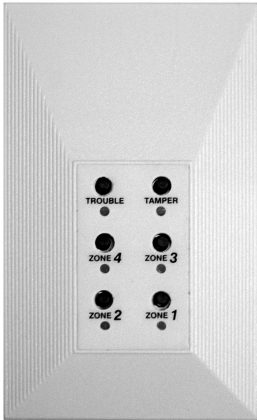# ROBOGUARD KEYPAD

Speaker connector and volume control

Power and Data input   Output ports

Specifications:

Dimensions: 104 X 64 X 27
Weight: 100 g
Current Consumption: +_ 25 mA
Required receiver: Roboguard 433.92 MHz
Required Power Supply: 12V DC

- The keypad can control, supervise and monitor up to four Roboguards and two Roboguard remote buttons, with individual intruder detected, tamper and supervision LED's, and optional audible warning sounds from the speaker output.

- The keypad has six highly configurable output switches to connect to other devices/systems.

- The keypad functions off an external 12V power supply and a Roboguard receiver.

- The keypad can also be used to monitor other devices via a 4 zone Roboguard Universal Transmitter (electric fence, burglar alarm, and conventional wired sensor).

Installation Procedure

The installation involves mounting, wiring, and programming guards, remotes, and output switches.

Mounting:

Mount the keypad close to the alarm panel or next to the alarm system's keypad (depending on whether you want the data output to go to the System keypad or the System panel). Mount the receiver in a 'high site' that will maximise the radio coverage for the installation area.

Wiring:

Wire the 12V power to the receiver and the keypad and check that the devices power up.

Connect the receiver data line to the keypad.

Wire the keypad outputs into the alarm panel zones. **See 'output port wiring'**.

The switch wiring is dependent upon decisions that are made regarding the operation of the keypad, see **'output port programming'**.

Optionally you may choose to wire-in a speaker or an external horn which will beep for intruder detect. Zone 1, 1 beep, zone 2, 2 beeps etc.

ROBOGUARD PROGRAMMING

NOTE: Reference to 'beeps' assumes a speaker is connected.

1. To enter Roboguard programming mode: hold down the **tamper** button until a beep is heard and the red tamper LED is solid (ON) You are now in Roboguard programming mode (let go of the button now). Zone LED's that already have Roboguards programmed into them will now be solid (ON).
2. Press and release the button for the desired zone to be programmed (only the desired zone LED and the tamper LED should be ON).

Tamper Switch on Roboguard

3. Depress and release **the tamper lever on the Roboguard** to send a tamper signal to the keypad.
4. The keypad will extinguish all the LED's momentarily, 10 beeps will sound and all
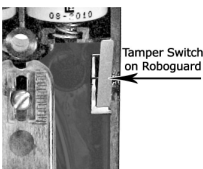
the LED's will flash.

5. Press any zone button to reset, the appropriate zone light should be on solid and can now be tested by triggering the Roboguard. If the Keypad is not yet connected to the alarm panel, you can see the trigger, as the zone light will start to flash after triggering.
6. To *erase* a Roboguard follow step 1, then select the zone to be erased and press the **trouble button**. Press any zone to reset.
7. Continue as above until all your guards are programmed.

Remote TX Programming

1. To enter TX programming mode, hold down the tamper and trouble button together until a beep is heard. Both the red tamper and trouble LED 's should be solid (ON) to indicate you have entered Remote programming mode (let go of both buttons now).
2. Select either zone one (to learn an Arm/Disarm remote button) or zone two (to learn a panic button).
3. Now transmit using the Remote TX button of your choice corresponding to the function you wish to assign to that button.
4. The keypad will extinguish all the LED's momentarily, 10 beeps will sound and all the LED's will flash. Press any zone button to reset.
5. To *erase* a remote TX, enter Roboguard remote programming mode as above, select the function (zone 1 = Arm/Disarm, zone 2 = panic) you wish to erase then press and release the trouble button.
6. **NOTE**: The remote does not control the zone output ports of the Keypad. The remote will cause the corresponding remote output port to trigger the appropriate alarm panel input.

NOTE: These programming modes are separate and you cannot program a remote control as a guard or visa versa.

Output Port Programming:

- Numbers in the zone column in the table below indicate the output ports that will be triggered for intruder, tamper, trouble and remote events.

- In **zone 1**, ports 1,5 and 6 trigger simultaneously. This will allow additional options in the event of port failure and allows more than 1 device to be triggered.

- The installer should program the Port operation of
  the keypad depending on the available zones on the alarm panel
  and the functionality required.

Output Port operation chart

	ZONE 1	ZONE 2	ZONE 3	ZONE 4
Guard 1	1,5,6	1	1	1
Guard 2	1,5,6	2	2	1
Guard 3	1,5,6	3	3	2
Guard 4	1,5,6	4	4	2
Tamper	1,5,6	5		3
Trouble	2	6		4
Remote 1	3		5	5
Remote 2	4		6	6

Programming Sequence
Determine the desired output configuration from the output port chart.
Disconnect the power to the keypad.
Hold down the tamper and trouble buttons and simultaneously re-power the keypad.
The red tamper and trouble LED's will now both be flashing, you are now in output port programming mode.
Press the desired zone button
Press the **Tamper Button** once to register a **N/O** selection or the **Trouble Button** to register a **N/C** selection. All LED's will flash and the unit will beep 10 times.

Output Port Wiring:

- The keypad output switches use open collector low-side transistor drivers rated at a maximum of 500mA which is sufficient to switch a relay, timer board or alarm panel.

- The output voltage is normally held at 0V and will switch open circuit or to an externally connected voltage for 1 second when triggered.

- To trigger alarm panels you should connect an external 1k ohm (typically) resistor from the port output to the required voltage.
- Ensure that the 0V connections are common between the alarm panel and the keypad.

NOTE: DO NOT WIRE ANY POWER ONTO THE OUTPUT PORT PINS.

General Operation

The keypad is used to supervise and control Roboguards and to report activity audibly (with speaker connected), visually and electronically. The keypad monitors and supervises up to four Roboguards. If an intruder is detected the speaker will beep the number of the zone i.e. zone one, one beep, zone three, three beeps etc; the corresponding LED will flash and the selected output switch will activate.

More than 1 keypad can be connected to a single receiver. Roboguard advises not more than 4 Keypads to 1 receiver.

GREEN Zone LEDs (zone control and intruder detection)

Each of the keypad zones can be individually switched on or off. Switching the zone off does NOT disable the supervision or the tamper monitoring. If the green led for the zone is OFF then the zone is disabled. If it is ON then the zone is ON and not triggered. If it is FLASHING then the zone is ON and has been triggered. Pushing the zone button will change the state of the led from OFF to ON and back again or from FLASHING to OFF to ON.
NOTE: Zones which do not have Roboguards programmed in will not function.

RED Tamper LED FLASHING (Tamper Detection Triggered)

If a Roboguard's is battery cover is removed, a tamper signal will automatically be sent to the keypad. It will sound the speaker 10 times, permanently flash the red tamper LED and activate one of the output switches. To establish which Roboguard was tampered with and to reset the tamper detect LED you must do the following:

1. Press and release the tamper button (tamper LED on, keypad is now in tamper detected display mode)
2. The zone LED for the Roboguard that has been tampered with will be solid (on).
3. Press and release all solid (on) LED's so only the red tamper LED is left on.
4. Press and release the tamper button (LED off) or do nothing as the keypad will time out and exit automatically.
5. Determine what caused the Tamper to trigger and correct the problem.

NOTE: The Tamper indication will only be sent once per zone, unless the tamper indication is reset.

RED Trouble LED FLASHING (Automatic battery and radio strength test)

The trouble (auto-test) routine is very important. The Roboguard sends an 'auto-test' radio signal to the keypad every 20 minutes. Should a guard fail to report in, the keypad will indicate this by flashing the red 'trouble' LED and activate an output switch. To establish which Roboguard is reporting the trouble condition and to reset the trouble detect LED you must do the following.

NOTE: This alarm indicates potential communication problems that may be due to bad radio reception, battery problems or faulty TX or CPU PIRs.

1. Press and release the trouble button (trouble LED on, keypad is now in trouble condition display mode)
2. The zone LED for the Roboguard that is "in trouble" will be solid (on).
3. Press and release all solid (on) LED's so only the red trouble LED is on.
4. Press and release the trouble button (LED off) or do nothing as the keypad will time out and exit automatically.
5. Determine what is causing the Roboguard to fail auto-test and correct the problem.