

Commissioning Tool 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 Commissioning Tool should be used by an Engineer during the final testing of a new Touchsafe Pro Nursecall system installation to check the integrity of the XBEE Digimesh Network.




The Commissioning Tool is a Touchsafe Pro Callpoint (with display) and special software to measure the RF signal strength and monitor routing of the XBEE data.

The Commissioning Tool will help identify areas on the site where additional RFE's are required, or where re-deployment of existing RFE's is necessary, to achieve a reliable and efficient data network.

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.
	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 symbols inside the battery compartment.
	Do not expose this product to dripping or splashing water.
	Do not drop or expose to high vibration or shock.
	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. COMMISSIONING TOOL SETUP

1. Get the site Preamble and Network ID (Pan ID) by pressing the **LIGHT GREY** Cancel button on any of the Touchsafe Pro Call Points onsite with a display fitted.
2. Open the rear battery compartment and fit 3 x AA batteries into the Commissioning Tool – after a few seconds the display will show **“TOUCHSAFE PRO”**.
3. Press the **GREEN** Nurse Present button five times to step through the menu options until **“PREAMBLE AND PAN ID SETUP”** is displayed, then press the **ORANGE** Call button to confirm.
4. The display will show **“PROGRAM PREAMBLE ID 00”**. Use the **GREEN** Nurse Present button to enter the site Preamble ID, e.g. for Preamble 7 press the **GREEN** button seven times, then press the **ORANGE** Call button to confirm.
5. The display will show **“PROGRAM NETWORK ID 2000”**. Use the **DARK GREY** hidden button to enter the Network ID tens and the **GREEN** Nurse Present button to enter units e.g. for Network ID 31 press the **DARK GREY** hidden button three times and the **GREEN** Nurse present button once, then press the **ORANGE** Call button to confirm.
6. The display will now show **“DISCOVER NODE”** - press the **ORANGE** Call button to confirm. The display will show **“PLEASE WAIT – FINDING NETWORK”** when the Commissioning tool is trying to establish a network connection to the Master Panel onsite.



7. When the unit has found the Master the display will show **“NETWORK FOUND”** - after a few seconds the display will show **“TRACE ROUTE”**.



8. The Commissioning Tool setup is complete - see the following page.



There is no on/off power switch on the Commissioning Tool so it is important to remove the batteries when not in use.

5. TESTING LINKS BETWEEN PANELS

1. Place the Commissioning Tool close to the first Slave Panel (or its associated external RFE) then press the **ORANGE** Call button.
2. The Commissioning Tool will now start checking the route to the Master Panel.
3. When it has finished checking all the links from current location to the Master Panel the display will show the TRACE ROUTE results...

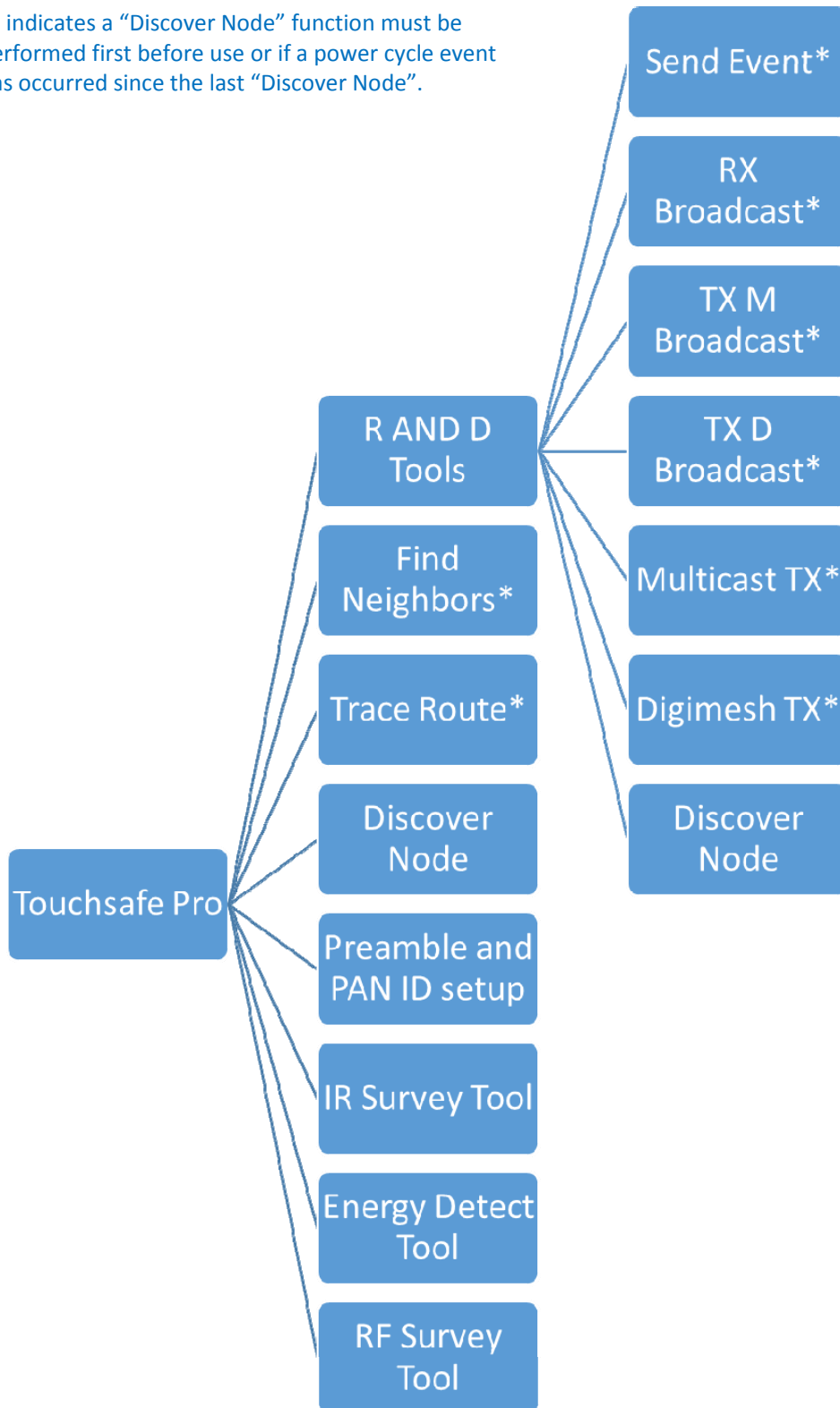


- 1 Link type can either be “END POINT” which is the Master Panel or “REPEATER” which can be any XBEE device that is used to hop-through to get to the END POINT.
 - 2 Currently displayed hop number.
 - 3 Number of hops between the Commissioning Tool and the Master Panel.
 - 4 Currently displayed hops Node Identifier (NI) e.g. RFE01.
 - 5 The link quality (RSSI) between the current hop and the previous hop should be less than 80dB.
 - 6 Current hops XBEE firmware version should be 8072 or 8074.
4. Press the **LIGHT GREY** Cancel button to go back to the Menu.
 5. If the link quality is less than **080** move to the next Slave Panel (or its associated external RFE).
 6. Press the **GREEN** Nurse present button two times until the display shows “**DISCOVER NODE**” then press the **ORANGE** Call button to confirm.
 7. The Commissioning Tool will now try to establish a connection to the Master Panel onsite, when the unit has found the Master Panel the display will show “**NETWORK FOUND**”.
 8. Repeat steps 1 to 4.
 9. Repeat steps 5 to 8 for all the other Slave Panels and external RFE’s onsite.

6. MENU STRUCTURE



* indicates a "Discover Node" function must be performed first before use or if a power cycle event has occurred since the last "Discover Node".



7. MENU OPTIONS EXPLAINED

R and D Tools

These were used during the development of the product and will not be required by the Engineer. If further assistance is required then you must contact Aidcall Technical Support.

Find Neighbors

This requires a "DISCOVER NODE" operation to be performed first. This will identify anything in RANGE of the point where the Commissioning Tool is held.

01 OF 01 - This is how many devices that have been found - use **ORANGE** button to cycle.

NI. RFE01 - Network Identifier and name

SH. 0X0013A200 - MAC address of device being received (High)

SL. 0X40C10BC1 - MAC address of device being received (Low)

Trace Route

This requires a "DISCOVER NODE" operation to be performed first. TRACE ROUTE indicates the RSSI link quality between hops. Pass value is 080; any higher then it will require an additional RFE.

The display will show either "END POINT" or "REPEATER". The repeater is a hop between nodes and the end point is the Master Panel; use the **ORANGE** button to cycle to next screen.

End Point 1.1 - This is where it is on the system. The ".number" indicates how many points.

NI. RFE01DB030 - This is the Network identifier name and RSSI value after DB (pass is 80 or less).

Version 8072 - Software version of XBEE module. Must be 8072 or higher.

Discover Node

Finds the survey kit (Preamble 7, Pan ID 31); otherwise set to the required Preamble and Pan ID for the site.

Preamble and PAN ID Setup

Setup of Site Survey or Commissioning Tool. The **DARK GREY** button increments the tens and the **GREEN** button increments the units, **ORANGE** is enter.

IR Survey Tool

This tests the infra-red transmission of Buddy. **Buddy ID** = the ID of the device transmitting and **Event Type Count** = how many times it received the signal. This requires a power cycle to exit.

Energy Detect Tool

In graph mode it holds max levels. This visually shows you what is happening on the 32 available channels. This requires a power cycle to exit.

RF Survey Tool

This tells you where to locate Repeaters/RFE's.

IN range (**GREEN** LED), Out of Range (**RED** LED) and Repeater required (**AMBER** LED).

For more information see the Site Survey Kit user guide (Aidcall Doc No. FM5517).