

TELETHINGS RELAY BOX LORAWAN USER MANUAL

BASIC INFORMATION / PRODUCT DESCRIPTION

First, an application on server must be created with keys labeled on devices. If creating application on server is finished, the device can be turned on and initiate JOIN procedure. After the device has been successfully JOINED to the server, it can start sending and receiving messages to/from server.

RELAY BOX COMMANDS

There are two commands which server sends to the Relay box, and only one command which device sends to the server. Commands from server to device are:

1. Setting relay state - command is 0x00, followed by 0x00 for turning relay OFF or 0x01 or any number higher than 00 for turning relay ON,
2. Setting period of communication – command is 0x01 followed by two bytes from 0x01 to 0x0F which represents period of minutes after the device will communicate with the server).

Command which device sends to the server is command for sending current state of relay, and information about lora period. If the device sends 0x00 0x00 0x03, it means that the relay is OFF, and lora period is 3 minutes and if it sends 0x00 0x01 0x03, it means that the relay is ON, and lora period is 3 minutes. (<0x00><relay_state><lora_period_in_minutes>)

COMMUNICATION FLOW

Relay box communicates with the server in only one case, and that is when period of communication occurs.

It is recommended that, if messages are sent from the server, downlink messages should be sent at least three times in order for the device to gather downlink message.

For safety reason Relay Box will turn off relay after 18 minutes spent without LoRaWAN communication with server.