

ANTENNA VERSION 2.0

OUTLINE

The SCAN~LINK Armour System™ Antenna is the ‘core’ of the SCAN~LINK™ system. It detects passive RFID tags in SCAN~LINK™-tagged vests, hard hats, and marker tags. It has an optional relay system allowing for activation of external devices (such as sirens or lights) upon detection, and user-modifiable operation parameters via the RapidPair™ configuration dongle. Simple three-wire connection allows for reverse-triggered or ignition-triggered detection, and may be paired (with RapidPair™) to any version 1.0 In-Cab Display Unit

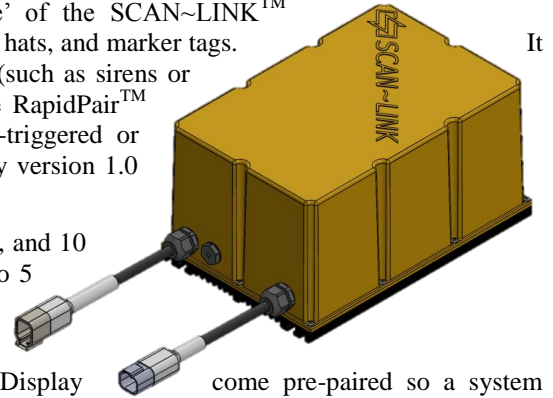
The Antenna can detect tags in excess of 25 feet (8 metres) away, and 10 feet (3 meters) side-to-side. It can be installed between 3 to 17 feet (1 to 5 metres) above grade.

Wireless communications between Antenna and Display mean faster installation (and no holes in the operator cabin), and the Antenna/Display come pre-paired so a system can be installed and tested - without requiring extra configuration - in under an hour. Low power consumption means a dedicated circuit is not required. The ABS/Aluminum IP65 casing provides the unit with a long, weather proof, damage-resistant life on even the most heavily used mobile equipment.

The SCAN~LINK Armour System™ finds uses in other fields as a proximity sensor, for personnel tracking, asset location and gate access controls.

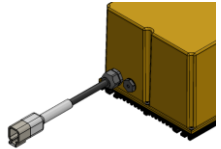
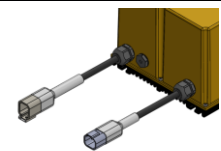
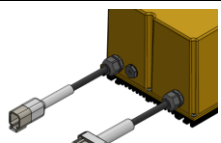

The 2.0 model improves upon the 1.5 version Antenna with further revisions to internal electronics and software changes (transparent to the end-user), for improved functionality.

Antenna 2.0 Units are current as of June, 2016. Warranty claims will persist 13 months from sale date. Repairs will still be made after the warranty period has expired. **There are no user-serviceable parts inside.** If you wish to inquire about the warranty status of your unit, please contact us at info@scan-link.com.



MODELS

There are four SCAN~LINK Armour System™ Antenna Models. They can be identified visually as below, or by the part number sticker on the bottom (cable-exit side) of the unit:

| | | |
|--------------------------|--|---|
| SLAU-UV-NB | Base Single wire exits case bottom on the left side |  |
| SLAU-UV-NB-RT | Relay Trigger ‘Base’ + four-pin relay output connector exiting case bottom on the right side |  |
| SLAU-UV-NB-ERT | Enhanced Relay Trigger ‘Relay Trigger’ replaces four-pin connector with twelve-pin enhanced relay output connector exiting case on the bottom right side |  |
| SLAU-UV-NB-ERT-DT | Enhanced Relay Trigger w/Data Logging Same as Enhanced Relay Trigger with additional Data Logging software upgrade (no external changes) |  |

CHANGES FROM 1.5

- Reverse input now triggers at 4.5VDC (down from 6.5VDC)
- Reverse polarity protection has been improved
- ~ERT Models now have a Solid State Relay output (see 'Pinout' below)

SPECIFICATIONS

Absolute Specifications - Exceeding these may damage the unit!

| Item | Minimum | Maximum | Notes |
|----------------------------|----------|---------|--|
| Input Voltage | +9 VDC | +34 VDC | Do not attempt to operate outside nominal 12-28VDC |
| Operating Temperature | -20° C | 50° C | Cold temperature version available |
| Storage Temperature | -30° C | 80° C | |
| Ingress Protection | IP65 | | Do Not Immerse |
| Reverse Polarity Protected | Yes | | |
| Voltage Spike Withstand | 75V @ 5A | | |

Physical Specifications (with Antenna back-plate facing down)

| Item | Metric (mm) | Imperial (in) | Notes |
|--------------------------|--|---------------|---|
| Height | 128 mm | 5 1/16" | 'Depth' when mounted on equipment |
| Length | 246 mm | 9 11/16" | 'Height' when mounted on equipment |
| Minimum Install Length | 292 mm | 11 1/2" | Clearance for cable gland and wire bend |
| Width | 165 mm | 6 1/2" | Measured from case to tip of connector |
| Wire Length | 400 mm | 15 5/8" | |
| Backplate | Black Anodized Aluminum | | |
| Casing | Yellow Polycarbonate/ABS Alloy Plastic | | |
| Mounting Channels | 11 mm | 7/16" | Designed for 6mm (1/4") bolts |
| Installation Orientation | Vertical, Cables Down | | Moisture vent <i>must face downward</i> |
| Power Connector | Deutsch DTM04-6P | | Mates w/Deutsch DTM06-6S |
| Relay Connector | Deutsch DT04-4P | | Mates w/Deutsch DTM06-4S |
| Enhanced Relay Connector | Deutsch DTM04-12PA | | Mates w/Deutsch DTM06-12SA |

Electrical Specifications

| Item | Minimum | Maximum | Notes |
|--------------------------------|-----------------|-----------|--|
| Nominal Input Voltage (VCC) | +12 VDC | +28 VDC | On models with 'UV' in model number |
| Input Current @ 12 VDC | 0.28 A | | Nominal (not including Detection Relay Load) |
| Input Current @ 24 VDC | 0.14 A | | Nominal (not including Detection Relay Load) |
| Recommended External Fuse | 5A | | Ensure fuse accommodates connected relay loads |
| Reverse Input Trigger Voltage | 6.5 VDC | VCC | Opto-isolated |
| Reverse Input Current Draw | 1.5 mA | 6 mA | Resistor limited |
| Detection Relay Contact Rating | - | 2A @ 5VDC | RT/ERT Models Only |
| Solid State Relay Voltage | - | 220 V | ERT Model Only |
| Solid State Relay Current | - | 80mA | ERT Model Only |
| Fault Relay Contact Rating | - | 2A @ 5VDC | ERT Model Only |
| RFID Scanner Radio Frequency | 903.2 MHz | 922.0 MHz | North American unlicensed band |
| Wireless Link Frequency | 2400 MHz | 2483MHz | North American unlicensed band |
| Industry Canada ID | 9283A-SLAU270NB | | Under SCAN~LINK Technologies Inc. |
| FCC ID | YUU-SLAU270NB | | Under SCAN~LINK Technologies Inc. |

Pinout Specifications

| | | | | | | |
|--|--|-------------------------------------|--|--|---|----------------------------|
| Power Connector | Pin 1 Power Supply | VCC (+12-28VDC) | | Pin 6 Communications* | RS-485 Signal Common, Do Not Connect | |
| | Pin 2 Power Supply | VDD (-) Equipment Ground | | Pin 5 Communications* | RS-485 Signal +, Do Not Connect | |
| | Pin 3 Reverse | Reverse Input | | Pin 4 Communications* | RS-485 Signal -, Do Not Connect | |
| Relay Connector | Pin 1 Power | VCC (+) | | Pin 4 Power | VDD (-) | |
| | Pin 2 VCC Relay | Detecting | Open | Pin 3 VCC Relay | Detecting | VCC (+), 1A Max |
| | | Not Detecting | VCC (+), 1A Max | | Not Detecting | Open |
| Enhanced Relay Connector | Pin 1 + Power | Always | VCC (+) | Pin 12 - Power | Always | VDD (-) |
| | Pin 2 VCC Relay | Detecting | Open | Pin 11 VCC Relay | Detecting | VCC (+), 1A Max |
| | | Not Detecting | VCC (+), 1A Max | | Not Detecting | Open |
| | Pin 3 Solid State Relay | Detecting | Open | Pin 10 Solid State Relay Common | Always | 80mA / 60 Ohms 220V Max |
| | | Not Detecting | Connected to Solid State Relay Common | | | |
| | Pin 4 Detection Relay Normally Closed | Detecting | Open | Pin 9 Fault Relay Normally Open | Fault or No Power | Open |
| Not Detecting | | Connected To Detection Relay Common | No Fault | | Connected to Fault Relay Common | |
| Pin 5 Detection Relay Common | Always | Detection Relay Common | Pin 8 Fault Relay Common | Always | Fault Relay Common | |
| Pin 6 Detection Relay Normally Open | Detecting | To Detection Relay Common | Pin 7 Fault Relay Normally Closed | Fault or No Power | Connected to Fault Relay Common | |
| | Not Detecting | Open | | No Fault | Open | |

RS-485 Communications Note

The RS-485 connections on the power harness are used for diagnostic and repair purposes only. They do not allow configuration, firmware upgrades or other features without specialized, proprietary software and procedures. *Any connection to these pins for any purpose or any attempt to communicate with the device not only voids any warranty claims, but may*



Armour System

Product Briefing v1_2

June 2016

also destroy the functionality of the device beyond repair and compromise its ability to act as supplementary safety equipment.

Compatibility Specifications

| | |
|---------------------|---|
| RapidPair™ | RapidPair 2.0 Dongle Only |
| In-Cab Display Unit | Indicator version 1.5 (SLDU-006SR) or 2.0 (SLDU-006SRE) |

DISCLAIMER

The SCAN~LINK Armour System™, including Antenna version 1.5, is not ‘safety rated’ and thus cannot be relied on as front-line defense against equipment-to-pedestrian or equipment-to-object strikes. It is intended as a supplementary safety system only, to improve operator and pedestrian awareness and to help ‘fill in’ blind spots. There is no replacement for proper training and operation of equipment. The SCAN~LINK Armour System™ is designed to augment existing site safety practices and policies, to further inhibit the chances of worker injuries and fatalities. Remember, pedestrians will not be detected if they are not wearing functioning, SCAN~LINK™ tagged safety wear. All employees and visitors to any operations site should be trained in the functionality of the SCAN~LINK Armour System™ and be fully aware of their surroundings while on site.

The SCAN~LINK Armour System’s™ installation, operation and maintenance, in all its forms, is covered by various legal documents, disclaimers and procedures, all of which are available upon request. By using the SCAN~LINK Armour System™ or any of it’s components, you are bound to adhere to the conditions and practices outlined therein.

MORE INFORMATION

For more information, please contact us via one of the methods below:

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