

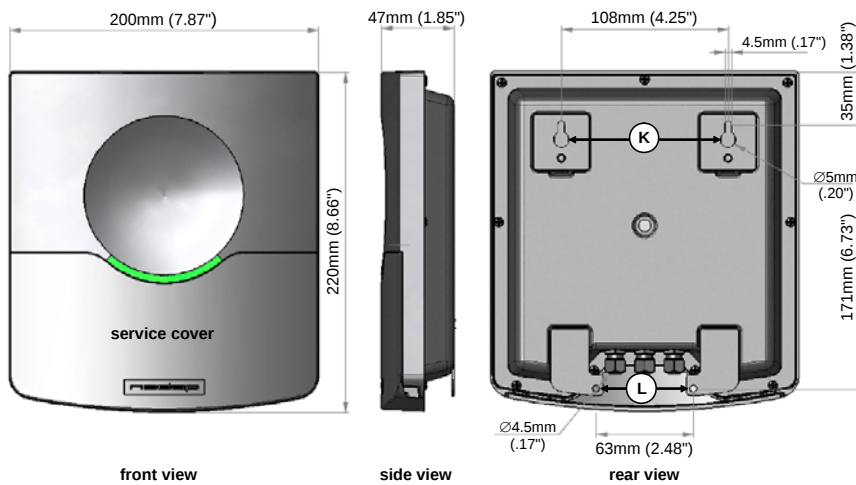
SAFETY PRECAUTIONS

The following safety precautions should be observed during normal use, service and repair.

- The TRANSIT Entry must be connected with safety ground.
- The TRANSIT Entry may only be installed and serviced by qualified service personnel.
- Disconnect the power supply before removing or installing any parts.
- To be sure of safety, do not modify or add anything to the TRANSIT Entry other than mentioned in this installation guide or indicated by NEDAP N.V.

Step 1 Mounting instructions

The TRANSIT Entry can be mounted to any surface, even directly onto metal. Locate an appropriate position. Use the enclosed mounting drawing to drill appropriate upper two keyholes (K) to mount the reader. Open the service cover to secure the reader using the two lower mounting positions (L). See the mounting sketch for more information.



Step 2 Opening the service cover

Open the screws on the bottom of the TRANSIT Entry to unlock the service cover. Once the service cover is unlocked, lift it off.

Make sure the screws are completely opened (and closed when replacing the cover). Don't worry about losing the screws, they cannot fall out.

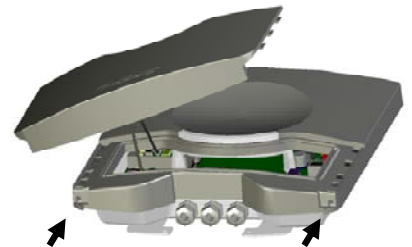
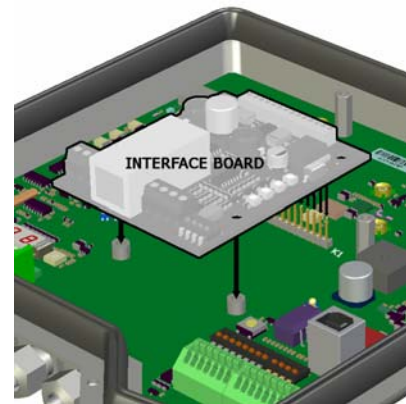


Figure 1: Service cover TRANSIT Entry

Note: Make sure the screws are completely opened (and closed when placing the cover back on). Don't worry about losing the screws, they cannot fall out.

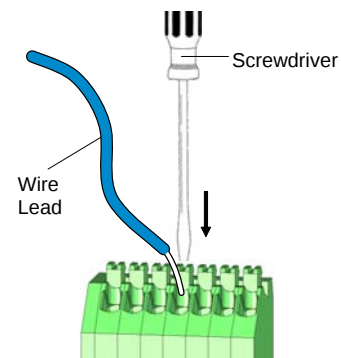
Step 3 Installation procedure

1. Disconnect the power supply.
2. Remove the complete front cover from the TRANSIT Entry.
3. Place the interface board on the 14-pin header K1. Make sure it's firmly positioned and makes good contact with connector K1.
4. Tighten the two screws to fix the board into place.
5. Read the board's installation guide for additional notes like address settings, jumper settings and wiring details.
6. Place the front cover on the TRANSIT Entry back on.

**Step 4 Connections**

Wire connections to the TRANSIT Entry are user friendly spring cage terminal connectors. Connection procedure with spring cage terminal connectors.

1. Strip wire lead for about 9 mm (0.35 inch).
2. Push the screwdriver straight down to release the spring cage. Use a slotted, narrow-head screwdriver.
3. Insert the wire lead into the wire terminal.
4. Remove the screwdriver, this clamps the wire.
5. Gently pull on the installed wire to make sure the connection is reliable.



Note 1: Each connector terminal can accommodate only 1 solid or stranded wire.

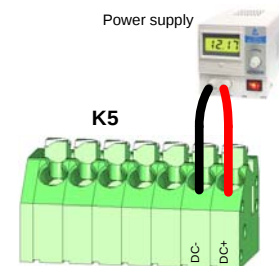
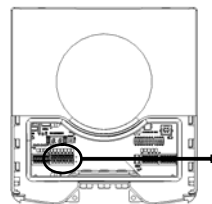
Note 2: Wiring is normally done without ferrules. However, it is possible to use ferrules, provided that they are properly crimped.

4.1 Power supply

The TRANSIT Entry requires DC power supply in the range from 12 – 24V. Maximum current consumption is 1A @ 12VDC, 0.5A @ 24VDC.

Connections:

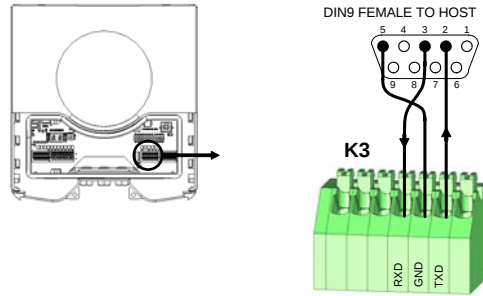
- | | |
|-----|--|
| DC- | Power supply 0V. Should be connected to a protective earth connection. |
| DC+ | Power supply 12 - 24VDC. |



Note: The power supply connection has an auto resetting fuse protection.

4.1 RS232 connection

The TRANSIT Entry has an on-board RS232 interface. This interface does not support any hardware handshake signals. The communication protocol, baud rate, data format and flow control depend upon the reader firmware. See firmware manual for details



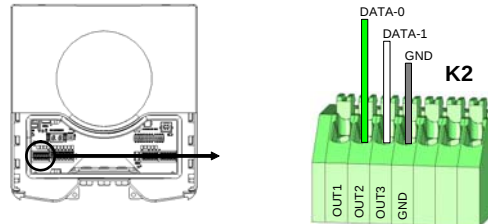
4.2 WIEGAND, MAGSTRIPE, BARCODE connection

The synchronous communication interface wiring depends upon the selected communication protocol and the reader firmware. Please refer to the firmware manual for more details.

Connections:

WIEGAND MAGSTRIPE BARCODE

OUT1	-	Card Loaded	-
OUT2	Data-0 (green)	Clock	-
OUT3	Data-1 (white)	Data	Data
GND	Ground (black)	Ground	Ground



Note: Maximum cable length 150 meters (500 feet)

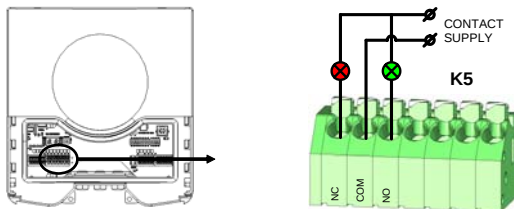
Step 5 Digital I/O

5.1 Relay output

The relay output is automatically activated upon identification of a transponder. This behavior can be changed and configured by means of the firmware. Please refer to the firmware manual for more details.



The 'smile' on the front cover lights-up simultaneously with the relay output.



Connections:

NC	Relay contact normally closed
COM	Relay contact common
NO	Relay contact normally open

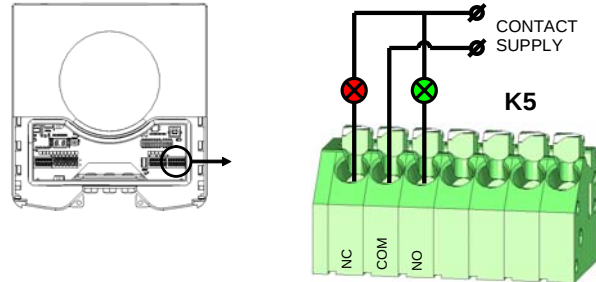
Contact ratings:

Max. switching current: 2A
Max. switching voltage: 250VAC / 220VDC

Max. switching power: 62.5VA / 60W

5.2 Read disable input

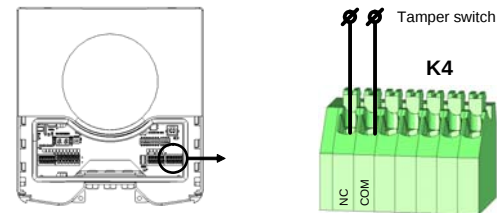
The reading of the TRANSIT Entry can be completely disabled with the RDIS input. This input is commonly used in combination with a sensor (e.g. inductive loop) that detects the presence of a person or vehicle. Use always a relay contact to connect the internal 5V to the RDIS input. When the RDIS input is unused the reader is enabled.



Warning: Using an external 5V supply can damage the unit.

5.3 Tamper switch

An internal magnet provides tamper indication when the service cover is opened. This contact may be connected to an external alarm system. The contacts are normally closed when the cover is in place. Tamper switches of multiple TRANSIT Entry reader may be connected in series.



Connections:

- NC Tamper switch (normally closed)
- COM Tamper switch (common)

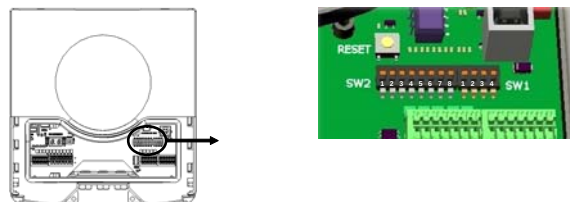
Contact ratings:

Max. switching current 0.5A
Max. switching voltage 200VDC
Max. switching power 10W

Step 6 DIP-SWITCH settings

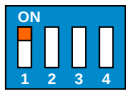
The DIP-switches are located behind the service cover. The function of the switches SW2-1 through SW2-8 is dependant upon the installed firmware. Please refer to the firmware manual for details.

The switches SW1-1 through SW1-4 are described below.

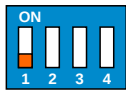


6.1 Range beeper ON / OFF

Enable or disable the internal range beeper. The beeper indicates transponder identification. The signal strength of the identified transponder determines the beeping frequency. When the transponder is near to the reader the range beeper will beep fast.



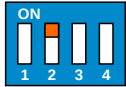
Range beeper ON



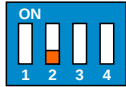
Range beeper OFF

6.2 RS232 / RS422 Selection

On-board RS232 or RS422 interface selection.



On-board RS232 interface enabled.



On-board RS422 interface enabled.

Note: The on-board RS232 and RS422 interfaces are both disabled when the USB connector is in use or when the TCP/IP interface board is installed.

6.3 Unused DED SW1-3 and SW1-4

The switches SW1-3 and SW1-4 are reserved for future use. It is recommended to leave these switches in the ON position.

Step 7 LED indications

A number of LED's indicate the current status of the TRANSIT Entry reader.

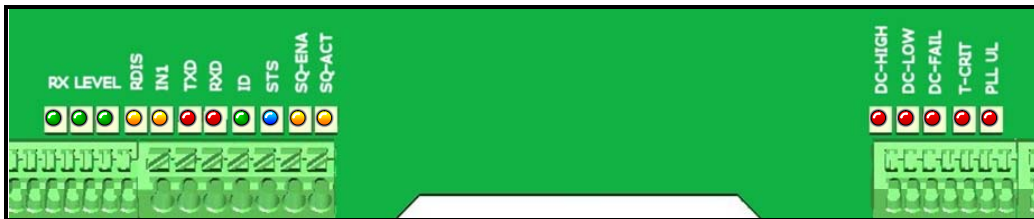


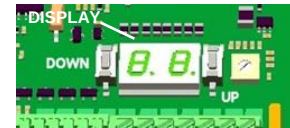
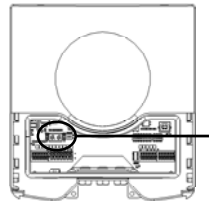
Table 1 describes the function of each LED.

LED	Description
 RX LEVEL	LED bar indicating the received tag signal strength. This LED bar may also indicate the presence of radio interference. In case of interference, try switching to a different frequency.
 RDIS	Read Disable LED. On while reading disabled.
 IN1	Input 1 status. On when input 1 contact is closed.
 TXD	Transmit serial data (RS232, RS422, USB, I/F-board).
 RXD	Receive serial data (RS232, RS422, USB, I/F-board).
 ID	Identification. Blinks fast when a valid transponder is identified.
 STS	Status LED. System's heartbeat (0.8 sec on / 0.8 sec off). Indicates that the power is on and the processor is running. Bootloader says hello. Indicated after a restart. Configuration menu active. Abnormal situation.
 SQ-ENA	Squelch enabled.
 SQ-ACT	Squelch active.
 DC-HI	Power supply voltage too high.
 DC-LO	Power supply voltage too low.
 DC-FAIL	Internal supply voltage failure.
 T-CRIT	Temperature critically high.
 PLL UL	PLL unlocked. Try switching to a different frequency.

Table 1: LED indicators

Step 8 Frequency selection

The TRANSIT Entry reader operates in the 2.45GHz frequency band. When two or more readers are within a range of 15 meters (50 feet), these readers should be set on a different operating frequency. The selected frequency has to comply with local radio regulations.



- 1) Press the UP or DOWN switch once.
- 2) The display will show a value indicating the currently selected frequency.
- 3) Lookup the display value for the actual operating frequency is.
- 4) When the display is on, press the UP switch to select a higher frequency and press the DOWN switch for a lower frequency.
- 5) The display will automatically switch off after 5 seconds.

Display value	Frequency (GHz)	Wifi
50	2.4384	
51	2.4390	
52	2.4396	
53	2.4402	
54	2.4408	
55	2.4414	
56	2.4420	CH7
57	2.4426	
58	2.4432	
59	2.4438	
5A	2.4444	
5B	2.4450	
5C	2.4456	
5D	2.4462	
5E	2.4468	
5F	2.4474	CH8

Display value	Frequency (GHz)	Wifi
60	2.4480	
61	2.4486	
62	2.4492	
63	2.4498	
64	2.4504	
65	2.4510	
66	2.4516	
67	2.4522	CH9
68	2.4528	
69	2.4534	
6A	2.4540	
6B	2.4546	
6C	2.4652	
6D	2.4558	
6E	2.4564	
6F	2.4570	CH10