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RTL AWVMS Advance Warning Variable Message Sign

RTL AWVMS Advance Warning Variable Message Sign Instruction Manual

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Specifications

- Twin LED Advanced Warning Lights (Xenons)
- RGB LED Colour Panels
- LINAK Lifting System
- Mid Hinge Frame
- Wireless 10.5 Touch Screen Tablet
- 2x Dedicated AGM Batteries
- 230v 40A Charging System

Quick Operating Guide
Testing & Commissioning: Installation is Ex RTL Auckland. Exclude any deck reinforcing that may be required. Additional install charges may apply once the vehicle is inspected.

Start-Up Process

1. Turn ON the main power switch to the sign.
2. Put the sign in the up-right position: Press and HOLD the Up button on the Rocker Switch until the board is fully upright.
3. Switch ON the tablet by pressing and holding the power button.
4. Wait for the tablet to boot up and see the AWVMS screen load up.
5. Press TURN SYSTEM ON when the Current Display tab becomes green on the tablet.
6. Set the Brightness Level to AUTO and send to sign.
7. Select an image from the favorites and press PLAY to send it to display.
8. Use FLASH to switch the LED Advanced Warning Lights ON/OFF.

Shut Down Process

1. Turn OFF the LED Advanced Warning Lights using FLASH.

2. Press TURN SYSTEM OFF on the tablet.

3. Press EXIT on the Tablet and wait for it to power OFF.

4. Bring the AWVMS board down to rest position by pressing and holding the Down button on the rocker switch.

On Return to the Depot

1. Turn the main power switch to the OFF position.

2. Press TURN SYSTEM OFF on the tablet.

Software Introduction

This software is designed for editing messages, reading display status, controlling LED lights, and adjusting brightness.

FAQ

1. Q: Where can I find online support?

   A: Visit **www.rtl.co.nz** for the latest version of the installation manual or scan the QR Code for more resources

Online Support

Visit **www.rtl.co.nz** website for the latest version of this installation manual. Search AWVMS or scan the QR Code to view our Product Tutorial & Resource Page.

Require After Sales Assistance?
Please get in touch with us via our online Book a Service Form or contact 0800 785 744.

Package Items

Supply only Package – ET AWVMSC EZ3)

- Twin LED Advanced Warnin g Lights (Xenons) RGB LED Colour Panels
- LINAK Lifting SystemIn-Cab Up/Down Switch + 5m cable
- Mid Hinge Frame
- Wireless 10.5″ Touch Screen Tablet 2x Dedicated AGM Batteries
- Red/White Chevron
- Heavy Duty Battery Box
- NOTE: Beacons sold separately Optional DCDC Alternator Charger available

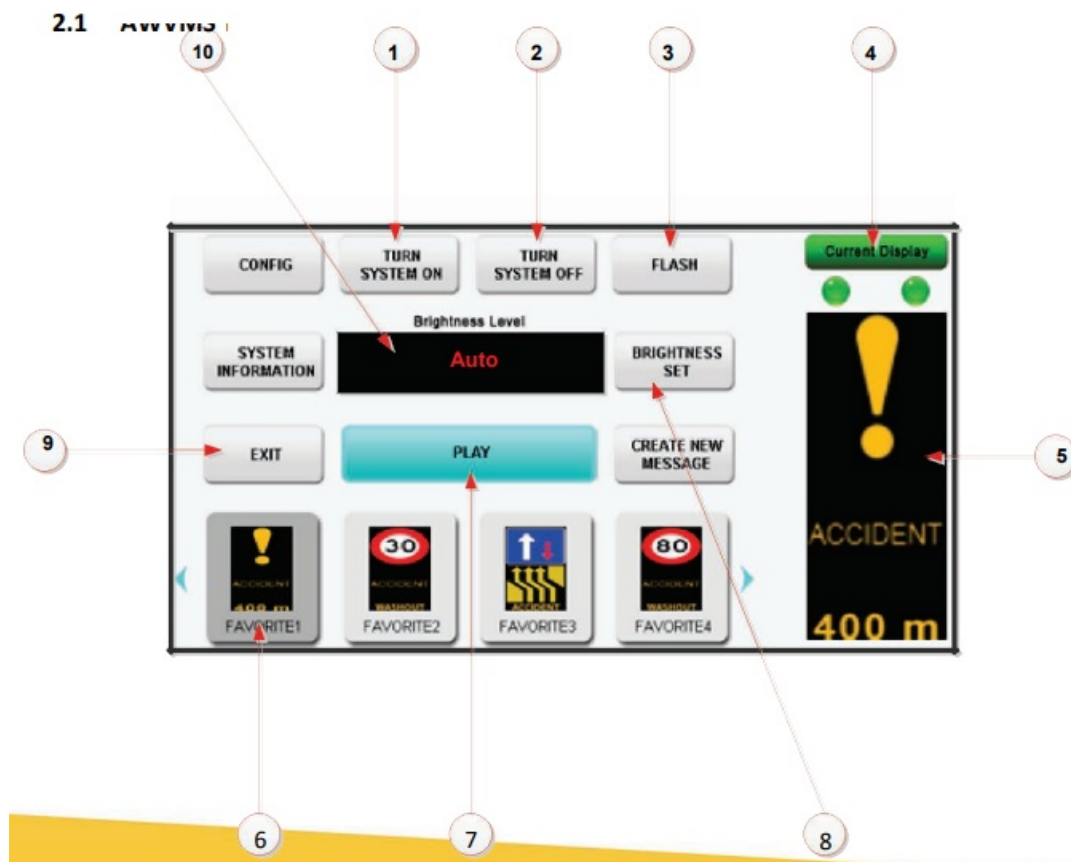- 230v 40A Charging System – see brochure for more details.

Supply & Install Package (- ET AWVMSC EZ3A)

ABOVE PACKAGE PLUS

- Installation to Vehicle Deck
- Wiring in Tablet (power)
- Mounting of Up/Down Switch
- 2x installed LED Beacons
- Mounting Tablet Mount
- Testing & Commissioning
- NOTE: Installation is Ex RTL Auckland
- Excludes any deck reinforcing that may be required – Additional install charges may apply once ute is inspected.

Quick Operating Guide

AWVMS Tablet

Start Up Process

1. Turn ON the main power switch to the sign.
2. Put the sign in the up-right position: Press and HOLD the Up button on the Rocker Switch (located in the Cab, near the tablet) until the board is fully upright. Note, as a reference only, the tablet will display the board

orientation (up or down). Press and HOLD the down button on the Rocker Switch to lower the board.

3. Switch ON the tablet (controller in the cab) by pressing and holding the power button (located the top left of tablet) for 3 seconds.

4. Wait for the tablet to boot up, you should see the AWVMS screen load up.

5. When the Current Display tab becomes green on the tablet **1** at the location **4** then press TURN SYSTEM ON

6. To resolve the brightness error, set the Brightness Level to AUTO **10** using send to sign using **8**

7. Select an image from the favorites, e.g. Favourite 1 **6**

8. Press PLAY on the screen and select OK to the prompt. The image will be sent to the display. **7**

9. Use FLASH to switch the two 340mm LED Advanced Warning Lights ON/OFF **3**

Shut Down Process

1. Turn the two 340mm LED Advanced Warning Lights OFF using FLASH. **3**

2. Press TURN SYSTEM OFF on the tablet. **2**

3. Press EXIT on the Tablet. Select OK to the prompt. **9**

4. Wait for the tablet to power OFF.

5. Bring the AWVMS board down to rest position: Press and HOLD the Down button on the rocker switch, until the board is all the way down.
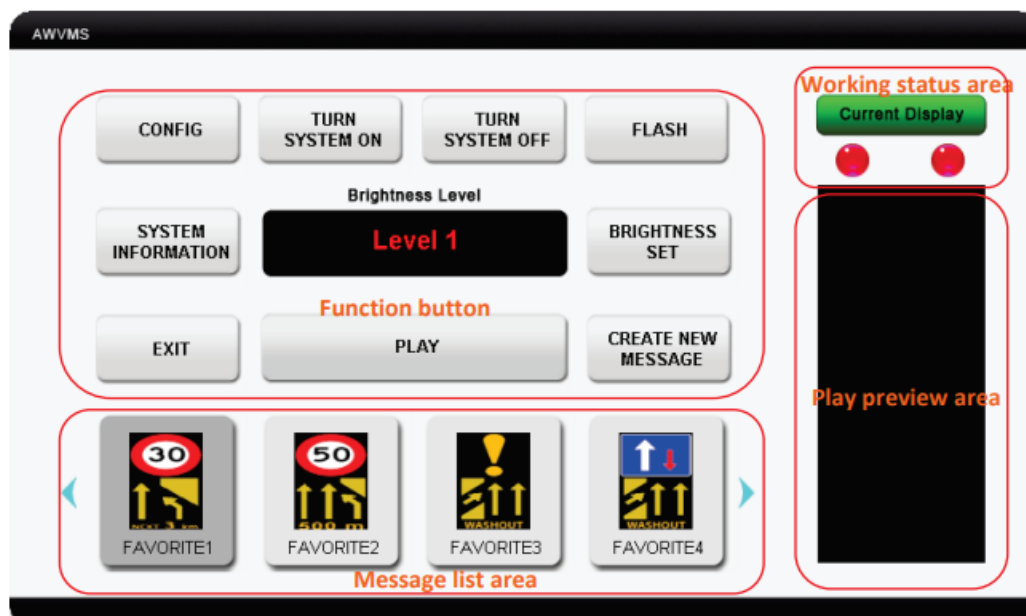
On Return to the Depot

1. Turn the main power switch to the OFF position

2. Press TURN SYSTEM OFF on the tablet.

Software Introduction

This is the text-editing software designed for the RTL AWVMS. This software is capable of editing and sending messages, reading status from display, controlling the 340mm LED Advanced Warning Lights (Xenons) and setting the brightness of the display, etc.
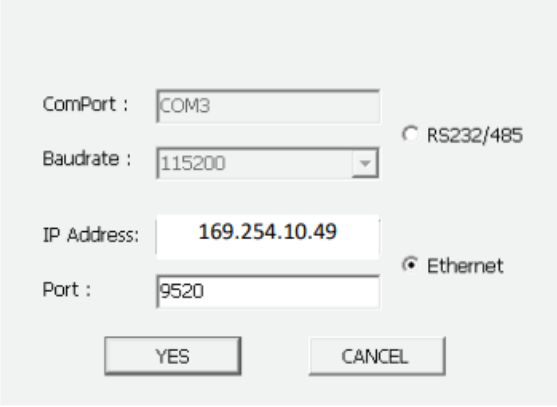
Main Interface

AWVMS Functions

Communication setting of tablet and LED display

- Click the function button "CONFIG". Both the network communication and serial port communication are available as options. Select network communication.
- Click Ethernet, enter IP address and Port number (normally Port: 9520), click YES to activate the settings.

NOTE: The IP address is preset by RTL on the tablet for correct operation.

If the display can be successfully connected with the tablet, then the status monitoring zone **Current Display** will change to green, the brightness level of the display and the working status of the 340mm LED Advanced Warning Lights will also change to green
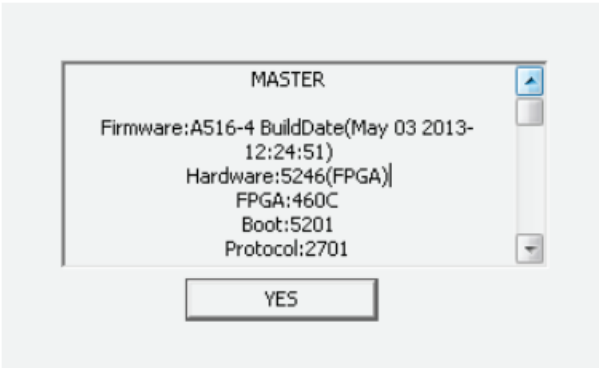

Ethernet

- IP Address (Address of LED display): 169.254.10.49
- Port (Gateway port): 9520 (Note: Enter four digits if there is no gate port)
- *RS232/485: This option is not used on the RTL AWVMS

System Configuration
Click on the function button "SYSTEM INFOMATION". The software reads system information from the display (according to the communication settings) and shows details obtained from the display as shown below.
If the display fails to connect, the system configuration page will show "Not Connect"

Obtained display configuration successfully

Display On/Off
Click on the function button "TURN SYSTEM ON". This starts up the AWVMS display.
Click on the function button "TURN SYSTEM OFF". This turns off the AWVMS display.

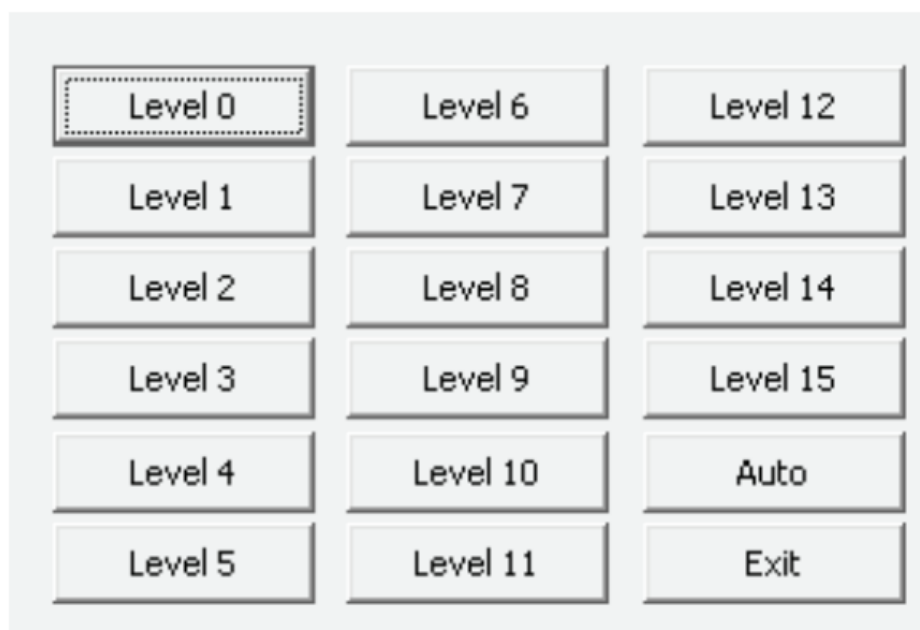**340mm LED Advanced Warning Lights (Xenons) Setting**
The Interface of the status monitoring zone shows the working status of the two 340mm LED Advanced Warning Lights. If you want to change the Advanced Warning Light's working status, please click on function button "FLASH" as shown below on the left.

The flashing Advanced Warning Lights will turn off after you click on "FLASH".

Brightness Setting

1. Step 1: Click on below the [Level 1] "Brightness Level". The brightness level panel will pop up as shown below:
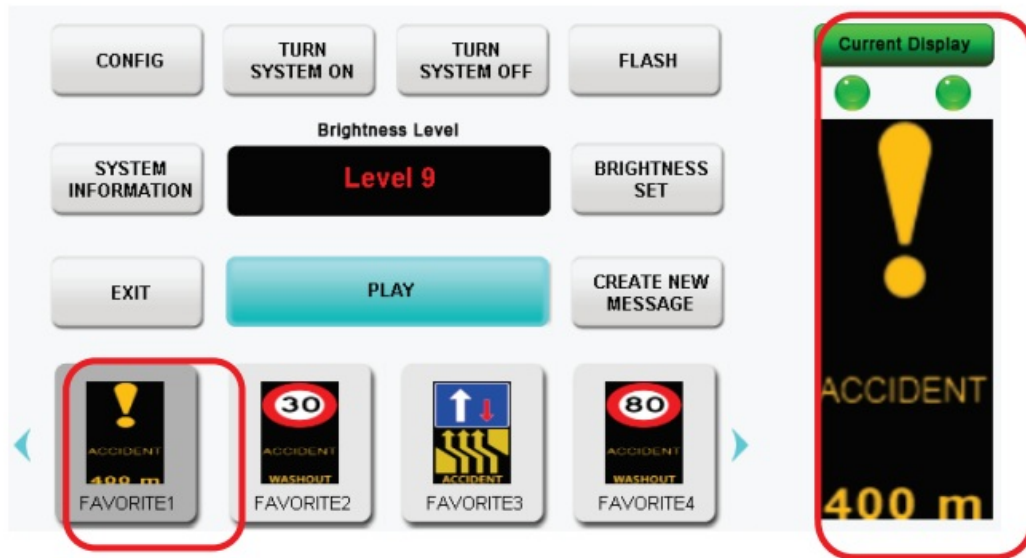

2. Step 2: Select the required level. i.e. Level 9.
3. Step 3: Click on "BRIGHTNESS SET" to set the new brightness.
   NOTE: We recommend that the brightness level to be set as "Auto". In this mode the display will automatically adjust to environmental condition.

Sending Information

1. Step 1: Select a message from list, i.e. FAVORITE1
2. Step 2: Click the "PLAY" button to send the message to the display.

After being sent successfully, the message will also be shown on the preview area.
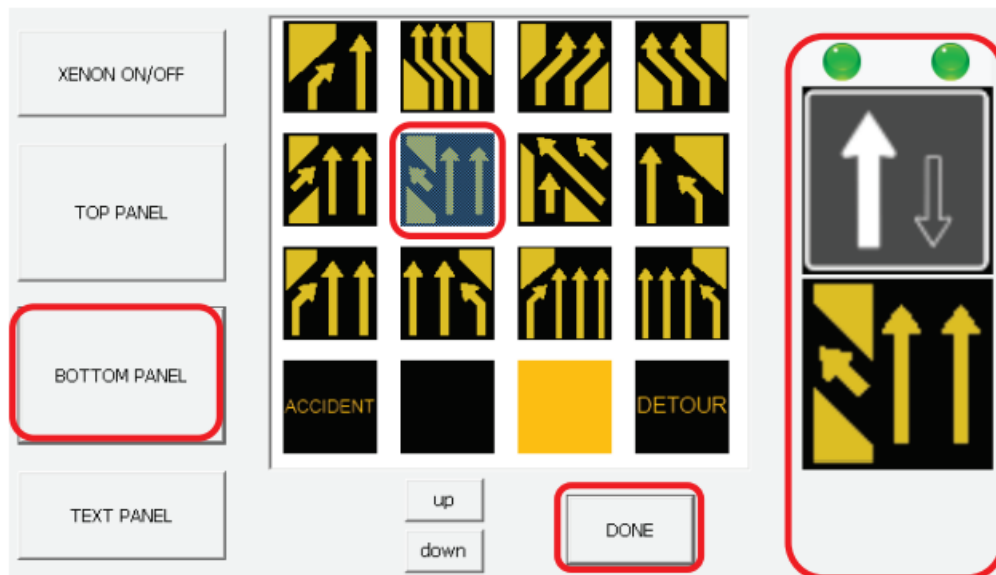

How to Create and add a new message to message list

1. Step 1: Click "CREATE NEW MESSSAGE" to enter the message-editing page;
2. Step 2: Click "Xenon/OFF" to set the working status of the two 340mm LED Advanced Warning Lights;
3. Step 3: Click "TOP PANEL" to select the image. Once the selected image shows on the right, then click "DONE".
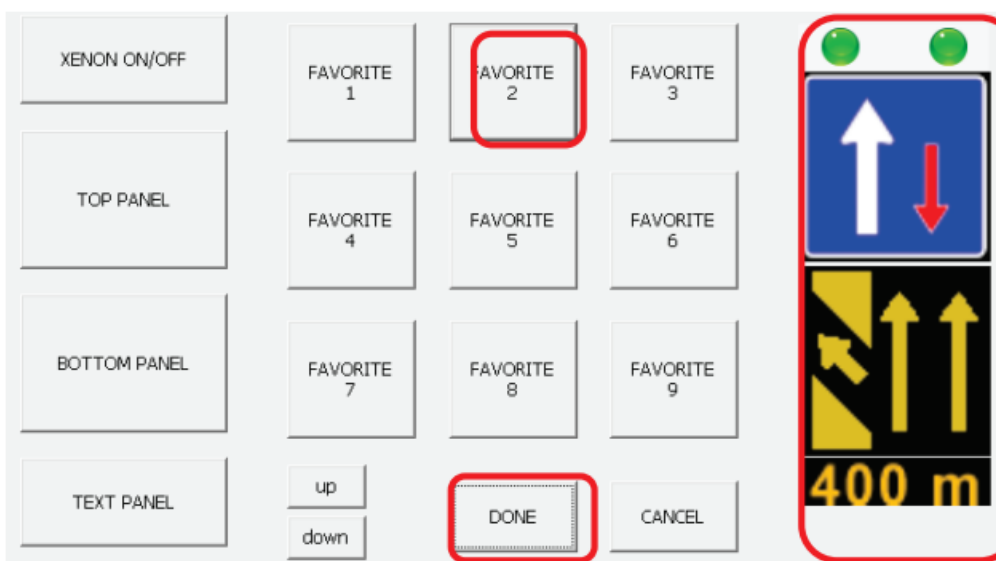

4. Step 4: Click "BOTTOM PANEL" to select image, then click "DONE". The image set on the TOP PANEL turns gray. Now select the image for the bottom panel.

5. Step 5: Click "TEXT PANEL and select the desired text. Click "DONE";

6. Step 6: Click "SAVE TO FAVORITE". Select the save location i.e. "FAVORITE 2", then click "DONE" to finish creating the new message.
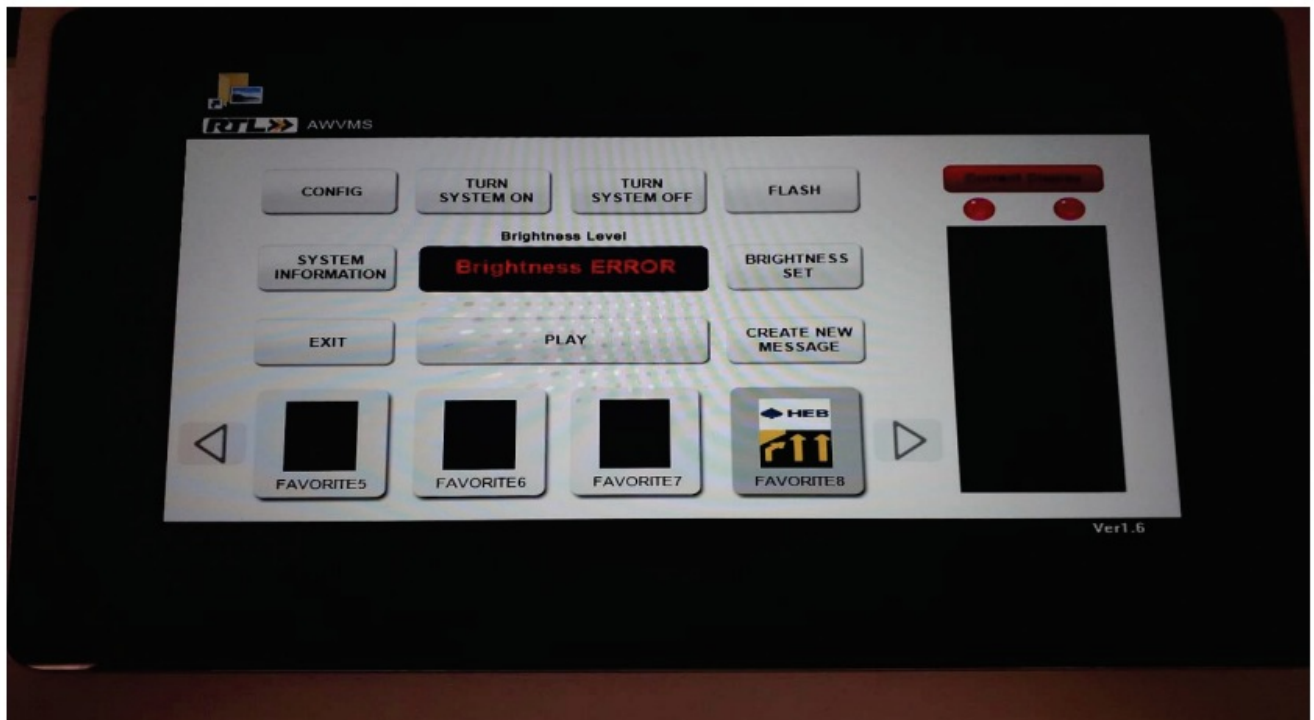

Click "EXIT" to return to the main page. Check for the newly created message (it will be shown in the message list
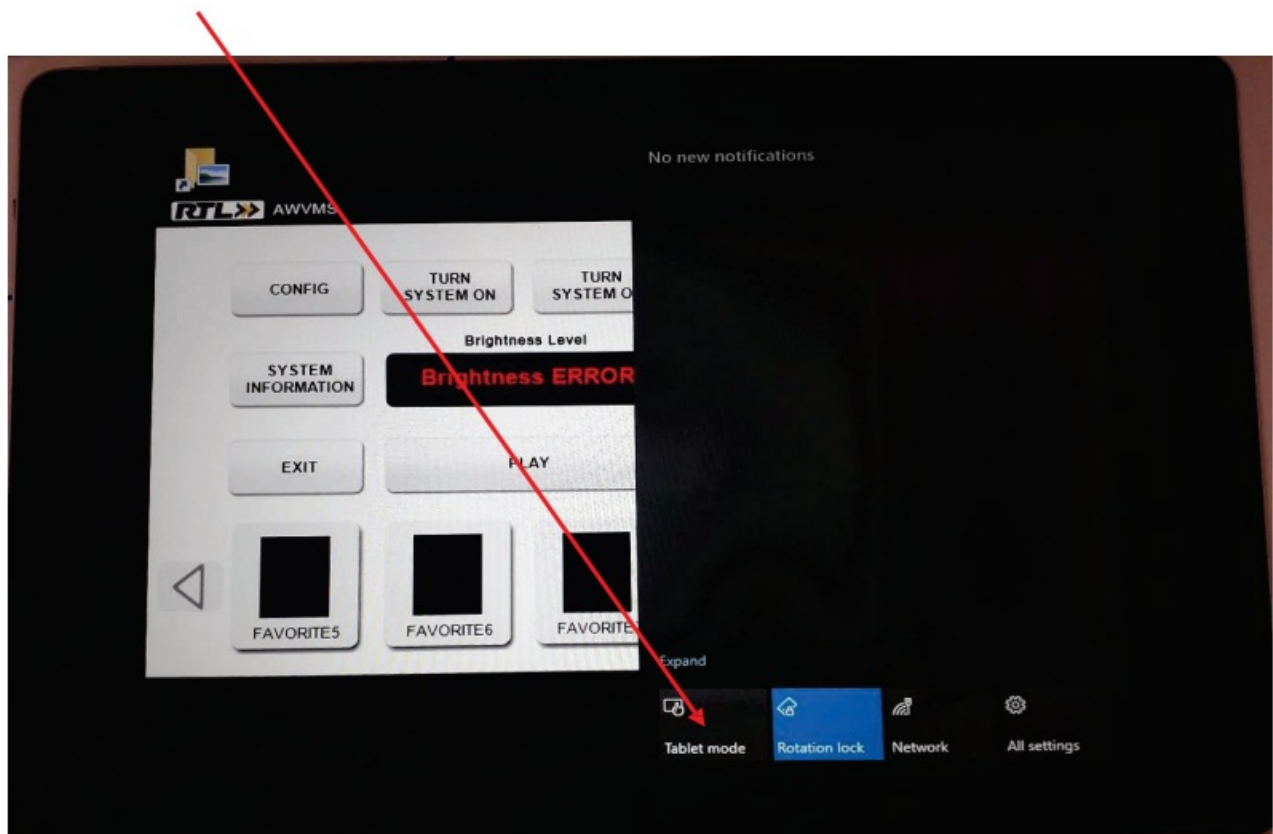
in "FAVORITE2"):

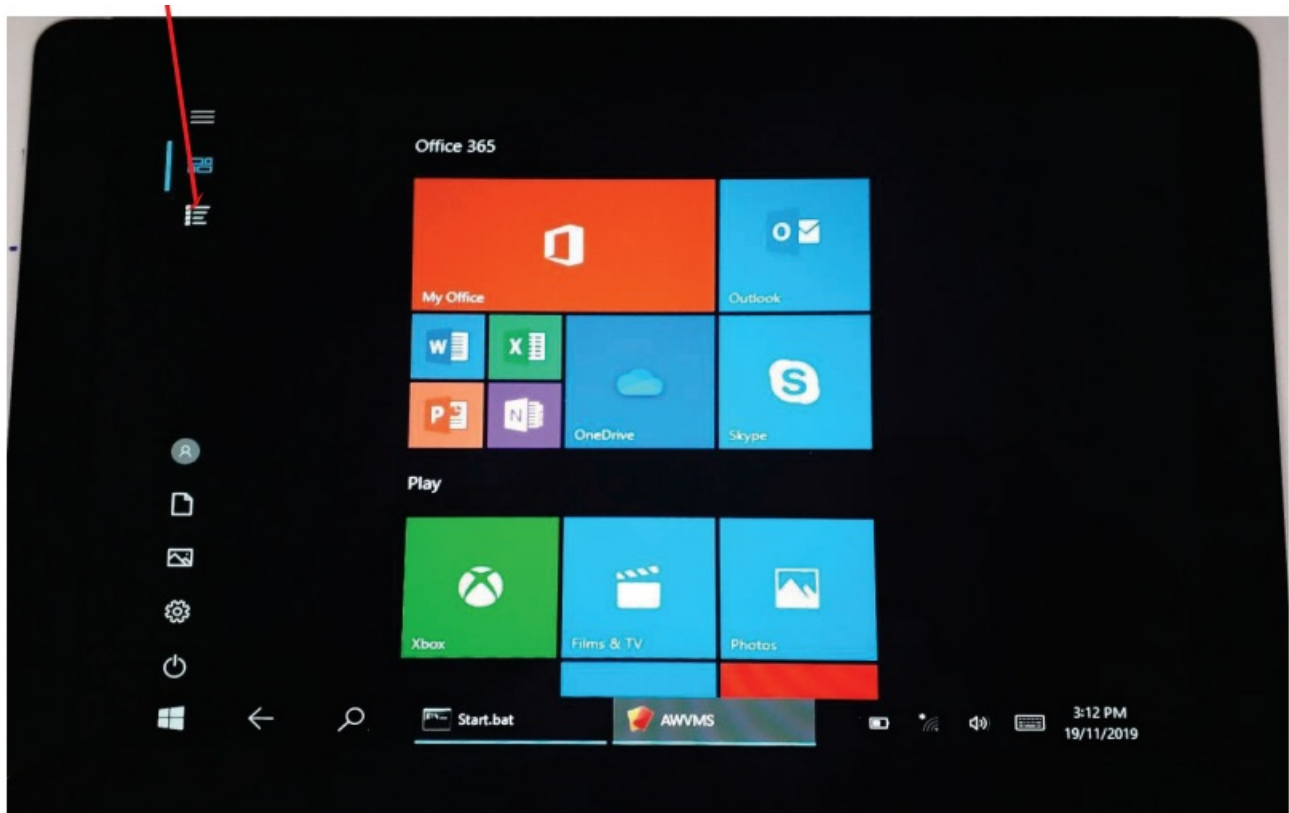**Adding a New Image to the Main board**

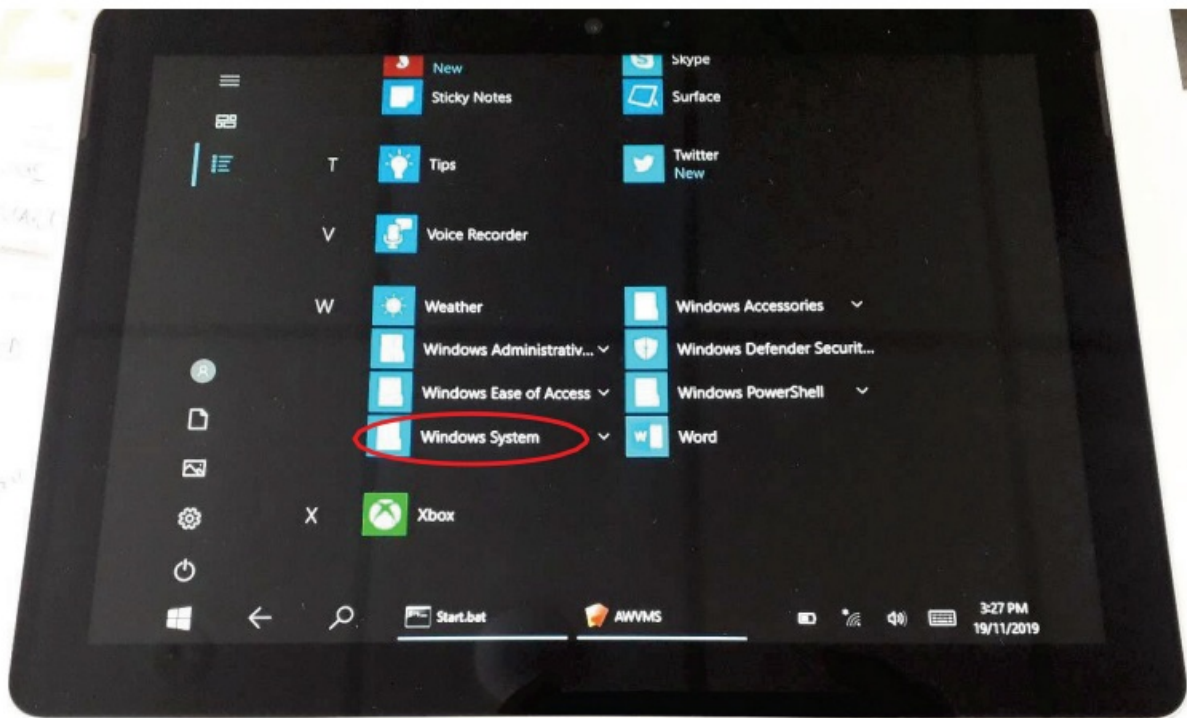1. Step 1: Switch tablet on as per normal and the following screen should appear:

2. Step 2: Swipe right to left on the right-hand side of the tablet to access the menu as per below and select Tablet mode.
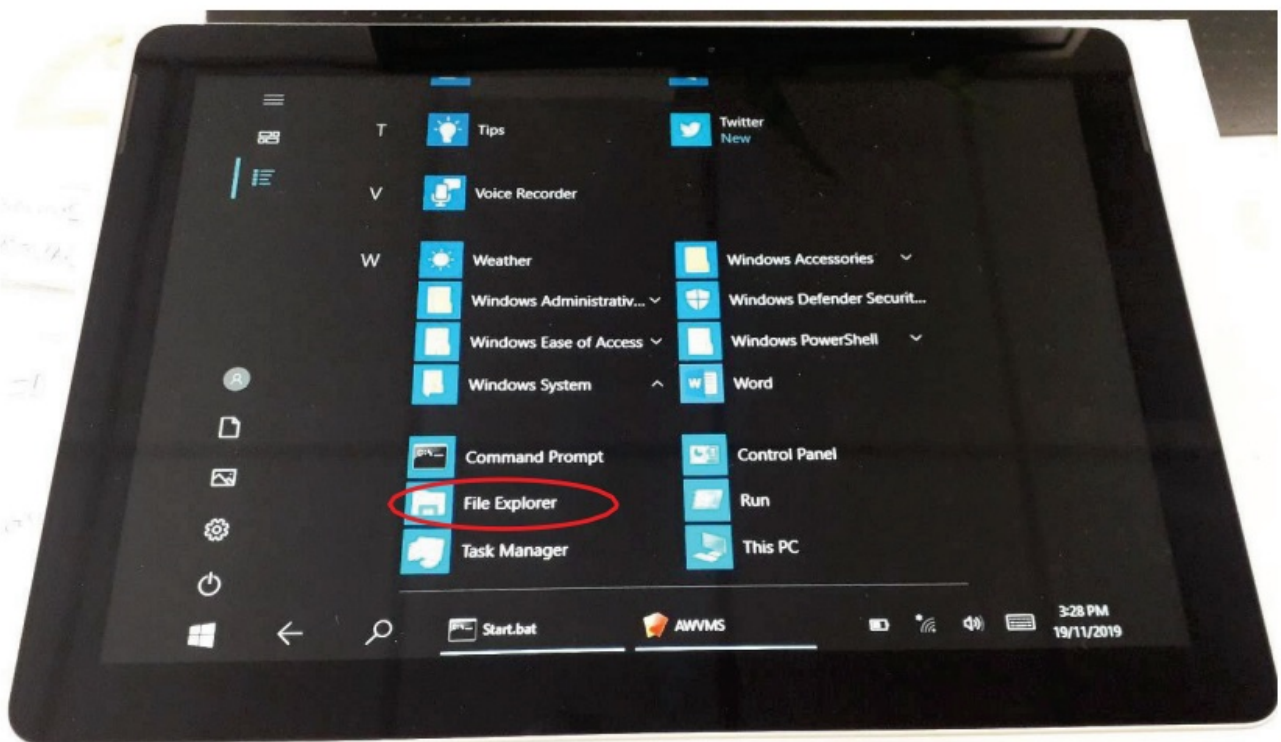
3. Step 3: Click anywhere on the screen to remove the side panel.

4. Step 4: Minimize AWVMS program and the screen will be as below.

5. Step 5: Select layout:

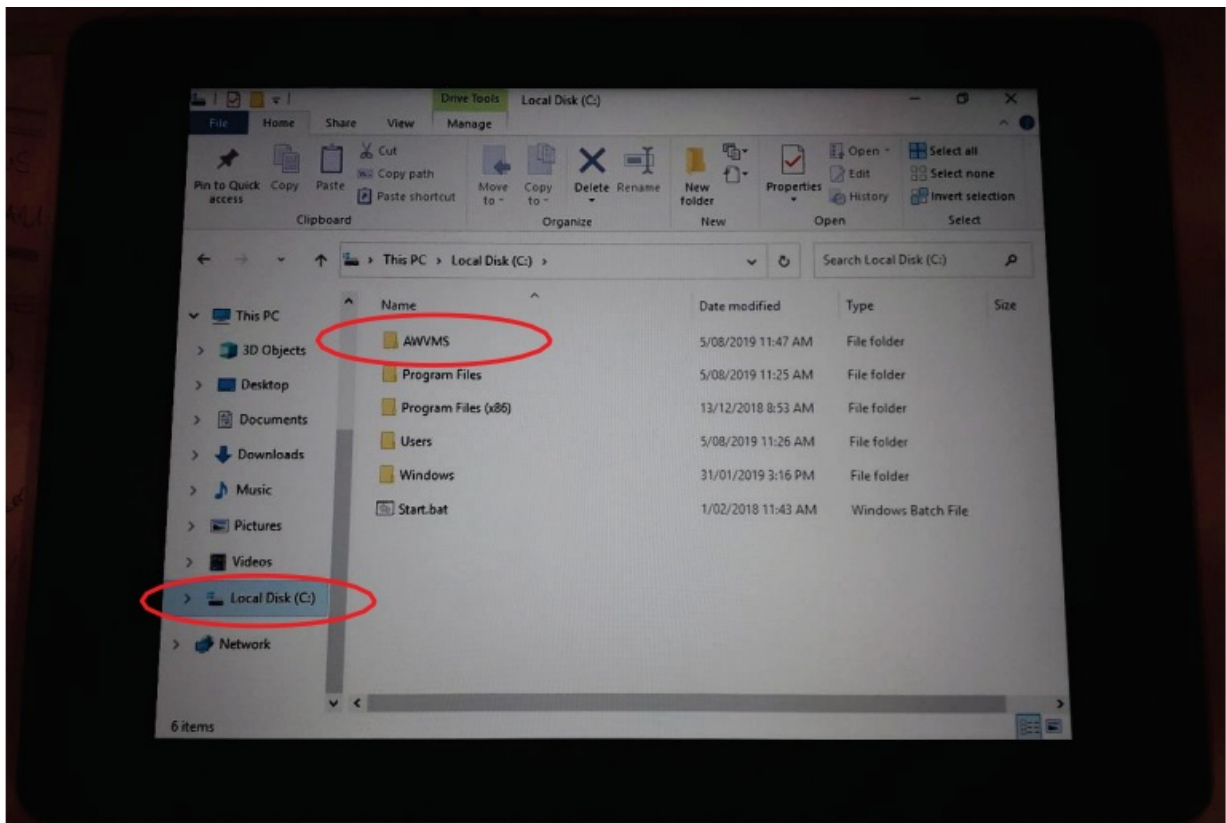6. Step 6:Scroll down to Windows Systems and open it.
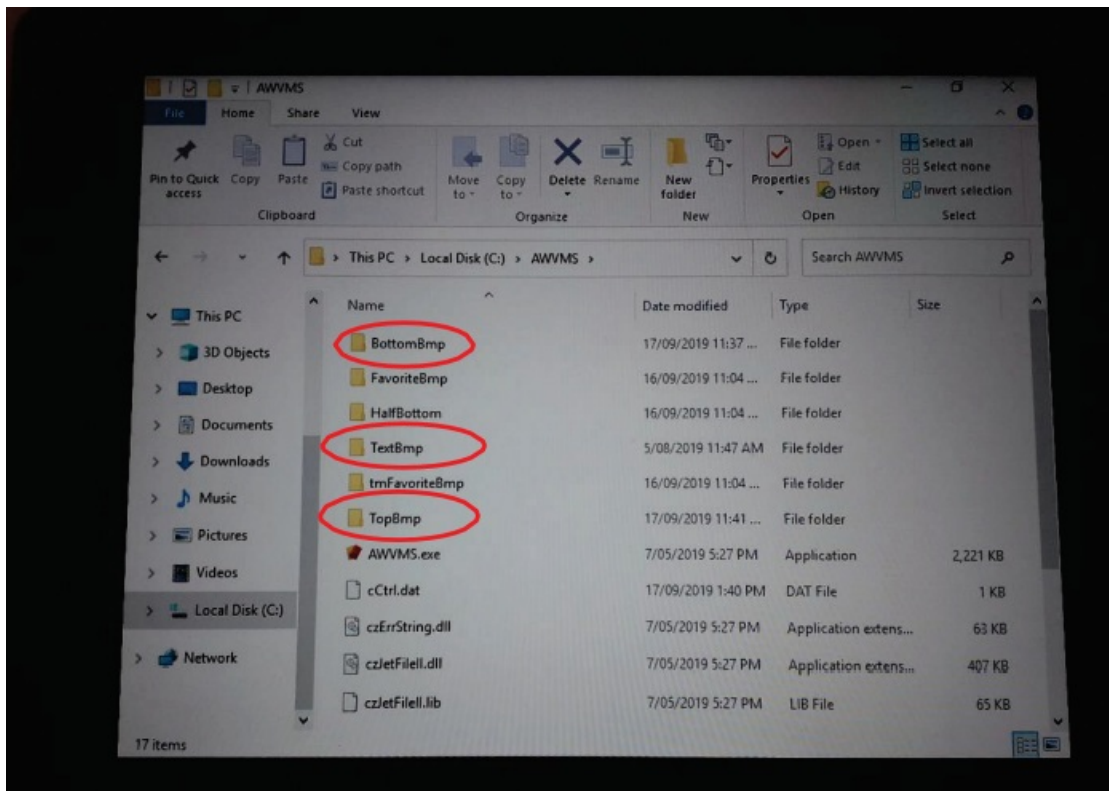
7. Step 7: Select File Explorer:

8. Step 8: Select Local Disk (C:)
9. Step 9: Open AWVMS folder and the following window will appear.

10. Step 10: Depending on which panel you designed your new image for, you can save them in the BottomBmp, TopBmp or TextBmp Folders.

    NOTE: DO NOT MOVE OR EDIT ANY OTHER FILES OR FOLDERS.
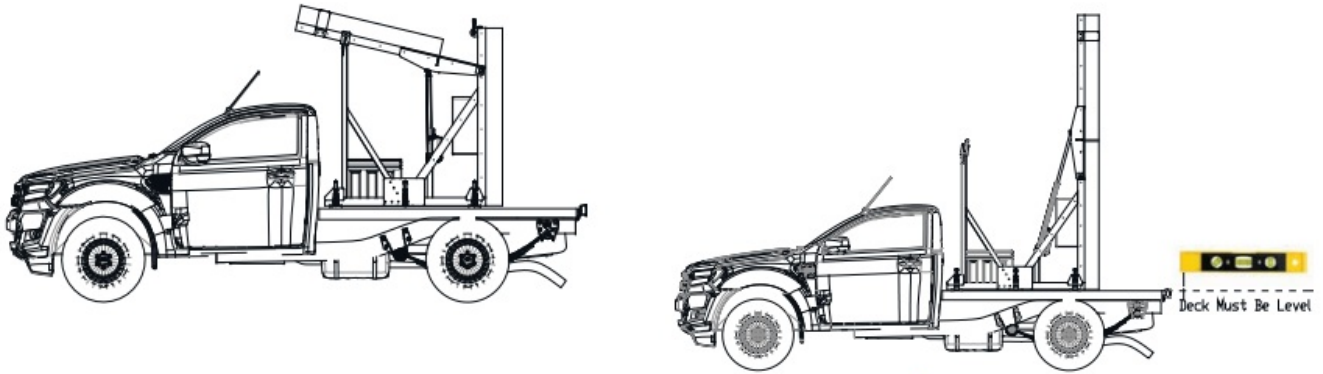

11. Step 11: After you have saved your images, close the window. Swipe right to left at the right-hand side of the tablet as in Step 2 and de-select Tablet mode. Click anywhere on the tablet and it will return to the AWVMS program.

12. Step 12: Reboot AWVMS software and start up again before you will be able to see your images. You can now create new messages with your added images.

Note: The optimum image size & ratio is 64 x 64 pixels for the TOP PANEL and BOTTOM PANEL and 64*16 for the TEXT PANEL. Other image sizes or ratios will not be displayed correctly.
Please contact RTL for image upgrades or any special image required for your AWVMS.

Mid-Hinge Assembly Installation

Correct set-up of the AWVMS Assembly onto the vehicle is important to ensure that the EN12966 LED viewing angle is optimised. The installation instructions below provide optimized driver viewing from a distance greater than 100m when traveling at 70 km/hr.
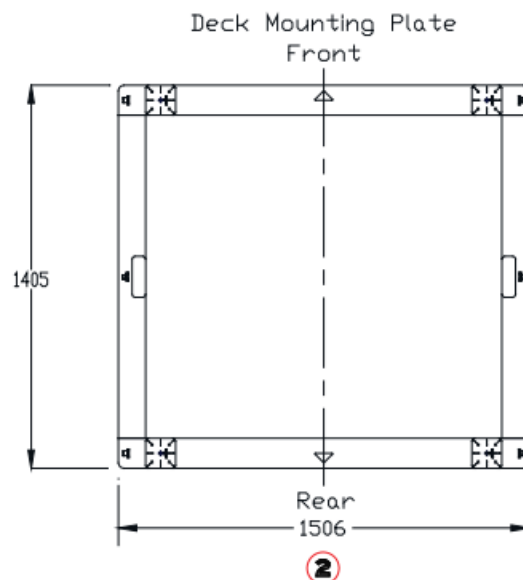

Mount the Deck Mounting Plate to the rear of the utility

- Determine the location of the AWVMS sign using the drawings supplied.
- Strengthen underside of the deck to ensure that a suitable steel channel is welded in place to support the Deck Mounting Plate.
- Ensure that the deck is level (drawing 01) when the sig

Important: the sign should not lean toward the following traffic.

- Drill and countersink eight evenly spaced 12.5mm holes in the Deck Mounting Plate on the same side as the hold down latches.
- Fix the Deck Mounting Plate using M12 x "xx" ZP CSK Socket Screws (High Tensile), a large washer and lock nut. The bolts heads should be flush with the upper face of the deck mounting plate.n is deployed (please see drawing (04) that shows centre of gravity.
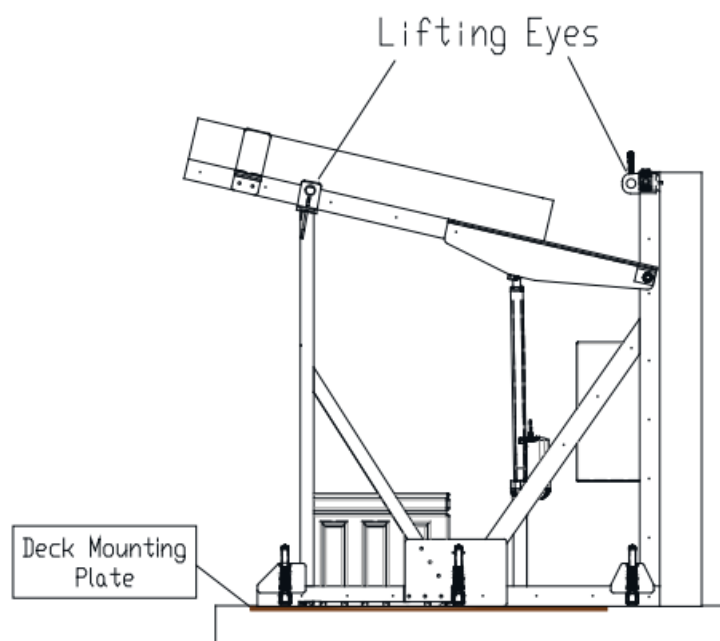
Lift the AWVMS Assembly into place

- Use strops/chain secured to the lifting eyes to lift the AWVMS Assembly into position (drawing 03)
- The assembly should self-locate over the stillage feet
- Clamp the assembly in place using the six hold down latches. Each latch is capable of holding 800kg and must be tight.

2. Tablet Configuration

- The tablet has Wi-Fi connectivity.
- The tablet must be connected directly to the vehicle battery (12 volt) to enable adequate charging
- An Ethernet cable can be connected directly to the sign control cabinet as an add-on option

Assembly Installation Detail		
Centre of Gravity in stored position	830mm	From rear of sign
Centre of Gravity in deployed position	580mm	From rear of sign
The AVMS Assembly weighs:	430kg	Dual battery configuration

The assembly drawings are indicative and minor changes may have been made; please check the dimensions of the product before proceeding with the installation.

In-Cab Rocker Swich (Used to Raise and Lower the AWVMS)

- AWVMS is supplied with a up /down rocker switch including 5m of orange cable. The auto electrician / installer is responsible for installing the switch in the cab, in a convenient location for the driver to use.
- The Driver must press and hold, to either raise or lower the AWVMS. As a reference, the in-cab tablet also shows the orientation of the board (raised or lowered)

Trouble Shooting Guide

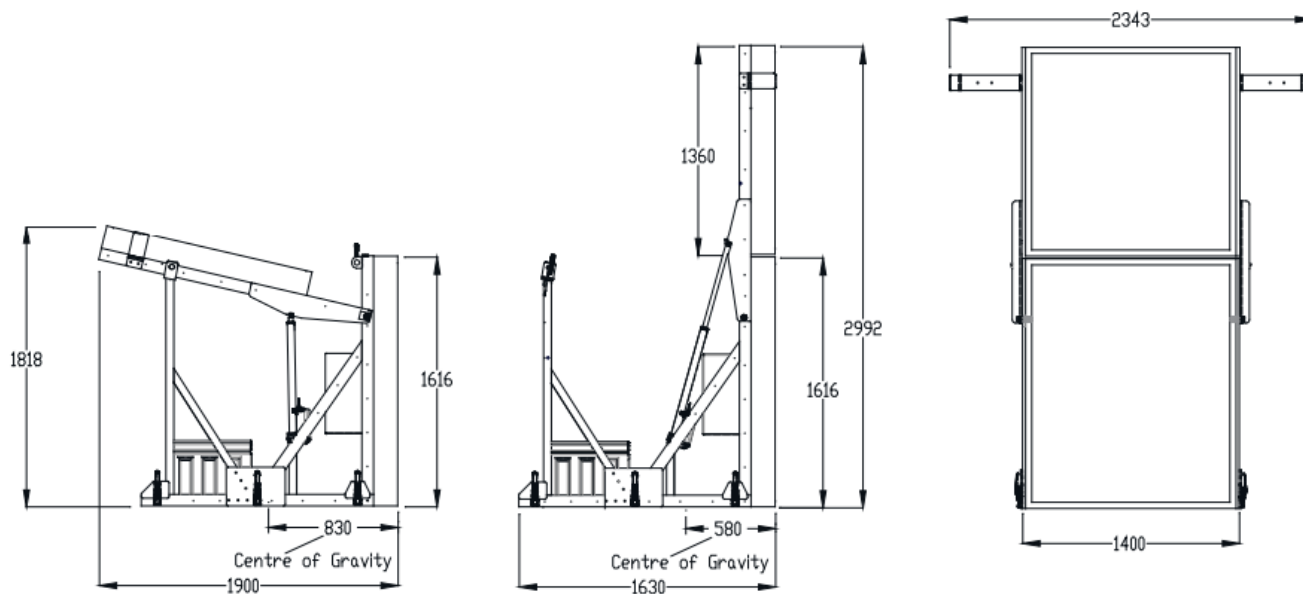| Problem	Cause	Solution
Unable to raise the sign	Low battery voltage	Check battery voltage. It should be 11.8 Volts and higher. If not plug in the charger and allow batteries to fully charge
	Isolator Switch	Batteries are fully charged. Check whether the main isolator switch is in the on position
	Blown fuse	Open control box and check whether the fuse is blown
	Still not raising	Contact RTL Technician
Connection error	Incorrect start-up procedure	Turn system off and exit the AWVMS program. Switch tablet on again and wait until the Current display tab turns green before pressing Turn system on tab
	Wi-fi Connection	Check that the tablet is connected to AWVMS Wi-fi network
	Ethernet cable damaged/disconnected (Older boards)	Check the ethernet connection to the tablet and the board
Sign not displaying	Connection error	Follow steps as above
	Blown fuse	Check fuses and replace where necessary
	Low battery voltage	Check battery voltage. It should be 11.8 Volts and higher. If not plug in the charger and allow batteries to fully charge
Red ERROR message on board	Low battery voltage	Check battery voltage. It should be 11.8 Volts and higher. If not plug in the charger and allow batteries to fully charge

Low battery voltage	Charging problem	• Ensure that the LED display lights are illuminated on the Charger • Check that the extension lead is properly plugged into the charger plug • Check the lead is switched on at the wall plug • Check that the kettle plug lead going into the charger is properly inserted and secure
Play Sequent Error	Incorrect display sequence selected by operator	Exit and Start AWVMS program. Follow the sequence of Turn System ON. Select Favourite, Play, OK.
Turn On Error	• Not reading Master board Wifi connection error. • IP address incorrect in Config.	• Check the ethernet connection on the bottom panel below the connection box. Make sure this is secure by pushing it in. • Next go to Config on the tablet and ensure the IP address is set at 169.254.10.49. • Go to System information. If it says Not Connected, contact RTL.

Serial Number Location:

• The RTL AWVMS Serial Number is located on the door of the Main Connection Box.

Technical Specifications

Top Panel

- Panel size 1360mm x 1360mm
- Display area 1280mm x 1280mm
- 80 x 80 Pixels – 16mm pixel pitch
- Enclosure – IP56
- EN12966 -1: 2005 + A1: 2009 Compliant

Bottom Panel

- Panel size 1360mm x 1616mm
- Display area 1280mm x 1536mm
- 96 x 80 Pixels – 16mm pixel pitch
- Image Display Area 1280mm x 1280mm
- Text Display Area 1280mm x 256mm, 16 x 80 Pixels
- Enclosure – IP56
- EN12966-1 : 2005 + A1 : 2009 Compliant

Optical

- LED TILE – P16
- Classifications: C2, L3, B6, R2
- Luminance Control – 2 x Light Sensors for automatic control + Manual level control

LED Advanced Warning Lights

- 340mm diameter amber light
- EN12352 Compliant

Electrical Source

- 12V DC Supply

Optimal Viewing Distance

- Minimum 55m
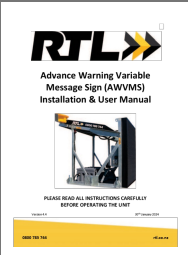- Maximum 460m

Weight

- 430kg

Dimensions

- Deck footprint: 1.4m x 1.2m
- Stored: 1.5m x 1.9m x 2m
- Raised: 1.8m high x 1.4m

Light Goods Vehicle Requirements

- Tare Weight: 1.95 tonne
- Gross Weight: 2.75 tonne
- Vehicle Length: <5.25m
- Vehicle width (excl. mirrors): 1.91m

Documents / Resources

RTL AWVMS Advance Warning Variable Message Sign [pdf] Instruction Manual
AWVMS Advance Warning Variable Message Sign, Advance Warning Variable Message Sign,
Warning Variable Message Sign, Variable Message Sign, Message Sign, Sign

References

- ❯❯ **New Zealand's largest Supplier of Road Signs & Road Safety Equipment | RTL**
- ❯❯ **New Zealand's largest Supplier of Road Signs & Road Safety Equipment | RTL**
- **User Manual**