IT-400 / 400K / 400D

7 hardwired zones control panels

User's manual

IT-400 series

7 zone hardwire control panels
3 models IT-400/IT-400 K/IT-400 D

ENGLISH

Congratulations for buying the IT-400, a user friendly hardwire control panel.

Every unit is assembled using the latest microprocessor technology, followed by robotic assembly methods and computerized test, resulting in an apparatus secure and reliable.

1.0. DESCRIPTION

The IT-400 is an elaborate hardwire control panel with 4+3 zones divided as follows:

- The first 4 burglary zones are programmable and may be configured as Day, Night, normally closed (N.C.) or balanced. Each of these zones has automatic by-pass feature which goes into effect after 4 alarm cycles. In addition Zone 1 and Zone 2 can be configured as delayed or immediate.
- The remaining 3 zones (*fire, panic and sabotage*) are not programmable and ***always active***.

The control panels of the IT-400 series may be armed by means of a mechanical key (IT-400), an electronic key (IT-400 K) or keypad (IT-400 D). Remote arming key is optional.

The creation of a group of zones that function in Day or Night permits you to rapidly arm the control panel without modifying the way the panel has been programmed.

For IT-400 K only, unauthorized attempts to arm the control panel will activate the anti-sabotage zone which will block the use of the electronic key and at the same time trigger the alarm.

The extreme flexibility of the different programming methods allows the end user to personalize the installation based on his needs.
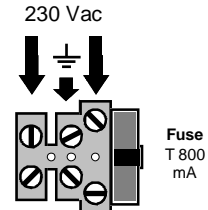
Other Characteristics

- Day/Night arming
- Programmable relay alarm outputs
- Separate relay alarm outputs for internal sirens
- Remote indication for unit ON
- Low battery indication
- Output for siren with or without battery back up
- Relay output for panic an fire.

2.0. INSTALLATION

For an easy and correct installation follow the steps listed below.

1) Remove the ABS control panel cover
2) Fix the base of the panel to the wall
3) Connect all the sensors and sirens to the control panel
4) Connect the mains 230 Vac power source to the 3 terminals indicated on the right. Be sure to connect a good ground source to the centre terminal.
   **Be careful that the cable being connected is without tension**.

230 Vac

Fuse
T 800
mA

5) Program the unit using dip switch A and B (see page 32).

6) Connect the battery using the red and black terminal which indicate the polarity. Red for positive and black for negative, you will see the "test" LED flashing. This indicates that the control panel is in **Maintenance mode**.

7) Re-position and fix the control panel cover.

8) Connect the mains power input wire to a 230 Vac source. It is suggested that this power source be obtained between the AC power meter and the main circuit breaker. After this is done the green LED **"POWER"** will light up.

9) Be sure that the 24 hour anti-sabotage line is closed (red LED - **24 H** OFF).

10) Set the panel in "DAY" mode. The control panel will go into disarmed status.

➲ IT-400 : Rotate the key in "DAY" position

➲ IT-400 K : Automatically goes to "DAY" status.

➲ IT-400 D : Automatically goes to "DAY" status.

NOTE: **When the panel has no mains and no battery voltage connected, and you power it**, *the IT-400 will go to the status of the panel KEY switch, IT-400K and IT-400D will automatically go to "DAY" status.*

3.0. TERMINAL BLOCK CONNECTIONS
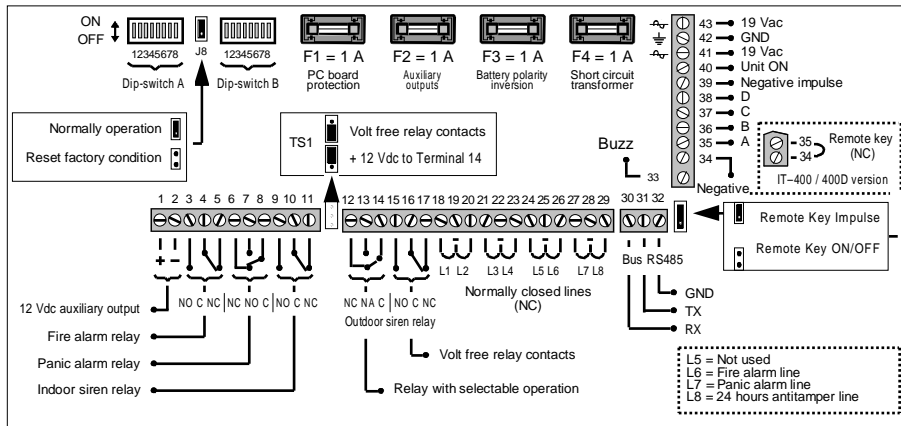
1 2 - Auxiliary output 12 Vdc - *(Imax 1 A)*.
+ −   **This output is always active with control panel armed or disarmed**.

3 4 5 - Normally opened (N.O.) - Common (C) - Normally closed (N.C.) - Volt free relay contact for fire / gas alarm (Imax 8 Amp).This relay is activated for the programmed time when the zone L6 is triggered.

6 7 8 - Normally closed (N.C.) - Normally opened (N.O.) - Common (C) Volt free panic alarm relay - *(Imax 1 A)*. This relay activates for 10 sec. At the opening of line L7 (panic audible / non audible).

9 10 11 - Volt free change-over relay alarm output for *internal siren* - *(Imax 8 A)*. Normally opened (N.O.) - Common (C) - Normally closed (N.C.). This relay is activated if burglary, sabotage, or audible panic alarms are triggered.

12 13 14 - Volt free change-over relay alarm output for *external siren* - *(Imax 8 A)*. Normally closed (N.C.) - Normally opened (N.O.) - Common (C.). This relay is activated if burglary, sabotage, or audible panic alarms are triggered. Bridging the connector TS1 as shown above, the common of the relay (Terminal 14) is connected to +12 Vdc.

15 16 17 - Volt free change-over relay alarm output for *external siren* - *(Imax 8 A)*. Normally opened (N.O.) - Common (C) - Normally closed (N.C.). This relay is activated if burglary, sabotage, or audible panic alarms are triggered.

18 19 - L1 - Programmable Normally Closed (N.C.) immediate or delayed line.
+   –

> <u>**With the control panel armed, triggering this line will cause**</u>:
>
> - Flashing of the corresponding LED on the front panel until the control panel is re-armed to signal Alarm memory.
> - Lighting of the "**DAY**" LED (on the front panel and on receptacle of electronic key) until the control panel is re-armed to signal Alarm memory.
> - Activation of the internal siren (Terminals 9,10,11) and external siren (Terminals 12 to 17) alarm relays for the pre-programmed time.
>
> <u>**With the control panel disarmed, triggering this line will cause**</u>:
>
> - Lighting of the corresponding LED on the front panel for the time that the line is in alarm.

What has been written above for L1 is valid for all 4 burglary alarm zones, with the only difference that L1 and L2 can be either programmed as delayed, and immediate while lines L3 and L4 are only immediate.

24 - **Not used**

25 26 - **L6** - Fire or gas alarm trigger inputs.
+   –

> <u>**With control panel armed or disarmed, triggering this line will cause**</u>:
>
> - Flashing of the "**FIRE**" LED on the front panel until the control panel is re-armed to signal Alarm memory.
> - Activation for the pre-programmed time of the fire relay output (Terminals 3, 4, 5).

27 28 - **L7** - Hold-up alarm trigger input.
+   –

> <u>**With control panel armed or disarmed, triggering this line will cause**</u>:
>
> - Flashing of the "**PANIC**" LED on the front panel until the control panel is re-armed to signal Alarm memory.
> - If you have programmed a silent hold-up alarm, after this alarm has been triggered only the panic relay will activate (Terminals 6, 7, 8) for 10 seconds.
> - If you have chosen to program the hold-up alarm with an audible alarm signal, triggering this alarm output will activate the hold-up alarm relay terminals 6-7-&8 for 10 seconds and also the internal and external sirens relays (Terminals 9 through 17) for the programmed alarm time.

28 29 - **L8** - 24 hour anti-tamper trigger input.
–   +

> <u>**With control panel armed or disarmed, triggering this line will cause**</u>:
>
> - Flashing of the "**24 H**" LED on the front panel until the control panel is re-armed to signal Alarm memory
> - Activation of the internal and external sirens relays (Terminals 9 through 17) for the programmed alarm time.

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30 31 32 - RS 485 BUS, serial interface for connecting expansions and programming peripherals.

33 - The Buzzer must be connected from +12 Vcc and buzz terminal

34 35 - Normally closed Remote key input for total arming used on (IT-400 & IT-400D) only

36 37 38 - Not used on IT-400

39 - Negative output for telephone dialler that signals burglary and tamper *(Imax 100 mA)*. This output remains active for one second.

40 - Negative output for "Unit ON" signalling - *(Imax 100 mA)*.
This output remains active while the panel is armed.

41 43 - Power input for control panel 19 Vac.

42 - NOT USED

FUSES

F1 = 1 A - Rapid fuse to protect the internal power supply .

F2 = 1 A - Rapid fuse to protect the auxiliary 12 Vdc outputs (Terminals 1 and 2).

F3 = 1 A - Rapid fuse to protect inversion of polarity of the battery.

F3 = 1 A - Delay action fuse to protect short circuit of the transformer.

4.0. MAINS POWER CONNECTION

Before making this connection be **sure that cable being use is volt free** and insert the bare wire on the cable used completely into the terminal block as seen on the right.

NO   **YES**
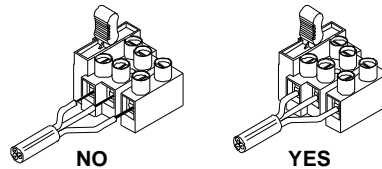
Presence of main power is indicated on the front panel when the green "POWER" LED lights up.

4.1. MAINS POWER FUSE CHANGE

One of the two phases of the mains power is protected by a delay action fuse T800 mA.
The fuse is incorporated in the terminal block seen on the right hand side.
In case of fuse burn out it can be easily changed by pulling upward the fuse holder as shown on the right.
Change the fuse and plug it back in with downward pressure.
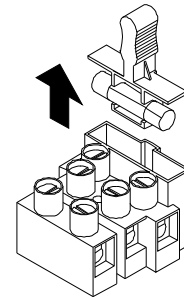
Ground
connection

4.2. GROUND CONNECTION

It is important to have a good ground connection to avoid electrical disturbances to the control panel. Therefore the terminal indicated as ground (see on the right) *must be connected to a good ground connection.*
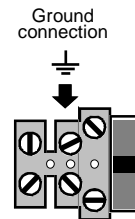
ATTENTION

Electrical building installation must be equipped with a bipolar automatic switch.
In case of ordinary maintenance, disconnect the unit from the mains.

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5.0. FRONT PANEL
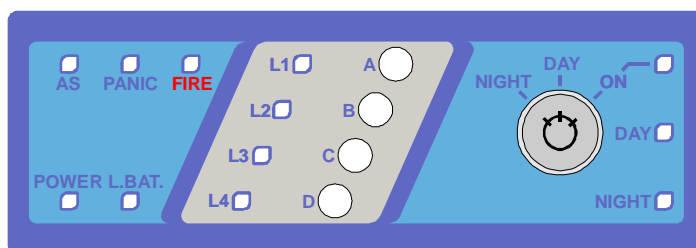
L1 TO L4 ZONE LEDS

Control panel disarmed (DAY) :
1) Lit indicates line open or un-balanced.
2) Flashing indicates alarm memory.
3) Off signals line closed (normal status).

Control panel armed (ON and NIGHT):
1) Off signals line closed (normal status).
2) Lighting during the exit time signals line in alarm.
3) Flashing after the exit time signals alarm memory.

"AS" LED

With control panel disarmed or armed Day /ON/ Night:
1) Off signals line closed (normal status).
2) Flashing indicates zone in alarm or alarm memory.

"PANIC" LED

With control panel disarmed or armed Day / ON/ Night:
1) Off signals line closed (normal status).
2) Flashing indicates zone in alarm or alarm memory.

"FIRE" LED

With control panel disarmed or armed Day / ON / Night:
1) Off signals line closed (normal status).
2) Flashing indicates zone in alarm or alarm memory.

"POWER" LED

Always lit signals 230 Vac present.


"LOW BATTERY" LED

Control panel disarmed or armed (Day /ON/ Night):
1) Off indicates battery charged (normal status).
2) Lit indicates low battery.

"ON" LED (on the panel and remote electronic key)

1) Lights up during the exit time, then flashes until panel is disarmed.

"DAY" LED   (on the panel and remote electronic key)

1) Flashes during the "Day" status.
2) Lighting during the exit time signals line open or   un-balanced.
3) Lighting during the "ON" and "NIGHT" status signals alarm memory.

"Night" LED (on the panel and remote electronic key)

1) Lights up during the exit time, then flashes until panel is disarmed.

PUSH BUTTONS A-B-C-D

1) Are used to associate zones to Night status and to digit access code (IT-400D only).

ARMING / DISARMING KEY

1) **Model IT-400** : Mechanical key switch for arming and disarming. The control panel may be armed also with remote optional NC mechanical key .
2) **Model IT-400 K** : Electronic key for arming and disarming the control panel is supplied with the unit. Remote electronic key is optional.
1) **Model IT-400 D** : Digital keypad for arming and disarming. The control panel may be armed also with remote optional NC mechanical key.

6.0. ZONE DESCRIPTION

The series IT-400 control panels (It-400, IT-400 K, IT-400 D) have 7 zones in total of which L1 ➔ L4 are burglary alarm zones and L6, L7, L8 are Fire, panic and anti-sabotage.

■ All 7 zones (Terminals 18 to 23 and 25 to 29) can be programmed through the dip-switch as **normally closed** (NC) or **balanced** with end of line resistance 4.7 K ohm.

■ The first 2 burglary zones, L1 ➔ L2 (Terminals 18,19,20) may be programmed either as **delayed** or **immediate**, while L3 ➔ L4 (Terminals 21,22,23) are **only immediate**.

■ The remaining 3 zones, anti-sabotage, fire and hold-up (Terminals 23,24,25,26,27,28,29) are **always active**.

ATTENTION	**If the control panel is programmed using end of line resistors you must place a resistor of 4.7 K ohm in series with the sensors installed. If the value of this resistor is changed (for example short circuit), the panel will trigger an alarm.**

ATTENTION	*For the alarm to be triggered the line must remain open for more then 0,3 seconds.*

6.1. BALANCE RESISTOR CONNECTION

Note the location of 4K7 end of line resistor (see the figure on the right).
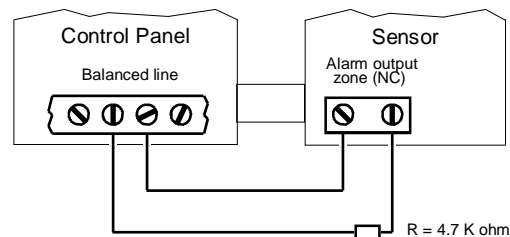
7.0. KEY

The IT-400 / IT-400 K may be armed and disarmed through the key situated on the front panel, or with a code made of up to 6 digits (IT-400 D only). Remote arming is possible through remote electronic key (optional available only for IT-400K that incorporates on board the electronic key interface) or you may use any form of NC key switch with IT-400 and IT400 D.

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7.1. ELECTRONIC KEY (IT-400 K only)

The IT-400 K may be armed and disarmed through the electronic key situated on the front panel or with a remote electronic key (optional). The control panel is supplied with 2 electronic keys already coded .

The control panel can self learn and memorize up to 8 different codes. Available upon request there are also receptacles for electronic key series Magic and Living.

On the receptacle there are 3 LEDs that signal control panel full armed "On mode", partially armed "Night mode" and "DAY mode" (see figure on the right).
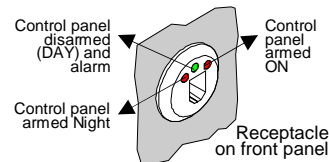
■ **LED "Control panel armed ON"** (Red)

Has the same functions as LED "**ON**" on the panel.
When the electronic key is inserted, the LED emits the following signal:
1) Lit during exit time, after exit time has expired flashes until panel is disarmed.

■ **LED "Control panel armed Night mode"** (Red)

Has the same functions as LED "**NIGHT**" on the panel.
When the electronic key is inserted, the LED emits the following signal:
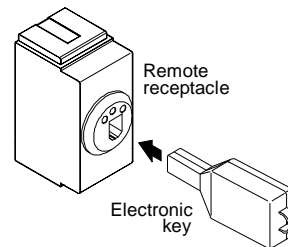1) The LED will flash at the end of the exit time until panel is disarmed.

■ **LED "DAY mode and Alarm Memory"** (Green)
1) When control panel is in "DAY" mode, the LED flashes.
2) This LED will light during the exit time if one of the 7 zones is triggered.
3) After an alarm trigger, this LED will light and remain lit until the control panel is disarmed and re-armed. This is indication of alarm memory.

7.2. REMOTE RECEPTACLE INSTALLATION

To allow arming of the control panel from more then one remote position it is necessary to wire up to terminals 33, 34, 35, 36 and 37 of the IT-400 K to the terminals on the back side of the receptacle as shown in the figure on the right.
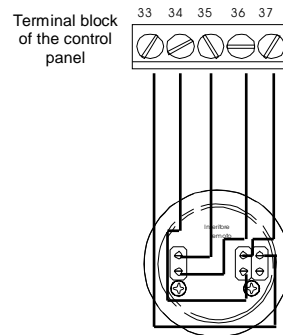
7.3. ELECTRONIC KEY SABOTAGE (IT-400 K only)

● The control panel is protected against attempts to insert a false electronic key.

● If a person inserts a wrong key 10 times, the internal siren relay (Terminals 9,10,11) and external siren relay (Terminals 12,13,14,15,16,17) will be triggered for the alarm time programmed.

8.0. MECHANICAL SWITCH LOCK KEY (remote)

The IT-400 and IT-400 D may be remote armed/disarmed by means of a switch lock connected to terminals 33 and 34.

- **Using a remote switch lock only total arming/disarming is possible (ON position and Day position). <u>Night arming is not possible</u>.**

- **If the control panel has been armed with a remote mechanical switch lock (Terminals 33 and 34 open), it is possible for the control panel to be disarmed by means of the front panel key (or numeric code for IT-400 D) or the remote switch lock.**

- **If the control panel has been armed with the front panel key or by numeric code (IT-400 D) and you attempt to change the status with the remote switch lock, the control panel will not respond anymore to the remote switch lock.**

9.0. MAINTENANCE MODE

With the control panel in this mode it is possible to:

1)   **<u>Open the control panel without triggering an alarm</u>**

2)   **<u>Re-set to factory codes (IT-400 K and IT-400 D only)</u>**

3)   **<u>Enter into the programming mode</u>**

■   <u>To enter into Maintenance</u>

    <u>With cover open:</u>   Set switch 1 of dip switch A to ON for programming. The LED "ON" and "NIGHT" will flash to indicate maintenance mode.

    <u>With cover closed</u> (panel already installed): Set the panel in ON mode (with the master key in IT-400 K) and during the exit time open the cover and set switch 1 of dip-switch A to ON for programming. The LED "ON" and "NIGHT" will flash to indicate maintenance mode.

■   <u>To exit Maintenance mode</u>

    Finished the maintenance operations set switch 1 of dip-switch A to OFF and during the exit time close the cover and set the panel in "DAY" mode.

NOTE: **If at the end of the exit time the panel key is still in ON mode, it will automatically arm.**

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10.0. PROGRAMMING

With the control panel in maintenance mode it is possible to program it using dip-switches A and B as listed below:

<u>DIP-SWITCH A</u> **-** <u>OPTIONS</u>

1	**ON** = Sets control panel in maintenance mode.	**OFF** = Sets normal functioning.
2	**ON** = Exit time 60 sec.	**OFF** = Exit time 30 sec.

3 - 4 *<u>Entrance time Zone 1</u>*
    OFF- OFF = Immediate
    OFF- ON = Entrance time: 15 sec.
    ON-OFF = Entrance time: 30 sec.
    ON-ON = Entrance time: 60 sec.

5 - 6 *<u>Entrance time Zone 2</u>*
    OFF-OFF = Immediate
    OFF-ON = Entrance time: 15 sec.
    ON-OFF = Entrance time: 30 sec
    ON-ON = Entrance time: 60 sec

7 *<u>Automatic zone exclusion after 4 alarm cycles</u>* - **OFF** = NO ; **ON** = YES

8 *<u>Silent or audible panic</u>* - **OFF** = silent ; **ON** = audible

<u>DIP-SWITCH B</u> **-** <u>OPTIONS</u>

1   **ON** = Fire relay follows the timing of the indoor siren
        OFF = Fire relay blocks only when the control panel is disarmed (DAY)

2   **ON** = External siren has only one alarm cycle
        OFF = External siren completes all alarm cycles

3 - 4 *<u>Indoor siren alarm time</u>*
    OFF-OFF = Persistent sound
    OFF-ON = Alarm time: 1 min.
    ON-OFF = Alarm time: 2 min.
    ON-ON = Alarm time: 3 min.

5 - 6 *<u>External siren alarm time</u> (never more than that programmed on the indoor siren)*
    OFF-OFF = Persistent sound
    OFF-ON = Alarm time: 1 min.
    ON-OFF = Alarm time: 2 min.
    ON-ON = Alarm time: 3 min.

7 - 8 *<u>Programming of lines L1-L2-L3-L4 (burglary)</u> and <u>L6-L7-L8 (fire, hold-up and tamper)</u>*
    OFF-OFF = All lines disabled
    OFF-ON = Lines normally closed NC
    ON-OFF = Balanced lines (end of line resistor 4K7 Ohm necessary)
    ON-ON = **NOT USE**

At the end of programming, close the cover of the control panel making sure that dip 1 of dip-switch A is in OFF position (normal function) and that the tamper button is closed.

11.0. USER CODE (IT-400 D only)

The control panel is supplied with factory programmed code of "**123456**".
This code can be modified using the following procedure:

● With the control panel in "DAY" mode, digit:

<div align="center">"# existing code # new code #"</div>

● This code may be made-up from a minimum of 1 and a maximum of 6 digits (from numbers between 0 and 9).

● If you forget the user code, it is possible to "Reset to factory code" (see paragraph 18.0.).

12.0. SELF LEARNING OF ELECTRONIC KEY (IT-400 K only)

The control panel can learn up to 9 different electronic key codes.

Receptacle
on front panel
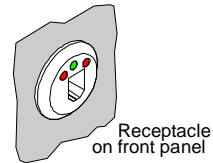
The panel is supplied with 2 keys already memorized. One of these is the **master key, which is the only key that allows you to go into maintenance mode and program other keys** in the memory. If the Master key is lost the "reset to factory defaults" procedure must be done (see paragraph 18.0.).

Procedure for self learning code:

1) Insert the Master key for less than 5 seconds and during the exit time open the front cover and set switch 1 of dip-switch A in ON position. The LEDs "**ON**" and "**NIGHT**" will flash to indicate maintenance mode.

2) Open the jumper "**J8**". The LED "**ON**", "**DAY**" and "**NIGHT**" will light to indicate self learning of codes. Insert a key in the front panel receptacle and wait for two fast flash of the LEDs "**ON**", "**DAY**" and "**NIGHT**". This confirms that the key code has been read. Insert jumper "**J8**" to confirm the memorization of the key.
Repeat the above procedure for all the keys to be memorized.

It is possible to memorize up to 9 keys, including the Master key.

NOTE: If you try to memorize a previously memorized key the panel will not use a new location of memory, only the flashing of LED "**ON**", "**DAY**" and "**NIGHT**" will happen.
If all the 9 memory locations have been occupied, **the panel will not accept new keys**. **In this case the master key (as explained in paragraph 18.0.) and all the available keys must be re-programmed as described above.**

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13.0. BY-PASSING ZONES

It is possible to partially arm the system (NIGHT mode) by by-passing some of the zones.

<u>NOTE</u>   **The control panel is supplied with all the zones active**.

■ <u>**Visualization of the configuration memorized**</u>

IT-400 / IT-400K   -   Turn the key of the control panel to the "**NIGHT**" position and during the exit time, press any one of the buttons "**A**",."**B**", "**C**" or "**D**" relative to the zones.

IT-400 D   -   Bring the control panel to the "**NIGHT**" mode by digiting the access code followed by "✱" and during the exit time press "**#**".

The control panel will visualize the present state of the zones programmed for Night arming.

► If the **LED** related to the zone is **lit**, the zone is active in "NIGHT" mode.   ■

► If the **LED** related to the zone is **OFF**, the zone is by-passed in "NIGHT" mode.   ▫

■ <u>**To modify the configuration memorized**</u>

To modify the memorized configuration, press buttons "**A**", "**B**", "**C**" or "**D**" related to the zones. The LED will change status from lit to off or viceversa.

■ <u>**To memorize a configuration**</u>

At the end of configuration, switch the control panel to the "**DAY**" mode for memorization.

IT-400 / IT-400 K   -   Turn the key of the control panel to the "**DAY**" position.

IT-400 D   -   Digit "**#**" to bring the control panel to "**DAY**" mode.

14.0. TOTAL ARMING *(ON mode)*

■ <u>Procedure</u>:

➲ IT-400 : Rotate the key in "**ON**" position.

➲ IT-400 K : Insert the key into the key receptacle for less than 5 sec.

➲ IT-400 D : Digit the access code, after which press key "#".

■ <u>During the exit time the following will take place</u>:

- The "**ON**" LED on the panel and electronic key receptacle will light.
- If however there are zones open or unbalanced, the LED of the triggered zone on the panel and the "**DAY**" LED on the panel and electronic key receptacle will light.

■ <u>At the end of the exit time</u>:

- The "**ON**" LED on the panel and electronic key receptacle will flash.
- The "**Alarm memory**" LED on the electronic key receptacle will **go off**.
- The panel is now totally armed (ON mode).

1) Violation or unbalancing of the 24 hour, fire and panic zones, tampering of the sensors installed, insertion of false electronic key and low battery condition, will trigger the internal and external siren volt free alarm relay (Terminals 9,10,11 and 12,13,14,15,16,17).

2) The opening or unbalancing of one of the zones L1➔ L4 causes:

- Flashing on the panel of the LED corresponding to the zone triggered until the control panel is re-armed.
- Lighting of the "**DAY**" LED on the panel and electronic key receptacle until the control panel is re-armed.
- Activation of the indoor and outdoor siren alarm relays (Terminals 9 to 17) for the time programmed.

ATTENTION	If when the control panel is armed there is an open or unbalanced line or low battery, <u>the control panel will arm</u> anyway, but if the cause persists, at the end of the exit time, the control panel will go into alarm.

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15.0. PARTIAL ARMING (NIGHT mode)

All the zones are active except those by-passed (see paragraph 13.0.).

■ **Procedure**:

➲ IT-400 : Rotate the key to "**NIGHT**" position

➲ IT-400 K : Insert the key into the key holder for more than 5 sec.

➲ IT-400 D : Digit the access code on a keypad and press "✱"

■ **During the exit time the following will take place**:
- The "**NIGHT**" LED on the panel and electronic key receptacle will light.
- If however there are zones open or unbalanced, the LED of the triggered zone on the panel and the "**DAY**" LED on the panel and electronic key receptacle will light.

■ **At the end of the exit time**:
- The "**NIGHT**" LED on the panel and electronic key receptacle will flash.
- The "**Alarm memory**" LED on the electronic key receptacle will **go off**.
- The control panel is now armed in "**NIGHT**" mode.

1) **Violation or unbalancing of the 24 hour, fire and panic zones, tampering of the sensors installed, insertion of false electronic key and low battery condition, will trigger the internal and external siren volt free alarm relay (Terminals 9,10,11 and 12,13,14,15,16,17)**.

2) **The opening or unbalancing of one of the zones L1➔ L4 causes**:
- Flashing on the panel of the LED corresponding to the zone triggered until the control panel is re-armed.
- Lighting of the "**DAY**" LED on the panel and electronic key receptacle until the control panel is re-armed.
- Activation of the indoor and outdoor siren alarm relays (Terminals 9 to 17) for the time programmed.

ATTENTION	If when the control panel is armed there is an open or unbalanced zone or low battery, <u>the control panel will arm</u> anyway, but if the cause persists, at the end of the exit time, the control panel will go into alarm.

16.0. *DISARMING (DAY mode)*

<u>**To disarm the panel**</u>:

➲ IT-400 : Rotate the key in "**DAY**" position.

➲ IT-400 K : Insert the key into the key holder for less than 5 sec.

➲ IT-400 D : Digit the access code on a keypad and press "**#**".

● **The panel will disarm**. The LED "**ON**" or "**NIGHT**" will **go off**.

● If while armed, an alarm has been triggered, when the control panel is disarmed, the LED of the triggered zone will flash until the control panel is again armed. This indicates "Alarm memory".

● To cancel the alarm memory in IT-400 D / IT-400K, press any key on the keypad or change the status of the control panel by first arming and then disarming the control panel.

● To cancel the alarm memory in IT-400, it is sufficient to change the status of the control panel by rotating the key before in "**ON**" position and then in "**DAY**" position.

1) **The unbalancing of the 24 hour zone (Terminals 28 and 29), the sabotage of zones L1 ➜ L4 and the inserting of false electronic keys will cause**:
   - Slow flashing of "**24 H**" LED on the panel. The LEDs will remain active until the next arming of the panel to indicate "Alarm memory".
   - The activation of the indoor and outdoor siren alarm relays (Terminals 9 to 17) for the time that has been programmed.

2) **The unbalancing of the fire zone (Terminals 25 and 26) causes**:
   - Slow flashing of the "**FIRE**" LED on the panel. The LEDs remain active until the next arming of the panel to indicate "Alarm memory".
   - The activation of the fire alarm relay (Terminals 3, 4 and 5) for 30 seconds.

3) **The unbalancing of the panic zone (Terminals 27 and 28) causes**:
   - Slow flashing of the "**PANIC**" LED on the panel. The LEDs remain active until the next arming of the panel to indicate "Alarm memory".
   - The activation of the panic alarm relay (Terminals 5, 6 and 7) for 10 seconds.
   - The activation of the indoor and outdoor siren alarm relays (Terminals 9 to 17) for the time they have been programmed.

4) **Low battery level (load under 10.5 V) causes**:
   - Slow flashing of the "**LOW B.**" LED on the panel. The LED remain active until the next arming of the panel to indicate "Alarm memory".

5) **Opening of L1 ➜ L4 when functioning in N.C. or the violation of the zones (both not excluded) will cause**:
   - The lighting of the LED on the panel corresponding to the triggered zone only for the time that the zone remains open or unbalanced.

ENGLISH

17.0. LOW BATTERY ALERT

- In case of mains failure, the power is supplied by the battery.

- When the battery voltage goes below 10.5 V, the control panel will signal the event with the lighting of the "**LOW BATTERY**" LED on the panel.
  The LED will remain active until the control panel is re-armed to signal "Low battery memory".

- If "**LOW BATTERY**" alert continues, check if the mains is present (green "POWER" LED lit), check the mains fuse and if the battery charger is functioning correctly (+13.8 Vdc on cables of battery). If all functions correctly, then the battery must be replaced.

18.0. RESET TO FACTORY CODE (IT-400 K / IT-400 D)

This is an **emergency procedure** to be used, for example, in the case that the owner has lost all the electronic keys (IT-400 K) or forgot the access code (IT-400 D).

1) Open the cover of the control panel and disconnect all power (both 230 Vac and 12 V battery supply).

   Note: This will provoke a TAMPER ALARM!

2) Put to ON dip 1 of dip-switch A.

3) Re-connect the power to the control panel. The LEDs "**ON**" and "**NIGHT**" will flash to indicate maintenance mode.

4) Remove bridge "**J8**".

5) (IT-400K only) - Insert the Master key and wait until the LEDs "**ON**", "**DAY**" and "**NIGHT**" fast flash twice to indicate that the master key has been memorized. If this does not happens, repeat points 4) and 5).

6) Insert bridge "**J8**".

7) Exit from maintenance by putting to OFF dip 1 of dip-switch A.

8) Close the cover.

After following the above procedure all of the electronic key codes memorised in the   IT -400K will be cancelled and the access code programmed by the user in the IT-400 D will return to the pre-programmed factory code of 123456 and the control panel will auto-matically set to "DAY" status.

18.0. TECHNICAL CHARACTERISTICS

- Power: 230 Vac - 50 / 60 Hz
- Current drain in stand by: 65 mA
- Current drain in alarm : 270 mA max.
- Line sensitivity: 300 milliseconds
- Alarm time: 60, 120, 180 seconds or infinite (programmable)
- Entry time: 15, 30 or 60 seconds (programmable)
- Exit time: 30 or 60 seconds (programmable)
- Relay contacts panic alarm: 1 A max
- Relay contacts fire alarm: 8 A max
- Relay contacts indoor siren: 8 A max
- Relay contacts outdoor siren: 8 A max
- SMD technology
- Rechargeable battery housing: 12 V - 7 A/h max (ABS container)
  12 V - 17 A/h max (metallic container)
- Dimensions: 275x220x80 mm (ABS container)
  310x315x80 mm (metallic container)
- Weight: 1.5 Kg (ABS container)
  4.9 Kg (metallic container)

Do not litter. Separate and discard the packaging materials in the containers (depending on the rules in force at the place of residence).
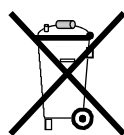
Do not litter. Turn the device and the batteries over to a designated disposal at the end of lifetime.

Latest revision 05-20-2011

20.0   VERSION IT 400 D/K

```
ON
OFF ↕  [12345678]  J8  [12345678]    F1 = 1 A      F2 = 1 A      F3 = 1 A      F4 = 1 A        ⊘ 42 → 19 Vac
        Dip-switch A      Dip-switch B    PC board      Auxiliary     Battery polarity  Short circuit      ⊘ 41 → GND
                                          protection    outputs       inversion        transformer        ⊘ 40 → 19 Vac
                                                                                                           ⊘ 39 → Unit ON
  Normally operation  [ ]                                                                                  ⊘ 38 → Negative impulse
                          TS1  [ ]  Volt free relay contacts         Electronic remote key                ⊘ 37 → D
  Reset factory condition [ ]        [ ]  + 12 Vdc to Terminal 14    (IT-440K version)                     ⊘ 36 → C
                                                                                                           ⊘ 35 → B       ⊘-34  Remote key
                                                                                                           ⊘ 34 → A       ⊘-33   (NC)
   1 2 3 4 5 6 7 8 9 10 11   12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29  30 31 32   ⊘ 33          IT-400 / 400D version
                                                                                   Negative
                                                         L1 L2  L3 L4  L5 L6  L7 L8  Bus RS485
  12 Vdc auxiliary output   NO C NC | NC NO C | NO C NC    NC NO C | NO C NC         Normally closed lines  → GND
  Fire alarm relay                                                                   (NC)                   → TX
  Panic alarm relay                                       Outdoor siren relay                               → RX
  Indoor siren relay                                                                                        L5 = Not used
                                            Volt free relay contacts                                        L6 = Fire alarm line
                                                                                                            L7 = Panic alarm line
                                            Relay with selectable operation                                 L8 = 24 hours antitamper line
```
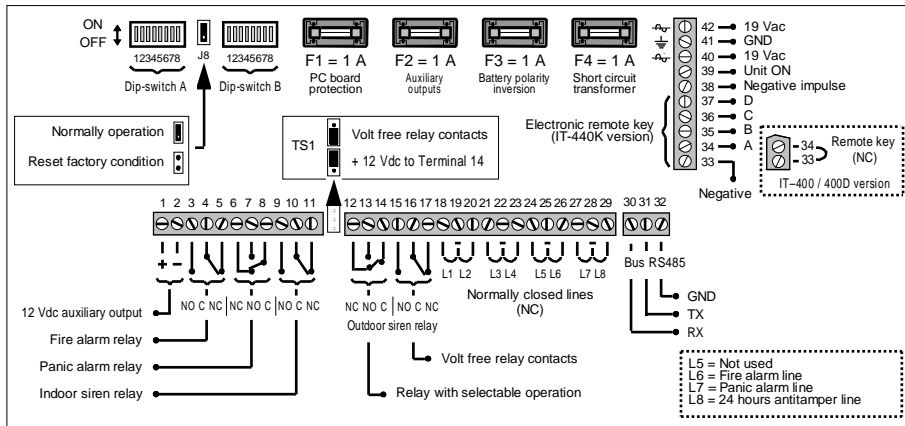
30 31 32 - RS 485 BUS, serial interface for connecting expansions and programming peripherals.

33 34 - Normally closed Remote key input for total arming (IT-400 D)

35 36 37 - Not present on IT-400D.

IT-400 K only

33 - Negative

34 - Remote electronic key input (see page 10).

35 - Output for remote LED that indicates control panel armed day position.
This is located on the remote electronic key base. (see page 10).

36 - Output for remote LED that indicates alarm memory.
This is located on the remote electronic key base (see page 10).

37 - Output for remote LED that indicates control panel armed for night functions.
This is located on the remote electronic key base (see page 10).

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38 - Negative output for telephone dialler that signals burglary and tamper *(Imax 100 mA)*. This output remains active for one second.

39 - Negative output for "Unit ON" signalling - *(Imax 100 mA)*.
This output remains active during the ON status.

40 42 - Power input for control panel 19 Vac.

41 - NOT USED

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Tre i Systems reserves the right to modify the product without warning.

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