MICROPROCESSOR
HOME - SECURITY SYSTEM
HOME4

The system is useful for protection of small buildings - living places, shops, offices, store places etc. including up to 8 separate zones. It has built-in power supply and double-armoured siren, and inputs for security devices as well. The system Home 4 enables parallel connection of several keyboards, as well as sharing of the system between one or two users in one and the same time.
It is possible to connect a dialer or PCB (PGM-expander for control of sound security technics transmitter)
to the system.

System features:
- 8 programmable double-balanced zones;
- control (setup) by one or more keyboards, or by a key switch;
- automatic turning on of home security mode
- service of one or more users in one and the same time
- disabling and enabling of each separate zone;
- light indication for:
    - power supply status;
    - system status (switched on/off);
    - zones status (active, isolated, enabled);
    - last registered alarms;
    - mode of programming and test;
    - enabled zone;
- sound indication for alarm and fire by built-in magneto-dymanic siren;
- option for using sound signal "bell" by input zone;
- programmable outputs for:
    - system status (switched on/off) or enabled zone;
    - control of back-up siren;
- dual power supply (electric circuit, battery) with automatic charge
- built-in buttons against sabotage;
- option for connection of standard security and fire sensors;
- option for using programmable dialer
- option for changing user access codes and phone numbers;
- option for immediate turning the alarm system on ("panic");
- option for self-test of zones in setup mode (installation);

1.The system include:
- double-armoured back-up siren (220V by the electric circuit and acid battery supply 12V).
- one or more keyboards for system control

- sound-security and/or fire sensors and additional dome light.

The system uses with or without built-in dialer.

The system is also armed and disarmed by a key-switch.

2.Keyboard buttons function:

There are two kinds of buttons: functional and digital. Lighting functional buttons (TRB, BYP, MEM and PRG) are used in disarmed system mode as follows:

TRB – turns on/off mode "Help Info". The button blinking light indicates a trouble(s).

BYP – turns on/off mode "Zones' Disabling". The button blinking light indicates the presence of turned off zones.

MEM – turns on/off mode "Memory reading". The button blinking light indicates recorded irregular events.

PRG – turns on/off mode " Programming ". Lighting on or blinking of the button light indicates that the mode is turned on.

The rest of the functional buttons (CLR and ENT) are used in programming mode as well as in special cases as follows:

CRL – clears up the keyboard buffer, erases phone numbers in the memory etc.

ENT – reads the memory, records phone numbers etc.

Buttons from 0 to 9 are used for: access code entering, turning on/off zones, turning on/off "bell", programming dialer phone numbers and system programming.

3.LEDs' (Mode, 1……8) function.

Green LED "Mode" lights on, when the system is armed.

Red LEDs with numbers from 1 to 8 indicate the status of the corresponding zone.

LED lights are used in the system programming (setup) mode.

4.System's function:

System's arming and disarming is done, by entering an access code using the keyboard by each user independently (but not in one and the same time). Using of several keyboards (up to 4) is allowed.

If the system has a single user areas arming and disarming can be done by using key-switch as well.

If the system is in armed mode, the green LED (Mode) lights on. During the time period for arming and disarming, LEDs corresponding to the armed zones light on.

If the system is by coincidence used by two users and only one of them set an arming mode the LED (Mode) blinks.

If the system has only a single user quick arming is done, by consequent pressing of button BYP and ENT.

In disarmed mode the siren can be turned on by consequent pressing of button PRG and ENT (Panic), as well as by connected to 24 hours zone the Panic button.

The siren can be turned off, by entering access code and the system status keeps the same if it's not in arming mode.

5.System time intervals:

Time intervals for arming and disarming, turning on the siren are set during system installation.

In system arming mode starts the time interval for disarming, that has been set during system installation (from 1 to 255 sec.). In this case short chirp is produced by the built-in the keyboard buzzer on every sec., as in the last 8sec. a double chirp is produced.

If the system is installed, including option Auto-home, and is used by a single user if the entrance (lagging) zone isn't activated till passing of time interval for disarming (exit) – that means if the system's user isn't going out of home or office, then the system automatically activates Home mode.

On that time conditionally-lagging zones and the zones that are set as Home ones during installation are disarmed.

If the system is armed and the time for exit (disarming) is passed, on an irregular event (action) in the entrance (lagging) zone, time interval for arming is started (set during the installation from 1 to 255sec.). Follows short chirp produced by built-in the keyboard buzzer on every sec, as in the last 8sec. a double chirp is heard.

Time interval for the siren chirps (bleep) is set during installation (from 1 to 31 min.).

The siren's chirps, if a fire sensor is activated, are produced on every second.

6.Help Info mode.

If the system is not in armed mode blinking of button TRB indicates troubles with the system.

Mode Help Info is turning on/off by pressing of button TRB. If the mode Help Info is turned on the button TRB lights on continuously.

LED1 (zone1) indicates absence of power supply.

LED2 (zone2) indicates trouble with the battery.

LED3 (zone8) indicates cut-off of keyboard tamper, if the zone 8 is set only to register troubles, but not to alarm.

In presence of a trouble a short chirp is produced on every 1-2 min, that can be turned on/off by pressing buttons CLR and ENT in Help Info mode. (when button HLP lights on permanently).

7.Set up (recording) of access code:

When the system is in disarmed mode each user can record (set) up to 8 own access codes in system memory in the following way:
- Press the button PRG, if the button's LED blinks programming (setup) mode is activated.
- Enter the basic Master access code of the user
- Green LED Mode blinks – access code setup is possible
- Enter number (position) from 1 to 8, as if number is 1, a new basic Master code will be set.
- LED PRG blinks permanently (a number, position is chosen). A LED corresponding to the chosen position lights on as well.
- Enter four digits access code by the keyboard buttons between 0 and 9 – double chirp of acceptance is heard.
- Reenter the code, in order to record it – double chirp of acceptance is heard again.
If the code entering is incorrect, continuous chirp is heard and the record failed.
- The system automatically quits access code programming mode.
- To erase existing code, enter the basic Master code of the chosen position (from 2 to 8).
- Basic Master code (on position 1) can only be changed.

8.Activating and inactivating (by-pass) of zones and sound "bell":
 When the system is in disarm mode every user can activate and inactivate (by-pass) each own zone in the following way:
- Press the button BYP. It lights on in by-pass mode and also inactivated zones (if any) light on.
- Enter the basic Master access code.
- By pressing buttons from 1 to 8 alternatively the corresponding zones from 1 to 8 can be activated/inactivated (by-passed). The zones, which corresponding LED lights on, are inactivated (by-passed).
- With the pressing of button 0, the sound "bell" type is stopped. And with pressing of button 9 – the sound "bell" type is enabled.
-    To quit this mode, press button BYP or other functional button.
-    Blinking of button BYP indicates the presence of inactivated (by-passed) zones.
-    In disarmed mode inactivated (by-passed) zones are automatically activated.

9.Reading system memory for recorded irregular events:
In disarmed mode blinking of button MEM indicates existing records for irregular events.
Reading the system memory for records of irregular events in disarmed mode is done as follows:
-    Press button MEM. Its flashing indicates activation of mode memory reading. The LEDs corresponding to the zone in which last irregular event has been registered light on as well.

- *Consequent pressing of button ENT calls the former recorded irregular events (up to 64 in number). After the final report the system quits memory reading mode and the button MEM stops flashing permanently.*
- *Flashing of button MEM can be stopped during the memory reading procedure by pressing of button CRL (when the button MEM permanently blinks).*

10.Setup (recording) of phone numbers for dialer:
If the system is in disarmed mode and is set for using with dialer, every user can record own phone numbers in the system memory as follows:
- Press the button PRG. Its blinking indicates activation of setup mode.
- Enter the basic Master access code.
- The green LED Mode starts flashing
- Press the button ENT. The PRG permanently blinks and the green LED lights off (setup of phone number).
- Enter phone number (position), corresponding to the zone of the user. Zone's LED (from 1 to 8) starts blinking.
- The phone number is set as follows:
   - Buttons from 0 to 9 are used for entering phone numbers.
   - Pressing of button CRL before entering the number, erases the set before number.
   - Pressing of button CRL between the entered digits of the phone number causes a dialer pause (of about 2 sec.), during the phone number entering.
   - Pressing of ENT changes the type of phone dialing (pulse with tone and reverse).
   - Recording of the phone numbers in the system's constant (independent of power supply) memory is done by second pressing of button PRG and/or after entering of 16 digits (0....9, CRL, ENT). After all the system automatically quits the setup mode.