neat

IOR

Radio Transceiver For Wired I/O

User manual

NE41 04002-02 v2.0

Declaration of Conformity

Hereby NEAT Electronics AB declares that the radio equipment type IOR is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

http://www.neat-group.com/downloads/documentation

Ulrik Lundberg
Managing director

CE

NEAT Electronics AB
Varuvägen 2
246 42 Löddeköpinge
Sweden

Contents

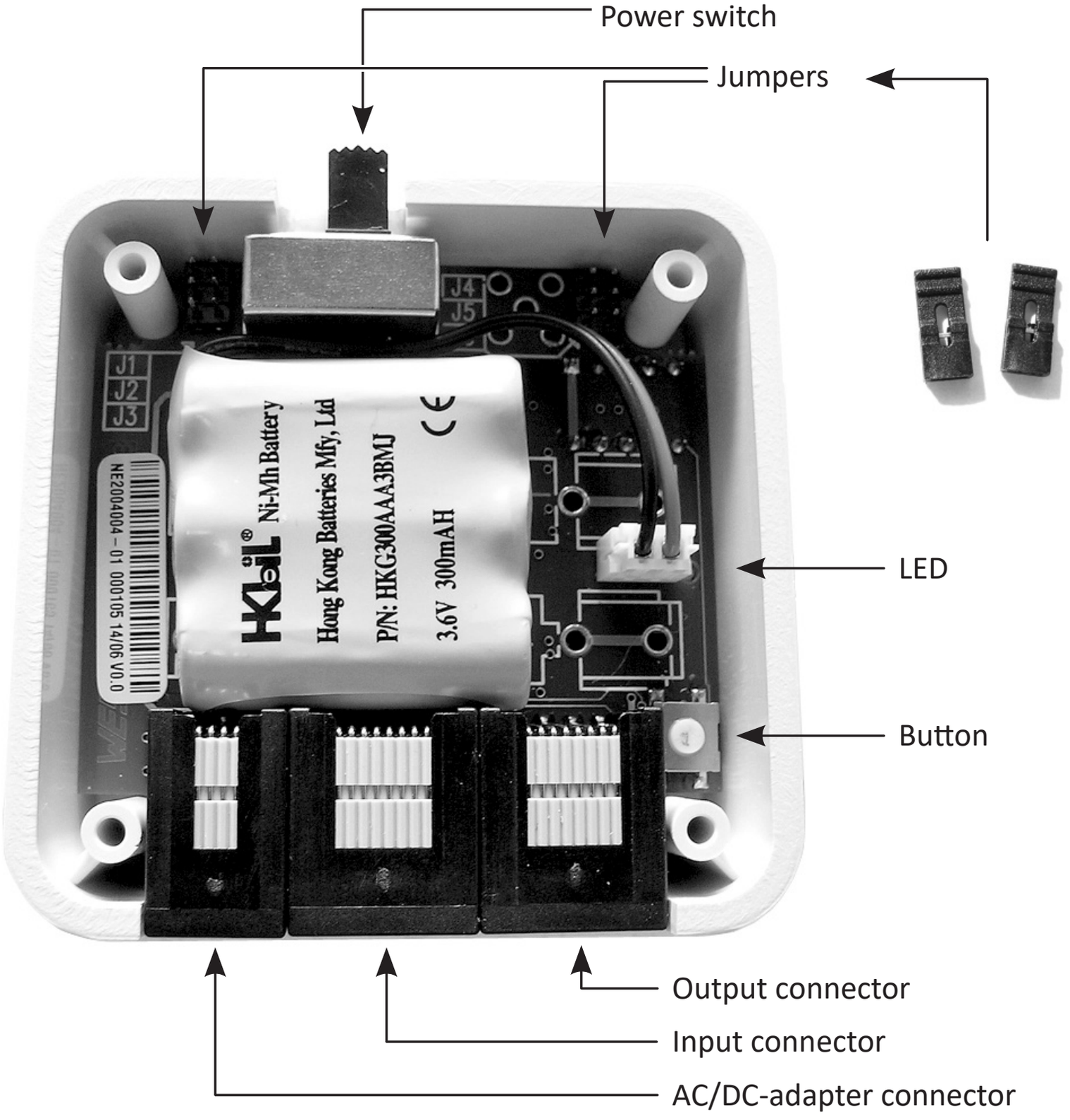
Important Information

Always treat your product with care. Only NEAT Electronics authorized personnel should perform service.

Do not expose your product to open flames, lit tobacco products or temperatures above 60°C.

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be returned to NEAT Electronics for recycling. The recycling of materials will prevent negative consequences for the environment, human health and help to conserve natural resources.

Overview


Power switch
Jumpers
LED
Button
Output connector
Input connector
AC/DC-adapter connector
J1
J2
J3
J4
J5
Ni-Mh Battery
Hong Kong Batteries Mfy, Ltd
P/N: HKG300AAA3BMJ
3.6V 300mAH

Installation

1. To change the configuration of the IOR, remove the lid and mount or remove jumpers. The jumper settings are described on pages 7-9 in this manual.

2. Connect alarm transmitters and/or alarm receivers to IOR as described in pages 10-13 in this manual.

3. Close and fasten the lid using the screws supplied.

4. Mount the IOR in an appropriate place.

5. Connect the inputs to the jack marked IN.

6. Connect the output to the jack marked OUT.

7. Connect the AC/DC adapter to the jack marked DC. Then connect the AC/DC adapter to a mains outlet in the apartment. Only use the AC/DC adapter provided by NEAT, part no. NE31 03001-01.

8. Turn on the IOR with the switch marked ON OFF.

Before using the device for the first time, charge and discharge the batteries at least 2 times!

Configuration

IOR is configured by mounting or removing jumpers on the circuit board inside the unit, as shown in the image on page 5. Please restart the IOR after changing the jumper configuration.

For advanced configuration, the computer program *IOR Programmer* can be used. This is described in the *Technical Handbook for the IOR Family*, document number NE41 06007-02.

Power Mode

For longer battery life, IOR can be configured to go into power save mode when running on the backup battery. The power mode is determined by the setting of jumper J6 and whether power is taken from the AC/DC-adapter or from the battery only.

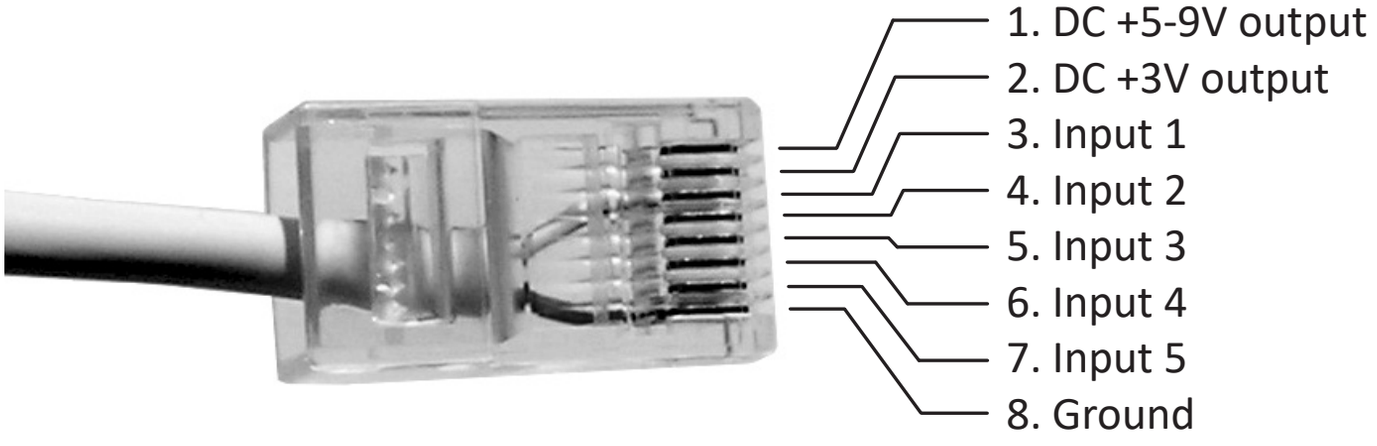
Power Source	Jumper J6	
	ON (mounted)	OFF (not mounted)
AC/DC-adapter	Normal	Normal
Battery only	Normal	Power save

In *power save mode*, no radio test alarm is sent, no battery low alarm is sent and inputs 4 and 5 are not available for use. Note also that in power save mode, no radio alarms will be received and the button inside IOR does not work.

Note: When running on batteries in normal power mode, only radio messages with long preamble will be received. A short delay of up to 0.5 seconds may also occur before IOR reacts on input 4 and 5.

Inputs

The inputs are connected to the jack marked IN. The pin layout is shown in the picture below.



Input 1 is connected between pin 3 and 8, input 2 between pin 4 and 8, etc.

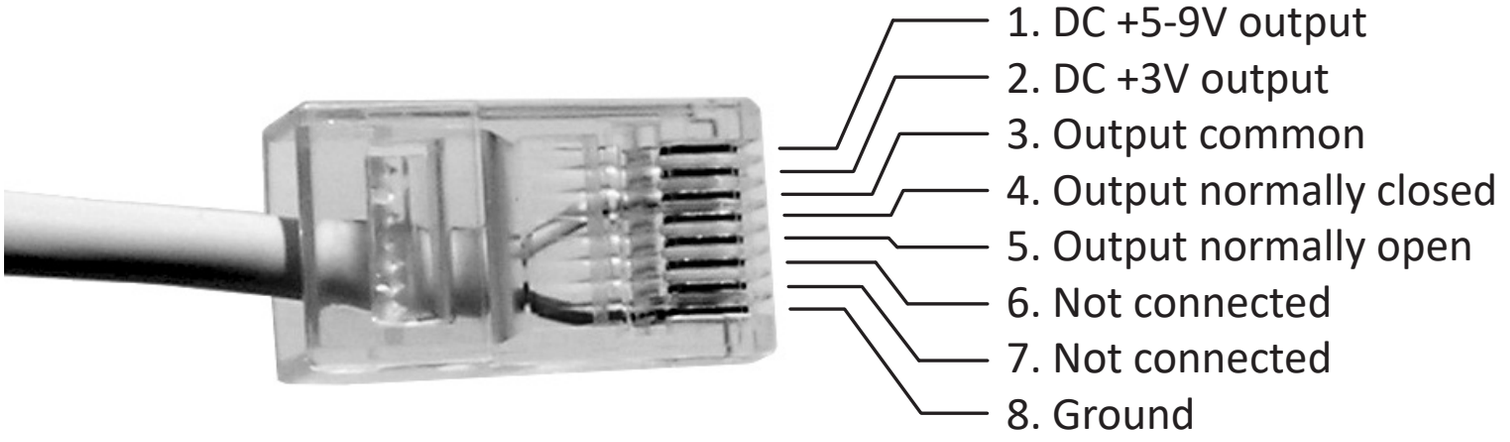
Inputs 1-3 may be configured either as normally open or normally closed. Inputs 4-5 are always configured as normally open. If input 1 is configured as normally open, an alarm will be sent when pin 3 is tied to pin 8. If input 1 is configured as normally closed, an alarm will be sent when the connection between pin 3 and pin 8 is broken.

Jumpers J1-J3 inside the IOR determine the mode of inputs 1-3 as shown in the table below.

Jumper	ON (mounted)	OFF (not mounted)
J1	Input 1 normally closed	Input 1 normally open
J2	Input 2 normally closed	Input 2 normally open
J3	Input 3 normally closed	Input 3 normally open

Output

The output is connected to the jack marked OUT. The pin layout is shown in the picture below.



The output can be configured in one of the following three modes.

Pulse mode	The output relay closes for 3 seconds when an alarm is received (see foot-note).
Toggle mode	The output relay changes state when an alarm is received.
Static mode	The output state only changes when special on and off commands are received from the home care phone.

The output mode is configured by jumpers J4 and J5 inside IOR.

J4	J5	Output Mode
OFF	OFF	Pulse mode
OFF	ON	Toggle mode
ON	OFF	Static mode

Note: With *IOR Programmer* (see page 7), it is possible to change the time that the relay is closed in pulse mode.

Connecting an Alarm Transmitter to IOR

The IOR output can be activated from an alarm transmitter such as SMILE or INKA. If a SMILE is programmed into IOR, the IOR output will be activated each time the button on that SMILE is pressed.

Up to 8 different alarm transmitters can be programmed into the same IOR. Only alarm transmitters that have been programmed into an IOR will activate its output (see foot-note).

To program an alarm transmitter into IOR, follow these steps:

1. Choose a transmitter number ***X*** between 1 and 8. Two alarm transmitters can not have the same transmitter number in one IOR.

2. Remove the lid of the IOR. Press and hold the button inside IOR while switching IOR on.

3. Wait until the LED inside IOR flashes ***X*** times and then release the button.

4. Activate the alarm transmitter.

5. The LED inside IOR flashes once to indicate that the radio code from the alarm transmitter is stored.

Note: With IOR Programmer (see page 7), IOR can be configured so that all alarm receivers will activate its output, also those that are not programmed into IOR.

Connecting IOR to Portable Receiver TREX 2G

When an input on IOR is activated, an alarm is sent. The portable alarm receiver TREX 2G can be programmed to receive alarms sent by IOR when a particular input on the IOR is activated.

To program a TREX 2G to receive alarms triggered by one input on IOR, please consult the TREX 2G User manual.

See the TREX 2G User Manual for further information on how to manage transmitters in TREX 2G.

Connecting IOR to NEAT Terminal

The NEAT Terminal can be programmed to receive alarms sent by IOR when a particular input on IOR is activated.

There are 8 alarm receiver positions in NEAT Terminal. Choose one position depending on what alarm type that is appropriate.

Position	Default Alarm Types in NEAT Terminal (may be changed)
1-3	User alarm
4	Smoke detection alarm
5	Door alarm
6	Bed alarm
7	Carpet alarm
8	Passive alarm

Please refer to the user manual for your NEAT Terminal for instructions how to add an IOR to the NEAT Terminal.

Controlling IOR from NEAT Terminal

The NEAT Terminal can be programmed to activate the output of a particular IOR, either when the alarm button on the NEAT Terminal is pressed or by command from the alarm central.

Before starting, you must decide which receiver position ***Y*** to use in the NEAT Terminal. If the IOR output shall be activated by pressing the alarm button on the NEAT Terminal, any position can be chosen. However, you must use the corresponding Programmer for your NEAT Terminal to change the alarm type for that position to *Send radio on alarm*.

If the IOR output shall be activated by command from the alarm central, position 8 shall normally be used unless the alarm central has informed you otherwise.

To program the NEAT Terminal to activate the output of an IOR, follow these steps:

1. Remove the lid of the IOR.
2. Consult the User Manual for your NEAT Terminal for adding an accessory.
3. When the IOR is to be activated, press and hold the button inside IOR for more than 3 seconds and then release the button (see note on page 10).