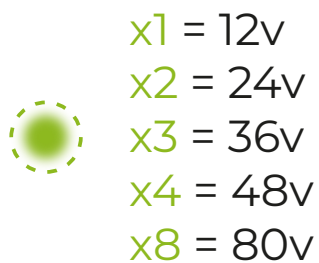
Once the power has been connected, check the following start up LED sequence.

LED Check | Stage ONE



1 green > 1 red > 1 amber & 1 blue
This flashing pattern will repeat twice before the next stage.

Voltage Check | Stage TWO



Check the number of flashes for voltage.

Start up LED sequence | Stage THREE



The LED flashes once to show the current battery status.
(*For LED indications please refer to [Figure 7 or 8.](#))

MODEL NO. 310Q



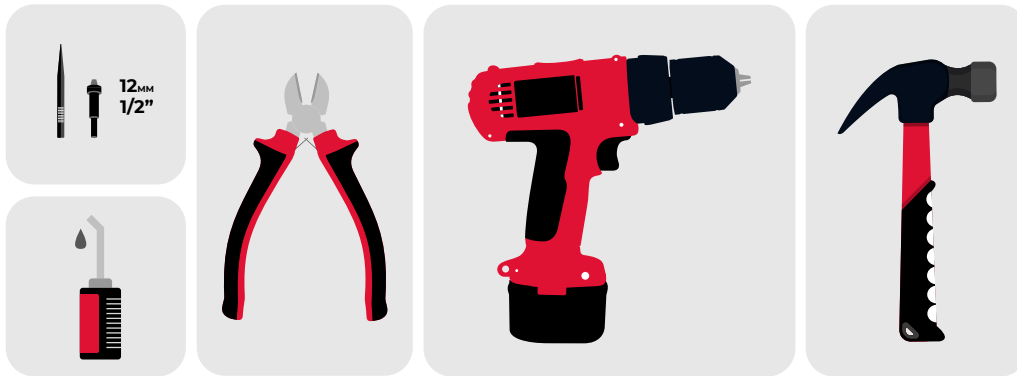
The HAWKER® BB NANO™ Battery Monitoring Device - 310Q is a battery life monitor that provides a real-time status and is intended for use on 12V to 80V Flooded batteries.

The HAWKER® BB NANO™ Battery Monitoring Device monitors and records cycles, temperatures and automatically sends this data to a gateway or app for visualisation online.

It provides LED indications for electrolyte status, overtemperature and communication. If the electrolyte status of the battery is OK and the device is working, it will flash green.

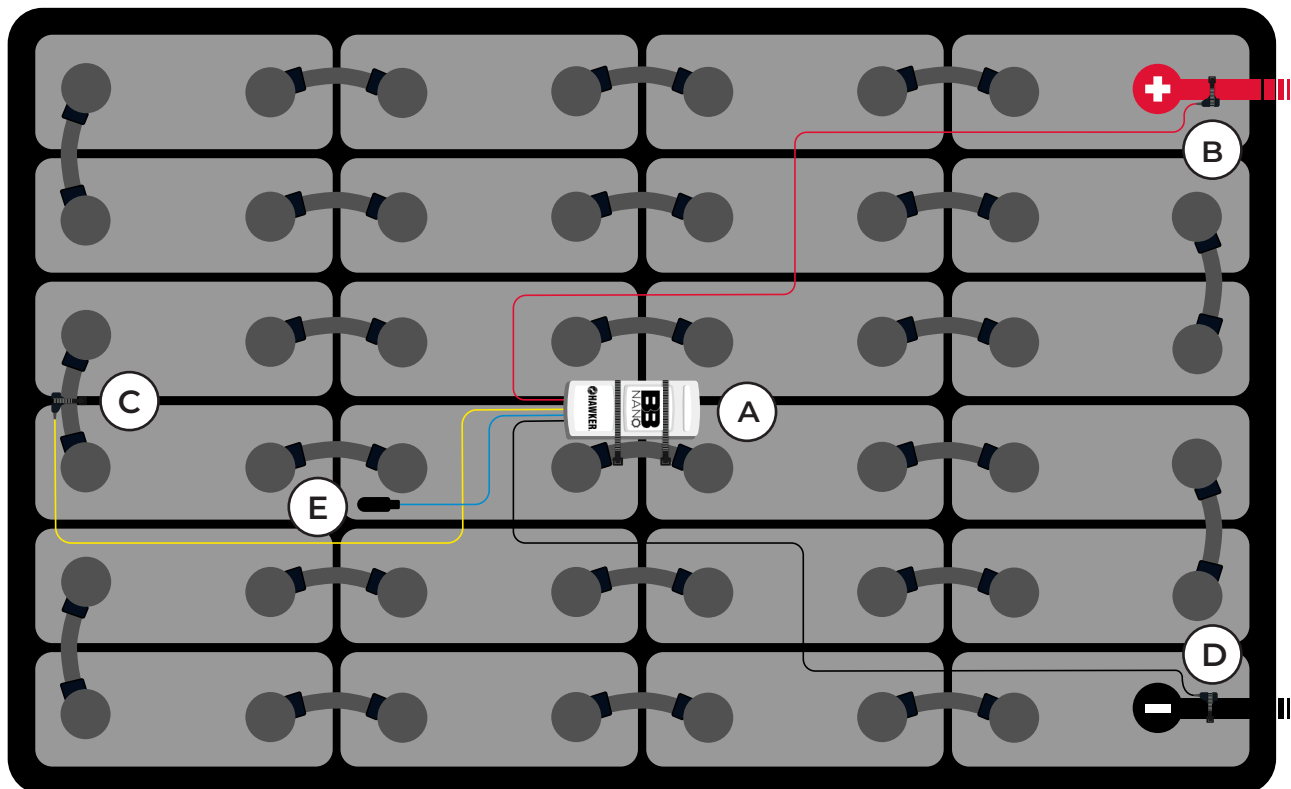
SECTION 4C: 310Q INSTALLATION (CONTINUED)

TOOLS REQUIRED



SAMPLE CELLS LAYOUT

Figure 4: HAWKER® BB NANO™ Battery Monitoring Device Final Assembly on 48V Flooded Batteries

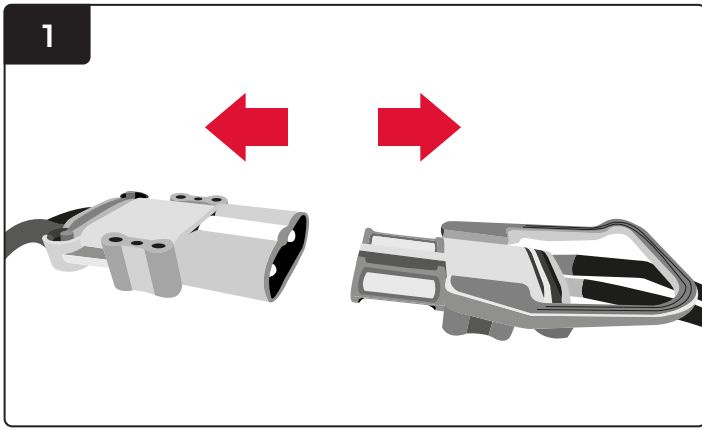


A HAWKER® BB NANO™
Battery Monitoring Device
300B8

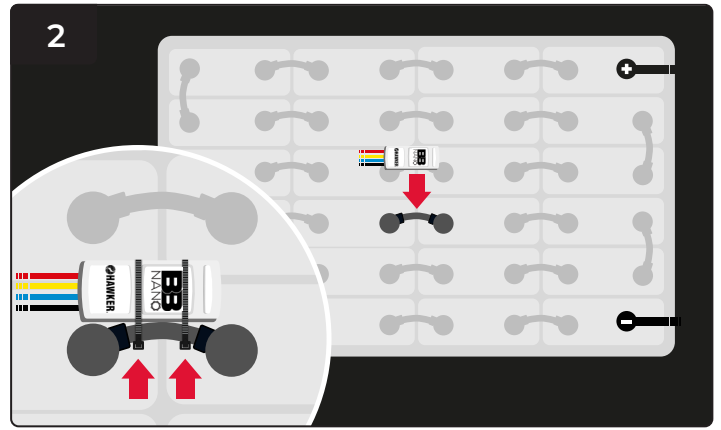
B C D Connection - Q

E Electrolyte Probe

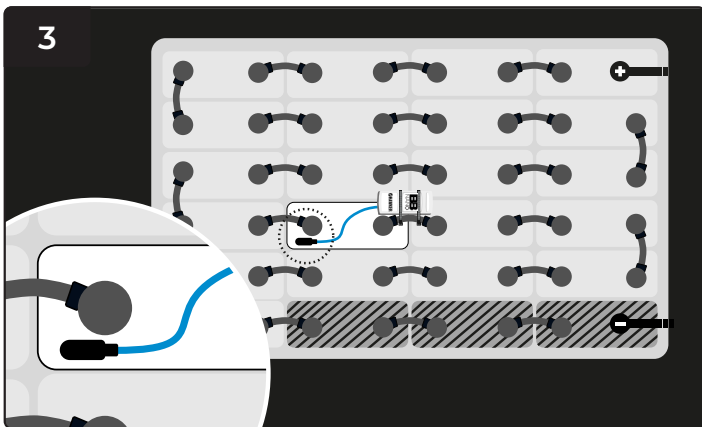
SECTION 4C: 310Q INSTALLATION (CONTINUED)



Ensure the voltage is between 2.0 and 2.25 volts per cell before installation.

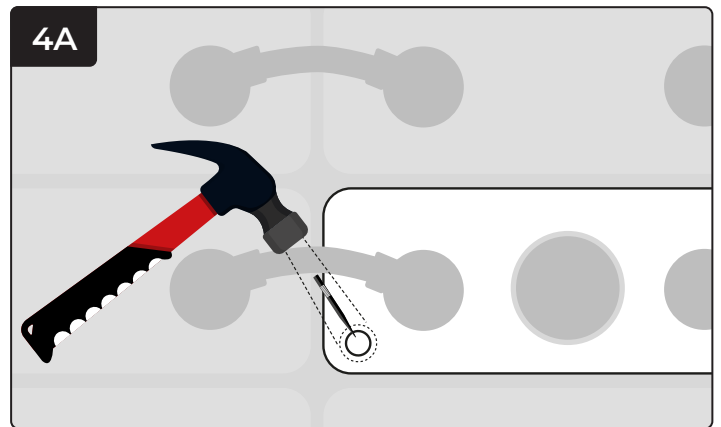


Attach the HAWKER® BB NANO™ Battery Monitoring Device to the battery and secure it with cable ties.

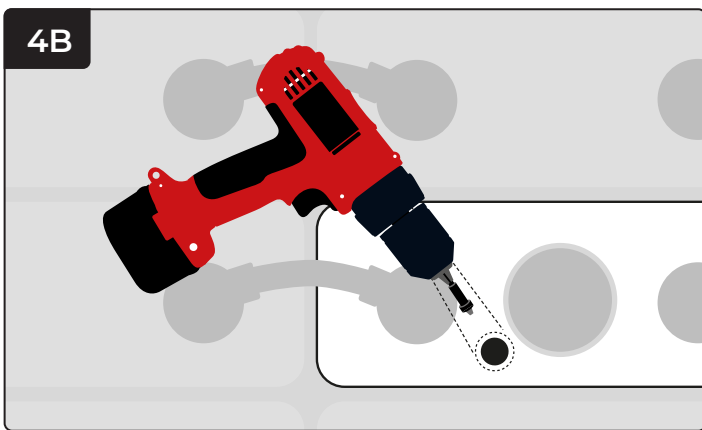


Install the electrolyte probe.

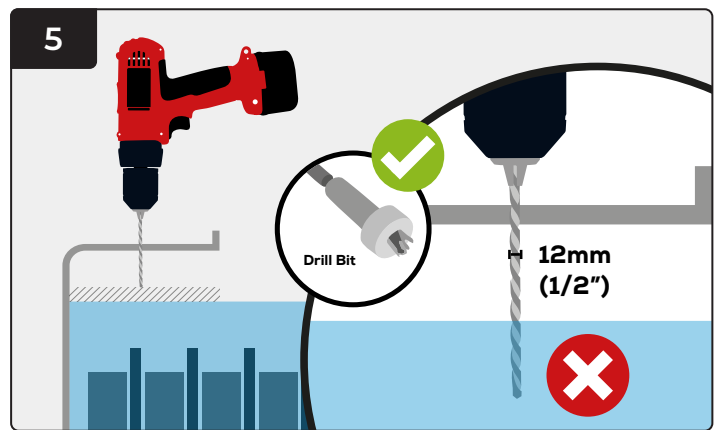
*Probe can be installed in any cells apart from the first three cells from the negative battery terminal.



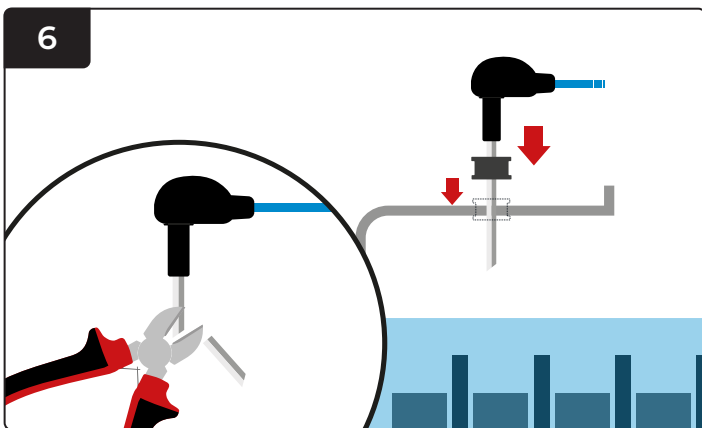
Punch a hole.



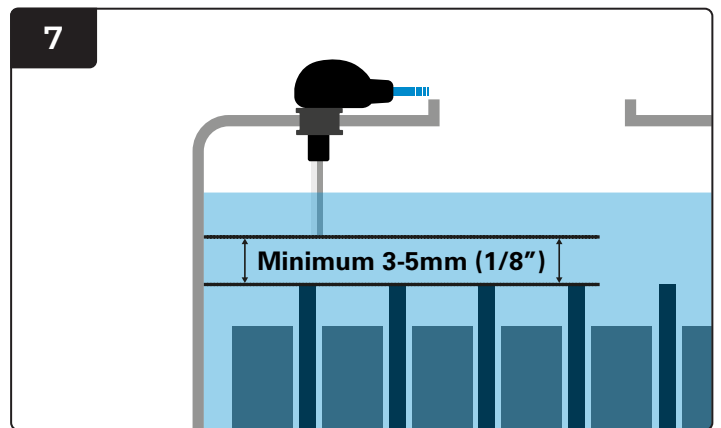
OR drill a hole.



Make sure the drill does not touch the electrolyte.

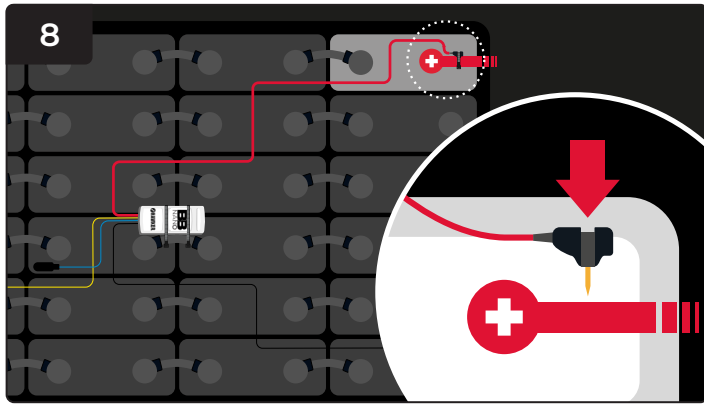


Trim the probe to the correct length and place it into the battery.

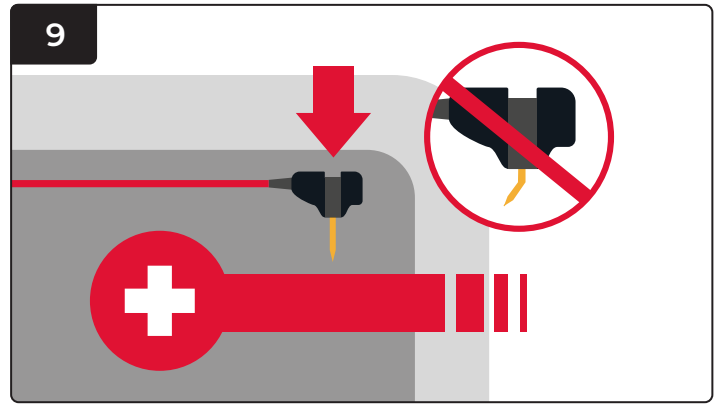


Make sure the probe is at least 3 - 5mm (1/8 inch) above the plate.

SECTION 4C: 310Q INSTALLATION (CONTINUED)

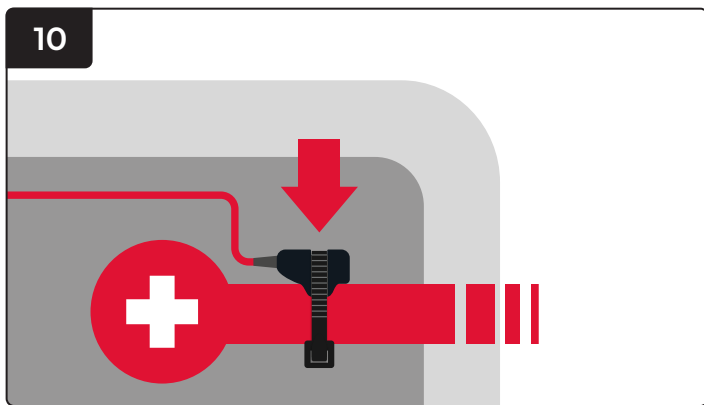


Connect the red cable to the positive terminal.

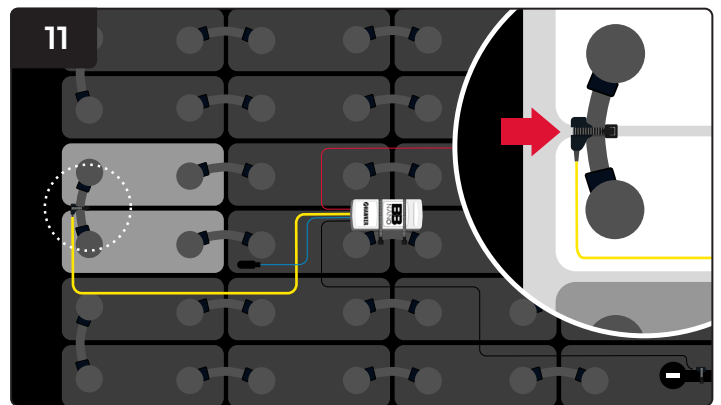


Insert the FlexiTap into the centre of the cable to ensure a good connection.

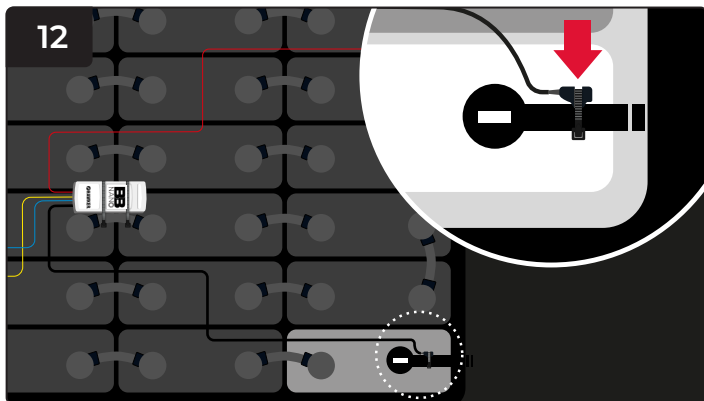
*Make sure it is positioned in the centre of the cable, taking care not to bend the pin.



Secure the FlexiTap with a cable tie.

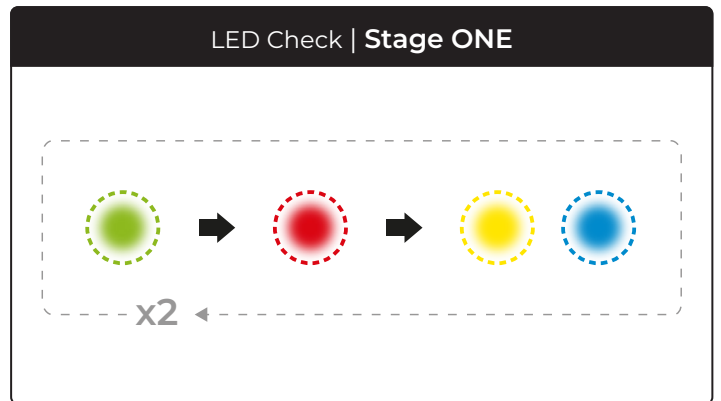


Connect the yellow cable to 12V / 24V from the negative terminal.
(*N.B. Only connect at 24V for 80V batteries)

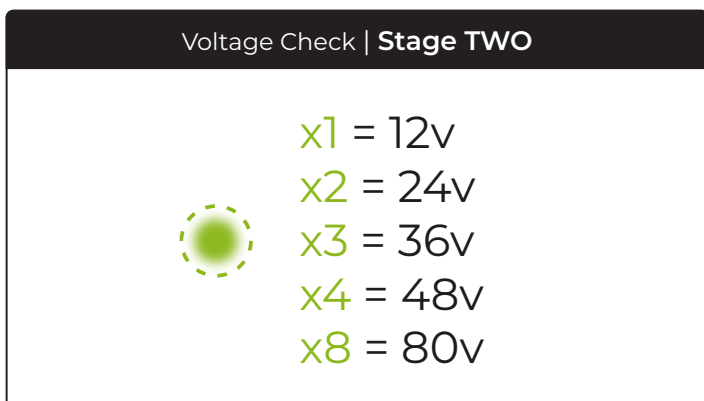


Connect the black cable to the negative terminal.
Once the power has been connected, check the following start up LED sequence.

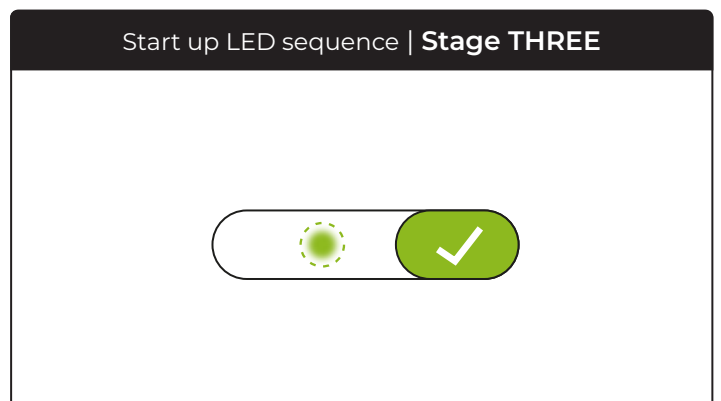
The black cable must be connected last.



1 green > 1 red > 1 amber & 1 blue
This flashing pattern will repeat twice before the next stage.

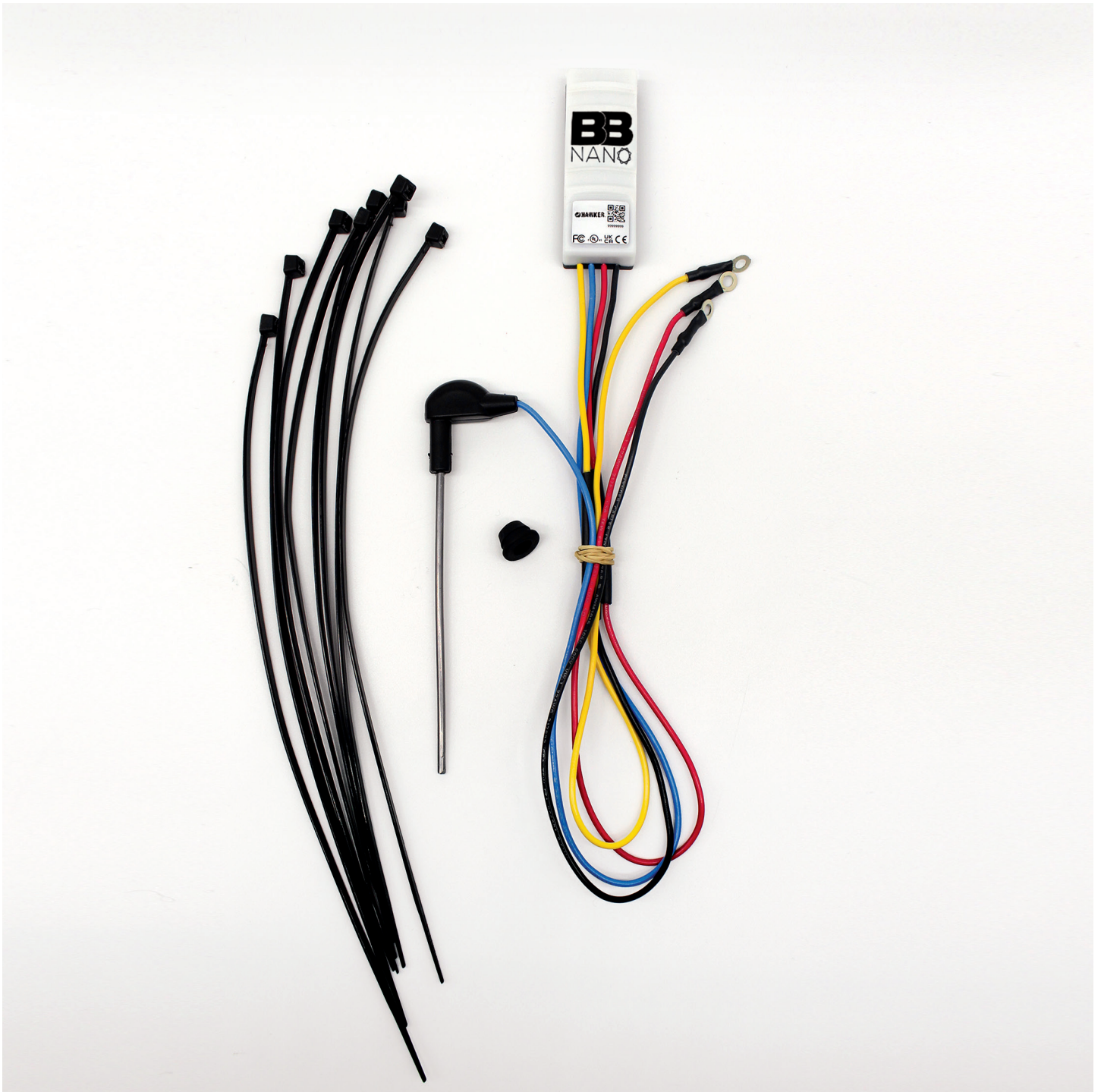


Check the number of flashes for voltage.



The LED flashes once to show the current battery status.
(*For LED indications please refer to [Figure 7 or 8.](#))

MODEL NO. 310S



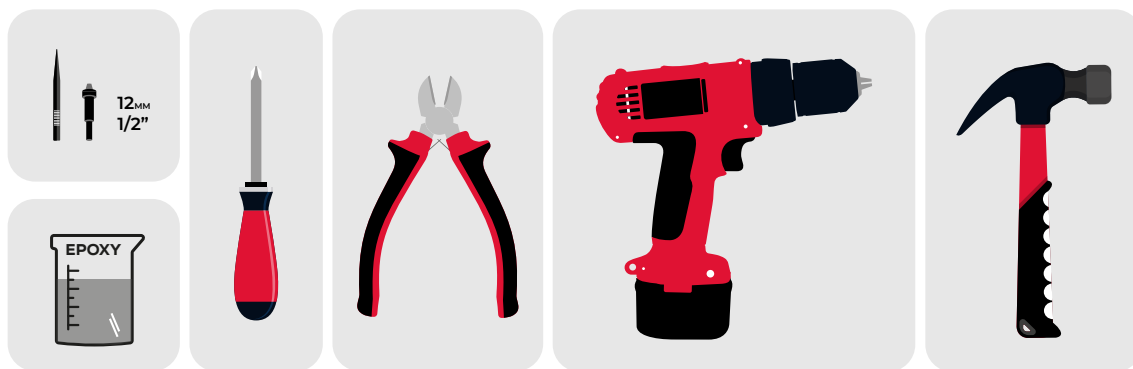
The HAWKER® BB NANO™ Battery Monitoring Device - 310S is a battery life monitor that provides a real-time status and is intended for use on 12V to 80V Flooded batteries.

The HAWKER® BB NANO™ Battery Monitoring Device monitors and records cycles, temperatures and automatically sends this data to a gateway or app for visualisation online.

It provides LED indications for electrolyte status, overtemperature and communication. If the electrolyte status of the battery is OK and the device is working, it will flash green.

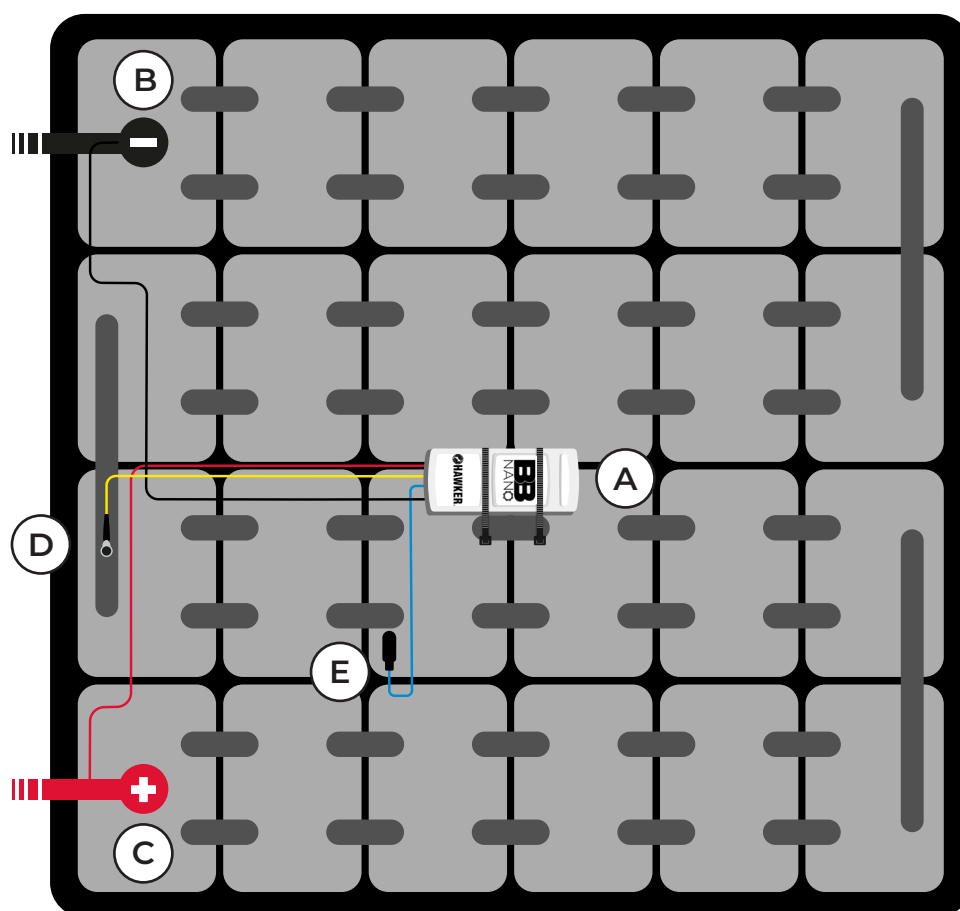
SECTION 4D: 310S INSTALLATION (CONTINUED)

TOOLS REQUIRED



SAMPLE CELLS LAYOUT

Figure 5: HAWKER® BB NANO™ Battery Monitoring Device Final Assembly on 48V Flooded Batteries



A HAWKER® BB NANO™
Battery Monitoring Device
310S

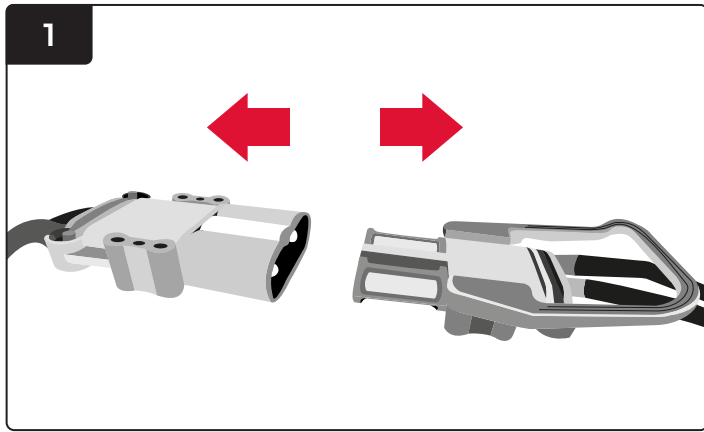


B **C** **D** Connection - S

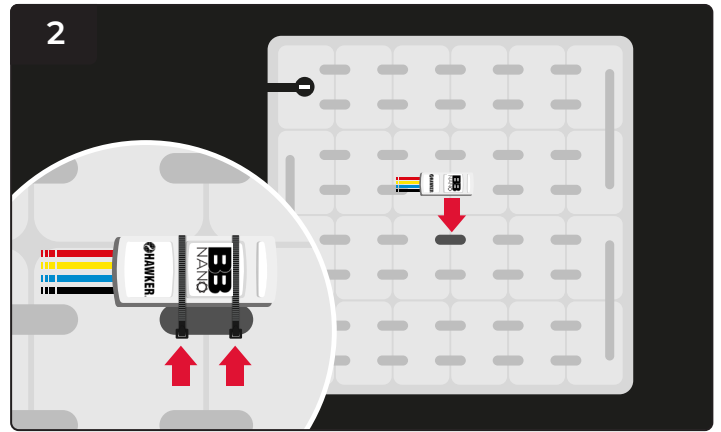


E Electrolyte Probe

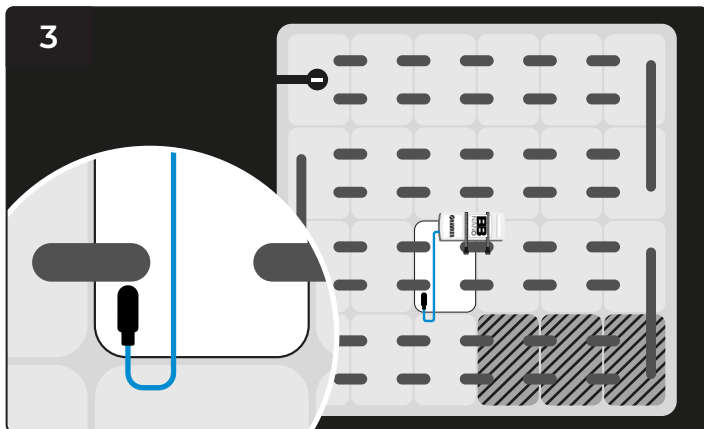
SECTION 4D: 310S INSTALLATION (CONTINUED)



Ensure the voltage is between 2.0 and 2.25 volts per cell before installation.

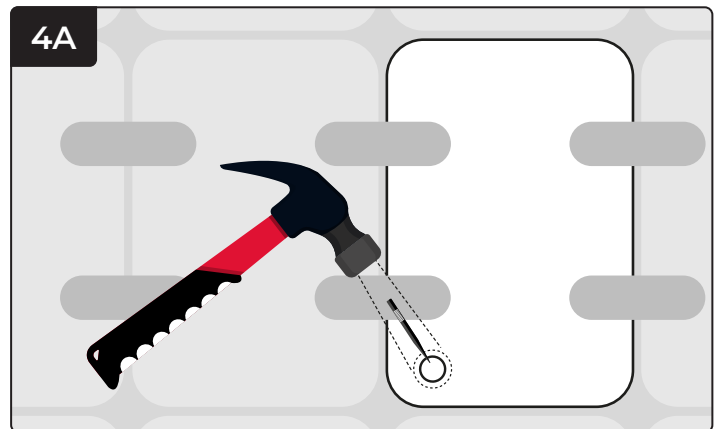


Attach the HAWKER® BB NANO™ Battery Monitoring Device to the battery and secure it with cable ties.

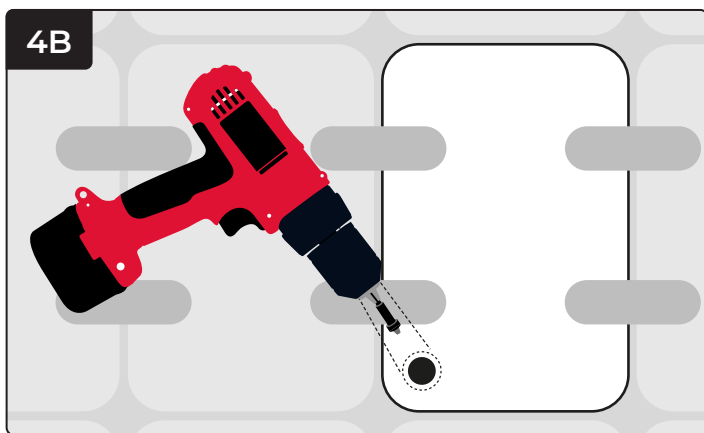


Install the electrolyte probe.

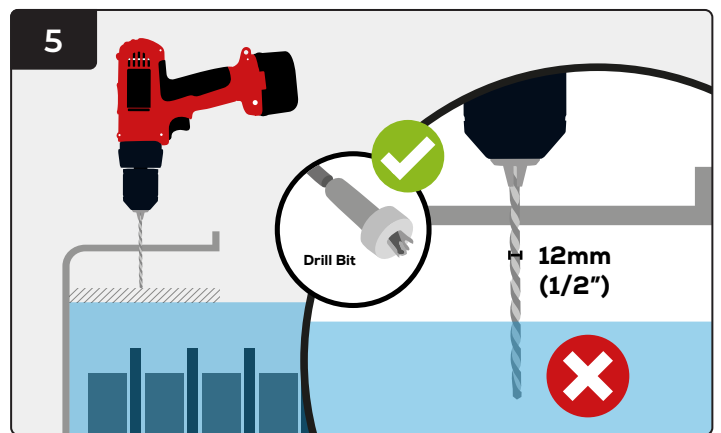
*Probe can be installed in any cells apart from the first three cells from the negative battery terminal.



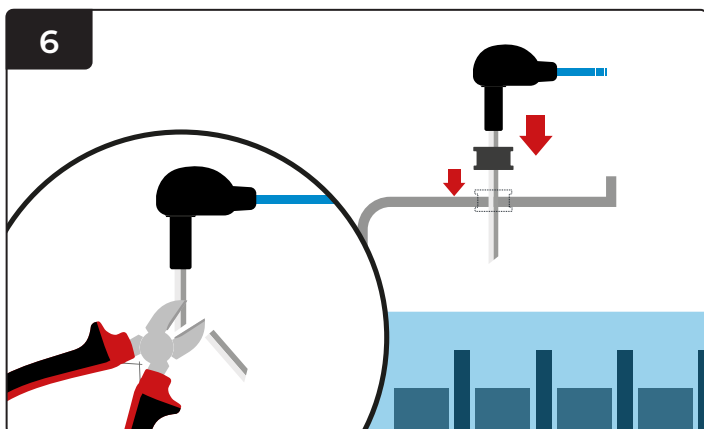
Punch a hole.



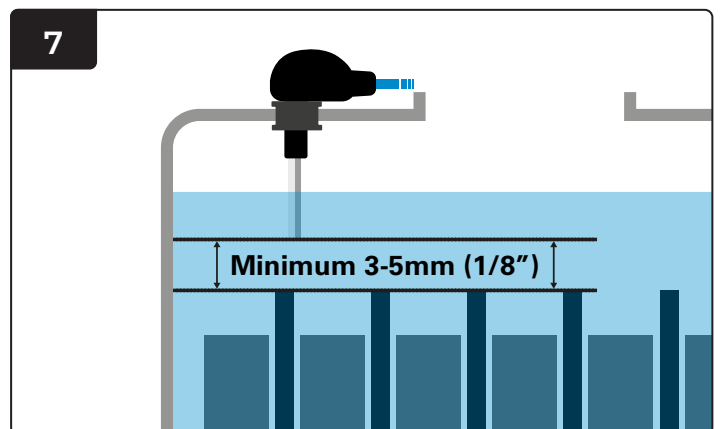
OR drill a hole.



Make sure the drill does not touch the electrolyte.

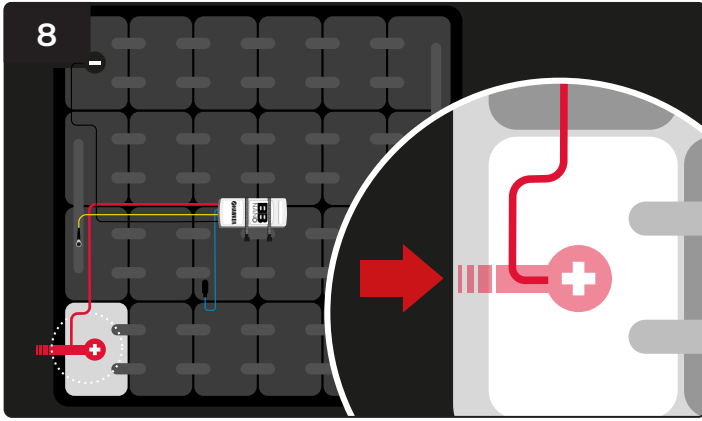


Trim the probe to the correct length and place it into the battery.

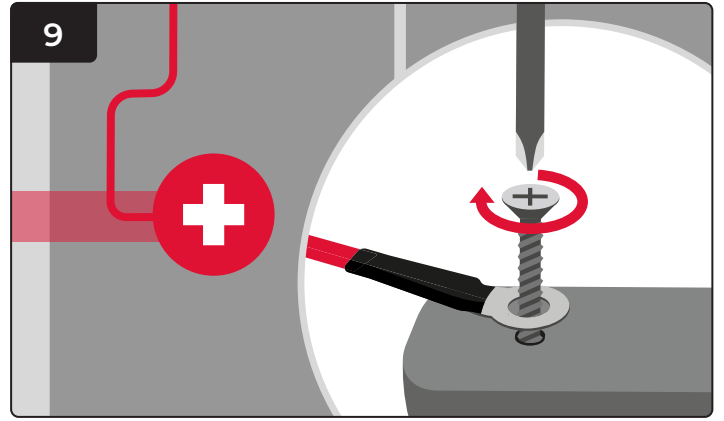


Make sure the probe is at least 3 - 5mm (1/8 inch) above the plate.

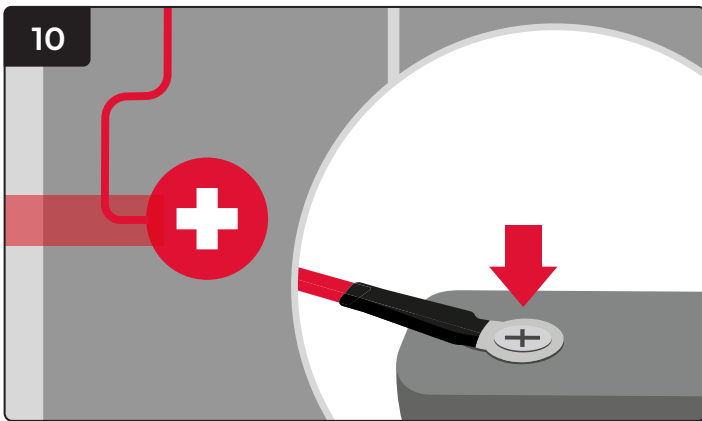
SECTION 4D: 310S INSTALLATION (CONTINUED)



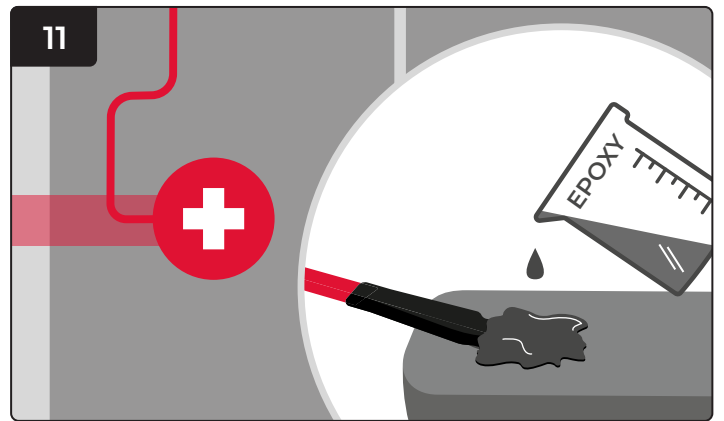
Connect the red cable to the positive terminal.



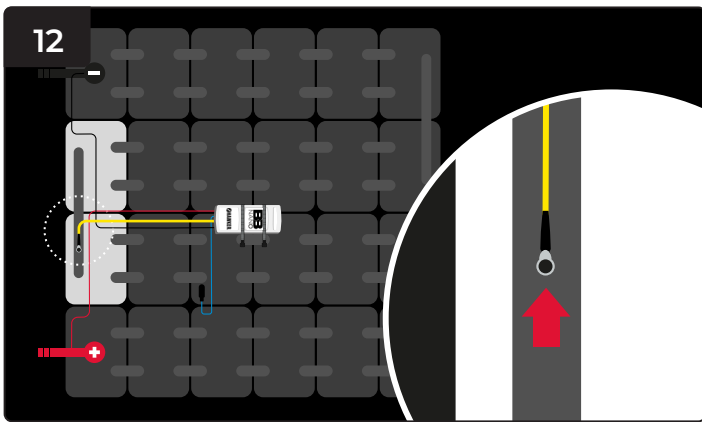
Screw the M4 connection to the terminal.



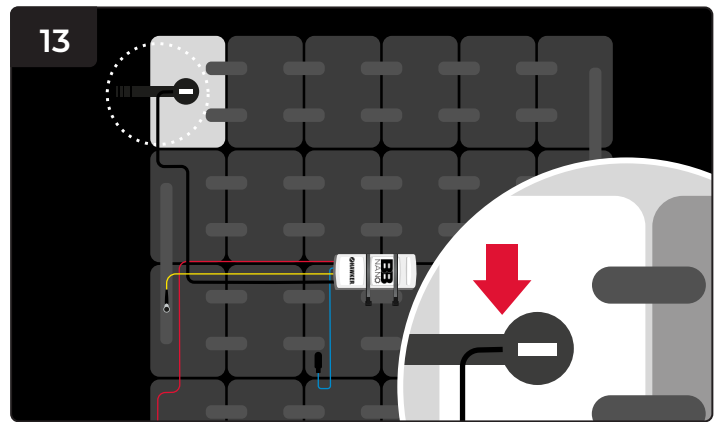
Make sure the M4 connection firmly attached to the battery.



Apply epoxy on top of the screw.

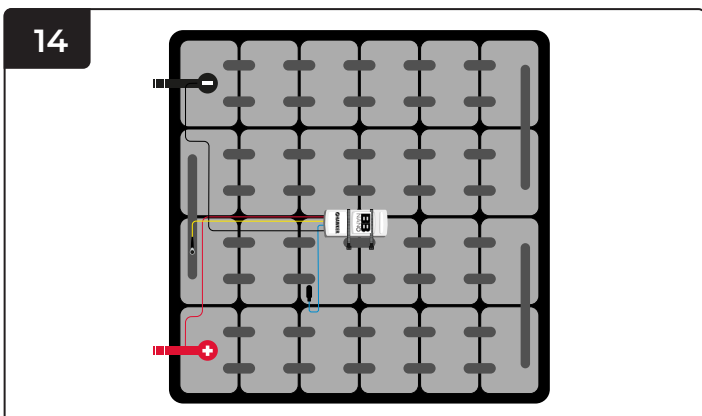


Connect the yellow cable to 12V / 24V from the negative terminal.
(*N.B. Only connect at 24V for 80V batteries)

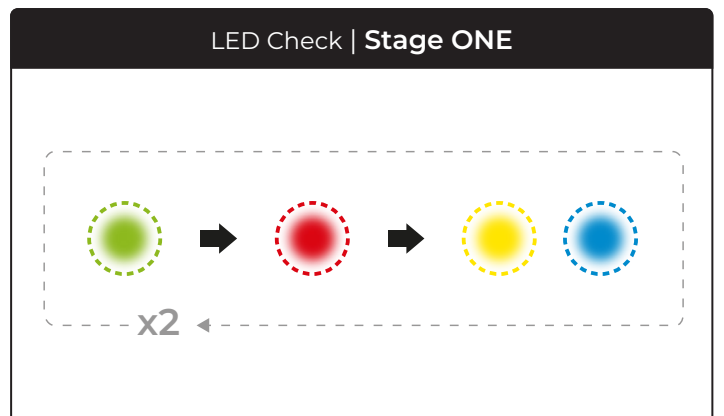


Connect the black cable to the negative terminal.

The black cable must be connected last.



Once the power has been connected, check the following start up LED sequence.



1 green > 1 red > 1 amber & 1 blue
This flashing pattern will repeat twice before the next stage.

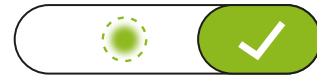
SECTION 4D: 310S INSTALLATION (CONTINUED)

Voltage Check | Stage TWO

 x1 = 12v
x2 = 24v
x3 = 36v
x4 = 48v
x8 = 80v

Check the number of flashes for voltage.

Start up LED sequence | Stage THREE



The LED flashes once to show the current battery status.
(*For LED indications please refer to [Figure 7 or 8.](#))

MODEL NO. 301Q



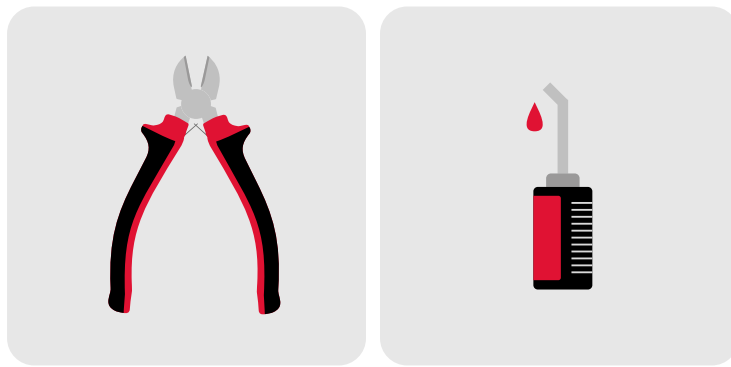
The HAWKER® BB NANO™ Battery Monitoring Device - 301Q is a battery life monitor that provides a real-time status and is intended for use on 12V to 80V TPPL batteries.

The HAWKER® BB NANO™ Battery Monitoring Device monitors and records cycles, temperatures and automatically sends this data to a gateway or app for visualisation online.

It provides LED indications for overtemperature and communication.
This variant has an external temperature sensor.

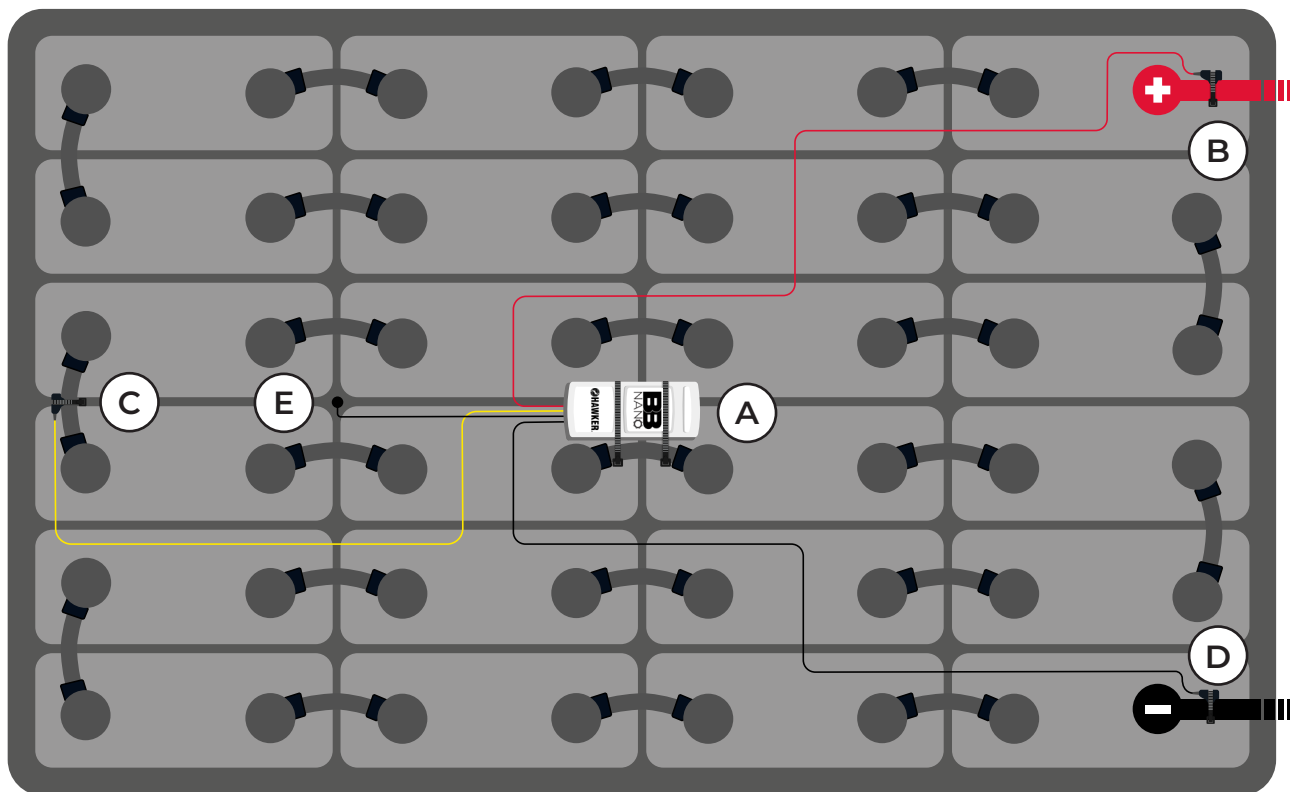
SECTION 4E: 301Q INSTALLATION (CONTINUED)

TOOLS REQUIRED



SAMPLE CELLS LAYOUT

Figure 6: HAWKER® BB NANO™ Battery Monitoring Device Final Assembly on 48V TPPL Batteries

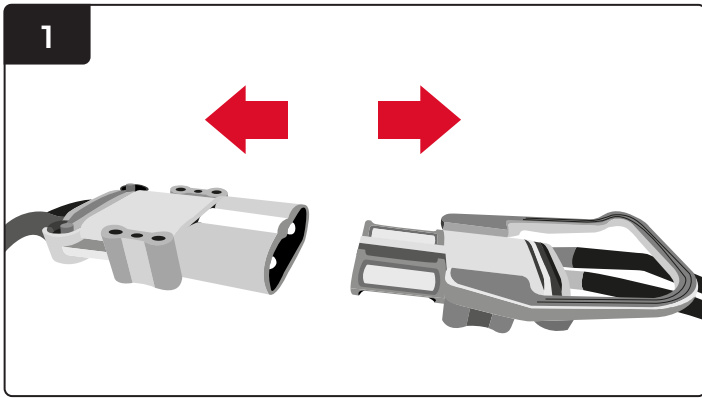


A HAWKER® BB NANO™
Battery Monitoring Device
301Q

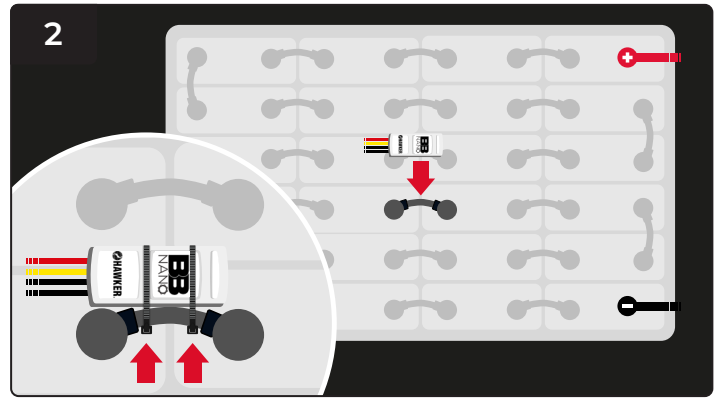
B **C** **D** Connection - Q

E Temperature Sensor Probe

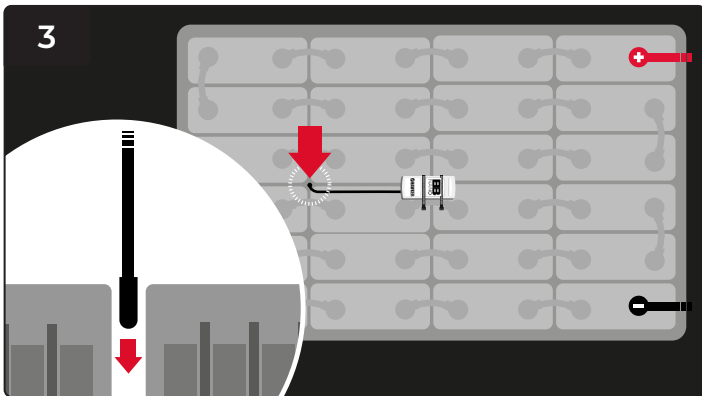
SECTION 4E: 301Q INSTALLATION (CONTINUED)



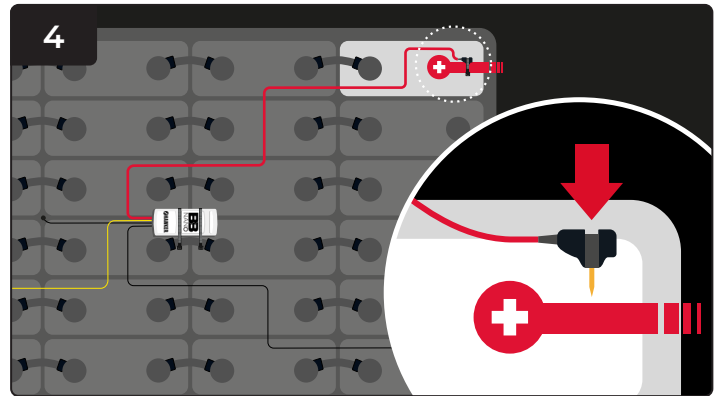
Ensure the voltage is between 2.0 and 2.25 volts per cell before installation.



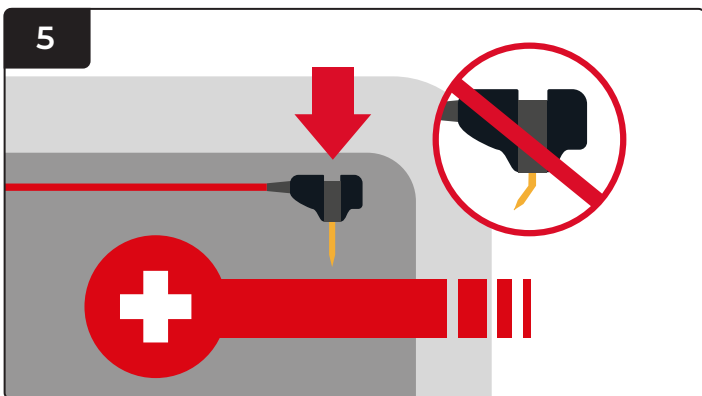
Attach the HAWKER® BB NANO™ Battery Monitoring Device to the battery and secure it with cable ties.



Install the temperature sensor probe.

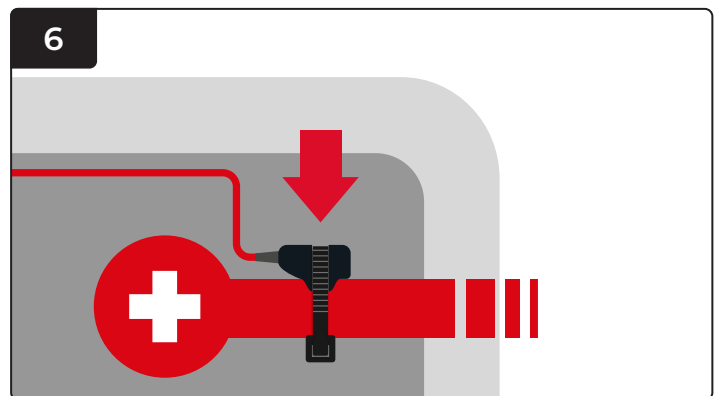


Connect the red cable to the positive terminal.

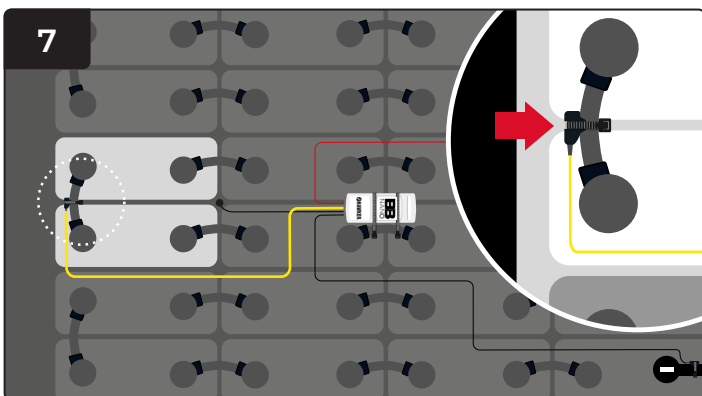


Insert the FlexiTap into the centre of the cable to ensure a good connection.

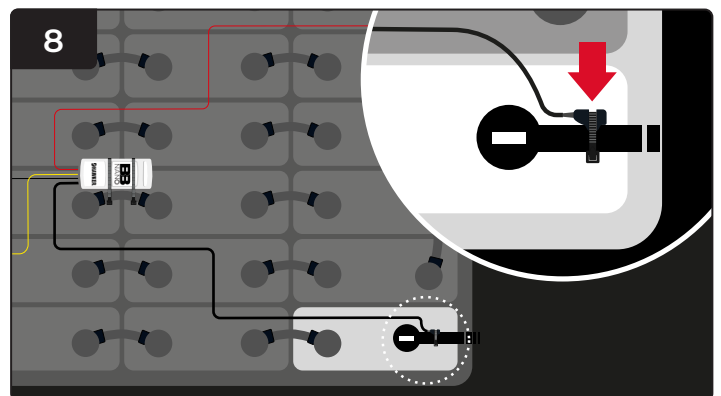
*Make sure it is positioned in the centre of the cable, taking care not to bend the pin.



Secure the FlexiTap with a cable tie.



Connect the yellow cable to 12V / 24V from the negative terminal.
(*N.B. Only connect at 24V for 80V batteries)

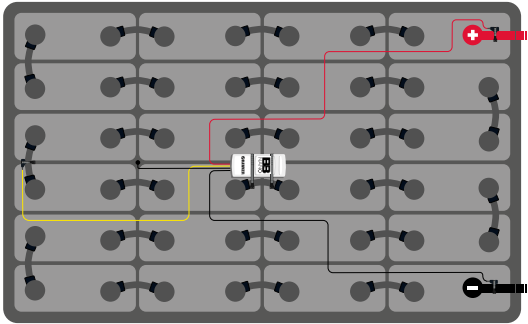


Connect the black cable to the negative terminal.

The black cable must be connected last.

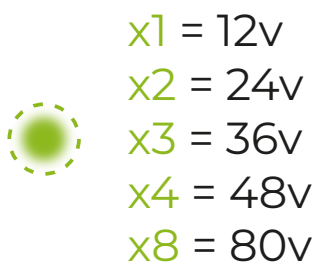
SECTION 4E: 301Q INSTALLATION (CONTINUED)

9



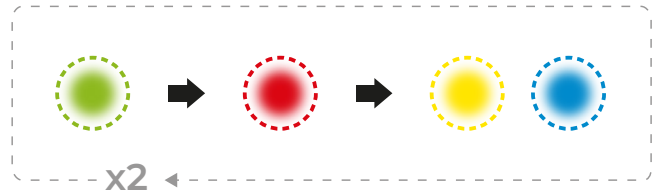
Once the power has been connected, check the following start up LED sequence.

Voltage Check | Stage TWO



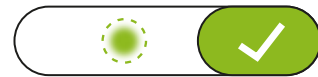
Check the number of flashes for voltage.

LED Check | Stage ONE



1 green > 1 red > 1 amber & 1 blue
This flashing pattern will repeat twice before the next stage.

Start up LED sequence | Stage THREE



The LED flashes once to show the current battery status.
(*For LED indications please refer to [Figure 7 or 8.](#))

SECTION 5: VISUAL LED INDICATION

AUTOMATIC VOLTAGE DETECTION

The HAWKER® BB NANO™ Battery Monitoring Device automatically detects the battery voltage. This is indicated by the green LED flash just after the initial boot up sequence. Refer to the table below for the voltage detected by the HAWKER® BB NANO™ Battery Monitoring Device.

***Important: For the HAWKER® BB NANO™ Battery Monitoring Device to detect the correct voltage, the volts per cell must be between 2.0 and 2.25 vpc during installation.**

Table 2: Tap Connection

Number of Flashes	Cells Sensed (Cells)	Nominal Voltage (Voltage)
1	6	12
2	12	24
3	18	36
4	24	48
8	40	80

*72V needs to be ordered separately.

LED INDICATIONS

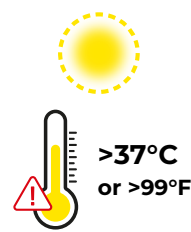
Figure 7: LED Indications for 300Q, 300B8 & 301Q



Status OK



Data Connection

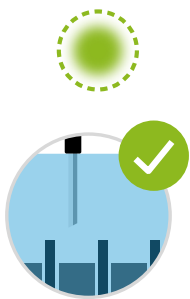


Over Temperature

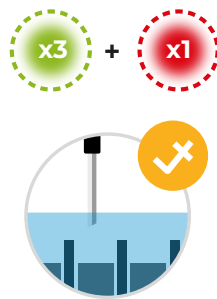


Hardware Fault

Figure 8: LED Indications for 310Q & 310S



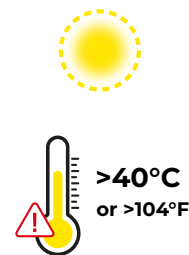
Electrolyte Level OK



Fill Soon



Fill Now

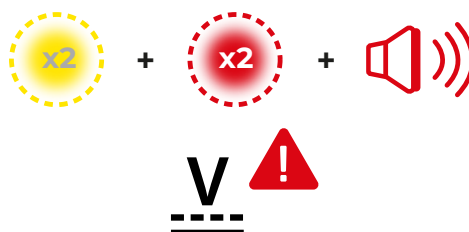


Over Temperature



Data Connection

Figure 9: Low Voltage Alert Indications



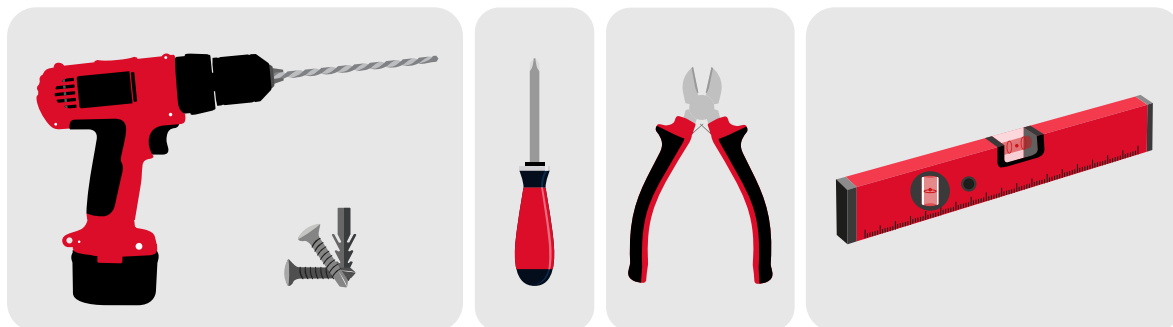
Low Voltage

HAWKER® BB NANO™ GATEWAY BATTERY DATA TRANSMITTER

The HAWKER® BB NANO™ Gateway Battery Data Transmitter automatically collects the data from any HAWKER® BB NANO™ Battery Monitoring Devices that are within range and uploads the data directly to the online portal. This data is available in real-time and shows the status of the connected devices.

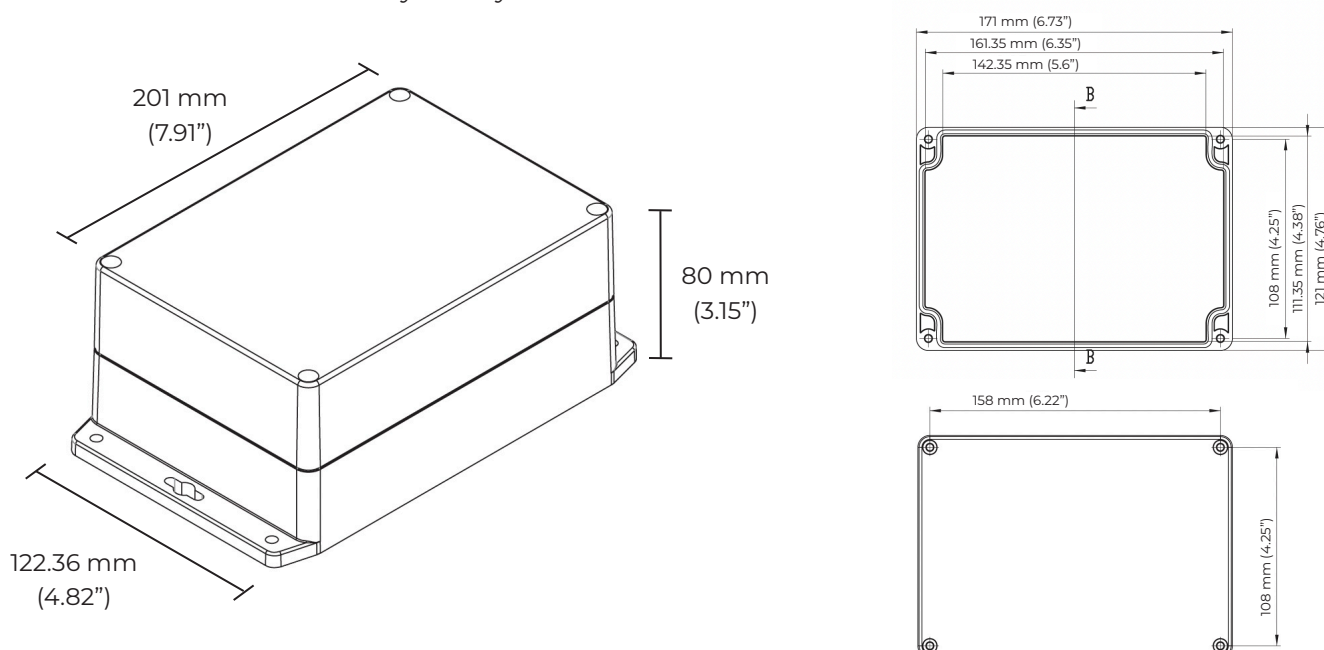
SECTION 6: CONNECTIVITY (CONTINUED)

TOOLS REQUIRED



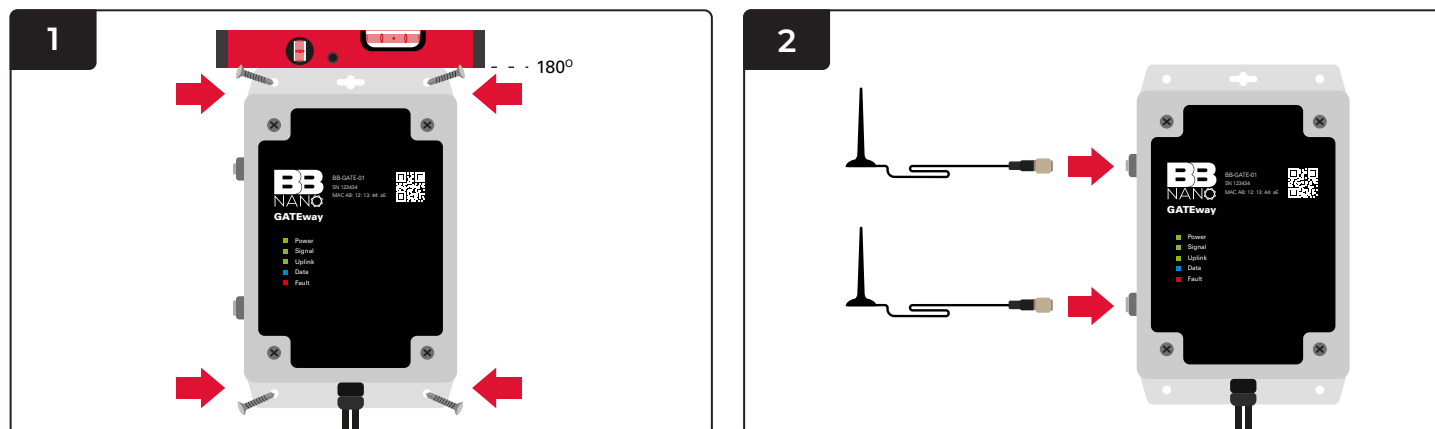
HAWKER® BB NANO™ GATEWAY BATTERY DATA TRANSMITTER OVERALL DIMENSIONS

Figure 9: HAWKER® BB NANO™ Gateway Battery Data Transmitter Dimensions



*All dimensions are given in mm (inch).

HAWKER® BB NANO™ GATEWAY BATTERY DATA TRANSMITTER INSTALLATION

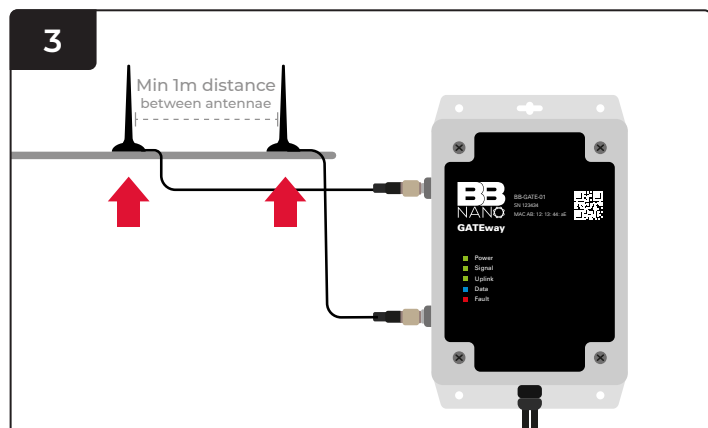


Mount the control box to the wall using four screws/anchors and a level. Make sure it is firmly attached to the wall.

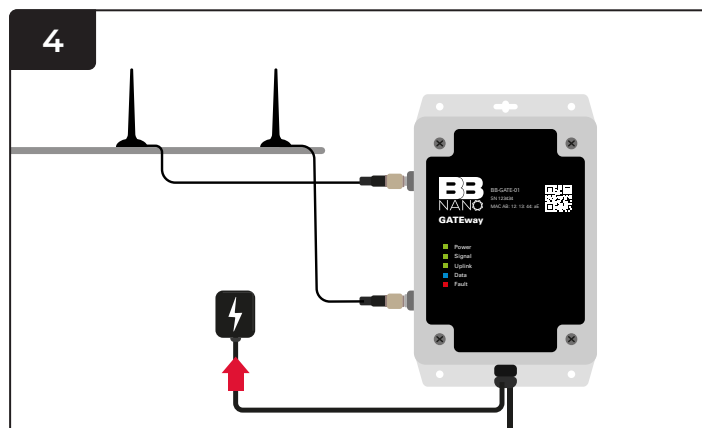
Attach antennae to the HAWKER® BB NANO™ Gateway Battery Data Transmitter.

SECTION 6: CONNECTIVITY (CONTINUED)

HAWKER® BB NANO™ GATEWAY BATTERY DATA TRANSMITTER INSTALLATION (CONTINUED)



Place both antennae as high as possible to maximise signal.
*Keep at least 1m distance between the antennae.

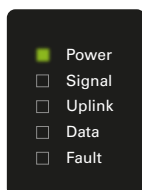


Powering the device.

START-UP LED SEQUENCE

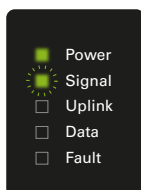


Stage One Power



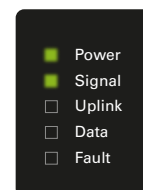
Solid green when it connects to the power.

Stage Two Signal



Green slow flash when it is connecting to the signal.

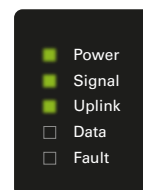
Stage Three Signal



Solid green when there is good signal.

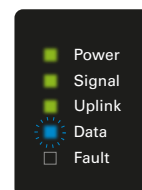
*Please refers to the [FAQs section](#) if the signal is unstable.

Stage Four Uplink



Solid green when it connects to the internet.

Stage Five Data



Blue slow flash when the receiver is active.

*Please refers to the [FAQs section](#) if the blue LED light is not flashing.

*Please refers to the [FAQs section](#) if the solid red fault light is on.

Table 3: Installation Locations

✓ Recommend Locations	✗ Avoid Locations
Battery Room	Exterior Location
Main Charging Area	Humid Areas (e.g. Boiler Room)
Central Location	Enclosed Spaces
Central Doorway	Metal Clad Areas

SECTION 7: FREQUENTLY ASK QUESTIONS (FAQS)

HAWKER® BB NANO™ BATTERY MONITORING DEVICE

- Q1 What data does the HAWKER® BB NANO™ Battery Monitoring Device monitor and record?**
The BB NANO™ Battery Monitoring Device monitors and records battery voltage, temperature, electrolyte level, battery status (i.e. real-time charge / discharge status). Additionally, it monitors and records cycles, average and min/max temperatures, min/max voltages, life history and any abuse of the battery – overtemperature, over discharge and low electrolyte. This data can be visualized online or with the app and uploaded via a gateway.
- Q2 I have connected the wires but there are no LEDs on the HAWKER® BB NANO™ Battery Monitoring Device.**
Check that the connections have been made in the correct sequence across the correct voltage. If these are all correct, the device may be defective. Contact your local Hawker® service location.
- Q3 What is the purpose of the green LED flash during the initial boot up sequence?**
The purpose of the green LED flash during the initial boot-up sequence is to indicate the detected battery voltage. The number of green LED flashes corresponds to the voltage of the battery. For example, one green flash indicates a 12V battery, two green flashes indicate a 24V battery, and so on, up to eight green flashes indicating an 80V battery. This LED indication helps users verify that the HAWKER® BB NANO™ Battery Monitoring Device has correctly detected the battery voltage and is ready for operation. When installing the HAWKER® BB NANO™ Battery Monitoring Device, this must be checked.
- Q4 I have connected the device and the HAWKER® BB NANO™ Battery Monitoring Device powers up, but the number of green flashes does not match the voltage of the battery.**
This may mean that the HAWKER® BB NANO™ Battery Monitoring Device has been powered up in the incorrect sequence. Disconnect the wires and reinstall, ensuring that the yellow wire is connected before the red and black wires. The HAWKER® BB NANO™ Battery Monitoring Device must be installed when the voltage is between 2.0 and 2.25 volts per cell.
- Q5 I have installed the electrolyte probe, but the LED indication is not correct.**
First, ensure that the electrolyte probe is not installed in the first 3 cells from the negative take off lead. The probe must not be touching any plates or separators inside the cell. If this has been confirmed and the problem persists, contact your local Hawker® service location.
- Q6 There is a rapid flashing amber LED on the HAWKER® BB NANO™ Battery Monitoring Device – what does this mean?**
The flashing amber means the voltage range is not correct. Ensure that the red and black wires are connected across 12V, 18V or 24V only. It can also mean that the voltage is not stable. Ensure that the charger has been disconnected and the battery has had enough time to reach a voltage between 2.0 and 2.25 volts per cell.
- Q7 There is a flashing red indication on the HAWKER® BB NANO™ Battery Monitoring Device – what does this mean?**
Flashing red indicates that the electrolyte level is low.
- Q8 There is a solid red LED indication on the HAWKER® BB NANO™ Battery Monitoring Device – what does this mean?**
The red LED indicates a fault – please contact your local Hawker® service location for support.
- Q9 I have installed the HAWKER® BB NANO™ Gateway Battery Data Transmitter and the HAWKER® BB NANO™ Battery Monitoring Device, but I can't see the real-time status online.**
The gateway must be assigned to the site online before it is installed and powered up. For further information contact your local HAWKER® Representative. Dial 1-877-7HAWKER (U.S. and Canada only) to directly contact them.

SECTION 7: FREQUENTLY ASK QUESTIONS (FAQS) (CONTINUED)

HAWKER® BB NANO™ GATEWAY BATTERY DATA TRANSMITTER

Q1

The signal LED does not turn solid green.

This means that the signal is insufficient. Transfer the gateway to a location where the signal is better.

Q2

There is a solid red LED on the gateway – what does this mean?

A solid red led means the gateway is faulty. Please contact your local HAWKER® Representative. Dial 1-877-7HAWKER (U.S. and Canada only) to directly contact them.

Q3

I've powered up the gateway, but none of the LEDs are turning on.

Check the plug is correctly connected and turned on. If the problem persists contact your local HAWKER® Representative. Dial 1-877-7HAWKER (U.S. and Canada only) to directly contact them.

Q4

The blue LED is not flashing – what does this mean?

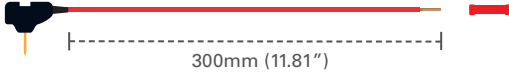
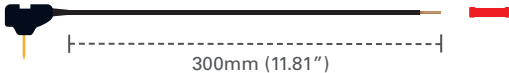
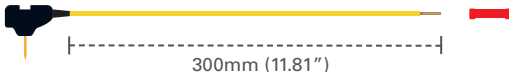
This means the receiver has not activated and data is not being uploaded. Please contact your local HAWKER® Representative. Dial 1-877-7HAWKER (U.S. and Canada only) to directly contact them.

SECTION 8: SPARE PARTS

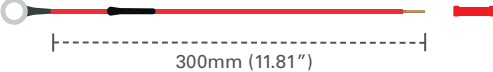
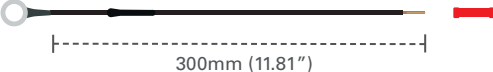
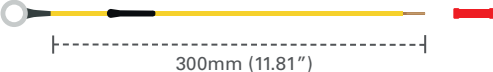
HAWKER® BB NANO™ Battery Monitoring Device

Part no.	Parts
BB-300 HAWKER® BB NANO™ Battery Monitoring Device TPPL w/o External Temperature Probe	
BB-310 HAWKER® BB NANO™ Battery Monitoring Device Flooded w/o External Temperature Probe	
BB-301 HAWKER® BB NANO™ Battery Monitoring Device TPPL w/ External Temperature Probe	

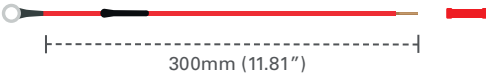
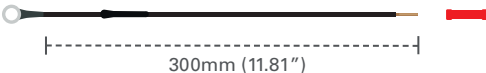
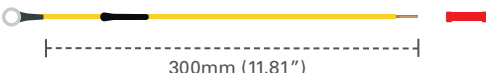
Terminal Connection Q - FlexiTap

Part no.	Parts
BB-RFQ Terminal Connection FlexiTap	
	
	

Terminal Connection B8 - Bolt

Part no.	Parts
BB-RFB8 Terminal Connection M8 Bolt	
	
	

Terminal Connection S - M4 Screw

Part no.	Parts
BB-RFS Terminal Connection M4 Screw	
	
	

SECTION 8: SPARE PARTS

HAWKER® BB NANO™ Gateway Battery Data Transmitter	
Part no.	Parts
BB-GATE-CW10 Global 4G cellular gateway with Wifi support	