

Site Survey Kit User Guide



Aidcall operates a policy of continual product improvement and reserves the right to modify the specification of its products.

If any variation to the details in this document are suspected please contact Aidcall's Technical Support.

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1. PRODUCT OVERVIEW

The Site Survey Kit should be used at the quotation stage to estimate the total number and location of RFE's required on a new Touchsafe Pro Nursecall installation.

Touchsafe Pro RFE's are used to transmit and receive radio signals to/from all the wireless devices on the Nursecall system. A maximum of 64 RFE's can be installed per site; up to 32 "Network Nodes" are fitted inside or connected to Display Panels plus a further 32 "Wireless Nodes" can be deployed in remote locations throughout the building. Wireless Nodes effectively "fill the gaps" between Network Nodes to complete the Digimesh network and provide a radio route back to the Master Panel from any wireless device on the site.

Network Nodes are Line Powered RFE's with a hardwired power and data connection to a Display Panel.
Note: a Display Panel with a factory fitted internal RFE counts as one Network Node.

Wireless Nodes (or Remote RFE's) are generally Mains Powered RFE's that have no hardwired data connection to a Display Panel. Multiple wireless nodes may be required to achieve full radio coverage throughout the building. This Site Survey Kit is used to determine the total number and positioning of these wireless nodes prior to commencing the installation.










Wireless Nodes require a local mains supply or a hardwired connection to a 12V DC supply; this can be taken from any Display Panel, the AVI/TCR bus or an additional battery backed PSU. Each Display Panel must have one fully connected (power and data) Network Node; this can be a factory fitted internal RFE or an external Line Powered RFE.

IMPORTANT: *if the survey is performed on a new-build site before building work or fitting-out is complete then it is likely the radio coverage will differ on completion. In this case always allow for additional RFE's at the quotation stage to cover possible blind spots encountered during installation and commissioning.*






This user guide is for Site Survey Kits with EE4080 V1.01a firmware. Repeater positioning using this version will more closely match the results of the XCTU Commissioning Tool.

2. IMPORTANT SAFETY INSTRUCTIONS

	Read and understand these instructions before use and keep for future reference.
	Do not disassemble this product or attempt to repair it yourself.
	No user serviceable parts inside. Refer all servicing to qualified service personnel.
	This product should only be powered by 1.5V AA size Alkaline batteries. Under no circumstances should this product be powered from another power source.
	Insert the batteries in accordance with the polarity symbol inside the battery holder.
	Do not expose this product to dripping or splashing water.
	Clean with a hard-surface disinfectant wipe or a damp cloth and a non-abrasive cleaning product. Polish with a dry duster.
	Avoid using harsh, abrasive or corrosive cleaning agents or detergents (e.g. scouring powders, bleaches, polishes, etc.) when cleaning this product.
	At the end of its life this product should be disposed of and recycled in accordance with the environmental regulations. See the Regulatory Information in section 3 below.

3. REGULATORY INFORMATION

	This symbol on the product indicates it complies with all relevant EU Directives as required by law. Safety of Information Technology Equipment; EN 60950-1:2006+A12:2011 Electro Magnetic Compatibility; EMC 2004/108/EC Restriction of Hazardous Substances; RoHS 2011/65/EU A copy of the complete Declaration of Conformity is available from Aidcall.
	This symbol on the product indicates it is classed as Electrical or Electronic Equipment and should not be disposed of with other commercial waste at the end of its working life. The Waste of Electrical and Electronic Equipment (WEEE) Directive (2012/19/EU) has been put in place to recycle products using the best available recovery and recycling techniques to minimise impact on the environment, treat hazardous substances and avoid increasing landfill. For product disposal please contact your supplier and check the terms and conditions of the purchase contract and ensure this product is not mixed with other commercial waste for disposal.
	This symbol on batteries indicates separate collection. Batteries contain chemicals that can be hazardous to health and the environment and should not be disposed of in the waste bin. The EU Directive (2006/6/EC) has been put in place to ensure the safe disposal and recycling of batteries. Return used batteries to your supplier or drop-off at your local municipal waste recycling depot.

4. SITE SURVEY KIT PARTS

The Site Survey Kit comprises 2 parts; the transmitter unit which mimics a Network/Wireless Node (i.e. a Display Panel or RFE) and an ATX unit which mimics any wireless radio device i.e. a call point, ceiling pull cord, door monitor or a personal pendant.

Transmitter unit inc antenna
(supplied with 4 x AA batteries)



ATX unit inc LCD display
(supplied with 3 x AA batteries)



There is no on/off power switch on either module so it is important to remove the batteries from the Transmitter and the ATX when not in use.

5. BEFORE YOU START...

Ensure you have a paper copy of the building layout plan that can be marked-up with the positions of the display panel(s) and RFE's as you perform the survey.

Confirm with the client which external areas will need to be covered by personal pendants e.g. smoking areas, communal gardens, etc.

Also confirm if the client requires **Secondary Routing** – this will provide fail-safe operation in the unlikely event of a display panel or RFE failure.

Note: this option will significantly increase the quantity of RFE's required.



6. PERFORMING A SITE SURVEY

1. Open the rear battery compartment and fit 4 x AA batteries into the Transmitter unit.
2. Place the Transmitter unit with its antenna vertical in close proximity to where the Master Display Panel will be located.
3. Open the rear battery compartment and fit 3 x AA batteries into the ATX unit.
4. The ATX will begin looking for the Transmitter and the display will show “**FINDING NETWORK**” as below;



5. After a few seconds the ATX will discover the Transmitter and the display will show “**NETWORK FOUND**” as below;



6. After a few more seconds the ATX will display the result of the first scan...

The display will show;
IN RANGE or
NEEDS A REPEATER or
OUT OF RANGE



The status LED will indicate;
GREEN for IN RANGE
AMBER for NEEDS A REPEATER
RED for OUT OF RANGE

IN RANGE/**GREEN** light: the unit has received 100/100 transmissions with less than 85dB RSSI.

NEEDS A REPEATER/**AMBER** light: the unit received 100 transmissions but with more than 30 retries or more than 85dB RSSI.

OUT OF RANGE/**RED** light: the unit had more than 2% failed transmissions, more than 50 retries or more than 90dB RSSI.

7. PERFORMING A SITE SURVEY

7. Carrying the ATX unit walk away from the Transmitter and stop after about 10 metres, stand still for a few seconds to allow time for the ATX to repeat its scan.
8. If the status is still “IN RANGE” (and the LED is **GREEN**) continue to walk away a further 10 metres and stop to check the ATX display.
9. As soon as the ATX displays “NEEDS A REPEATER” (and the LED goes **AMBER**) remain still for a few seconds to make sure the results are consistent. Mark this position on the building plan drawing with a note of the Transmitter location.
10. Repeat steps 7 to 9 in every direction it is possible to walk away from the Transmitter and on all floors.
11. Move the Transmitter to either where the ATX started displaying “NEEDS A REPEATER” or the location of the next Display Panel if it is within the area the ATX was displaying “IN RANGE”. Repeat steps 7 to 10.
12. Repeat step 11 until full site coverage is achieved.



*The Site Survey Kit transmits at a lower radio power level than the Touchsafe Pro system.
This means any areas which are marginal on the survey will be OK on final installation.*