

Installation Manual

NxTrax Kit

Contents

1. Safety and Preparation

1.1 Intended Use
1.2 Warning Regarding Road Use
1.3 Precautions Before Installation
1.4 Qualified Personnel and Required Tools
1.5 Cable and Electrical Connection Precautions
1.6 Precautions After Installation
1.7 Preliminary Checks

2. Installation

2.1 Connecting the Power Supply
2.2 Installing and Securing the Main Unit
2.3 Installing the OLED Display and Mount
2.4 Installing the Handlebar Control Pad
2.5 Routing and Connecting the Cables
2.6 Connecting Power and Switching On the Main Unit
2.6.1 Configuring an Inverted OLED Display

3. Completing the Installation

3.1 Final Checks
3.2 System Commissioning

Before You Begin

This manual describes the procedures required to prepare and install the NxTrax system. It provides the instructions needed to complete the installation correctly and ensure proper system operation.

Preliminary Information and Warnings

Installation

The NxTrax system must be installed only by qualified, appropriately trained personnel. Correct installation is essential for proper system operation and safe use.

Washing and Cleaning

Although the NxTrax system is fully sealed and watertight, avoid directing water jets at it, including during routine motorcycle washing. When cleaning the motorcycle, pay particular attention to the installation area and do not spray water directly onto the system or its components.

1. Safety and Preparation

Read this manual carefully and in full before installing or commissioning the NxTrax system. Follow all instructions, warnings and safety information throughout installation, configuration, inspection and use.

Installation must be carried out only by qualified or appropriately trained personnel with the necessary expertise in motorcycles, suspension systems and electrical systems.

1.1 Intended Use

NxTrax is an electronic system designed to control and manage a motorcycle's front suspension within the product's intended application.

Install the system only on compatible vehicles and components, and use it in accordance with the instructions and conditions specified in this manual.

Any modification, use or installation not expressly approved by the manufacturer may compromise system operation and vehicle safety.

1.2 Warning Regarding Road Use

The NxTrax system is not approved for use on roads open to public traffic and must not be used on such roads.

Installing NxTrax does not constitute or confer vehicle type approval and does not authorize use on public roads.

Before installation and use, the purchaser, installer and user must verify and comply with all applicable national and local laws and regulations.

NxTrax must be used exclusively on private property, circuits, tracks or other areas closed to public traffic, and only to the extent permitted by applicable law. Use of the system in breach of road traffic regulations is the responsibility of the user and any other parties involved, as provided by law. To the extent permitted by law, the manufacturer and distributor disclaim liability for consequences arising from use that does not comply with the product's intended purpose, this manual or applicable regulations. Any liability that cannot legally be excluded remains unaffected.

1.3 Precautions Before Installation

Before starting installation:

- read this manual in full;
- confirm that the vehicle is compatible with the NxTrax system;
- ensure that the vehicle is stable and correctly positioned;
- switch off the engine and prevent accidental starting during installation;
- work in a clean, dry, well-lit and adequately ventilated area;
- check that all kit components are present and show no visible damage.

Take particular care when handling electrical components.

Before connecting power, check that cables, connectors and protective sheaths are undamaged and correctly installed. Avoid any condition that could cause a short circuit or damage the vehicle's electrical system.

Before powering the system, always check that the fuse is present and correctly seated in its holder.

Do not modify, cut, damage or alter cables, connectors or electronic components unless expressly instructed to do so in this manual.

1.4 Qualified Personnel and Required Tools

Installation must be performed by specialist personnel with expertise in:

- motorcycle mechanics;
- suspension systems;
- motorcycle electrical and electronic systems.

No special tools are required to install NxTrax unless otherwise specified in the relevant installation procedure.

Use only suitable, undamaged tools appropriate for the task.

Appropriate personal protective equipment is recommended, particularly:

- work gloves when installing and handling components;
- safety glasses when there is a risk of flying particles;
- any additional protective equipment required by the working conditions.

Where required by the installation procedure, use suitable measuring and tightening tools and observe the manufacturer's specified values.

1.5 Cable and Electrical Connection Precautions

During installation, pay particular attention to proper cable routing and securing.

Route and install cables so that they:

- do not interfere with moving motorcycle parts;
- do not contact hot components;
- are not subjected to tension, crushing or excessive bending;
- do not contact sharp edges or surfaces that could cut or damage their insulation;
- remain adequately protected during vehicle operation.

Do not use the system if any cables, protective sheaths or connectors are damaged.

Connectors must be fully inserted and completely dry before the system is powered.

Do not touch cables, connectors or other electrical components with wet hands.

1.6 Precautions After Installation

After installation, complete all checks specified in this manual before powering or using NxTrax.

In particular, check:

- that all components are securely fastened;
- that all connectors are correctly connected;
- that cables are undamaged, correctly installed and properly routed;
- that the fuse is present and correctly seated;
- that cables do not interfere with moving motorcycle parts;
- that there are no visible faults or signs of damage.

Do not start the motorcycle or test NxTrax in enclosed or partly enclosed spaces, such as garages, rooms or workshops without adequate exhaust-gas extraction.

Exhaust gases can accumulate rapidly and reach dangerous concentrations, causing severe poisoning or death.

Tests with the engine running must be carried out only outdoors, in a suitably ventilated area where motorcycle operation is permitted.

Before any dynamic test, ensure that the system has been correctly installed and checked and that the test area is suitable and free of people, obstacles and other hazards.

1.7 Preliminary Checks

Before supplying power to the system, verify every item below:

☐ Installation was performed by qualified personnel with expertise in motorcycles, suspension and motorcycle electrical systems.

☐ The motorcycle is stable, switched off and safely positioned.

☐ All NxTrax components are present, undamaged and correctly installed.

☐ Cables and protective sheaths have no cuts, abrasions, crushing or other damage.

☐ Cables are properly secured and do not interfere with moving, hot or sharp vehicle parts.

☐ All connectors are undamaged, correctly connected, dry and free of moisture.

☐ The fuse is present and correctly seated in its holder.

☐ No condition exists that could cause short circuits or damage the electrical system.

☐ All connections have been checked before powering the system.

☐ The test area is suitable for starting and operating the motorcycle.

Package Contents

COMPONENT	QUANTITY
1 – Power cable	1
2 – OLED display mount with screws	1 with 2 threaded screws
3 – OLED display	1
4 – Main Unit (control unit)	1
5 – Handlebar control pad	1
6 – Compression assembly with 4-pin connector	1
7 – Compression assembly with 8-pin connector	1



2. Installation

Before installing NxTrax, make sure you have read and understood all the safety information in the previous chapter.

Follow the sequence of operations in this manual carefully. Do not proceed to the next stage until the installed components have been correctly positioned, secured and checked.

Installation begins with mechanical assembly of the components, followed by connection and configuration of the electronic system. Perform the specified checks at the end of each stage before proceeding.

⚠ IMPORTANT – Checking and Adjusting Bladder Pressure

After mechanical installation and before proceeding, bladder pressure must be checked to ensure that it is within the specified operating range.

Pressure must be between 1.8 and 2.4 bar. The recommended initial setting is 1.8 bar; always measure pressure when the suspension is cold.

Checking Conditions and Procedure

For accurate, reliable measurements, follow these instructions:

1. Cold check: always check and adjust pressure when the suspension is cold. Do not check immediately after riding, as temperature can affect the reading.
2. Releasing residual pressure from the fork leg: before checking bladder pressure, release any pressure in the fork leg using the designated bleed screw, following the prescribed procedure. This precaution ensures consistent checking conditions.
3. Motorcycle position: all bleeding and bladder-pressure checks must be carried out with the motorcycle raised on a suitable stand so that the front wheel is completely unloaded.
4. Measuring equipment: use only a suitable, correctly calibrated pressure gauge.
5. Adjustment: initially set pressure to 1.8 bar and always confirm that it remains within the permitted range of 1.8–2.4 bar.

Periodic Pressure Checks

Recheck bladder pressure after extended periods when the motorcycle has not been used, for example after winter storage or a prolonged lay-up.

Pressure may gradually decrease over time due to the natural permeability of the bladder's elastomer material.

Before riding again, always verify that pressure meets the specified values.

WARNING: do not commission the system if bladder pressure is outside the specified range. Incorrect pressure may compromise suspension operation and NXTRAX performance.

⚠ CAUTION – COMPRESSION HEAD

The compression head has two components with different functions:

- **Bleed screw: the small screw is used exclusively to bleed air from the system.**
- **Screw with red compression valve: this valve is used to pressurize the bladder. Pressurization must be performed with a needle specifically suitable for bladder pressurization, correctly inserted into the valve.**

WARNING: do not use the bleed screw to pressurize the bladder.

The compression valve may also be removed with the dedicated removal tool, but only when replacement is necessary due to damage to its pressure-sealing rubber insert.

Once pressure has been confirmed within the specified range, proceed with the installation steps in the following sections.



POSITIONING THE 4-PIN AND 8-PIN COMPRESSION ASSEMBLIES

The compression assembly with the 4-pin connector and the assembly with the 8-pin connector may be fitted on either the right or left fork leg. Their positions do not affect proper NXTRAX operation.

In the usual configuration, the 8-pin assembly is installed on the left and the 4-pin assembly on the right. This arrangement is indicative only and is not mandatory.

2.1 Connecting the Power Supply

1. Remove the motorcycle seat to access the battery.
2. Locate the NxTrax power cable and check that it is undamaged.
3. Connect the black cable to the battery's negative (–) terminal.
4. Before connecting the red cable, check that the 2 A fuse is fitted in its holder. Make sure the fuse is intact, with no signs of burning or damage.

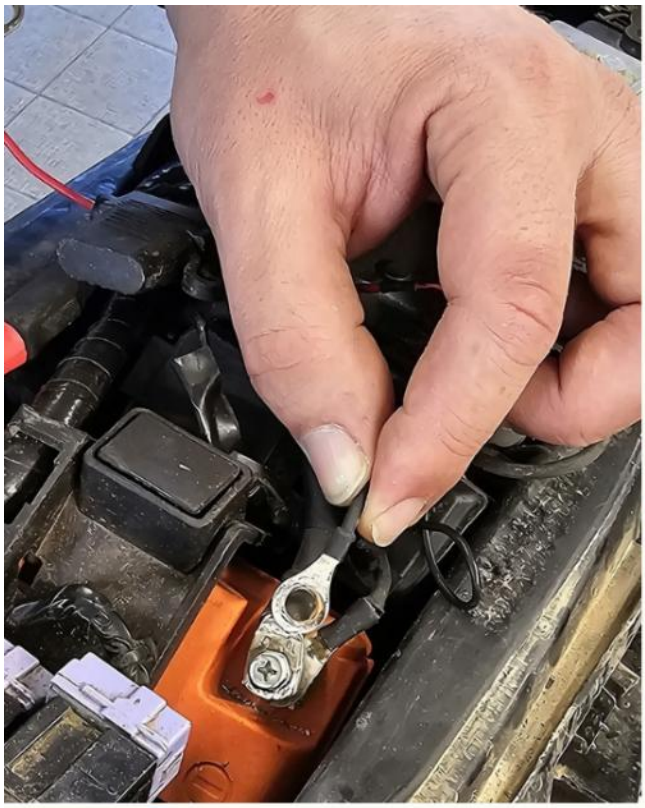
⚠ IMPORTANT: do not connect the red cable to the battery's positive terminal if the fuse is missing, damaged or of the wrong rating.

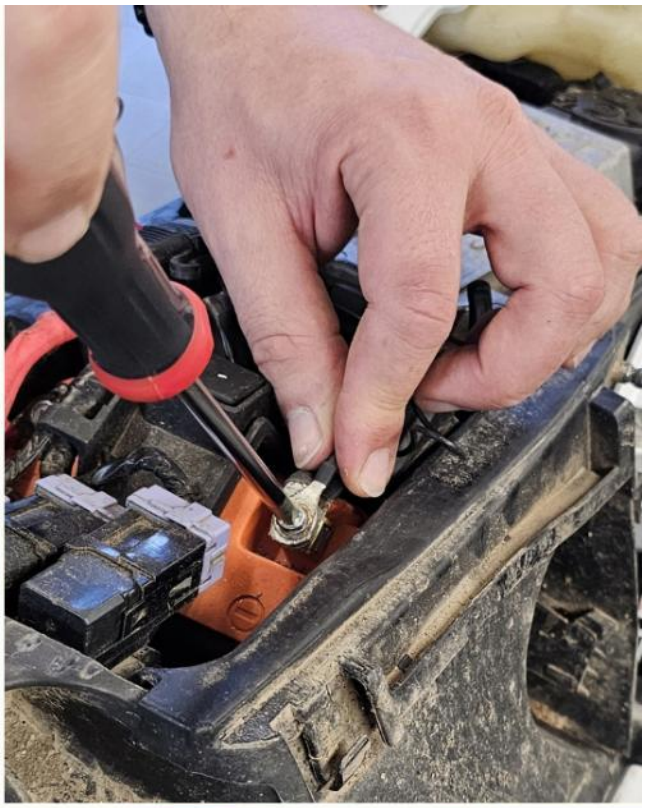
5. After confirming that the correct fuse is fitted and intact, connect the red cable to the battery's positive (+) terminal.
6. Check that both connections are secure and that the cables are not under tension or in contact with moving, hot or sharp motorcycle parts.
7. **Route the power cable towards the area behind the headlight.**

   When routing the cable, take particular care to ensure that it:

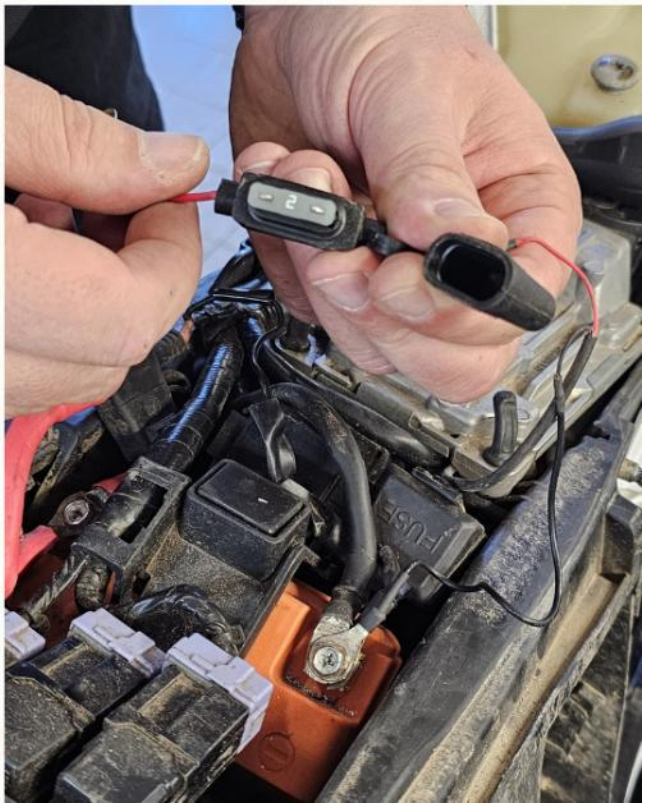
   - is not pinched, crushed or placed under tension;
   - does not rub against other cables or motorcycle components;
   - does not touch moving parts or edges that could damage its sheath;
   - remains sufficiently far from heat-generating components or surfaces.
   - Secure the cable so that it cannot move or interfere with motorcycle operation while riding.

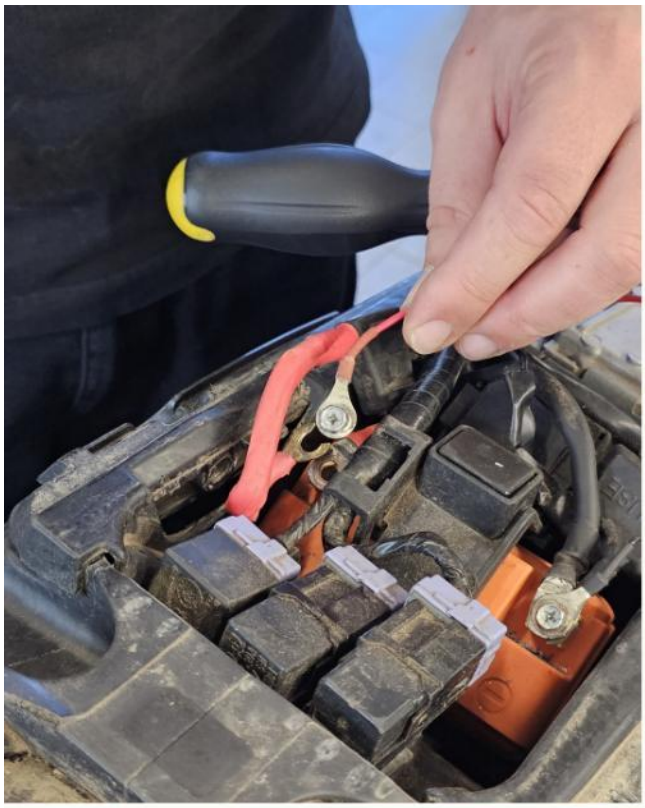
The following photographs illustrate the installation procedure step by step and provide visual guidance for each operation.



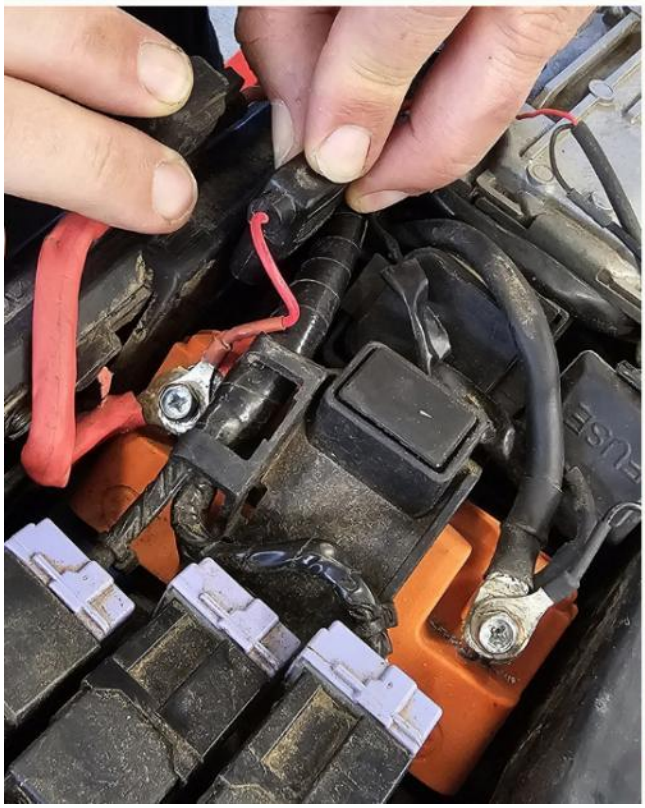



FUSE

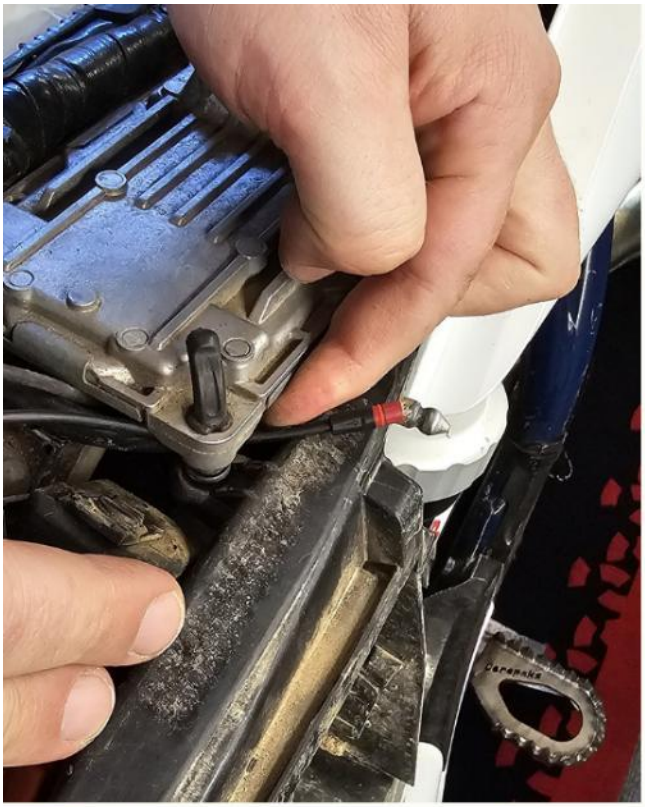

FUSE

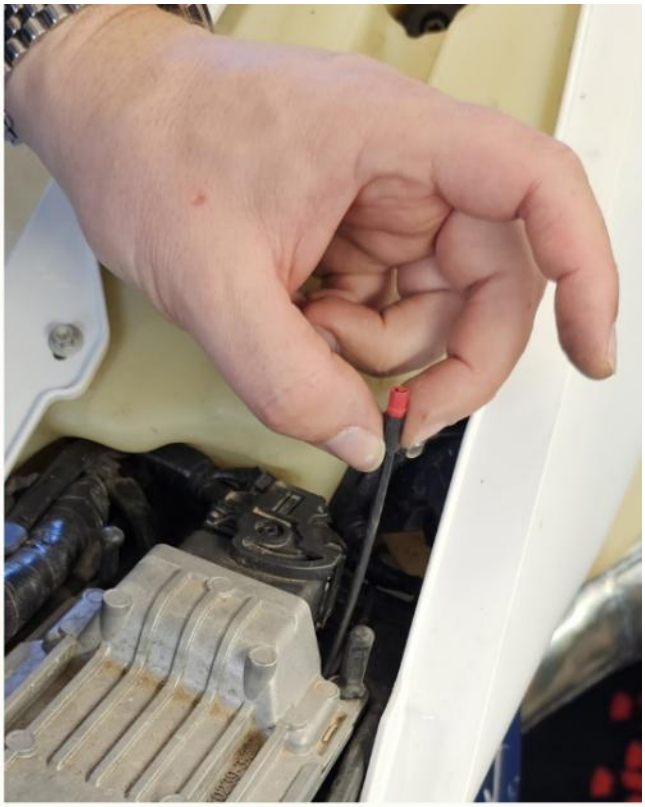




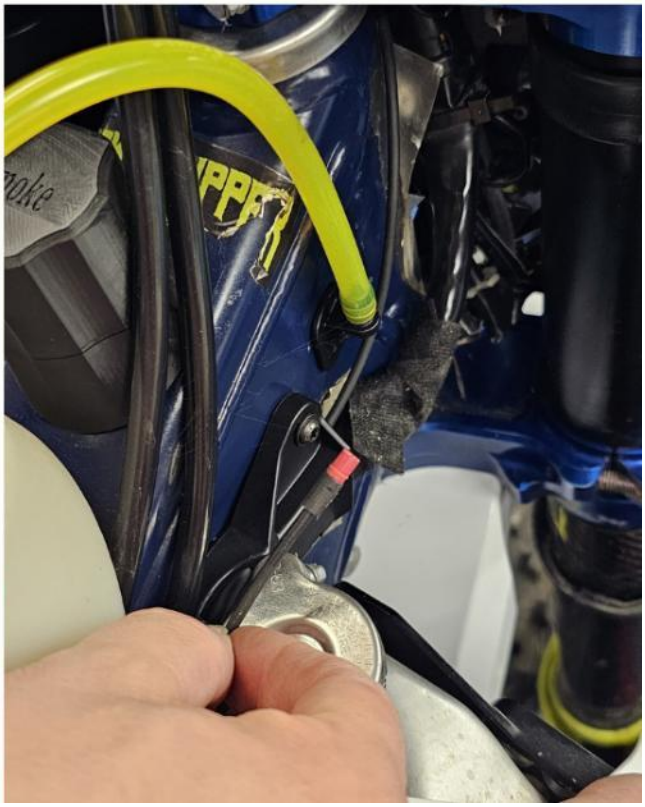


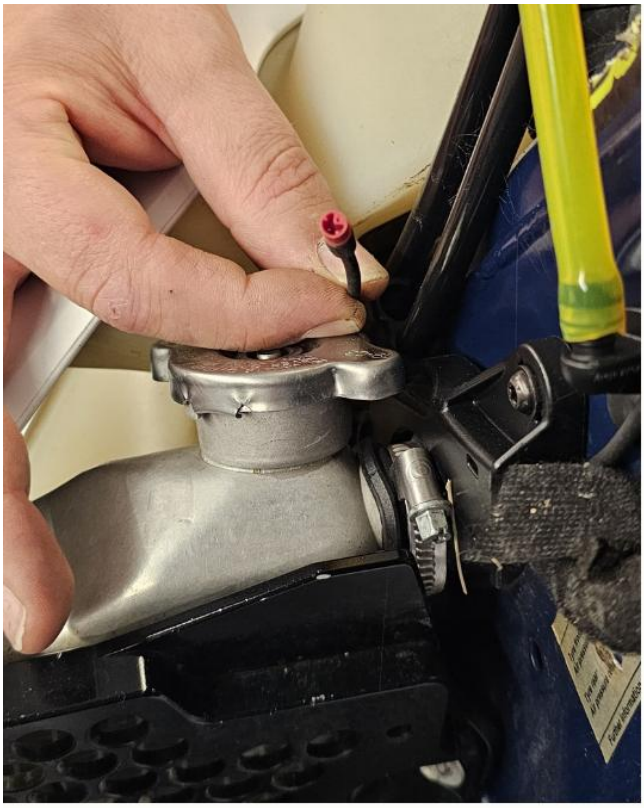


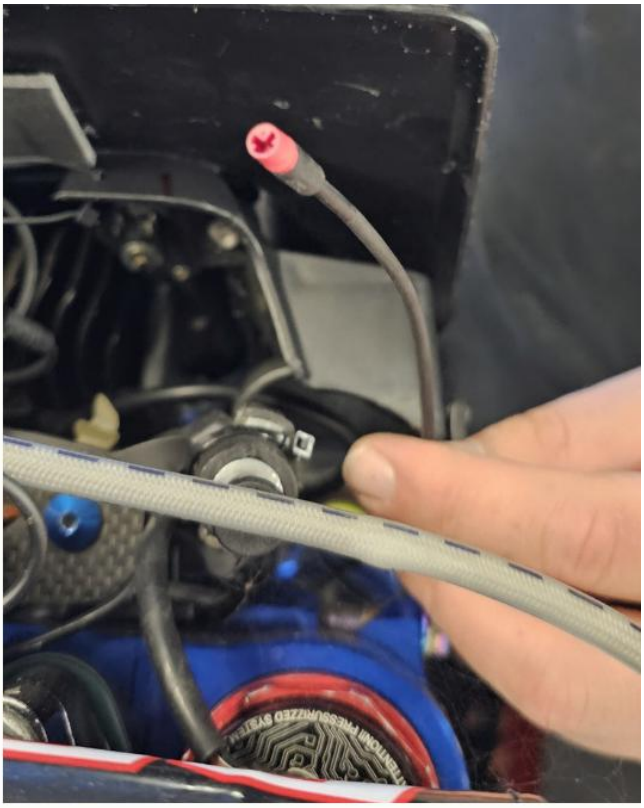










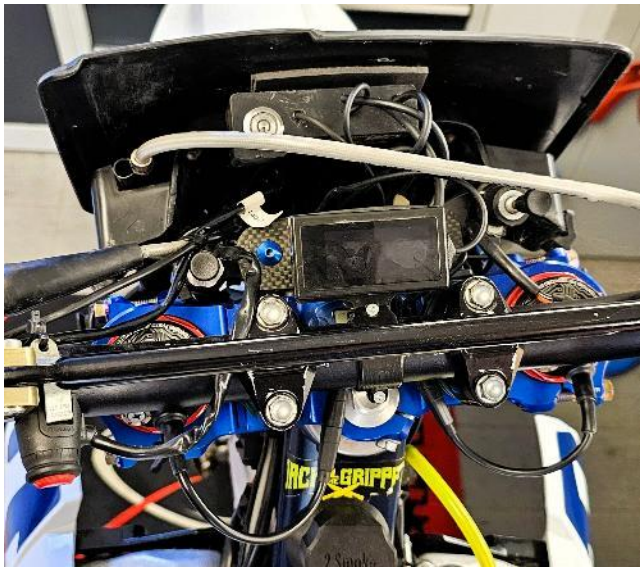


2.2 Installing and Securing the Main Unit

Install the Main Unit in a suitable position and fasten it securely to the motorcycle to prevent movement, vibration or displacement while riding.

1. Choose a suitable location for the Main Unit, ensuring that it does not interfere with other motorcycle components and is adequately protected during use.
2. Secure the Main Unit firmly so that it cannot move or come loose.
3. Where possible, position the Main Unit with the power button facing upwards. Its orientation may be adjusted to suit the available space and motorcycle configuration, provided it remains securely mounted.
4. The power button must be easy and convenient for the user to reach during intended system operation.
5. Ensure that the chosen position does not expose the Main Unit to contact, impacts or stresses that could compromise its integrity or operation.

⚠ IMPORTANT: do not connect the power cable to the Main Unit at this stage. It will be connected later in the installation procedure.





2.3 Installing the OLED Display and Mount

Install the OLED display mount on the handlebar in a position that provides good display visibility and convenient access for the rider.

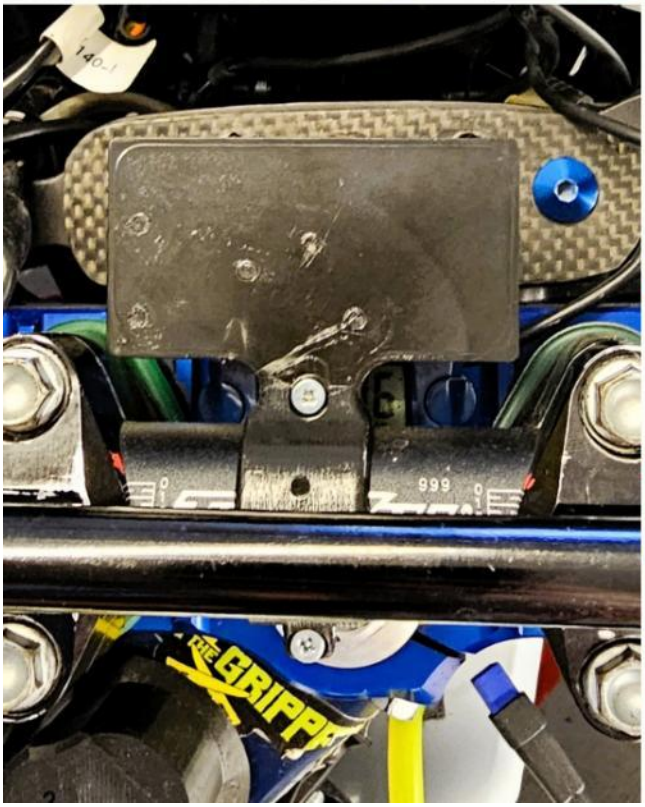
1. **Thoroughly clean the mount surface with alcohol and ensure that it is completely dry and free of residue, dust and grease.**
2. Apply the supplied double-sided adhesive tape to the mount surface intended for attaching the Main Unit.
3. Position the mount on the handlebar and secure it with the supplied screws. Make sure it is firmly attached and cannot move while riding.
4. The mount can be installed in either orientation. Choose the orientation that provides the best visibility and rider comfort.
5. Before installing the OLED display, thoroughly clean its rear surface with alcohol. Ensure that it is completely dry and free of dust, grease or other residue.
6. Remove the protective film from the double-sided adhesive tape and attach the OLED display to its mount, applying even pressure to ensure proper adhesion.
7. The display cable may exit to the right or left. Both arrangements are acceptable; choose the one best suited to the motorcycle and rider.

⚠ IMPORTANT: ensure that the display is firmly attached and that its cable cannot be pinched, crushed or pulled during installation or subsequent motorcycle use.

The following photographs illustrate the installation procedure step by step and provide visual guidance for each operation.

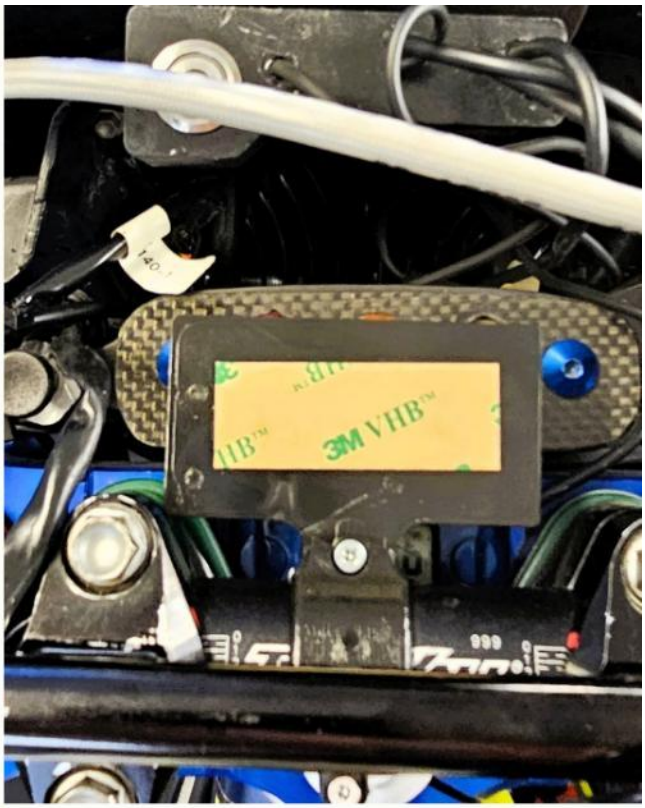

TWIN WALL
RENTHAL - MADE IN UK
PATENT NO. US6182528


NxTrax
TWIN WALL
RENTHAL - MADE IN UK
PATENT NO. US6182528





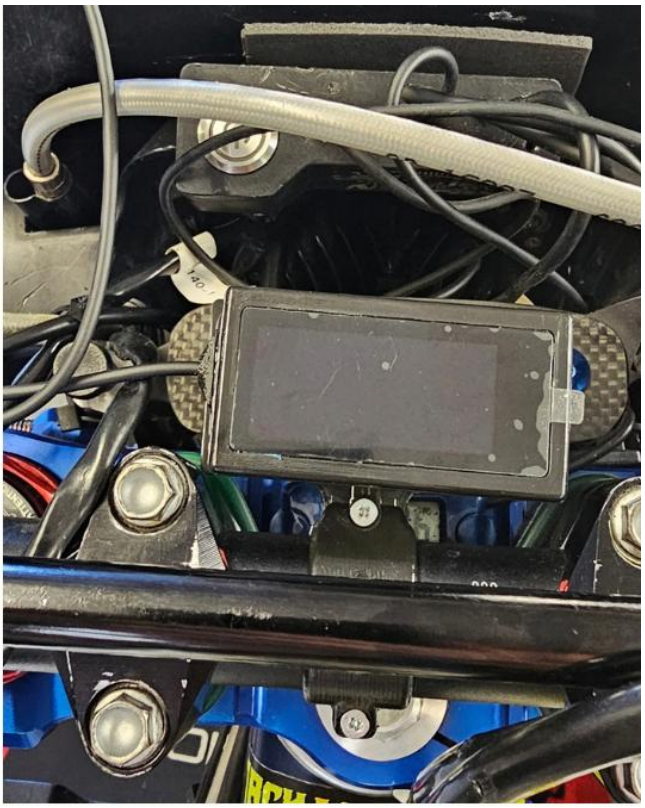



3M VHB









2.4 Installing the Handlebar Control Pad

Install the control pad on the handlebar in a position that allows convenient and safe operation while riding.

1. **Position the control pad on the handlebar as shown in the figure below.**
2. **Secure the control pad firmly to the handlebar, ensuring that it cannot rotate, shift or come loose while riding.**
3. Make sure the controls are within easy reach of the rider and that their position does not interfere with other handlebar controls.

⚠ IMPORTANT: carefully check that the control pad is securely fastened before continuing installation.

Refer to the figure below for correct control-pad positioning.

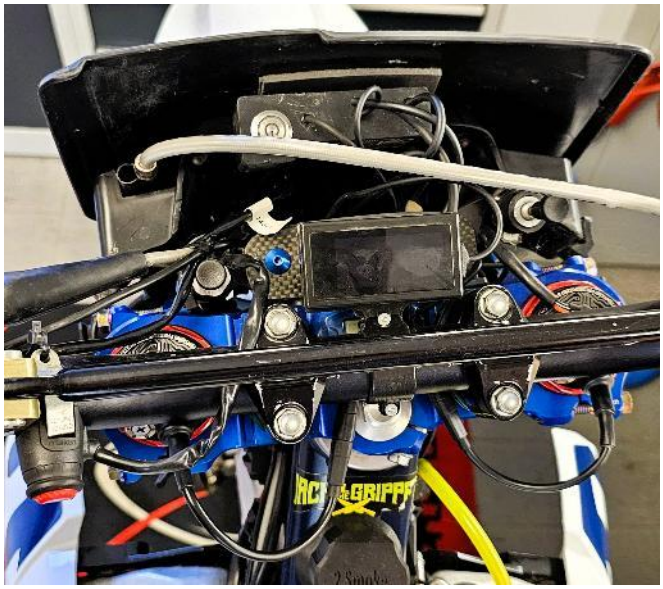


2.5 Routing and Connecting the Cables

At this stage, route and connect the Main Unit and control-pad cables correctly.

1. Route the Main Unit cables beneath the brake hose and, where possible, under the handlebar to keep them tidy and minimize interference while riding.

Refer to the figure below for correct cable routing.



2. Locate the 8-pin connector and corresponding 8-pin compression head, usually on the left side.

Connect it to the corresponding head, taking care to align it correctly. Do not force the connection; the connector must fit in its intended orientation.

3. Connect the 4-pin connector, usually on the right side, to its corresponding 4-pin head.

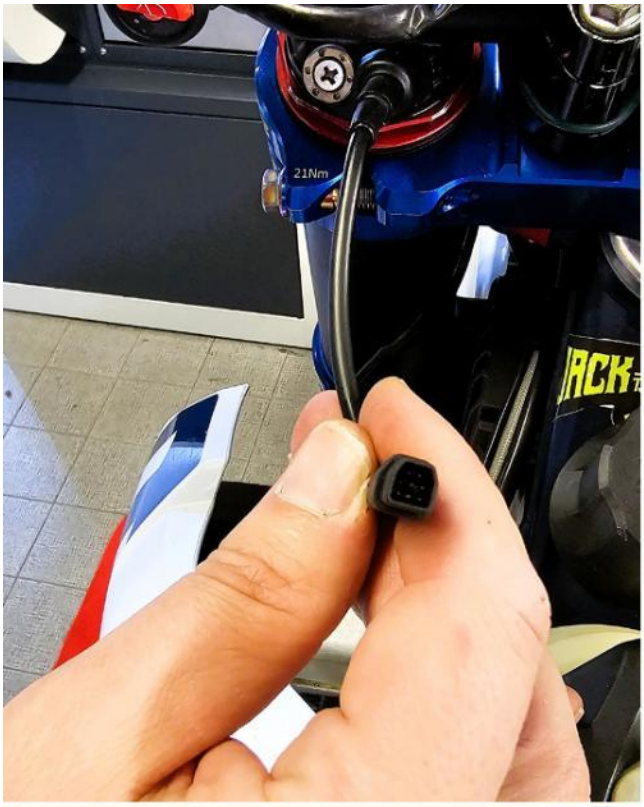
Again, carefully check alignment between the connector and head before connecting. Never force the connector into place.

4. Connect the green 5-pin connector to the corresponding socket on the control pad.

Take particular care to align the locating tab on the connector with the matching feature on the socket. Ensure that the connector is fully inserted and securely fastened.

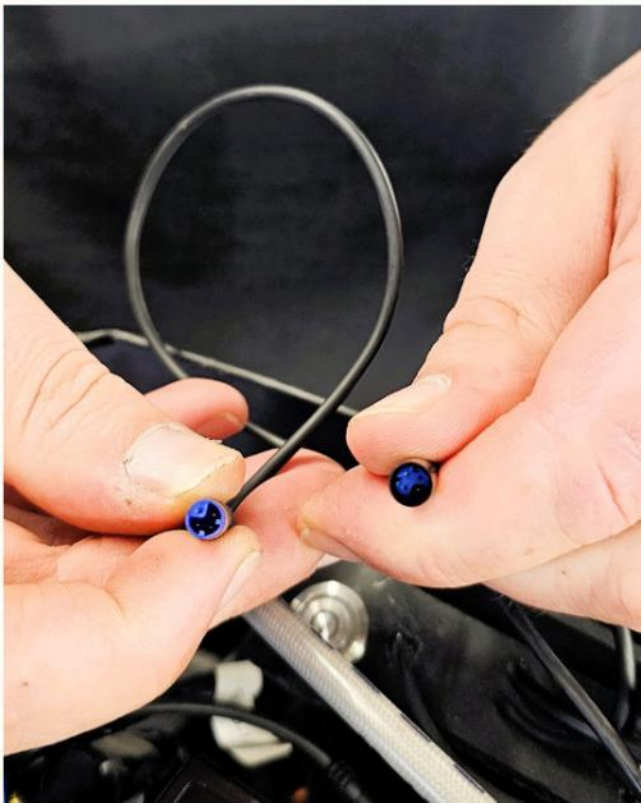
⚠ IMPORTANT: always check connector orientation before making a connection. Never force a connector into place: incorrect alignment can damage the contacts or connector itself.

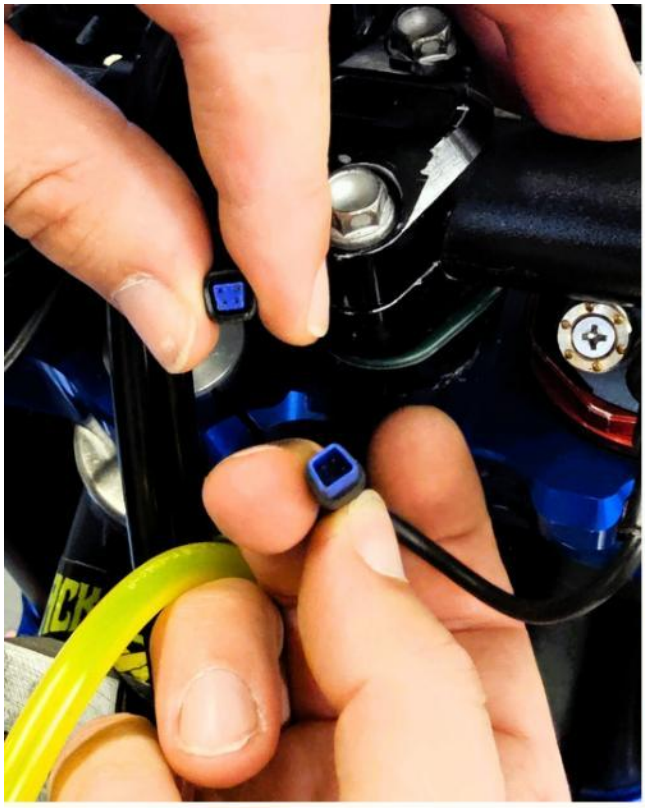
After connecting, ensure that all cables are correctly routed, secured and kept sufficiently clear of moving parts, hot surfaces and components that could damage them.

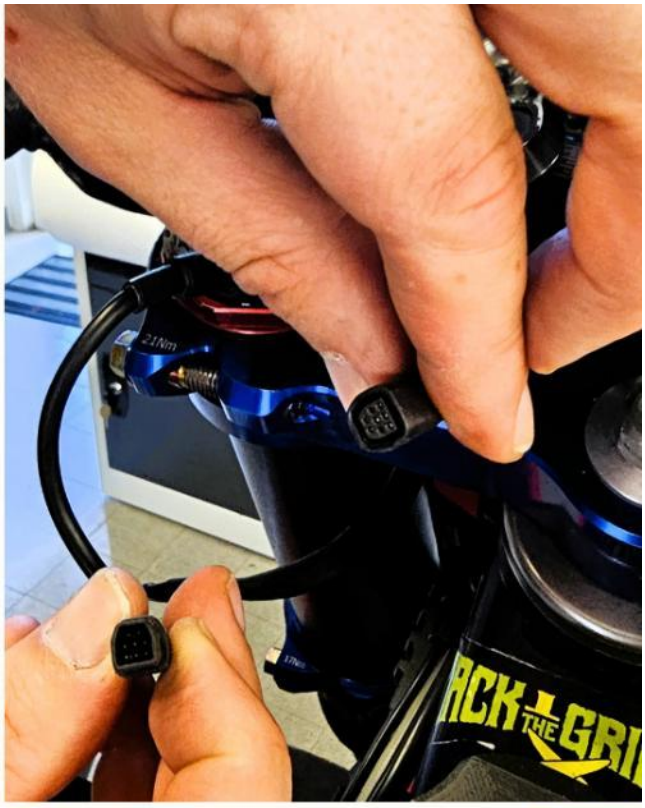

21Nm

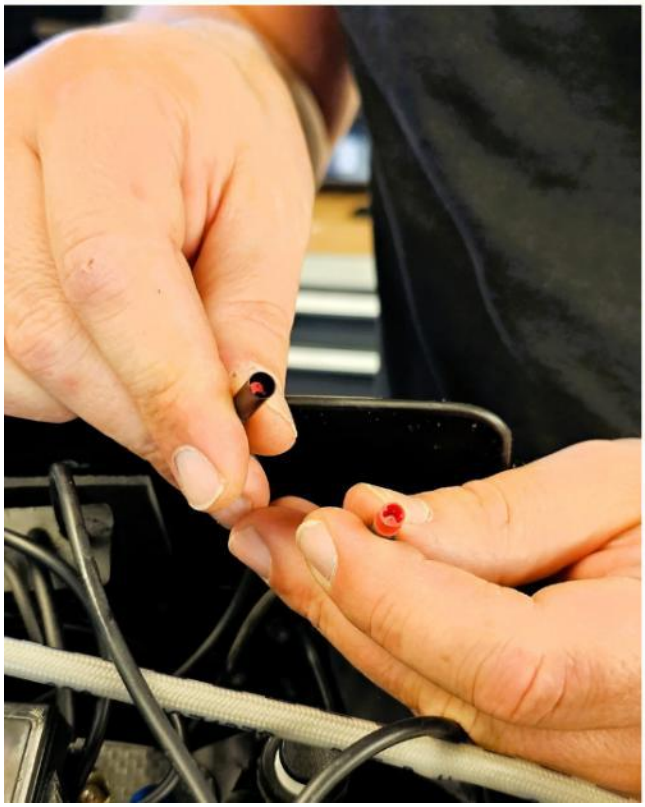


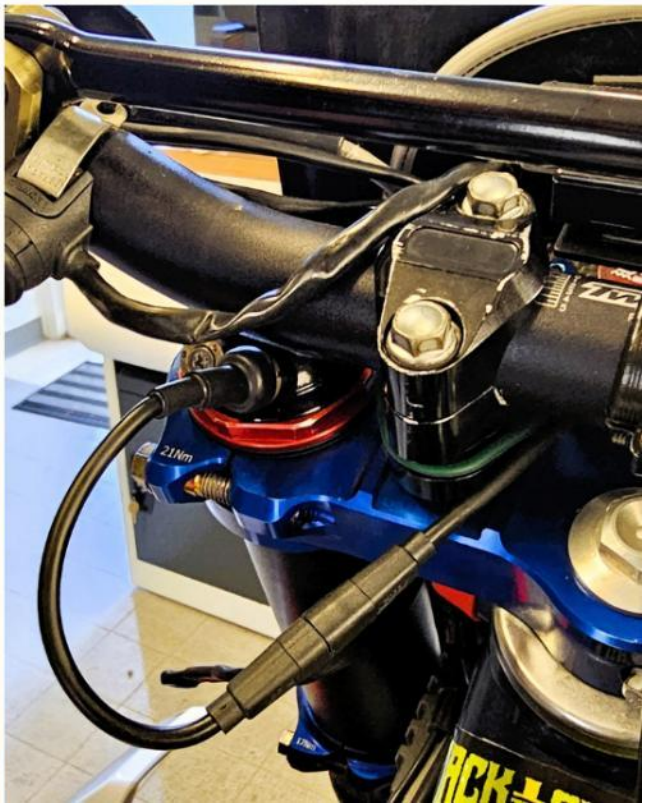












2.6 Connecting Power and Switching On the Main Unit

Before proceeding, confirm that all required connectors have been correctly connected as described in the preceding steps.

1. Once all connectors have been checked, connect the power cable to the Main Unit.
2. **Do not switch on the Main Unit until all electrical connections have been completed and checked.**

Switching on the system with one or more incorrectly connected connectors may damage the electronic components.

3. After checking all connections, press the Main Unit power button to start the system.
4. A few seconds after switching on, the power button should illuminate green, indicating that the Main Unit has started correctly.
5. If the power button does not turn green, switch off the system and check:
    - that all connectors are fully inserted;
    - that the connectors are correctly aligned;
    - that the power cable is correctly connected;
    - that the 2 A fuse is present and intact.





If all connections are correct but the power button still does not turn green, a system alarm may be active. Do not use the motorcycle; consult the alarms and diagnostics section referenced in this manual.

⚠ IMPORTANT: do not use the system if the power button does not illuminate green after startup. Identify and resolve the cause before proceeding.

Setting the SAG

Before calibrating the system, the front suspension SAG must be set correctly.

Set the SAG with the motorcycle in its normal riding configuration and the rider wearing all clothing and protective equipment normally used while riding.

Follow the **SAG adjustment procedure** shown step by step in the photographs below.

1. With the motorcycle raised off the ground, access the controls using the handlebar control pad.
2. Press the M button to open the menu.
3. Select Settings, then System Unit, and press M again to confirm.
4. Follow the instructions on the OLED display to complete the procedure.
5. When the procedure is complete, lower the motorcycle from its stand into its normal riding position.

6. Assume the riding position while wearing all normal riding gear, with the rider's actual weight on the motorcycle. Perform this procedure under real riding conditions to prevent changes in weight from affecting calibration accuracy.
7. While in the riding position, press the M button.

The system will store the front suspension reference position, from full extension to the riding position.

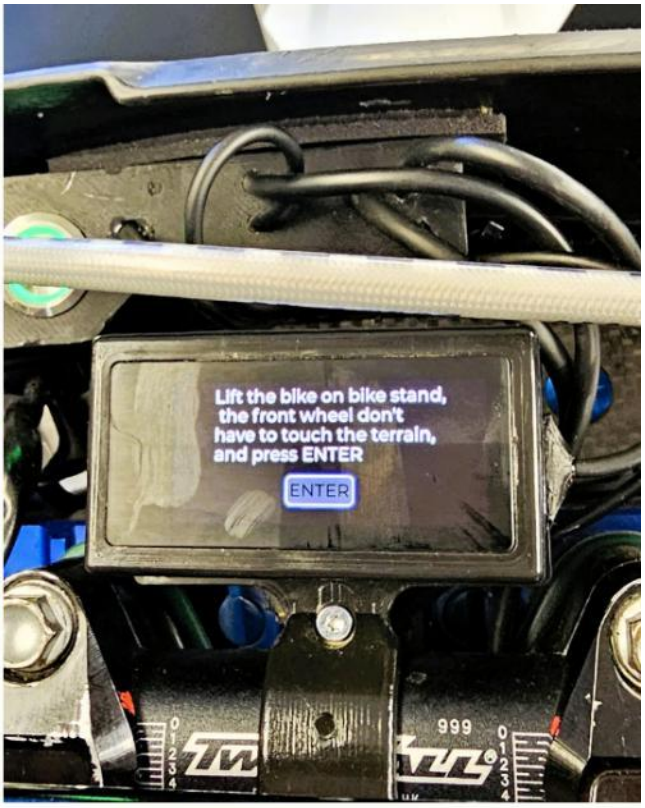
8. Exit the menu when the procedure is complete.

Note – OLED Display Installed in the Inverted Orientation

If the OLED display has been installed upside down, configure its orientation using the procedure shown in the figure below.

System installation and configuration are now complete.



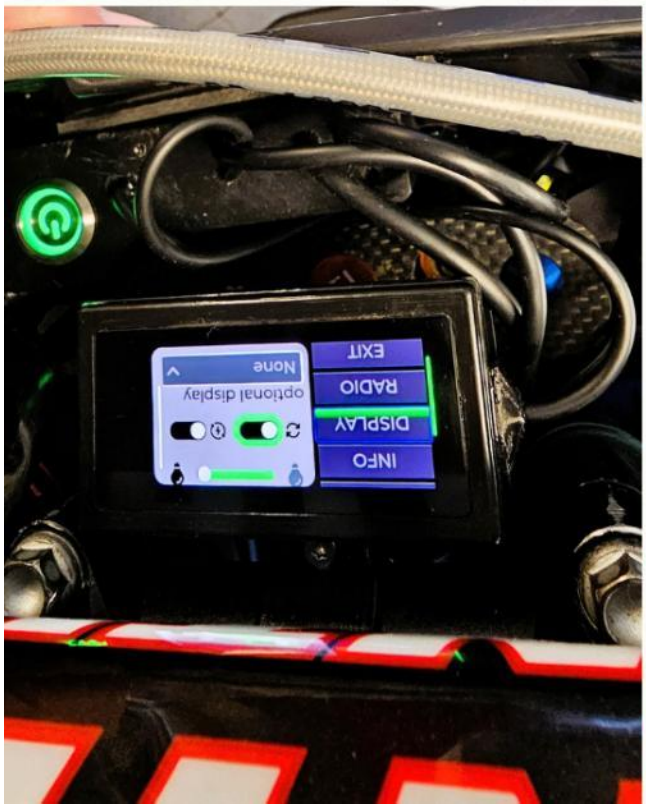

Lift the bike on bike stand,
the front wheel don't
have to touch the terrain,
and press ENTER
ENTER



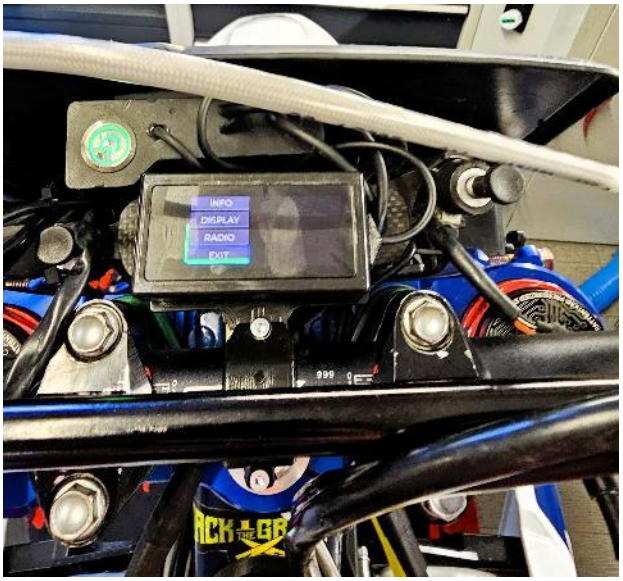

MAPS
SETTINGS
INFO
DISPLAY
Motor reset
System init
BACK


MAPS
SETTINGS
INFO
DISPLAY
Motor reset
System init
BACK




EXIT
RADIO
DISPLAY
INFO
optional display
None


INFO
DISPLAY
RADIO
EXIT
optional display
None



3. Completing the Installation

After installation, carefully verify that all NxTrax components have been correctly installed, secured and connected in accordance with this manual.

Before first use, carry out a final inspection, checking in particular:

- that the Main Unit is securely fastened;
- that the OLED display and control pad are securely fastened;
- that all connectors are correctly connected;
- that all cables are correctly routed and secured;
- that the 2 A fuse is present and intact;
- that bladder pressure is correct, between 1.8 and 2.4 bar;
- that the Main Unit starts correctly and its power button illuminates green;
- that cables and controls do not interfere with moving parts, hot components or other motorcycle parts;
- that the OLED display and control pad operate correctly;
- that the system is correctly configured, where required.

⚠ IMPORTANT: do not use the motorcycle if the final checks reveal incorrect connections, loose components, damaged cables, system faults or alarms.

Once all checks have been completed successfully, NxTrax is ready for use in accordance with the conditions and procedures specified in this manual.

To ensure continued correct operation, carry out the periodic inspections and maintenance specified in the product's technical documentation.

The installer is responsible for correct installation and final system inspection before handing the motorcycle over to the user.

Thank You for Choosing NxTrax

You have chosen a new generation of electronic suspension control technology, developed to deliver outstanding control, precision and performance.

We are proud to be part of this new experience and wish you the very best from every ride, every corner and every second in the saddle.

Just you. Your time. Your NxTrax.

Dal Soggio Race
Racing Suspension Technology