When removing the repeater having the amplification devices, the latter remain activated. These devices should be reset to default settings by pressing the **"Start"** button (**4**) and activated again. To do this, temporary delete the device for Orion NOVA S (LTE), Orion NOVA M (LTE), Orion NOVA L (LTE) SCPs or press the "**Change**" button for Orion NOVA X SCP/Orion NOVA X (LTE) SCP, previously switching off the device in the oLoader II software.

3) Amplification devices setting. When configuring the wireless devices for amplification, you should first add the repeater and then add the wireless devices, or vice versa. The wireless devices with poor signal strength that have been previously added to the system can also be configured for amplification.

The general configuring algorithm is as follows:

Step 1*: Add a repeater and new wireless devices.

Step 2: Select the wireless devices for amplification.

Step 3: For a wireless device to receive settings and start working with the repeater, this device should be brought into the range of the M-X module or Orion NOVA X SCP/Orion NOVA X (LTE) SCP or you should tamper with the device or wait for several communication test intervals.

Step 4: Place the repeater in a possible place of installation and conduct a signal test to determine the permanent place of operation of the repeater.

Step 5: After successful configuration and location of the repeater, move the wireless device to a possible installation location and conduct a signal test to determine the location with the best signal strength for permanent operation of the wireless device.

Note. * Orion NOVA S (LTE), Orion NOVA M (LTE), Orion NOVA L (LTE) SCPs allow to pre-assign wireless devices, a repeater and configure the wireless devices for amplification. During activation, the wireless devices will receive the necessary settings and start working with repeaters. After that, you need to perform steps 4 and 5 described above.

Specifics of configuring:

1. Adding new wireless devices for amplification and a new repeater.

To add new wireless devices for amplification and a new repeater, you should follow steps 1-5.

2. Adding new wireless devices for amplification to the previously activated repeater.

For Orion NOVA X SCP or Orion NOVA X (LTE) SCP, it is necessary to add new devices and follow steps 2-5 of the general configuring algorithm described above. For other SCPs, you can assign the wireless device, immediately set it for amplification, and then perform its activation. After successful activation in the range of the M-X module, you should install the wireless device in a permanent place of operation by selecting it with the help of a signal test.

3. Adding existing wireless devices with poor signal strength to a new repeater for connection stability.

After configuring the wireless device for amplification, it should be brought into the range of the M-X module or Orion NOVA X SCP/Orion NOVA X (LTE) SCP, or you should tamper with the device or wait for several communication test intervals for the device to receive the settings and start working with the repeater.

4. Removing the wireless devices from amplification.

After changing the settings, removing the necessary wireless device from the list of devices for amplification, you should tamper with the device, wait for several communication test intervals within the range of the repeater. After that, you should bring the wireless device into the range of the M-X module or Orion NOVA X SCP/Orion NOVA X (LTE) SCP and choose a permanent place of operation using the signal test.

ATTENTION! For the X-Key to start working with the repeater, after the configuration of the SCP and the repeater, as well as setting the X-Key for amplification, it is necessary to press any button of the key fob within the range of the M-X module. The X-Key works only with the repeater it is assigned to.

5 PACKAGE CONTENTS

After unpacking, visually inspect the repeater to make sure it has no mechanical damage, check the completeness according to Table 5.1.

Table 5.1 – Package contents of the repeater

Name	Quantity, (pcs.)
X-Cover S repeater	1
User manual	1
Bracket (pre-installed)	1
USB-A – USB Type-C cable	1
Dowel 6×30	2
Screw for the dowel 3.0×30	2
Double-sided glue tape 9×30×1	1

ATTENTION! The characteristics and package contents of the repeater may be changed by the manufacturer without additional notification.

6 REGULATORY COMPLIANCE

Hereby, "Tiras-12" LTD declares that the radio equipment model X-Cover S is in accordance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available on the website: tiras.technology.

The X-Cover S is designed so that it can be operated as intended in the EU countries, without violating the applicable requirements for the use of the radio spectrum.

The X-Cover S has no restrictions on commissioning in EU countries and does not require obtaining a permit for use.

In accordance with the EU Directive 2012/19/EU on waste electrical and electronic equipment, the repeater should be disposed of separately from household waste. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

In accordance with EU Directive 2006/66/EC, batteries (included in the product) should be disposed of separately from household waste. For proper recycling, return the batteries to your local supplier or dispose of them at designated collection points.

7 WARRANTY OBLIGATIONS AND REPAIR INFORMATION

The manufacturer guarantees compliance of the repeater with the declared characteristics during the warranty period of operation and under the conditions of transportation, operation, and storage.

The warranty period is 36 months and is valid from the date of sale specified below or in other accompanying documents (contract, invoice, etc.). If you do not provide a document confirming the date of sale of the repeater, the warranty period is calculated from the date of manufacture of the repeater.

_____ _____

(date of sale) (seller's signature) seller's stamp

The repeater is repaired by the manufacturer or its authorized representative. The repeater is repaired for free in case the warranty period has not expired, and it was operated in accordance with the accompanying documentation. For repairs, the repeater is sent together with the document, which indicates the date of sale, and with a letter stating: the nature of the fault, the place of operation, contact person for repair.

If the repeater is not working properly, please contact technical support first, perhaps this problem can be resolved remotely.

The date of manufacture of the repeater and/or its serial number are indicated on the repeater label and packaging.

Information on limitation of liability is available in the "Warranty" section on the website: tiras.technology.

8 CONTACTS OF THE MANUFACTURER

"Tiras-12" LTD, Ukraine, Vinnytsia, Khmelnytskoho Shose lane 2, b. 8

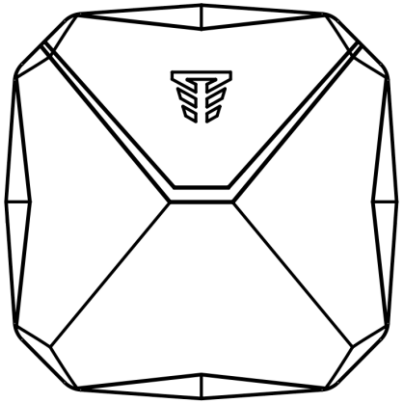
Sales department: market@tiras.ua

Technical support: support@tiras.ua

Warranty and post-warranty service: otk@tiras.ua

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TIRAS technologies



X-Cover S

Wireless radio signal repeater

"Tiras-12" LTD

Ukraine, Vinnytsia,

Khmelnytskoho Shose lane 2, b. 8

More information on the site

tiras.technology

1 GENERAL INFORMATION

X-Cover S is a wireless radio signal repeater (further – repeater) designed for radio communication improvement. The repeater is compatible with Orion NOVA S (LTE), Orion NOVA M (LTE), Orion NOVA L (LTE) security control panels (further – SCP) of 1.2 version with the installed M-X wireless expansion module, with Orion NOVA X SCP, starting from 1.4 version of the SCP, and with Orion NOVA X (LTE) SCP.

The wireless devices that can be configured for amplification by means of the repeater are as follows: X-Shift, X-Shift+, X-Motion, X-Motion+, X-Motion Alarm, X-Water, X-Siren, and X-Key.

The repeater is intended for 24h work in premises with regulated climatic conditions without the direct influence of climatic factors of the environment.

The repeater is powered by the main power source (not included in the package) via the USB-A – USB Type-C cable.

The backup power supply of the repeater is provided by a Li-ion battery with a capacity of 600 mA·h (pre-installed).

2 SPECIFICATIONS

Specifications of the repeater are given in Table 2.1.

Table 2.1 – Specifications of the repeater

Parameter	Value
Maximum number of amplification devices, no more than	4 or 8[1]
Radiofrequency range, MHz	868.0-868.6
Maximum transmitter power, mW, no more than	25
Maximum bandwidth of the channel, kHz, no more than	100
Maximum channel frequency deviation, kHz, no more than	6
Encryption	AES
Maximum range of radio communication in open space and in the absence of radio interference, m	1500
Main power source (USB Type-C connector)[2], V	5
Current consumption, mA, no more than	220
Alternative (backup) power supply (battery) V/mA·h	3.7 / 600
Overall dimensions (L×W×H), mm	63×63×17
Net weight, g	45
The operation time from a fully charged battery, hours, not less than	48
Operating temperature range at relative humidity up to 75% without condensation	from -10 °C to + 40 °C
Average service life, years[3]	10

Note. 1. Maximum number of amplification devices depends on the version of the SCP with which it works. 2. The USB Type-C connector is for powering the device only. 3. Does not apply to batteries.

3 PREPARATIONS FOR OPERATION

The repeater may be placed in a horizontal or vertical position.

Do not mount the repeater:

- Outdoors or in premises where the range of humidity and temperature is outside the limits allowed for this device.
- Near sources of high electromagnetic radiation and in places with high levels of radio interference.
- On the moving objects.
- Inside metal structures.
- On the metal surfaces.

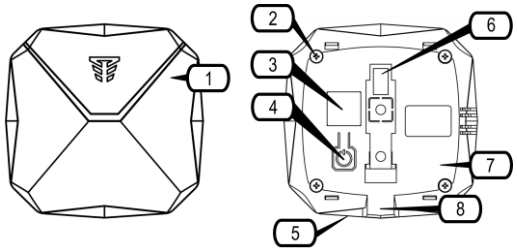


Figure 3.1 (a, b) – The appearance of the repeater elements

1 – front cover of the case; **2** – case screw (4 pcs); **3** – QR code for assigning; **4** – "Start" button; **5** – LED indicator; **6** – bracket; **7** – back cover of the case; **8** – USB Type-C connector.

The repeater is installed on a bracket (**6**, Fig. 3.1 b) fixed on a flat surface using screws. It is necessary to provide a space at least 5 mm from the top of the repeater mounted on the bracket to a fixed obstacle (Fig. 3.2) or at least 18 mm from the top of the bracket.

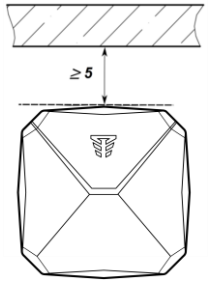


Figure 3.2 – The repeater positioning to a fixed obstacle

When fixing the bracket to the surface with a screw, the tightening force should not be excessive so as not to damage the bracket.

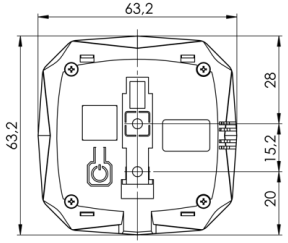


Figure 3.3 – Mounting dimensions for the repeater

Each repeater has a unique serial number, which is specified in the QR code and duplicated near it. The QR code with the serial number is located on the back cover of the repeater (**3**, Fig. 3.1 b), duplicated in this user manual and on the package.

The serial number is used to assign the repeater to the SCP by means of oLoader II or Control NOVA II software.

4 OPERATION WITH THE REPEATER

To work with the SCP, the repeater should be added to the SCP settings. The addition of the repeater occurs after the sequential execution of the assigning and activation processes. When adding the repeater to Orion NOVA X SCP/Orion NOVA X (LTE) SCP using **oLoader II** software, the assigning and activation processes occur automatically by doing the following: scanning the QR code and pressing the **"Start"** button (**4**).

When adding the repeater to Orion NOVA S (LTE), Orion NOVA M (LTE), Orion NOVA L (LTE) SCPs, it is necessary to add the repeater to the SCP settings and do the following:

1. The repeater is **assigned** to the SCP using **oLoader II** software (creating a new wireless device and entering the repeater serial number) or **Control NOVA II** software (entering the repeater serial number for the previously created wireless device in oLoader II software). Assignment and configuring of the repeater (amplification devices, time parameters for test messages, etc.) is carried out in accordance with the operating documentation on the SCP.

2. **Activation.** After successfully assigning the repeater to the SCP, it is necessary to carry out the process of activating the repeater (switching on, exchanging settings, and switching to operating mode with the SCP). To activate the repeater, first enable the activation mode on the SCP, and then briefly press the **"Start"** button (**4**). Activation of the repeater lasts up to four seconds and is accompanied by blinking of the indicator (**5**) with a period of 0.5 s. You can start this mode of operation of the SCP using the Control NOVA II software by clicking the appropriate button in the "Wireless Devices" tab. Other ways to switch the SCP to activation mode (by means of the keypad, after switching on the SCP) are described in the user manual of the appropriate SCP. The description of the repeater's indication after activation is given in Table 4.1.

Table 4.1 – Description of the repeater's indication after activation

LED indication	Activation result
Blinks three times	Successful activation of the repeater and addition to the SCP
Blinks twice	Activation failed. The serial number of the repeater does not match the serial number entered in the SCP settings
Blinks once	Activation failed. The repeater is not within range of the wireless network, or the SCP is off or not in activation mode

When the repeater is activated and ready to work with the SCP, after pressing the button **(4)**, the indicator **(5)** flashes once if there is no main power, and goes out if there is main power.

To **switch off** the repeater, press and hold the **"Start"** button (**4**) for 3 seconds, after flashing the indicator **(5)** release the button. The indicator **(5)** will light up, indicating that the command to turn off the repeater has been executed.

Table 4.2 – Description of the repeater's power status indication

LED indication	Description of the repeater's power status
Lights up permanently*	The repeater's battery is charged or is charging
Blinks once in 10 s	The repeater is powered by battery
Blinks five times per 1 s	The repeater's battery is missing or the charging device is switched off (the temperature exceeds the permissible range)

Note. *When "Power indicator light" option is disabled, the indicator **(5)** does not light up.

The description of the power status indication of the switched off, but activated repeater is given in Table 4.3.

Table 4.3 – Description of the power status indication of the switched off, but activated repeater

LED indication	Description of the repeater's power status
Blinks four times with a 5-second interval*	The repeater's battery is charging
Lights up permanently and blinks four times with a 5-second interval*	The repeater's battery is charged

Note. *When "Power indicator light" option is disabled, the indicator **(5)** does not light up.

To **switch on** the repeater, press the **"Start"** button (**4**) briefly. If the repeater was added to the SCP before it was switched off, indicator (**5**) will flash 3 times shortly. If the repeater has not been added to the SCP, the activation process described above will start.

The repeater can be **removed** by the installer and administrator of the Control NOVA II software in the "Wireless Devices" tab, as well as by the installer using the display keypad.

The repeater also provides measurements of temperature, the signal level of communication with the SCP, battery charge. This information is constantly monitored by the repeater, transmitted and displayed in the Control NOVA II software.

To reset the repeater to factory settings (and remove the repeater from the SCP settings if the repeater is connected to the SCP), press and hold the **"Start"** button (**4**) for 6 sec and release the button after double blinking of the indicator (**5**). After removing, the repeater switches off (the indicator (**5**) lights up).