

EQSS – OverWatch Skyjack RT-E Series





REV 1.0

25/05/2026

Model6253 OverWatch Installation Manual

Document # DO001841

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DOCUMENT ABSTRACT:

This Installation Manual details the installation instructions for installing the Model6253 OverWatch on a Skyjack RT-E series Rough Terrain

PRODUCT NAME:

Model6253 OverWatch Operator Detection System with software version 9

REFERENCE DOCUMENTS:

DO0001195 Model6253 OverWatch User Manual

CURRENT DOCUMENT REVISION:

1.0

REVISION INFORMATION:

- 1.0 Initial Document Creation for installation on a Skyjack RT-E Series Rough Terrain (Black Box)

Important Information

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N23041

This is a class A product certified to AS/NZS CISPR 22:2006. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.



REV 1.0	25/05/2026	Model6253 OverWatch Installation Manual	Document # DO001841
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Table of Contents

Preparation 5

 Required Tools 5

 Installation Time 5

Installation Instructions 6

 Operator Sensor 6

 Wiring Connections 9

Post Installation Configuration 13

 Overview 13

 Minimum system requirements 13

 Wi-Fi Connection & Web Page Access 13

 Machine Model Selection 14

 Installation Test 15

 Change Model Configuration 15

Harness Drawing AS002554 16

Replacement Parts 17

Preparation

Required Tools

The OverWatch is fitted using basic workshop tools. Shown below is a list of tools required to complete the installation.

Item	Tool / Description
1	Electric Drill
2	Centre punch
3	Hammer
4	Side Cutters
5	Drill 5.2mm
6	Drill 8.0mm
7	Metric allen keys
8	Needle nose pliers
9	Screw drivers
10	Soldering iron

Installation Time



The suggested time required to install the OverWatch is as detailed below.

Task	Estimated Time (Minutes)
Open the operator control box	1
Drilling of all mounting holes for the various components	13
Mechanical assembly	10
Electrical assembly	10
Post installation system tests	10
Close the operator control box	1
Total	45

Installation Instructions

If any decals are damaged during the installation process or if any decals are obstructed following the installation, they should be replaced accordingly.

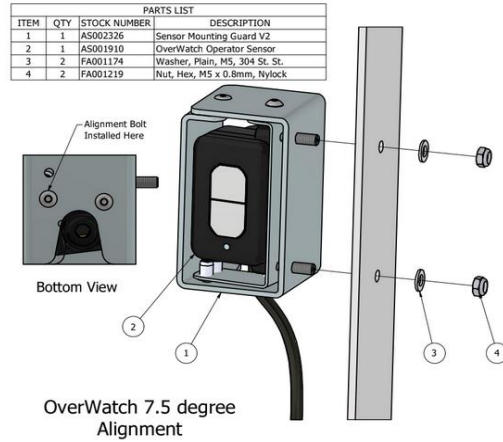
Operator Sensor

Step	Description	Diagram
1.	Remove 6 bolts located at the bottom of the enclosure.	
2.	<p>Drill five x 5.2mm holes in the locations shown in the image.</p> <p>Note: Use the sensor mounting plate as a guide to drill holes to mount the operator sensor.</p>	

3. **Sensor Mounting Guard**

Attach the bracket in position using the M5 nuts and washers. Make sure that the sensor is on the 7.5-degree angle, such that it is twisted outwards from the joystick controller.

The 7.5-degree twist is achieved by rotating the sensor inside the assembly and using the bolt hole as show in the image. Check that the sensor is in the correct rotary position.



4. Drill two 8mm holes as show in the image, these holes are required to make room for the M5 lock nuts on the mounting plate.



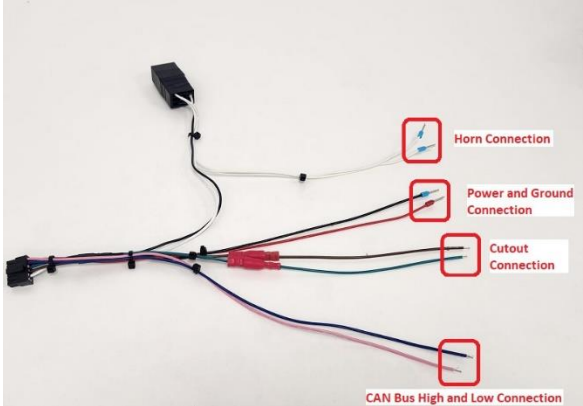
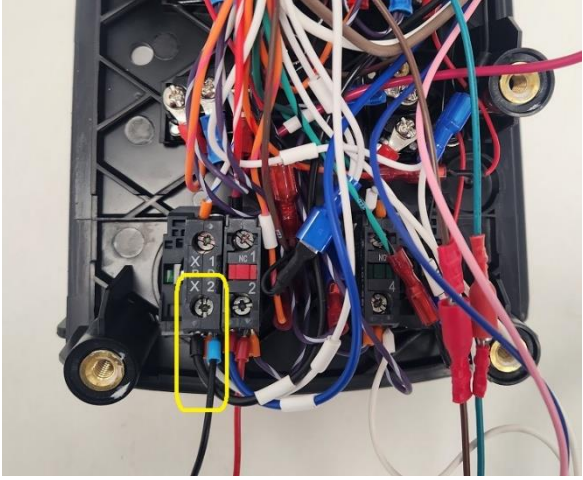

5. Attach the mounting plate to the side of the control box using the nuts, bolts, and washers, as shown in the image.

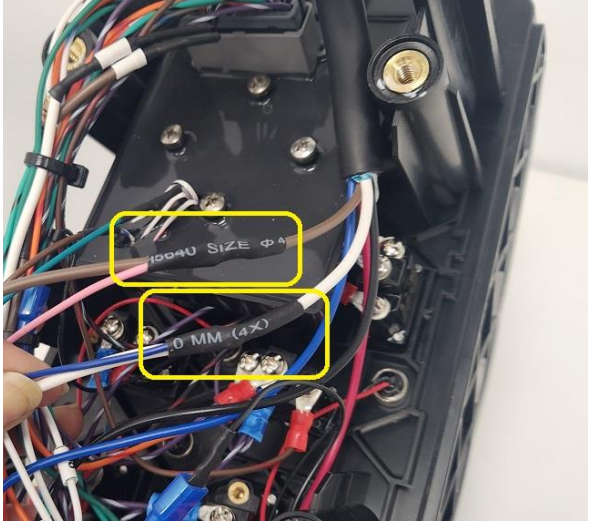
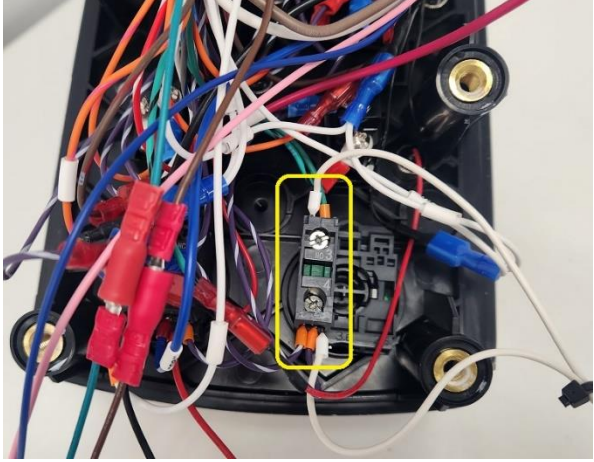
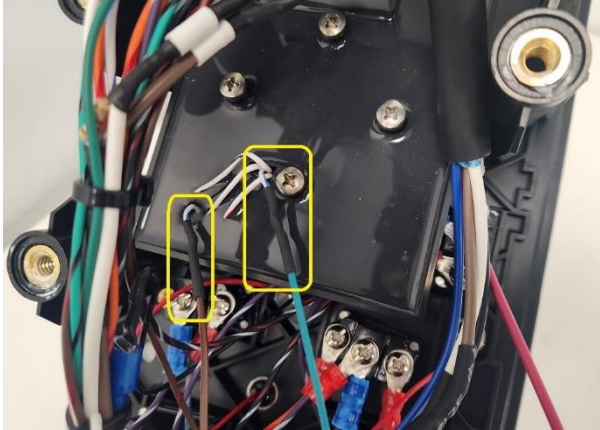


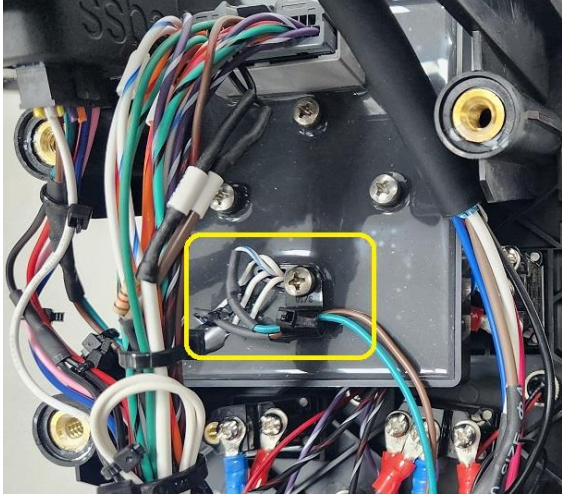
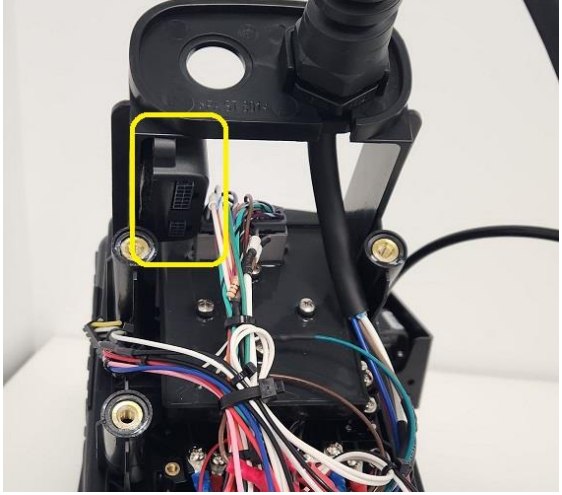

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	8	FA001235	M4 Plain Washer
2	4	FA001188	M4 x 16mm Socket Head Cap Screw
3	4	FA001223	M4 Nylock Nut

Wiring Connections

Step	Description	Diagram
1.	Wiring connections are made with the AS002554 harness.	
2.	<p>Ground Connection:</p> <p>Connect the Black Ground wire from the OverWatch harness to the back of the E-Stop switch position X2 with White Wire Id 00.</p>	
3.	<p>Power Connection:</p> <p>Connect the Red Power wire from the OverWatch harness to the back of the E-Stop switch position NC2 with Purple Wire Id 08.</p>	

<p>4.</p>	<p>CAN Bus High & Low Connection:</p> <p>Splice and solder the Pink and Blue wires from the OverWatch harness into the CAN Bus Brown and White wires coming from the control box connector. Make sure to isolate the CAN bus wires correctly, these are labelled accordingly inside the Skyjack control box.</p> <p>Pink Connects to Brown (CAN High) Blue Connects to White (CAN Low)</p> <p>Use heat shrink to secure the soldering joints.</p>	
<p>5.</p>	<p>Horn Connection:</p> <p>At the back of the horn push button, install OverWatch white wires to the terminal 3 and 4 as shown in the image.</p>	
<p>6.</p>	<p>Cutout Connection:</p> <p>Cut the white/blue wire from the joystick as shown in image. Solder the green wire from the OverWatch harness to the white/blue wire on the joystick side. Solder the other end of the white/blue wire from the circuit side to the brown wire from the OverWatch harness.</p> <p>Use heat shrink to secure the soldering joints.</p> <p>Note: The joystick wires are very fragile, so care must be taken while soldering.</p>	

<p>7.</p>	<p>Secure both green and brown wires after soldering by using a cable tie with a p-clip. Use the existing screw for the p-clip, as shown in the image.</p> <p>Make sure the wires are secure and cannot be pulled off the solder joints.</p>	
<p>8.</p>	<p>Mount the OverWatch on top of the Joystick using the Velcro. Connect the 12-pin connector from the harness to the OverWatch ECU module.</p> <p>Use cable ties to combine the cables neatly together.</p>	
<p>9.</p>	<p>Install the cable gland and run the operator sensor cable through the bottom cover of the control box as shown in the image. Connect the 8-pin connector from the operator sensor to the OverWatch ECU module.</p> <p>Use a P-clip to secure the operator sensor cable.</p>	

10.

Reassemble the control box using six bolts that were removed earlier. The box is now ready to proceed to configuration and testing.



Post Installation Configuration

Overview

After the system has been installed it must be configured with the parameters to suit the machine. Follow the instructions below to configure the OverWatch.

Minimum system requirements

Any smart phone, tablet or laptop that meets the following requirements:

- The device can connect to a Wi-Fi access point
- The device has an up to date web browser installed. Firefox, Chrome or Safari are recommended.

Wi-Fi Connection & Web Page Access

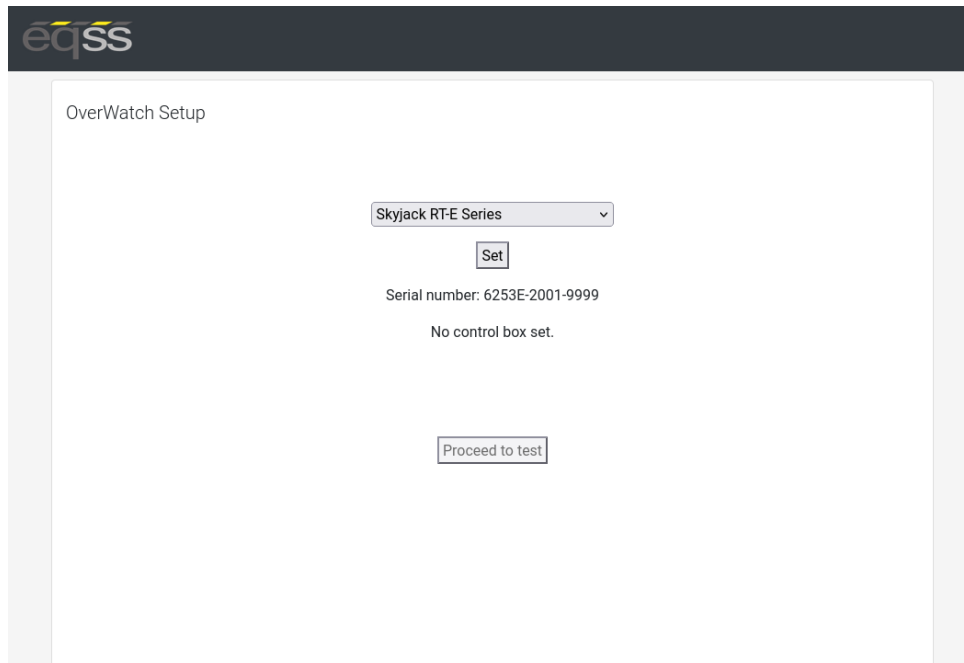
To enable the Wi-Fi connection on the OverWatch to complete the configuration follow the steps below.

1. Power down the platform control box with the ESTOP
2. Wait 5 seconds
3. Power up the platform control box with the ESTOP
4. While standing **in front of the operator sensor**, switch on the OverWatch
5. As the welcome chime starts to play, cover the sensor. The LED will flash white then black to acknowledge.
6. Remove your hand from the sensor. The LED will flash white then black to acknowledge.
7. After covering then uncovering the sensor this way 2 more times, "Wi-Fi On" will be announced
8. On your Wi-Fi enabled device (laptop, tablet, smartphone, etc), show the available wireless networks
9. Select the wireless network (starts with "overwatch") to connect to the OverWatch
10. When prompted, enter the **password 12345678**
11. Open your preferred web browser (Chrome, Firefox, Safari)
12. Enter the following into the address bar <http://192.168.4.1> to open the OverWatch main page

Machine Model Selection

Follow the instructions below to configure the OverWatch.

1. Select the Setup option
2. If there is a password field at the bottom of the page, follow the instructions in Change Model Configuration to obtain the password and enter the password field
3. Select the EWP Model from the drop-down list and click Set
4. Click on Proceed to test to begin the installation test



The screenshot shows a web interface for 'OverWatch Setup'. At the top left is the 'eqss' logo. The main content area contains a dropdown menu with 'Skyjack RT-E Series' selected. Below the dropdown is a 'Set' button. Underneath the button, the text 'Serial number: 6253E-2001-9999' is displayed, followed by the message 'No control box set.' At the bottom of the form is a 'Proceed to test' button.

Installation Test

After the model configuration has been set or updated an Installation Test must be performed. This will ensure the installation has been correctly performed and the OverWatch is functioning correctly. Follow the instructions on the web page to complete the Installation Test.

Change Model Configuration

To reconfigure the OverWatch for a different model requires an authorisation password. The authorisation password is generated from the EQSS website. The EQSS website requires a login username and password, contact EQSS for these details.

Follow the instructions below to obtain an authorisation password. It is important to note that each ECU has a unique serial number and a unique password.

1. Open your web and enter the following into the address bar <http://www.eqss.com.au/overwatch> to open the Login page
2. Enter your username and password
3. Enter the ECU serial number which is shown on the setup page or on the ECU serial number sticker, also enter the owner and model details of the EWP and then click Generate Hash
4. The generated Hash code or password can be used to change the model configuration.



Replacement Parts

Replacement parts for this OverWatch kit are available from EQSS, please email sales@eqss.com.au
Shown below are the part numbers for the major components included in this model specific kit.

Part Number	Description
AS002555	OverWatch - Complete kit for Skyjack RT-E series
AS002406	OverWatch - Operator Sensor R2V5 TTL
AS002404	OverWatch - ECU R2V5 Hybrid
AS002554	OverWatch - Skyjack RT-E series harness
AS002326	OverWatch - Sensor guard V2
ME001810	OverWatch - Sensor mounting plate