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WES3 BASE STATION

QUICK START GUIDE



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INTRODUCTION

This guide is designed to help you get your WES3 system up and running as soon as possible.

This guide covers how to easily setup your system using the WES3 Base Station, which is the central control for your whole system. There is also a Trouble Shooting section which outlines some basic issues that could be encountered.

Signing up to the 'VIP' area of the ramtechglobal.com website will allow you access to various 'How To' videos related to the system in addition to other literature, such as a complete User Guide and Operation Manual.



DO NOT OPEN ANY UNIT AS THIS WILL INVALIDATE THE WARRANTY.



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SETTING UP WES3

Installing WES3 on your site is easy. You will need to start by activate / powering on each unit and add the units to the group so that they can communicate with each other.

1 INITIAL SETUP

STEP 1 Activate and power on

To activate/power on the WES3 Base Station unit, **hold down 'A' and press 'B' three times in quick succession**. All three LEDs will illuminate and then the amber LED will flash.

Initial setup of the WES3 Base Station is through a series of on-screen options. Language, Inspection Delay and Pre-Alarm mode options can be configured

STEP 2 Language selection

Select language – the available options are English, German, French, Spanish, Italian and Swedish. Language settings can be changed at any time.

STEP 3 Set inspection delay

The Inspection Delay setting allows an optional delay period between triggering a Call Point and the site wide alarm being raised.

The default setting is 00 minutes (i.e. no delay), but can be set in 1 minute increments up to a maximum 10 minutes.

A confirmation screen will be displayed to validate the settings. The Inspection Delay can only be set during the initial activation process.

STEP 4 Pre-alarm function

The Pre Alarm function defines site-wide behaviour of the network during an Inspection Delay period.

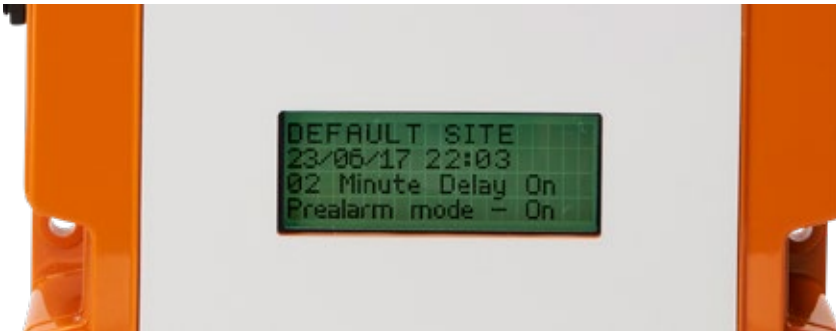
With Pre Alarm mode enabled, the entire network will emit a site-wide, intermittent sound and (on strobe-equipped call points) an intermittent flash.

With Pre Alarm mode disabled, only the local call point which has been triggered will sound. All other call points around site will remain in non-alarm mode.

Pre Alarm can only be set during the initial activation process. Once set, the Pre Alarm can only be changed by turning off and reactivating the WES3 Base Station.

On completion of initial set up, settings for Inspection Delay and Pre Alarm mode are displayed on the Base Station home screen.

Check the settings displayed on screen are the desired settings, and if not, repeat the Initial Setup process before proceeding. The display is shown for the WES3 Base Station is shown below.



Base Station Display

ACTIVATE UNITS

To activate any WES3 unit, **hold down 'A' and press 'B' three times in quick succession**. All three LEDs will briefly illuminate and then the amber LED will flash.

This operation activates the unit – no radio connection is established at this point.

UNIT NUMBERING

Activated Call points, Detectors, and other WES3 units can be added to create a WES3 network using the Unit Numbering process.

During Unit numbering, WES3 devices receive details of network configuration from the WES3 Base Station, including Inspection Delay and Pre Alarm settings. This is the only way of creating and adding to a WES3 network.

Access the Settings Menu on the WES3 Base Station home screen. The Settings menu can be accessed from the Main Menu by **selecting Settings with the directional pad then pressing Enter**.

You'll be required to enter the PIN code before proceeding. This is set as default to 1234, but can be changed (refer to WES3 Installation and Operation Manual).

From the Settings menu select the first option, Unit Numbering: Ensure that any WES3 devices to be paired are activated and has an amber flashing LED. This indicates the unit is ready to pair.

Units can be numbered with any three of four digit number (depending on firmware version) from 001 to 9999 in accordance with your site plan. Numbering allows messages and alerts during operation to be referenced to a specific unit location on site, using the construction project site plan.

From the Unit Numbering screen, use the up and down arrows to select the desired number for your first unit.

Press and hold 'A' on both units. The amber LEDs will illuminate followed by the green LEDs to indicate that the units have been successfully paired and a site group created. **Release the 'A' buttons.**

After successfully numbering a unit, change the number displayed on the WES3 Base Station and repeat the process above for all required units.

If the red LED illuminates, pairing has failed. Ensure the unit to be numbered is activated, and repeat the Unit Numbering process.

ADD UNITS TO AN EXISTING SITE GROUP

Repeat sections 2 and 3.

POSITION UNITS

Once activated and paired, WES3 units can be installed on site. Ensure any applicable local guidelines or standards regarding locating units on site are adhered to, such as BS 5839-1 in the UK.



Wherever possible, avoid positioning the unit directly adjacent to metal frames, electric cables and similar equipment that may interfere with the signal strength.

SECURELY FIX THE UNITS IN PLACE

Each WES3 unit must be **securely fixed in place and the tamper switch on the rear of the unit must be in contact with the wall or ceiling.**

Detector units are ceiling mounted and intended for indoor use only. Ensure a risk assessment has been carried out and all reasonable safety precautions are in place before commencing work.

Call Points must be securely fixed, with the antenna upright, to a robust vertical surface such as a wall or trolley. Where the existing surface is unsuitable for direct fixing, use backing board such as plywood or similar sheet material.

Each unit should be securely mounted using its two integrated mounting points with M4 x 50mm pan head screws and wall plugs or other fixings selected for the particular wall or ceiling type.



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For more information on System Test, refer to the full WES3 User Guide and Operation Manual available in the VIP area of ramtechglobal.com.

Note: Following initial installation, wait for a minimum of 60 minutes before starting the first system test. During this time, the WES3 units will self-calibrate to adjust for background radio noise which may impact the accuracy of the system test.

Note: Powering off the WES3 CONNECT unit will reset the entire system as a 'factory reset', so avoid powering off unless necessary.


TEST THE SYSTEM

After installation of the units, **it is essential to perform a system alarm test** to confirm proper operation of the system. Following initial installation, wait for a minimum of 60 minutes before starting the first system test.




The System Test is started from the WES3 Base Station Settings Menu. The access code is required to access the Settings Menu. The default PIN number is 1234. **From the Settings Menu, select System Test to start test mode.**

The WES3 Base Station will display a confirmation message that the test has started. Walk the site to check all units in the network.

During System Test mode, the WES3 network isolates all devices in the network, allowing full physical test of each unit, without activating the site-wide alarm.

Once the System Test is complete, return to the WES3 Base Station and **press the  button to complete the test** and exit System Test mode.

The test result is indicated as follows:

Pass		Green LED solid illumination
Radio OK, other fault detected		Red LED flashes followed by Amber LED group flashes to indicate fault (see 'Amber LED Indication').
No Radio Signal		Amber LED group flashes to indicate fault (see 'Amber LED indication').



It is important to be aware that, whilst in System Test mode, the WES3 network is inactive and a site-wide alarm cannot be triggered from any unit. System Test mode must be exited from the Base Station in order to reactivate the network.

WES3 IN ACTION











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TROUBLE SHOOTING


1 LED CODES

Description	Flash Type
Group Flash 1 - Low Battery	
Group Flash 2 - Low signal	
Group Flash 3 - Unpaired	
Group Flash 4 - Tamper	
Group Flash 5 - Re-arm or Unit latched (potentially input latched on Interface unit only)	

 **Green LED** Active units with no faults will flash their green LEDs once every 4 seconds to indicate that the unit is operational.

 **Amber LED** Each WES3 unit monitors itself for a number of faults. These are indicated via the amber LED, which will flash in grouped patterns with longer than usual gaps in between them.

Units displaying one of these patterns require further investigation and should not be relied upon as part of the evacuation alarm and detection system until the fault has been corrected. **Use the chart on page 13 to determine the nature of the issue.**

 **Red LED** If a Sensor triggers the alarm, its red LED indicator will flash during an alarm. If a sensor has raised the alarm, its red LED indicator will flash during an alarm.



It is recommended that the system is tested weekly or whenever a significant change has been made to the installation or the building under construction.

The WES3 Base Station will alert you to various system faults using the codes below:

Warning Codes	Warning	Description	Self-Clearing
'MED' or 'MD'	Medical Alert	Medical assistance required at Unit NNN	No
'BAT' or 'BT'	Low Battery	Unit NNN has a low battery	No
'DET' or 'DT'	Detector Tamper	Unit NNN has had sensor head removed	Yes
'EXT' or 'EX'	External Tamper	Unit NNN has been removed from wall/ceiling	Yes
'FLT' or 'BF'	Flat Battery	Unit NNN has turned off, its battery is flat	No
'INT' or 'IN'	Internal Tamper	Unit NNN has been opened	No
'LAT' or 'LT'	Latched	Call point button on unit NNN is still depressed	Yes
'REM' or 'RM'	Removed	Unit NNN has been deactivated and removed	No
'SIG' or 'SG'	Low Signal	Unit NNN has a low radio signal	Yes
'TST' or 'ST'	System Test	Unit NNN initiated a System test	Yes
'NEW' or 'NW'	Unexpected Unit	Unit NNN added since last system poll	No
'GON' or 'GN'	Unit Missing	Unit NNN removed since last system poll	No

It is important to be aware that, whilst in System Test mode, the WES3 network is inactive and a site-wide alarm cannot be triggered from any unit. System Test mode must be exited from the WES3 Base Station in order to reactivate the network.



Note: Alerts will appear as either a 2-character or 3-character code, depending on firmware version.

UNIT SOUNDS

Sound Issue: Call Point unit periodically beeping after an alarm has been reset

The Call Point is latched and needs to be manually reset using the key provided.

Sound Issue: WES3 Base Station beeps frequently

System warning. If alarm has been raised, LCD screen will display 'ALARM ALARM ALARM' together with details of which unit has raised the alarm.

If another warning is given, check the warning code against the warning code table on page 13.

SILENCING THE ALARM

The alarm must be silenced either by using the reset key or on the WES3 Base Station unit.

The alarm will automatically silence **30 minutes** after activation. The evacuation alarm can be manually cancelled from a Call Point that has been pressed using the reset key provided. If necessary, a Call Point on a nearby call point can be pressed and then reset to cancel the alarm.

Please wait for 5 seconds between pressing and resetting a Call Point. After the alarm has cleared the system has a short (2 minute) re-arm period during which the sirens will sound intermittently, and the amber warning LEDs flash in groups of 5, following which the system is re-armed and ready for use.

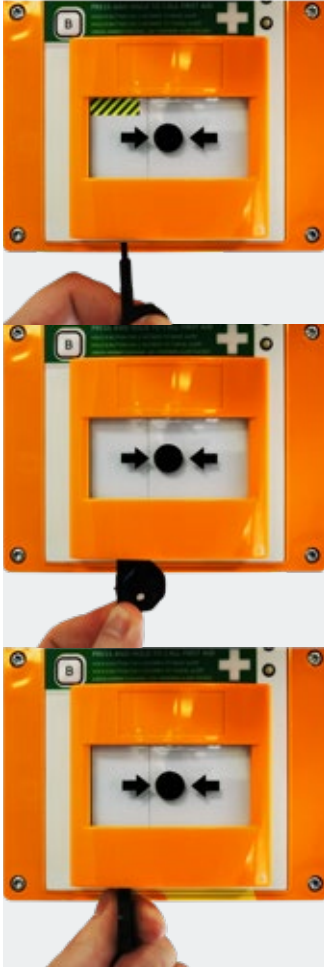
During the re-arm period, the alarm cannot be reactivated. It is therefore vital to confirm that there is no hazard before silencing the alarm.



Note: It is vital to confirm that there is no hazard before silencing the alarm. Do not attempt to open the unit or deactivate by removing the battery.

RESETTING THE CALL POINT

All Call Points which have been activated must be manually reset using the key. Any Call Point units with activated call points will periodically beep after the re-arm period has ended as a reminder that the Call Points need to be mechanically reset using the key before they can be used to raise a alarm.



STEP 1 Insert reset key with tab to the right as shown below.

STEP 2 Push key in as far as possible

STEP 3 Turn key anti-clockwise until a loud mechanical click is heard. Remove key.



Ensure the Call Point is fully reset before removing the key. Partially resetting a latched Call Point after the alarm has been cancelled can re-trigger the evacuation alarm.

RADIO EQUIPMENT STATEMENT

Model Name	Model Number	FCC ID of radio module	Radio module
Emergency Control Unit	W3-SCU-STD-U-9X	2AHNO2-RD0-9X	Ramtech radio module
Interface	W3-INF-I2O-N-9X, W3-INF-MNT-N-9X	2AHNO2-RD0-9X	Ramtech radio module
CONNECT	W3-CON-U-9X	2AHNOW2CTRLMK2	Ramtech MK2 radio module
		XPY1EIQ24NN	Ublox R202-02B-02 4G modem
All other WES3 models contain:		2AHNOW2CTRLMK2	Ramtech MK2 radio module

The following should be present on all products that are subject to radio approval under Part 15 of the FCC Rules.

FCC warning statement:

This device complies with Part 15 of the FCC Rules Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

End users must follow the specific operating instructions for satisfying RF exposure compliance.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WES3 products contain the following ISED radio modules:

Model Name	Model Number	FCC ID of radio module	Radio module
Emergency Control Unit	W3-SCU-STD-U-9X	21246-W2RDO9X	Ramtech radio module
Interface	W3-INF-I2O-N-9X, W3-INF-MNT-N-9X	21246-W2RDO9X	Ramtech radio module
CONNECT	W3-CON-U-9X	21246-W2CTRLMK2	Ramtech MK2 radio module
		8595A-1EIQ24NN	Ublox R202-02B-02 4G modem
All other WES3 models contain:		21246-W2CTRLMK2	Ramtech MK2 radio module

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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The WES range of products is manufactured by:

Ramtech Electronics Limited, Ramtech House, Nottingham, NG7 1TN, UK

For more information, refer to the full WES3 User Guide and Operation Manual.

To access, visit the VIP area at
vip.ramtechglobal.com



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