

# ST400

## RECEIVER BOARD WITH 4 RELAYS FOR REMOTE CONTROL

### 400 SERIES

MANUAL  
INSTALLER  
VER. 1.0

## DESCRIPTION

ST400 is a radio receiver with 4 relays, to use with devices of 400 series (TR400, IF400, CU400 etc.).

It can operate in two ways, like:

Remote RECEIVER = ability to store 100 remote controls, whose keys are associated with relay outputs.

Remote MINIMIX = ability to store 4 radio devices, associated with relay outputs.

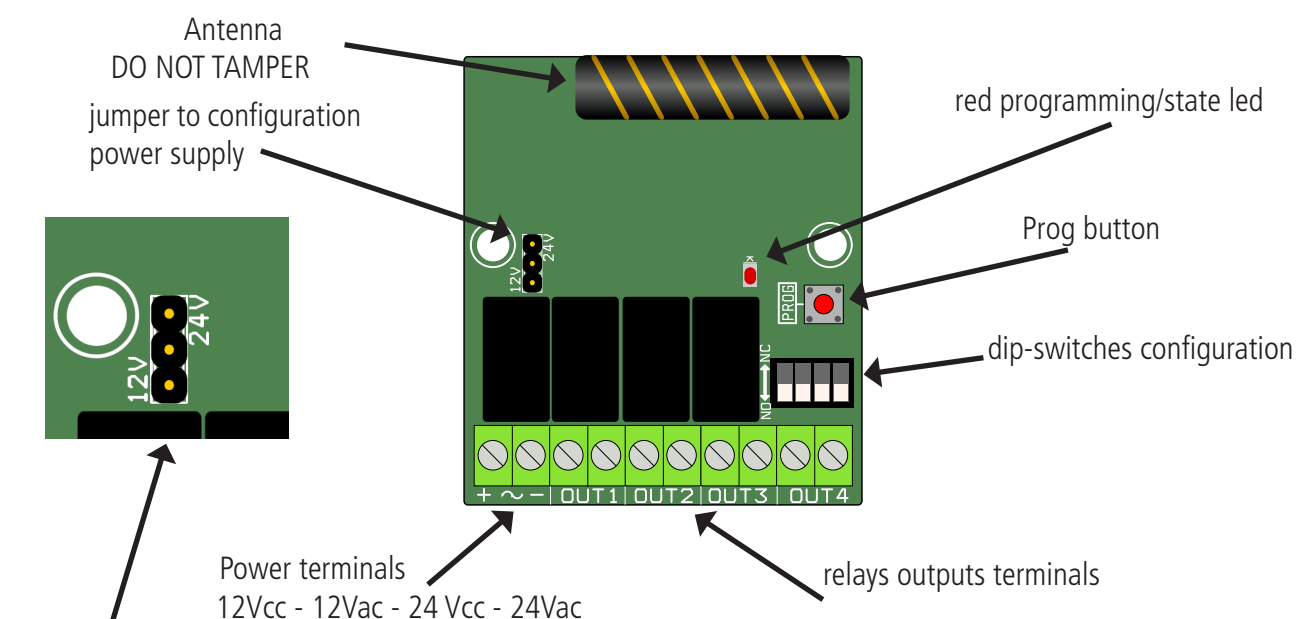
## OPERATION

**Remote Controls Receiver:** each output is associated to one key of the remote control, except for relay number 4 that can work in stable mode using the 2 following keys: Padlock Closed = closed contact; Padlock Open = open contact. The first 3 relays work in impulsive way and are associated to: OUT1 to Key1, OUT2 to Key2, OUT3 to Key3. Out 1 is normally open. Out2 and Out3 can be configured as NC or NO, using dip2 and dip3. When Out4 is used as impulsive, the commutation happens using either the keys Padlock Open and PadlockClose.

**MiniMix Receiver:** St400 is able to store up to 4 different devices. Each device is associated to an output/relay, following the order of programming. The outputs are NC contacts, with opening of 2 seconds when there is the commutation. In this configuration the maximum number of remote controls that can be stored is 50 (47 if 3 other devices are stored), and the key used for the associated relay is "Padlock Closed" (for all remote controls stored).

## SCHEDA - COLLEGAMENTI

- Double Power Supply 12Vcc/Vac or 24Vcc/Vac that can be selected with JUMPER;
- 4 outputs/relays: impulsive NC/NO or stable (depending on dedicated dip-switches);
- Programmable Remote Controls: 100 when working as Remote Controls Receiver, 50 when working as MiniMix;
- 4 programmable devices when working as "MiniMix"



**NOTE: before applying power be sure that the jumper is in correct place**

## DIP SWITCH CONFIGURATION

The dip-switches of configuration have different functions if ST400 is used as remote controls receiver or as MiniMix receiver. The Dip 1 is the dip that chooses the way of working.

**Dip-1 OFF:** way of operating, Remote Controls receiver

**Dip-1 ON:** way of operating, MiniMix receiver

### "Remote Control"

**Dip-2 OFF:** Out2 normally open (NO) - **Dip-2 ON** Out2 normally closed (NC)

**Dip-3 OFF:** Out3 normally open (NO) - **Dip-3 ON** Out3 normally closed (NC)

**Dip-4 OFF:** Out4 normally open (NO) Impulsive - **Dip-4 ON** Out4 becomes stable and the transition will be made using the 2 following keys of remote control : **PADLOCK OPEN** = contact open, **PADLOCK CLOSED** = contact closed.

**Note:** Out1 is only of type NO

### "MiniMix"

**Dip-2 OFF:** the output is closed if all the contacts of the stored device are in standby.

**Dip-2 ON:** the output is activated in impulsive way when there is an opening of a contact of the stored device.

**Dip-3 OFF:** function "Devices Anomaly" disabled - **Dip-3 ON:** function "Devices Anomaly" enabled . This function indicates the presence of at least 1 device with Low Battery and/or Missing Supervision.

**Dip-4 OFF:** function "Tamper Devices" disabled. **Dip-4 ON:** function "Tamper Devices" enabled. This function indicates the opening of at least one of the stored devices.

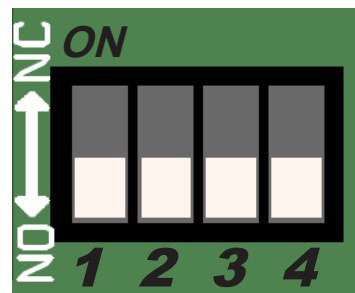
**Nota:** If the functions of dip 3 and 4 are active, the devices that can be stored are 2.

## PROGRAMMING BOARD

**Red prog./state led:** a flash every 2 sec with board working; a flash once for second in programming mode.

**Reset the board:** remove power and restore power while pressing the PROG button.

**Programming devices:** by pressing the PROG key for 2 seconds, the led will start to make a flash (one for second), then press in case of remote controls any key, in case of other devices the Learn button. The confirm of programming is given from a series of fast flashes of red led of programming. When the programming is finished, press for 2 seconds the PROG. key, the red led will flash one time every 2 seconds.



## TECHNICAL SPECIFICATIONS

Radio Transmission	Digital Radio Transmission (FSK) with high precision on 3 radio channels to avoid collisions and saturation of signal. Transmission on 112 bits with variable code (rolling-code) for high security.
Input Voltage	12Vcc - 12Vac - 24 Vac - 24 Vcc
Consumption:	13,8V DC Maximum current : 78mA Minimum current : 25mA 12V AC Maximum current : 185mA Minimum current : 65mA 24V DC Maximum current : 62mA Minimum current : 52mA 24V AC Maximum current : 122mA Minimum current : 115mA
Frequency of operation	433,92 MHz
Open Space Minimum Range	200mt
Certified operating temperature	da +5°C a +40°C
Operating temperature	da -20°C a +50°C

Installation must be carried out following the local installation norms by qualified personnel.

The manufacture refuses any responsibility when changes or unauthorized repairs are made to the product/system.