

Installation

TELSAR is easy to install. All wiring connections are color coded and you can use the enclosure as a handy mounting template. Here's all you do:

Surface Mount Units

1. Insert screwdriver blade into slot at bottom of housing to unlatch housing from backplate.
2. Using backplate as template, mark locations of mounting screws and input wiring hole on mounting surface. (NOTE: For concrete or other hard-to-drill mounting surfaces, TELSAR can be mounted by adhesive, such as fast-cure epoxy, contact cement, etc. rather than screws. It will be necessary however, to notch the TELSAR housing to allow for wire passage.)
3. Drill 3/8 in. diameter hole in mounting surface for input wiring feed through. Drill holes for four mounting screws. Size of these holes will depend on type of mounting hardware used (wood or metal screws, toggle bolts, etc.), and this will depend on the type of mounting surface.
4. Snake hook-up wires from alarm system control panel to TELSAR mounting location and pull through wire passage hold. Continue wires through hole in TELSAR backplate, sliding backplate up wires to mounting surface and aligning with screw holes.
5. Mount backplate by inserting screws into upper and lower mounting holes and tightening securely.

6. Wiring Hook-Up

Connect TELSAR input lead wires as follows:

- Red to positive 6 to 15 VDC power source (panel power OK)
- Black to negative or DC common
- White with red stripe (two wires) to panic/tamper circuit (normally open)
- Green to green LED (positive)
- Blue to green LED (negative)
- Orange to red LED (negative)
- Brown to red LED (positive)

Arm / Disarm Relay Output

- White to relay common
- Yellow to N.O. relay contacts
- Violet to N.C. relay contacts

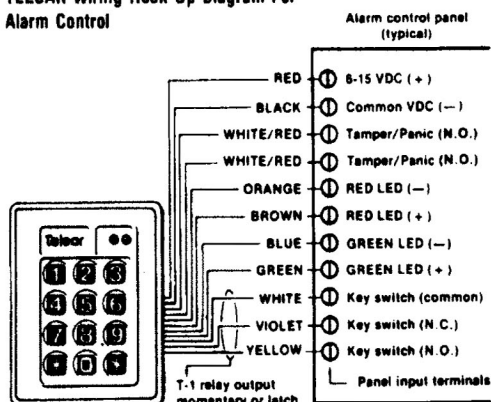
Panic / Tamper Output

- White/Red Momentary
- White/Red N.O. contact-keys * & *

NOTE: You do not have to connect all input leads. For example, you may only need to use one of the relay contacts, or you may not wish to use all LEDs.

Typical Hook-Up

TELSAR Wiring Hook-Up Diagram For Alarm Control



IMPORTANT: On surface units, check tamper/emergency output wiring to ensure that tamper is normally open (N.O.) after installation

LED WIRING

TELSAR comes with two light emitting diodes (one red, one green). Use these LEDs to indicate alarm system status. Red LED can be used to alarm system armed or disarmed. Green LED may be used to show condition of protective circuit (doors, windows, etc. and open or closed). Both Red and Green LEDs are independently wired (one wire for + voltage and one wire for - voltage). If your alarm panel permits, You may reduce the number of hook-up wires by using a common (-) or (+) for both LEDs.

Red and Green LEDs have current - limiting resistors and operate on 5 to 15 VDC (observe Polarity).

TELSAR's new Fresnel Lens LEDs provide a lifetime of bright non-glare indication.

TWO FUNCTION OUTPUTS

TELSAR Model T-1 has two separate outputs.

1. **Arm/Disarm Relay Output** - This relay output is operated by 4 digit code and is user programmable. Relay output is SPDT and operates either momentary or latch. This relay output is used to operate primary alarm system by arming or disarming or resetting the alarm control unit.
2. **Emergency/Panic Keys "&" and factory set emergency buttons.** Emergency/Panic is normally open (N.O.) and requires simultaneous pressing of the "&". Emergency/Panic may be deleted by cutting J-1 Jumper on TELSAR's PC Board. Emergency/Panic output may be connected to 24-hours panic or silent alarm input of alarm system control.

How to Set Code

Your TELSAR is field programmable. That means you can change codes quickly and easily, without having to disconnect the unit and take it into the shop. All you need is a screwdriver to remove TELSAR housing from its mounting.

The TELSAR code is determined by the order in which the coded white jumper pins are plugged into the first four connector holes (labeled "A" through "D") in the unit's PC board (see photo). There are ten coded white jumper pins, one for keys 0-9 push button numbers on the TELSAR keyboard. Keyboard number is printed on TELSAR's PC board directly adjacent to coded white jumper pin wire connection on PC board.

To set the code:

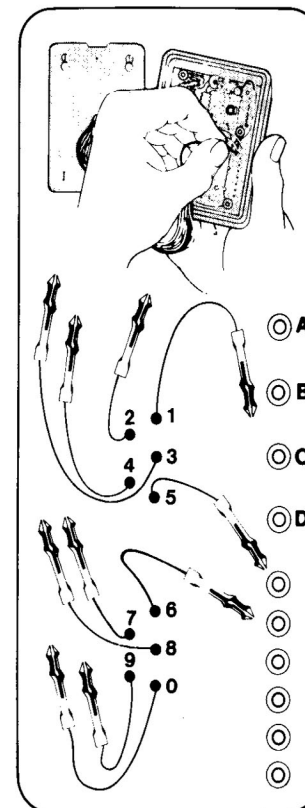
1. Select a four-digit code combination. This can be any sequence of our DIFFERENT DIGITS (digits 0 through 9). You CANNOT REPEAT DIGITS because there is only one white jumper pin for each of the ten programmable push buttons on the keyboard. (Example: The code 4623 can be used, but not the code 4642 because the number 4 is repeated.)
2. Unplug the ten coded white jumper pins from the PC board by grasping each pin individually and pulling end directly out of the connector hole (see drawing).
3. Take coded white jumper pin corresponding to the first digit in your code and plug it into the PC board connector hole labeled "A".
4. Repeat step 3 for remaining three digits of the code - inserting pin for second digit of code into connector hole "B", third-digit pin into hole "C", and fourth digit pin into hole "D". (Example: For the code 4623, #4 white jumper pin would go to hole "A", #6 white jumper pin to hole "B", #2 white jumper pin to hole "C", and #3 white jumper pin to hole "D".)
5. Plug remaining six white jumper pins into remaining six (unlabeled) connector holes. These six pins can go in any order. All white pins must be plugged into connector holes, otherwise, your TELSAR will not operate.
6. TELSAR comes factory set for Emergency-Panic operation by pressing both Asterisk (**) keys simultaneously. To delete or remove this feature cut J-1 Jumper. Cutting J-1 thus removes Emergency-Panic while maintaining tamper switch feature.

To change the code:

Simply remove TELSAR from its mounting backplate and repeat the above procedure, using a different sequence of white jumper pins in the four connector holes ("A" through "D").

Internal Tamper switch:

TELSAR's internal tamper switch and Emergency-Panic is normally open (N.O.) and its output is white/red wires (2). With TELSAR factory set for ** Emergency-Panic, both tamper switch and ** keys are in parallel on white/red wires.





DIGITAL KEY CONTROL
STANDARD MODELS

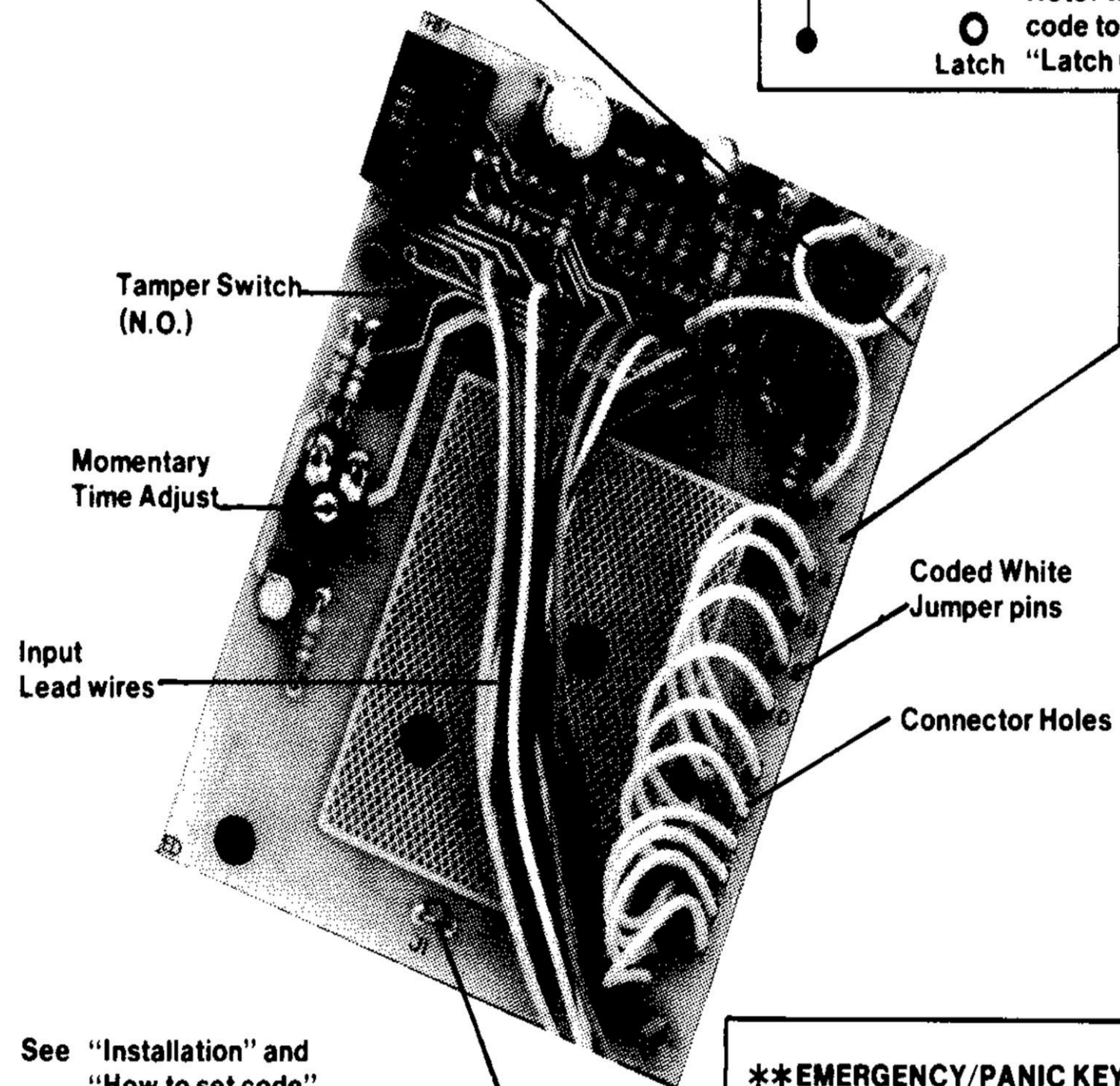
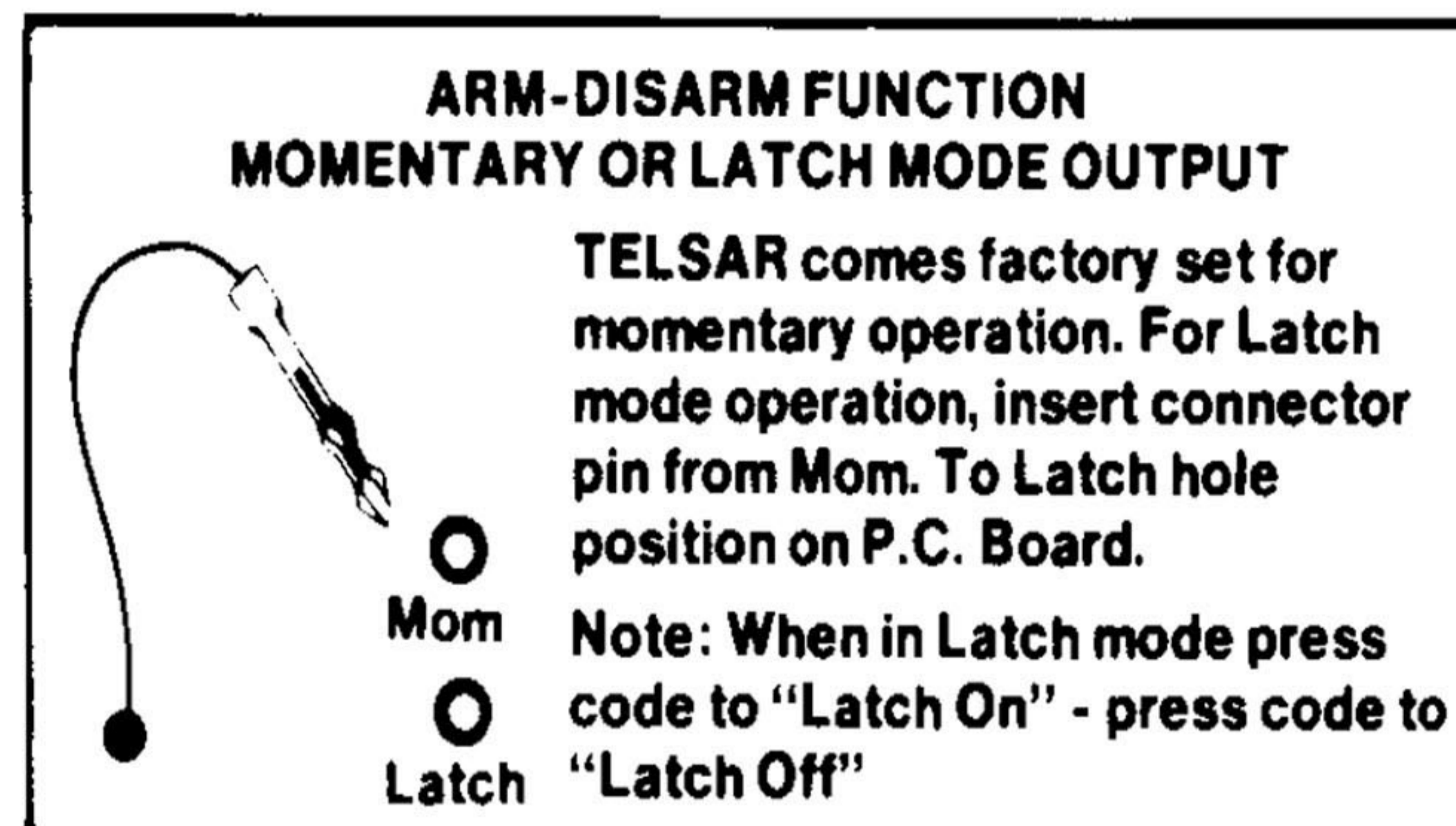
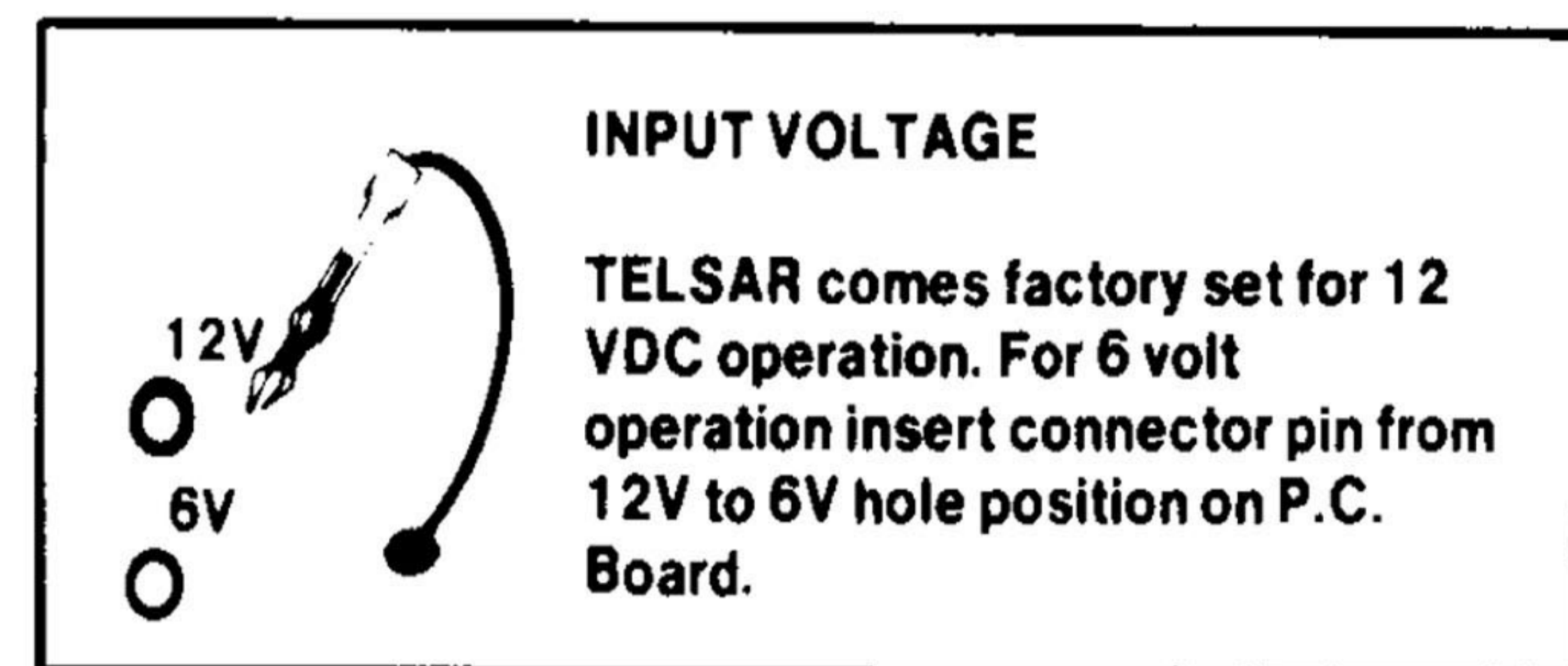
Inside TELSAR's PC Board

MODEL T-1 Surface Mount

- Field code change — with jumper pins
- Momentary or latch relay output
- Completely self-contained — 4.5 to 18 VDC
- Panic output (N.O.)
- Tamper output (N.O.)
- Over 5000 possible code combinations
- Attractive enclosure
- Pre-wired for easy installation
- NEW! Telephone-style keys with "snap-action" feel
- NEW! Fresnel lens LEDs
- Wrong-number lockout

TELSAR digital key pad uses time-proven solid-state electronics to provide a reliable keyless combination for security applications, from arming/disarming alarm systems to operating door-strikes, and control equipment.

TELSAR is particularly well suited to residential and commercial installations where key control is a problem — TELSAR's attractive design gives the "touch of class" to your security system.



See "Installation" and "How to set code" in this instruction Manual for detailed information.

**EMERGENCY/PANIC KEYS (N.O.)

TELSAR comes factory set for Emergency/Panic operation by pressing both Asterisk (**) keys simultaneously. To delete or remove this feature cut J-1 Jumper. Cutting J-1 thus removes Emergency/Panic while maintaining Tamper Switch feature.

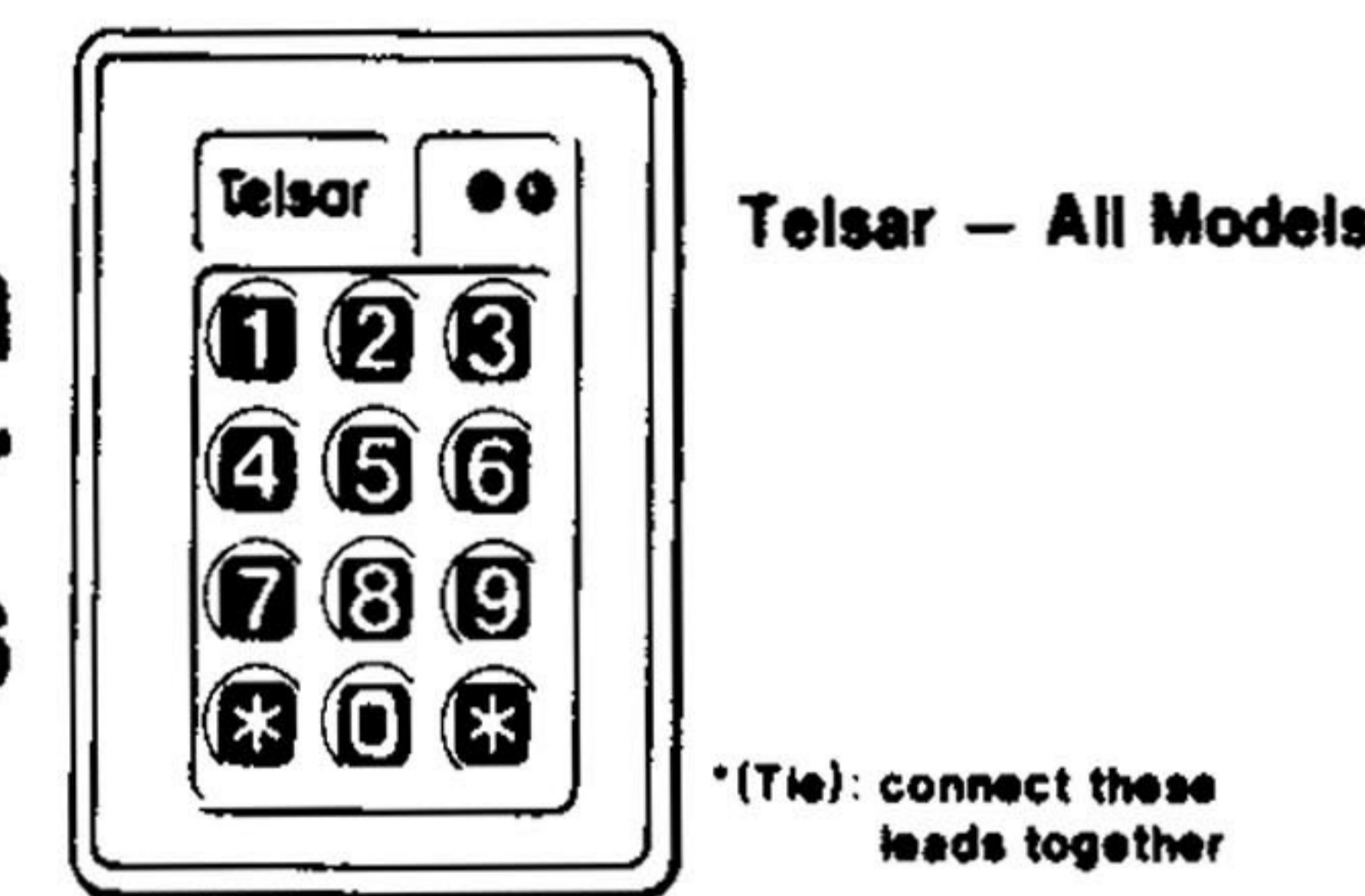
Emergency/Panic is N.O. and requires simultaneous operation of * & * keys

Model T-1 PC Board



Digital Key Pad

Hook-Up Diagram To Popular Alarm Panels



PANELS		RED	BLACK	R/W	R/W	ORANGE	BROWN	BLUE	GREEN	WHITE	VIOLET	YELLOW	MODE
ACRON	PAS-1	11	10			3	12	5	12	12	X	6	MOMENTARY
ADEMCO	330R/332R/340R	9	10	21	20	17	16	13	14	16	X	15	MOMENTARY
ADEMCO	1023/1024/1026	14	20	7	8	20	(Tie)*	20	POST	10	(Tie)*	11	LATCHING
ALARM CONTROLS	6130	19	20	23	25	2	21	1	21	21	X	22	MOMENTARY
ALARM CONTROLS	6131	12	16	1	9	3	11	4	11	11	X	2	MOMENTARY
ARITECH	704	+	-	9	10					11	12	X	LATCHING
ARITECH	724	+	-	6	11	10	11			11	X	12	MOMENTARY
CAPRICORN		1	2	1	6	3	1	4	1	1	X	5	MOMENTARY
DTI	DSS-51/52	16	15	1	3	9	10	9	8	11	X	12	MOMENTARY
F.B.I.	642 U.L. F.M.	23	24	9	10	27	25	26	25	25	X	28	MOMENTARY
F.B.I.	675 U.L. F.M.	12	6			11	10	8	7	10	X	9	MOMENTARY
F.B.I.	1270	12	10	19	12	21	14	13	12	12	X	11	MOMENTARY
F.B.I.	XL1215	9	20	10	9	23	9	22	9	9	X	8	MOMENTARY
UNITED CONTROL	L1010a, L1030a	TS-2 E	TS-2 F	TSI-1 6	TSI-1 7	TS-2 D	TS-2 B	TS-2 C	TS-2 B	TS-2 B	X	TS-2 A	MOMENTARY
MINI CONTROLLER	MC-3	5	6	X	X	X	X	X	X	3	X	4	LATCHING
MINI CONTROLLER	MC-4	10	11	9	10	7	5	6	5	4	X	5	MOMENTARY
MINI CONTROLLER	MC-5	10	11	9	10	7	5	6	5	4	X	5	MOMENTARY
MINI CONTROLLER	MC-6	13	14	12	11	8	6	7	6	5	X	6	MOMENTARY
MINI CONTROLLER	MC-7	21	22	6	7	12	9	11	9	9	X	10	MOMENTARY
MOOSE	735	12	11			6	2	7	2	3	X	2	MOMENTARY
MOOSE	MPI-23	2	1			1	3	10	2	2	3	X	LATCHING
MOOSE	MPI-25/MPI-50	5	4	7	6	23	7	24	7or5	7	X	8	MOMENTARY
MOOSE	MPI-26	15	16	14	15	11	15	12	15	15	X	13	MOMENTARY
NAPCO	BB-5	9	5	14	7	11	14	12	14	14	X	10	MOMENTARY
NAPCO	CCI-5	22	24	7	15	11	15	10	15	12	X	15	MOMENTARY
NAPCO	CCI-7	26	27	16	17	3	1	2	1	1	X	4	MOMENTARY
PRO	31415	3	4			10	8	11	8	8	X	9	MOMENTARY
PRO	422/430/432/435	6	5			18	20	17	20	20	X	19	MOMENTARY

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