



MODEL NUMBER: XTT904-1-0-GB-XX

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# IMPROX KHA

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## ImproX (KHA) 125 kHz Metal Keypad Antenna Reader INSTALLATION MANUAL

### SPECIFICATIONS

<b>Working Environment</b> .....	Designed to work in harsh (industrial) indoor or outdoor environments similar to IP53. The ImproX KHA is, therefore, sealed (potted) against water.
<b>Buzzer</b>	
Volume and Tone.....	Single tone, 4-step adjustable volume.
<b>Keypad</b>	
Keys .....	12 Alphanumeric keys.
<b>Status Indicators</b>	
Status LED.....	Bi-coloured Red or Green.

### INSTALLATION INFORMATION

#### Accessories

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Find the following when unpacking the Antenna Reader:

- An ImproX KHA Antenna Reader housed in a Zinc alloy die-cast housing. The ImproX KHA consists of a Front Cover and a Backing Plate (the Backing Plate is attached with a Hexagonal Screw (M3 x 8 mm)).
- An Allen Key (2 mm).
- Four Brass Wood Screws (3.5 mm x 25 mm).
- Four Wall Plugs (7 mm).
- An extra Serial Number Label.

## General

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Remember the following when installing the Antenna Reader:

### Maximum Data Communications Distance

The ideal cable distance between the Terminal, Controller or Receiver and its Antenna Reader ranges between 2 m to 16 m (7 ft to 53 ft). Achieve this by using a good quality shielded multi-strand 3-pair twisted cable. The cross-sectional area of the cable must not be less than  $0.2 \text{ mm}^2$  ( $0.0003 \text{ in}^2$ ).

### Cable Specifications

The cable specifications should be similar to the following:

Conductor Resistance:	< 2 ohms.
Capacitance, Core to Earth:	< 160 pF/m.
Capacitance, Core to Core:	< 100 pF/m.

### Distance between Antenna Readers from the SAME Terminal, Controller or Receiver

To avoid mutual interference, install the Antenna Readers no closer than 150 mm (6 in) apart.

### Distance between Antenna Readers from DIFFERENT Terminals, Controllers or Receivers

To avoid mutual interference, install the Antenna Readers no closer than 500 mm (20 in) apart.

### Mounting the ImproX KHA

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**CAUTION:** Make certain that you mount the Antenna Reader on a vibration-free surface.

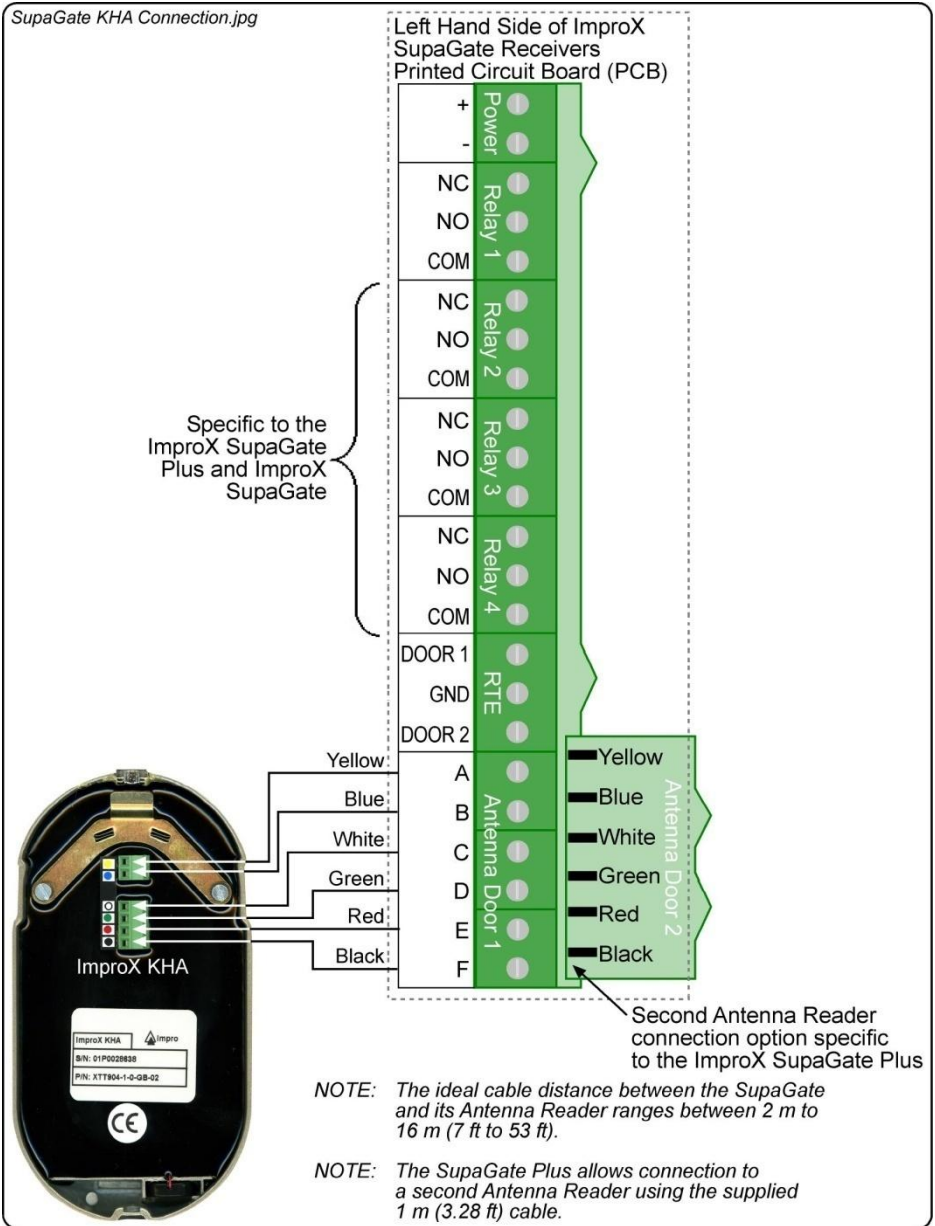
Select the mounting position of the ImproX KHA, considering accessibility, routing of wires and visibility of the externally visible LED.

Secure the ImproX KHA to the mounting surface, using four suitable screws and wall plugs (supplied), nuts and bolts or rivets.

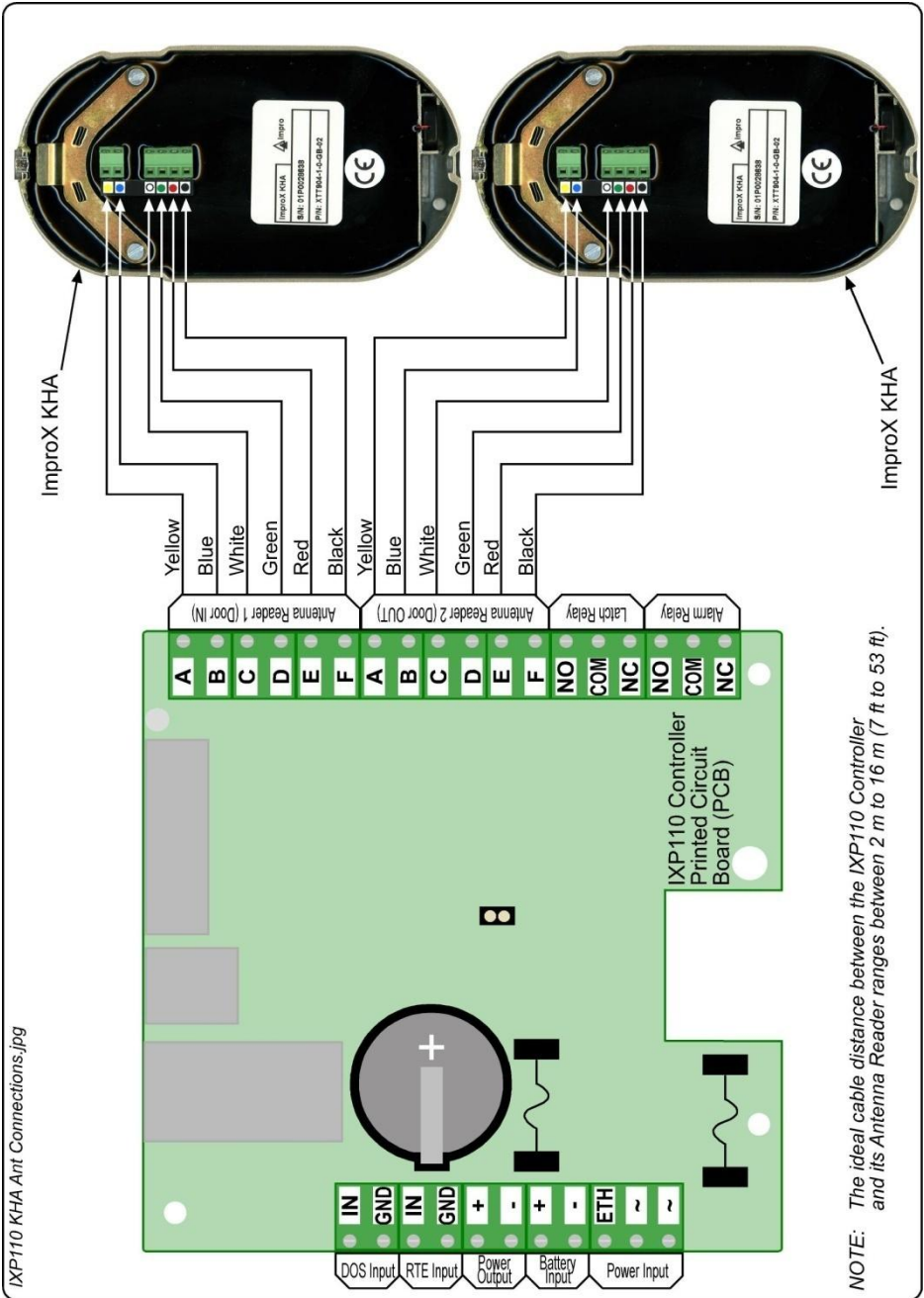
Blank Space

# Connecting the ImproX KHA

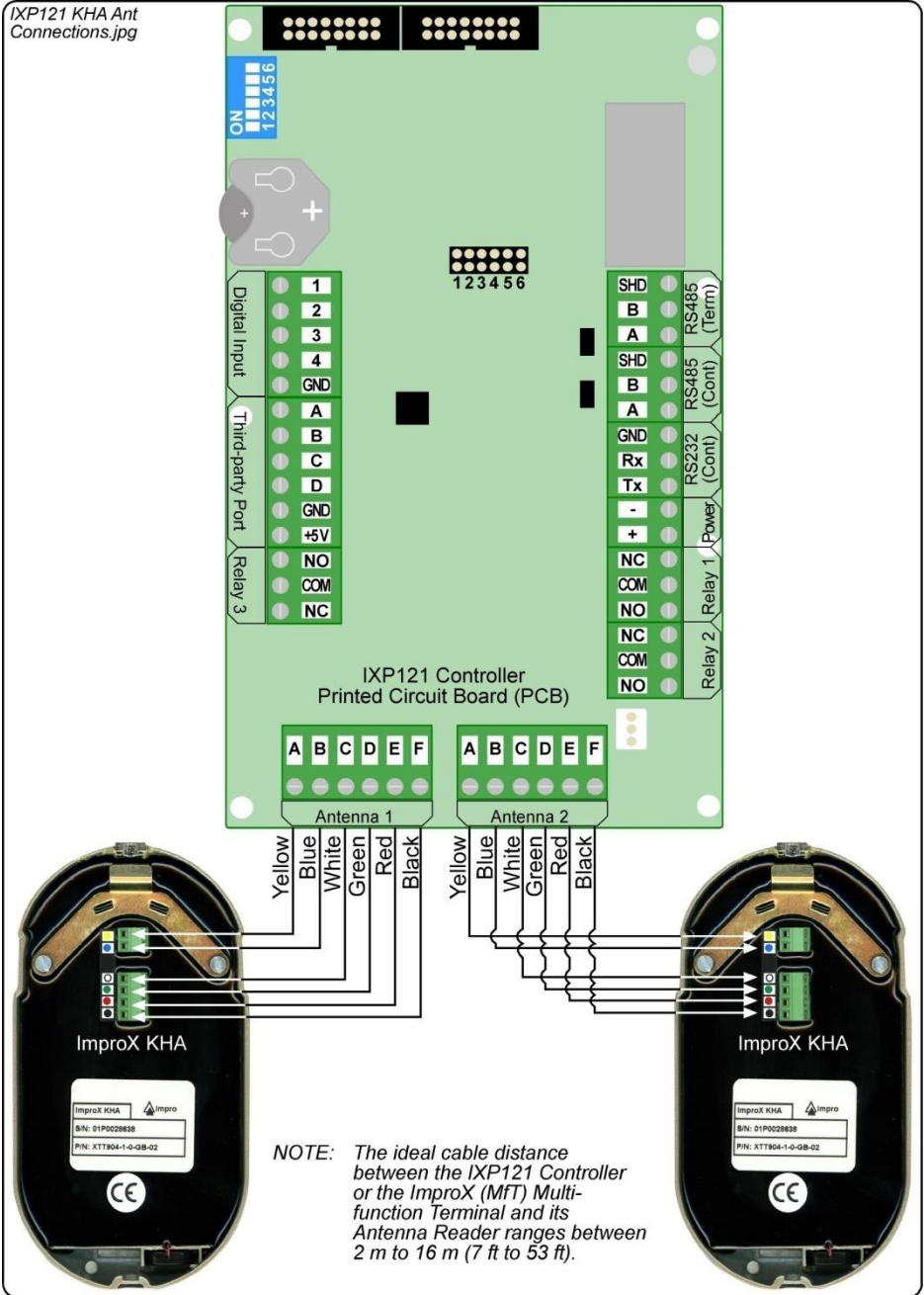
Figure 1 to Figure 4 show detailed connection diagrams for the ImproX KHA.



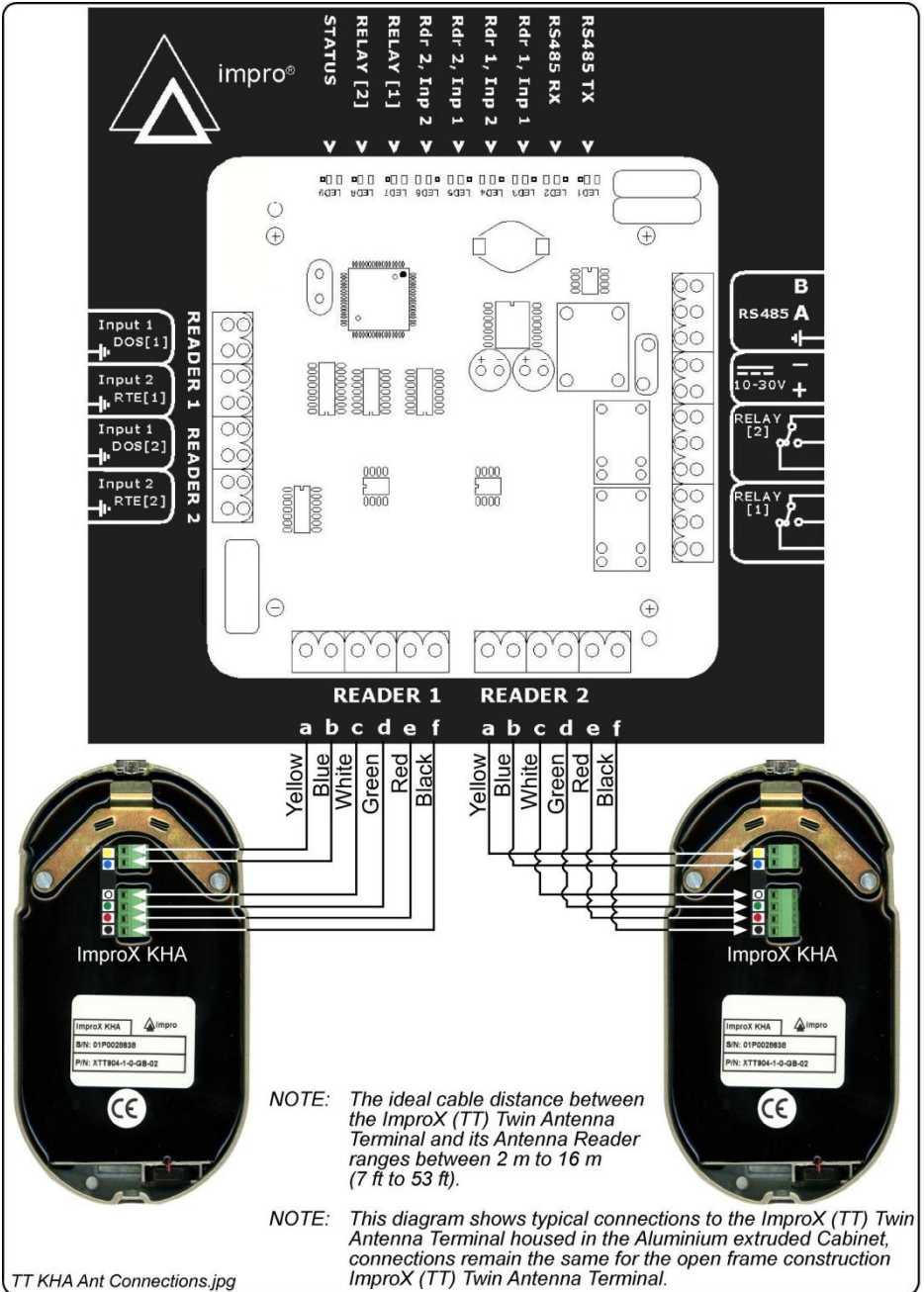
**Figure 1: ImproX KHA Connected to the SupaGate Receiver**



**Figure 2: ImproX KHA Connected to the IXP110 Controller**



**Figure 3: ImproX KHA Connected to the IXP121 Controller and ImproX Mft**



**Figure 4: ImproX KHA Connected to the ImproX TT**

*NOTE: On powering up, the Antenna Reader's Status LED will illuminate solid Red. The Antenna Reader will not read Tags until configured in the Software.*

## **Serial Number Label**

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1. Once the Antenna Reader is installed, sketch a rough site plan.
2. Attach the Antenna Reader's loose Serial Number Label and the Controller, Terminal or Receiver's Fixed Address Label, to the sketched site plan in the position of the Antenna Reader.

The Antenna Reader does not have its own Fixed Address. When connected to a Controller, Terminal or Receiver the Antenna Reader is assigned one of the available Fixed Addresses.

The Serial Number Label identifies the type of Antenna Reader, and the Fixed Address Label (shipped with the Controller, Terminal or Receiver) identifies the Fixed Addresses. Both these labels should be attached to the site plan to assist in identifying the hardware once an Auto-ID is performed.

## **GUARANTEE OR WARRANTY**

This product conforms to our Guarantee or Warranty details placed on our Web Site, to read further please go to [www.impro.net](http://www.impro.net).

### **USER NOTES**



This manual is applicable to the ImproX (KHA) 125 kHz Metal Keypad Antenna Reader, XTT904-1-0-GB-03. (The last two digits of the Impro stock code indicate the issue status of the product).

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