

ANTENNA READERS

Amano 125 kHz Antenna Readers INSTALLATION MANUAL

SPECIFICATIONS

Working Environment

XTT901, XTT906.....	Designed to work in an indoor or outdoor environment similar to IP66. The Antenna Readers are, therefore, sealed (potted) against water.
XTT902, XTT903, XTT904, XTT907	Designed to work in an indoor or outdoor environment similar to IP53. The Antenna Readers are, therefore, sealed (potted) against water.
XTT905	Designed to work in an indoor or protected outdoor environment similar to IP42. The Antenna Reader is, therefore, not sealed against water.

NOTE: Certain plastic Readers (XTT901, XTT902, XTT905 and XTT907) are RoHS compliant and do not contain any UV stabilizer.

Buzzer

Volume and Tone.....	Single tone, 4-step adjustable volume.
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NOTE: The Amano MMA (XTT901) does not include a buzzer.

Keypad

XTT904 and XTT907.....	12 Alphanumeric keys.
XTT905	12 Numeric keys.

Status Indicators

Status LED	Bi-colored Red or Green (externally visible).
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INSTALLATION INFORMATION

Accessories

Find the following when unpacking the Antenna Reader:

XTT901 to XTT904 and XTT907

- Either an Amano MMA Antenna Reader (XTT901-1-0-AC-XX) housed in a Dark Gray, ABS Plastic housing. The Amano MMA consists of a Front Cover and a Backing Plate. The Front Cover (including the potted electronic components) assembly includes 8 m (26 ft) of 4-core, 0.5 mm solid strand Communications Cable.
- Or an Amano MA Antenna Reader (XTT902-1-0-AC-XX) housed in a Dark Gray, ABS Plastic housing. The Amano MA consists of a Front Cover and a Backing Plate (the Backing Plate is attached with a Self-tapping Screw (M2 x 6 mm)).
- Or an Amano MHA Antenna Reader (XTT903-1-0-AC-XX) housed in a Zinc alloy die-cast housing. The Amano MHA consists of a Front Cover and a Backing Plate (the Backing Plate is attached with a Hexagonal Screw (M3 x 8 mm)).
- Or an Amano KHA Antenna Reader (XTT904-1-0-AC-XX) housed in a Zinc alloy die-cast housing. The Amano KHA consists of a Front Cover and a Backing Plate (the Backing Plate is attached with a Hexagonal Screw (M3 x 8 mm)).
- Or an Amano KA Antenna Reader (XTT907-1-0-AC-XX) housed in a Dark Gray, ABS Plastic housing. The Amano KA consists of a Front Cover and a Backing Plate (the Backing Plate is attached with a Self-tapping Screw (M3 x 8 mm)).
- An Allen Key (2 mm) (XTT903-1-0-AC-XX and XTT904-1-0-AC-XX models only).
- One extra Hexagonal Screw (M3 x 8 mm) (XTT903-1-0-AC-XX and XTT904-1-0-AC-XX models only).
- An extra Serial Number Label.

XTT905

- An Amano KMA Antenna Reader (XTT905-1-0-AC-XX) housed in a Black, ABS Plastic housing. The Amano KMA consists of a Front Cover and a Mounting Bracket (the Mounting Bracket is attached with a Self-tapping Screw (M2 x 6 mm)).
- Four Counter-sunk Self-tapping Screws (M2 x 6 mm).
- An extra Serial Number Label.

XTT906

- An Amano RA Antenna Reader (XTT906-1-0-AC-XX) housed in PVC sheathing. The Amano RA includes 8 m (26 ft) of 4-core cable.
- A Piezo-electric, External Drive Buzzer.
- A bi-color Red or Green, White Diffused Lens, Hi-bright, 5 mm, 2-Terminal LED.
- An extra Serial Number Label.

Blank Space

General

Remember the following when installing the Antenna Reader:

Antenna Reader 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). Optimal performance is not guaranteed outside of the range. Achieve optimal performance 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 mm^2 (0.0003 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 Antenna Readers

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

CAUTION: Once clipped together, separation of the Backing Plate and Front Cover of the Amano MMA (XTT901) is likely to cause damage to the Antenna Reader.

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

XTT901 to XTT905, XTT907

Secure the Antenna Reader to the mounting surface, using two suitable screws and wall plugs, nuts and bolts, rivets or double-sided adhesive tape.

Blank Space

XTT906

Secure the Amano RA in the mounting surface, using a suitable filling agent.

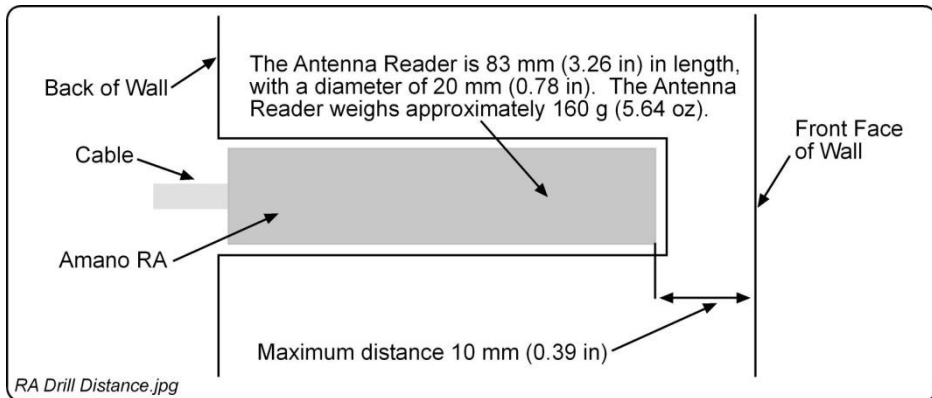


Figure 1: Mounting the Amano RA

Blank Space

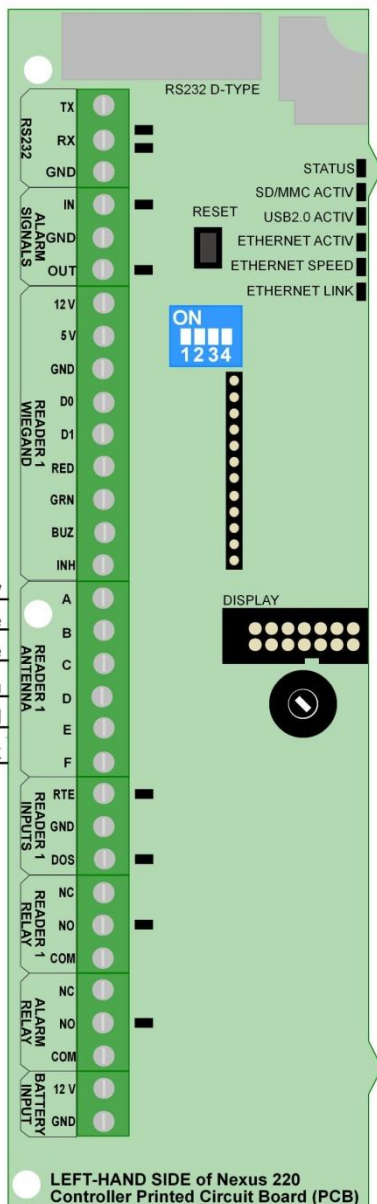
Connecting the Amano Antenna Readers

Figure 2 to Figure 6 show detailed connection diagrams for the Antenna Readers:

- NOTE:** Connection details remain the same for the majority of the Amano Antenna Readers. Note, however that the Amano MMA only uses connections C, D, E and F.
- NOTE:** When using the Amano RA, connect the Buzzer using the A and B Terminals.
- NOTE:** Connection details remain the same for Reader 2 Antenna.
- NOTE:** The ideal cable distance between the Nexus 220 Controller and its Antenna Reader ranges between 2 m to 16 m (7 ft to 53 ft). Optimal performance is not guaranteed outside of this range.

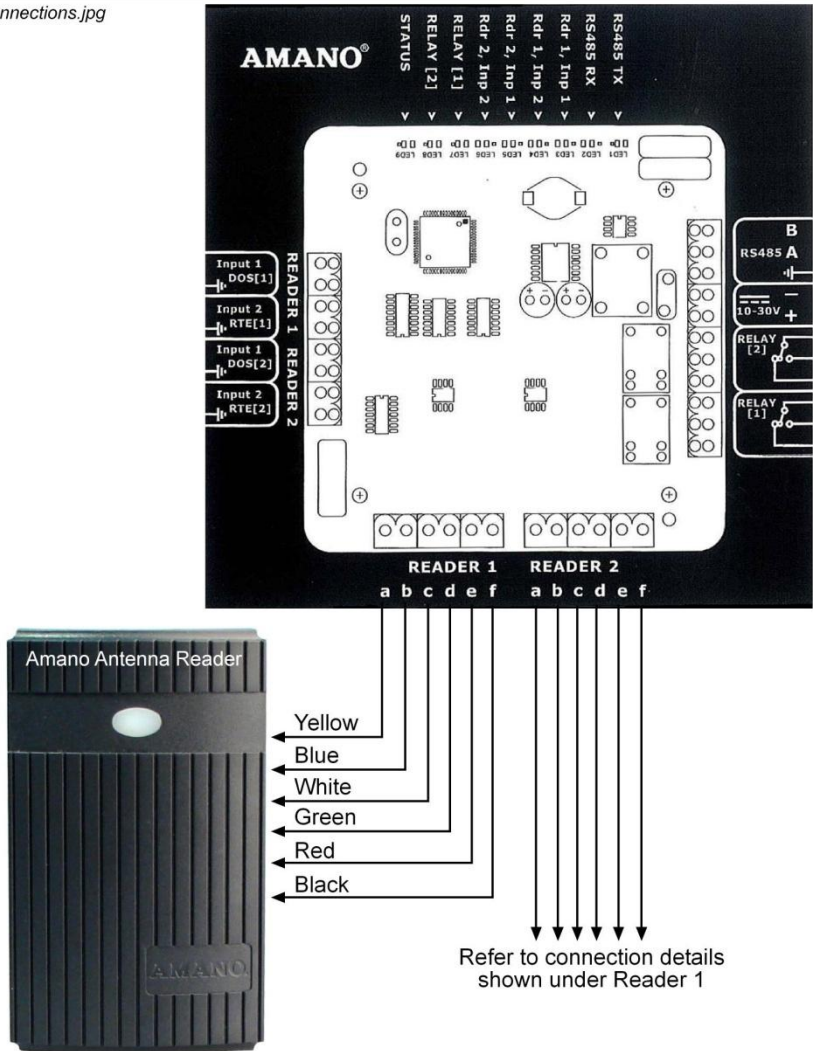


Yellow
Blue
White
Green
Red
Black



Nexus 220 Ant Connections.jpg

Figure 2: Amano Antenna Reader Connected to the Nexus 220 Controller



- NOTE:** Connection details remain the same for the majority of the Amano Antenna Readers. Note, however that the Amano MMA only uses connections C, D, E and F.
- NOTE:** When using the Amano RA, connect the Buzzer using the A and B Terminals.
- NOTE:** The ideal cable distance between the Amano (TT) Twin Antenna Terminal and its Antenna Reader ranges between 2 m to 16 m (7 ft to 53 ft). Optimal performance is not guaranteed outside of this range.
- NOTE:** This diagram shows typical connections to the Amano (TT) Twin Antenna Terminal housed in the Aluminium extruded Cabinet, connections remain the same for all models of the Amano TT.

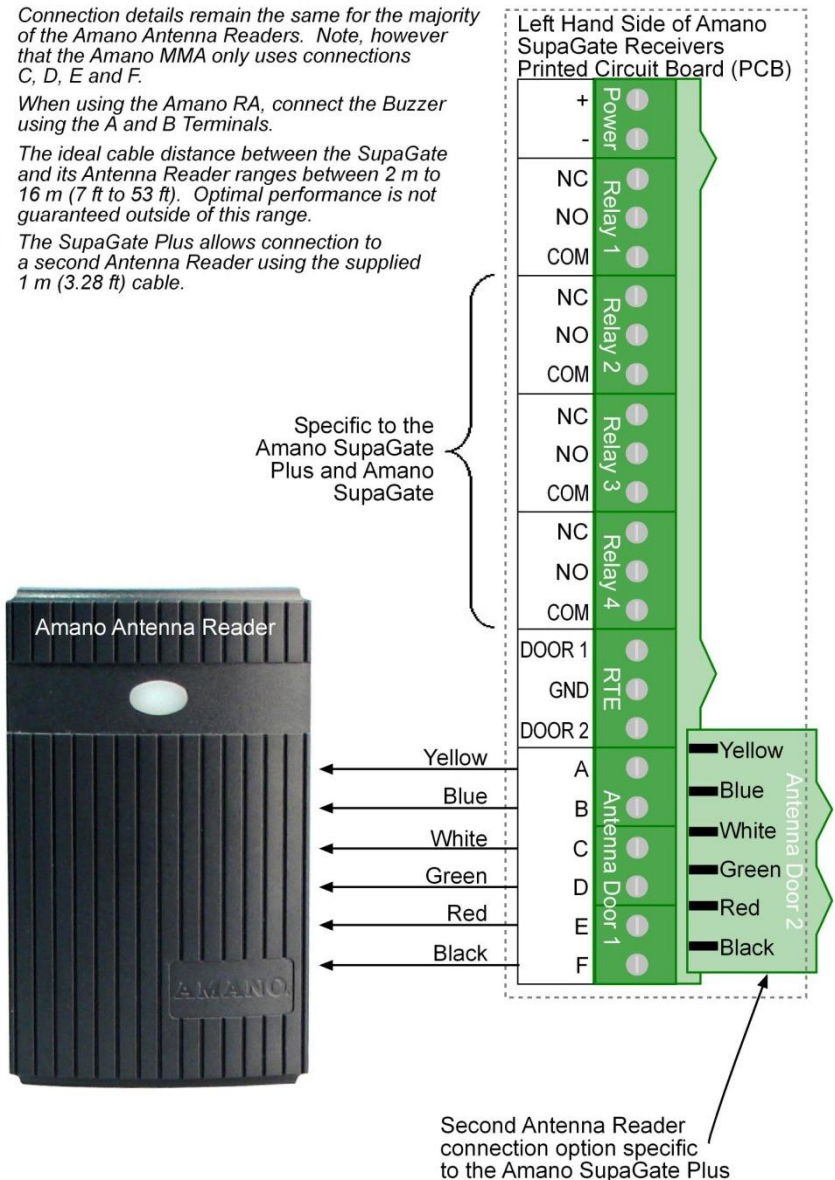
Figure 3: Amano Antenna Reader Connected to the Amano TT

NOTE: Connection details remain the same for the majority of the Amano Antenna Readers. Note, however that the Amano MMA only uses connections C, D, E and F.

NOTE: When using the Amano RA, connect the Buzzer using the A and B Terminals.

NOTE: The ideal cable distance between the SupaGate and its Antenna Reader ranges between 2 m to 16 m (7 ft to 53 ft). Optimal performance is not guaranteed outside of this range.

NOTE: The SupaGate Plus allows connection to a second Antenna Reader using the supplied 1 m (3.28 ft) cable.



SupaGate Ant Connection.jpg

Figure 4: Amano Antenna Reader Connected to the SupaGate Receiver

NOTE: Connection details remain the same for the majority of the Amano Antenna Readers. Note, however that the Amano MMA only uses connections C, D, E and F.

NOTE: When using the Amano RA, connect the Buzzer using the A and B Terminals.

NOTE: The ideal cable distance between the Amano (MfT) Multi-function Terminal and its Antenna Reader ranges between 2 m to 16 m (7 ft to 53 ft). Optimal performance is not guaranteed outside of this range.

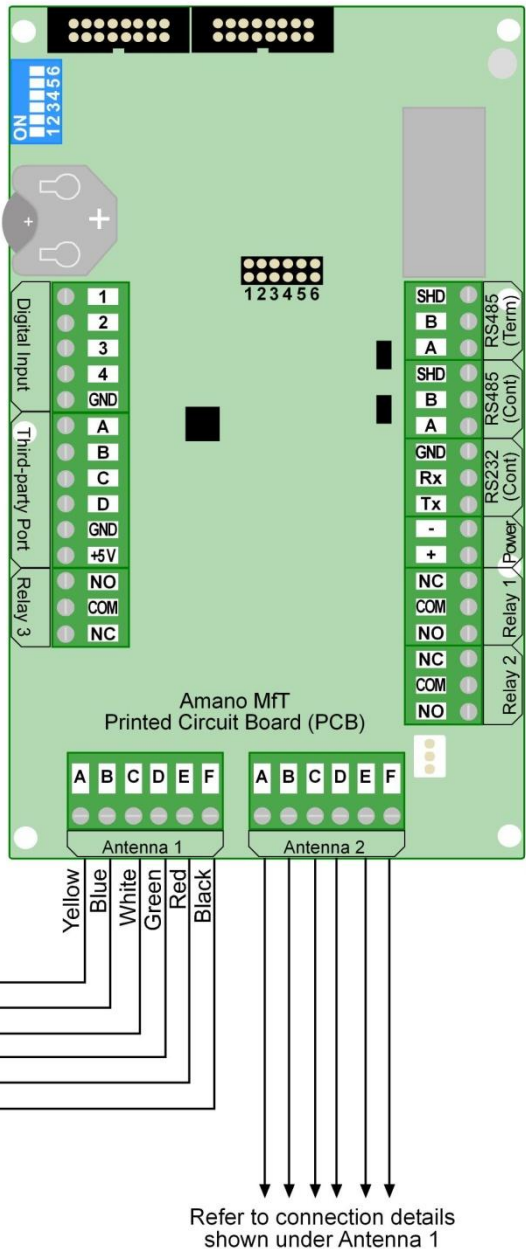


Figure 5: Amano Antenna Reader Connected to the Amano MfT

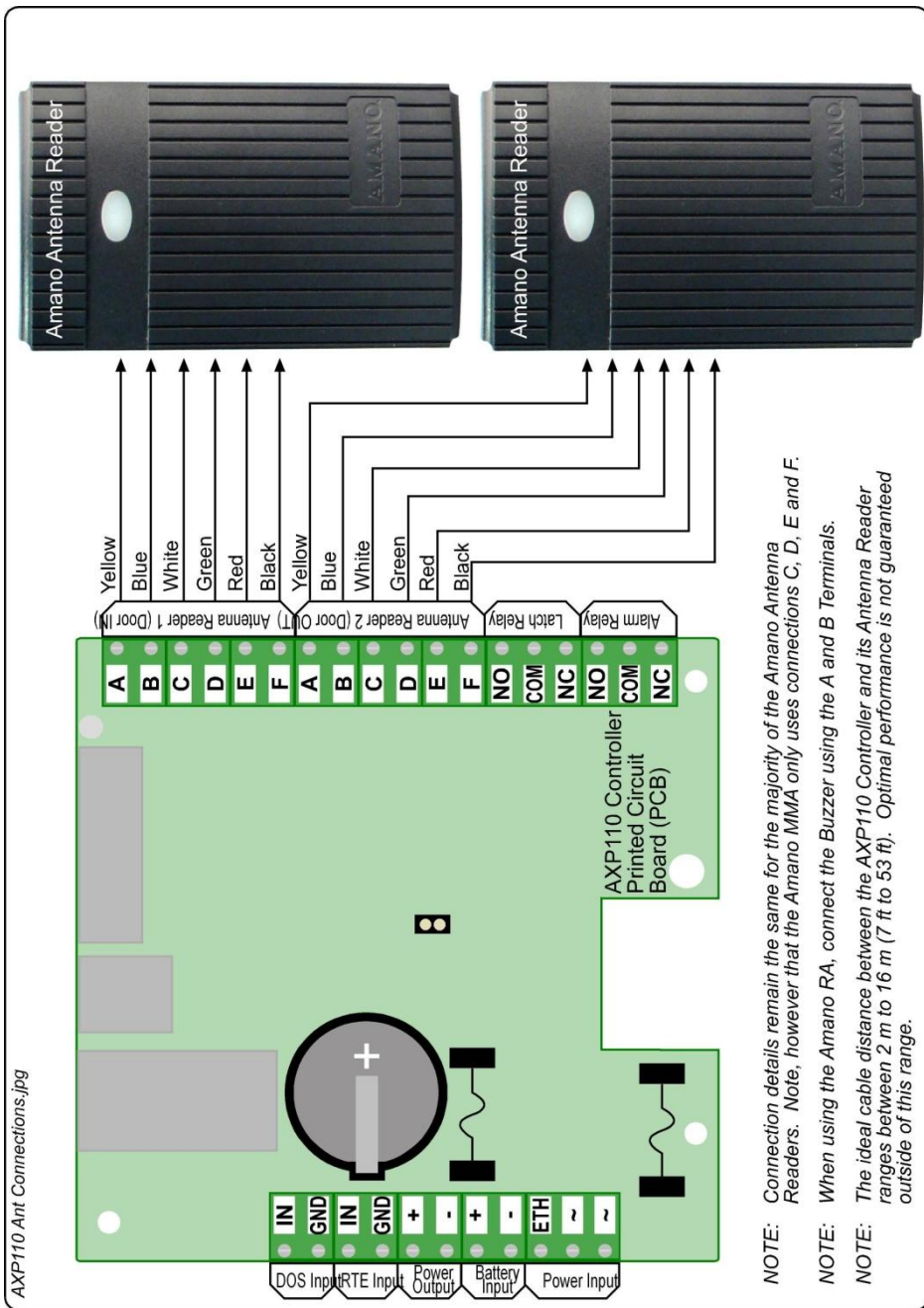


Figure 6: Amano Antenna Reader Connected to the AXP110 Controller

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

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.amano.com.

USER NOTES

USER NOTES

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This manual applies to the Amano 125 kHz Antenna Readers, XTT901-1-0-AC-00, XTT902-1-0-AC-01, XTT903-1-0-AC-00, XTT904-1-0-AC-03, XTT905-1-0-AC-01, XTT906-1-0-AC-00 and XTT907-1-0-AC-01. (The last two digits of the Amano stock code indicate the issue status of the product).

XTT301-0-0-AC-13	Issue 14	May 2010	Antenna Readers\Amano USA\ LATEST ISSUE\AAntRdrs-insm-en-14.docx
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