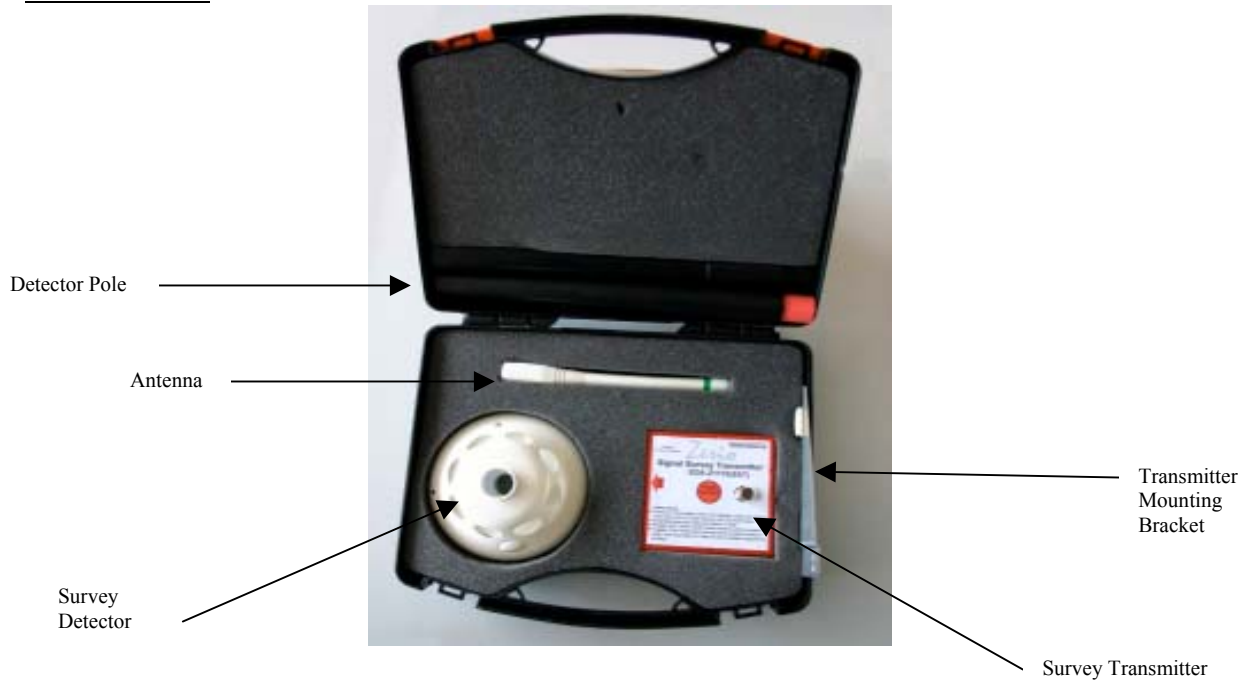


EDA-Z1110 – Survey Equipment

Case Contents



Powering on the Units

It is advisable to power on the transmitter unit first. With the antenna already fitted press and hold the 'Power ON/OFF' button for 3 seconds. The unit will beep and the LED will be illuminated.

To power on the survey detector press and hold the white button located on the top of the device for 3 seconds. On power up the unit will run through a series of start up tones and the green LED will be illuminated. If the transmitter has not been powered up yet, a red LED will be displayed, powering on the transmitter will change this to green.

The same procedure is repeated to power the units off.

Assembling the Detector Poles

The detector pole is split in to 4 sections for storage. To assemble remove all 4 sections and assemble as detailed below.

- Fit the two larger diameter sections together.
- Fit the two smaller diameter sections together.
- The red end of the smaller section should now fit in to the larger section to form a complete pole approximately 1m long.
- Insert pole in to detector mounting hole.

To Disassemble the Poles

Split the pole back in to 4 sections. In order for the poles to fit in the case store as below.

- Slot smaller diameter pole with the coupler into the large diameter pole with the coupler. The smaller coupler should fit inside the larger coupler
- Slot the opposite end of red-ended pole inside the remaining pole so that only the red end is visible.
- The remaining two sections should now be the same length and can be stored inside the case.

The Mounting Bracket

The Transmitter should be positioned using the supplied bracket, this enables it to be placed on a wall or slotted in to an object (such as a filing cabinet) to ensure the survey antenna is exactly where the antenna for the proposed panel would be.

The bracket slots over the two screws on the side of the device and should be pulled down so that the screws are secured in the smaller slots.

Included in the survey kit are Velcro pads in order to attach the transmitter to a wall, if it is not possible to stick Velcro to the wall blue tack could be used instead.

The bracket has a hole in the thinner end which can be used for hanging the device; a screw, drawing pin or a piece of string could be used in order to position it as accurately as possible.

Always ensure the transmitter is secured properly. Dropping the unit can cause it to drift off frequency and affect the survey



To Perform the Survey

The radio survey requires no special skills to perform.

The survey is the most important part of the installation of the Zerio radio fire alarm system as any mistakes or short cuts can result in an unreliable system that potentially will not operate in the event of an alarm condition. Making assumptions about whether a device will work in a room without surveying is dangerous, as no one can be sure of any hidden materials in walls or ceilings that may effect the radio propagation. The only way to be sure, is to survey the position. Care should be taken to follow the instructions exactly.

It is recommended that the positions of devices are marked so that during installation the exact same position can be determined during installation.

Ensure both units are powered on and the green LED is illuminated on the survey detector when in close proximity.

Mount the transmitter using the enclosed bracket. The antenna of the survey transmitter should be exactly where the proposed antenna for the main panel will be positioned and should be vertical in orientation. Failure to position this correctly can invalidate the radio survey and when the system is installed it may not work reliably.

Attach the pole to the detector and visit all proposed device locations. The device must be pushed against the ceiling or wall where a device would be located, ensure the switch on the base operates.

Note: Care should be taken when pressing the detector against surfaces so not to damage the protruding peg on the underside. A spare is included should problems arise.



Should be ceiling be too high for the supplied pole to reach, the survey detector can be used in conjunction with a Solo pole. Simply attach the smaller section of the supplied pole in to the detector (or a length of 25mm plastic conduit), remove the head from the Solo pole and insert the detector ensuring the base is facing the ceiling.

Once pushed against a surface the survey detector will beep either once, twice or three times in quick succession whilst displaying a green LED.

LED	Sound	Status	Action
GREEN	3 Pulses	Good	Fit Device
GREEN	2 Pulses	Average	Fit Device
GREEN	1 Pulse	Adequate	Fit Device
RED	2 Tone	Unsatisfactory	Relocate Device*
RED	None	No Signal	Add Booster

* Must conform to current British Standards requirements.

A 2 tone beeping whilst displaying the red LED indicates there could be an acceptable signal strength near by, try moving the position and/or orientation of the survey device. Repositioning of a device must conform to any current British Standards requirements.

If the detector is out of range of the transmitter then the survey detector will not beep and will display the red LED.

Booster Panels

When the survey detector starts beeping only once it is time to consider using a booster panel in order for devices further away from the control panel to have adequate signal strengths.

Look for a suitable location for the panel and check the signal strength using the survey detector. Once satisfied with the positioning move the transmitter unit to the proposed booster panel location (ensuring that the antenna of the transmitter is where the booster antenna will be sited). As a mains supply is required for the booster panel, this should be taken into account when deciding a suitable position. The unit also has an in-built sounder, which should also be taken into account when positioning. The sounder can be disabled.

Continue the survey as before.

Low Battery

If the batteries in the survey devices become low the reliability of the survey will be unaffected. Should the batteries become low enough to affect the result the units will automatically power off. Likewise the units will not power up if the battery power is too low.

When the batteries in the transmitter become low the led will begin to flash. Should the batteries become low in the survey detector the LED will flash red and then return to green when with a good signal strength. When with no signal or unsatisfactory signal the LED will flash red then red again. The unit will still beep to verify the signal strength.

To save battery power the transmitter unit will automatically power off after two hours, likewise the survey detector will power off two hours after it last received a transmission.

The batteries used inside the units are standard EDA batteries:

Part Numbers:

EDA-Q660 – Survey Detector

EDA-Q670 – Survey Transmitter

Troubleshooting

Unit(s) not powering up

- Ensure the power button(s) have been pressed and held for 3 seconds. The LED will illuminate Red or Green.
- If unit continues not to power up change the batteries and retry.

On power up the survey detector displays a red LED instead of green

- Check whether the transmitter unit is switched on, if not power on and the detector should then display a green LED.
- If transmitter is powered on ensure the antenna is fitted.

The transmitter will not power up, changing batteries has no effect

- Check whether the power link inside the unit is set to on – located top right of the battery pack. If the link is in the off position the unit will not power up.

The units keep switching themselves off

- The transmitter unit will automatically power off after two hours to save battery power. Switch on again and continue with survey.
- The survey detector will power off two hours after it last received a transmission.
- The batteries are below the required voltage – replace the batteries.

Erratic behaviour from survey detector

- Should the detector display ‘erratic’ behaviour remove the base and check whether any links are fitted on the underside. There is usually only one link fitted “Allow 2 tone pulse”. This is optional. No other links should be fitted.
- Change the batteries.

The poles do not fit in the carry case

- In order to fit properly in the case the poles must be stored correctly, see above for details.

The ceiling is too high for the pole to reach

- Use detector in conjunction with a No-Climb Solo pole in order to reach higher ceilings.

The survey doesn't reflect the actual signal strengths listed on the panel when installed

- The panel (and/or antenna), when installed, was not fitted at the same location that the survey was carried out.
- Devices were not installed in exact positions of survey.
- Devices were not positioned on ceiling during survey.
- Out of calibration survey equipment. Should be re-calibrated every 2 years. If unit dropped should be re-calibrated before further use.
- Panel receiver out of calibration.

Version	Author	Date	Description
V1.00	SM	13/08/07	Release of Z1110 Survey Equipment