Installation / Programming Guide for

Altronix®

PT724A

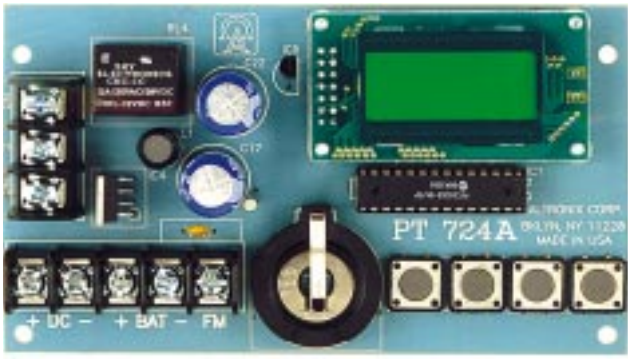
365 Day 24 Hr. Timer / Controller

PT724A - 365 Day 24 Hr. Timer / Controller

Overview:

Model PT724A is an extremely versatile 24 Hour 365 Day Event Timer designed to support a wide range of applications. Such applications include: Home and Building Automation, Security, Access Control, Lighting Control, Etc. PT724A is equipped with a form "C" relay contacts that provide many latching and/or momentary operations during a program schedule of your choice. The EE prom memory allows for programming of unit prior to/or during field installation. Events may be set for single or multiple operations on a daily and/or weekly schedule. The block programming feature enables repeating an event on any combination of consecutive days. PT724A will compensate for daylight savings time if desired. It automatically adjusts for leap year and is Y2K compatible. Individually selected holiday exceptions can be programmed to over-ride regularly scheduled events.

Specifications:



- 12 to 24 volts AC or DC operation
- Standby current: 10mA (relay off) 50mA (relay on).
- Battery charging current: 100mA.
- Form "C" relay contact rated 10amp @120VAC/28VDC.
- EE Prom memory protects against loss of programming due to power failure.
- Accurate crystal controlled clock.
- Momentary and/or Latching Events.
- 50 individually programmed daily/weekly events.
- Block programming capacity can accommodate a total of 350 events per week.
- 10 programmable Holiday dates.
- "First man in" option.
- Alphanumeric LCD display simplifies programming.
- Standard or Daylight Savings Time settings.
- Automatic compensation for leap year.
- Built-in charger for 12VDC sealed lead acid or gel type batteries (Max charge current 100mA).
- Lithium battery backup maintains clock (optional).
- User friendly programming.
- Unit is Y2K compatible.

Board dimensions: 5.25"W x 3"L x 1"D

Installation Instructions:

1. Mount PT724A in desired location / enclosure.
   Carefully Review:
   Basic Operation ***(pg. 3)***
   Terminal Identification Table ***(pg. 3)***
   Push Button Layout and Description ***(pg. 4)***
   Programming Instructions ***(pgs. 4-6)***
2. Connect 12 to 24 Volts AC or DC to terminals marked [+ DC – AC]. (when using DC carefully observe polarity).
3. Connect 12VDC battery (optional) to terminals marked [+ BAT – 12VDC].
4. Insert lithium battery (optional/not supplied. Order part LB2032) in battery holder as shown in fig. 1 pg. 4. With the + positive side facing up.
5. Connect devices to be controlled to dry outputs marked [NO, C, NC].
   Note: It is important when connecting DC powered electromechanical devices such as Mag Locks, Electric Strikes, Bells, Relays, etc. to install a catch diode across the pos (+) and neg (-) terminals of the device. Connect diode as close to the device as possible with the banded side facing the pos (+) terminal. This will reduce the possibility of interference.
6. Program clock and desired event schedule (see programming instructions pg. 4-6).

Basic Operation:

PT724A controls an independently operated dry form "C" relay output. Relay can be programmed to: turn on (latch), turn off (release latch) or pulse (momentary toggle) at a specified time and day (this is referred to as an event). Events are programmed via the push buttons and LCD display. Events may be programmed to occur on any day of the week at any time. In addition, events may be repeated at a specific time on two (2) or more consecutive days (i.e. M-F, Sun-Th, etc) Multiple combinations of individual and block events may be programmed. Holiday exceptions are individually selected by date and will over-ride all regularly scheduled events.

The four (4) output relay modes consist of:
Relay OFF - De-energizes the relay until a relay ON event is detected
Relay ON - Energizes the relay until a relay OFF event is detected.
Disable - Used to cancel an existing programmed event.
Pulse - Momentarily energizes the relay for a selectable time period of 1 sec. to 15 secs.
Time is displayed in 24 hr. military format.

Terminal Identification Table:

Terminal Legend	Function/Description
NO, C, NC	Dry Contact output used to switch controlled devices. When these relays are energized (ON) the NC and C terminals are open and the NO and C terminals are closed. When this relay is de-energized (Off) the NC and C terminals are closed and the NO and C terminals are open.
+ DC – ~ AC ~	AC or DC Input 12 to 24 volt. When using DC carefully observe polarity.
+ BAT – 12VDC	12VDC standby battery input (battery leads provided).
FM	When this terminal is connected to DC neg. (-) the "First Man in" feature is enabled. The relay will remain in its present position until this connection is terminated. At that time the relay will resume normal operation and latest scheduled events will occur.

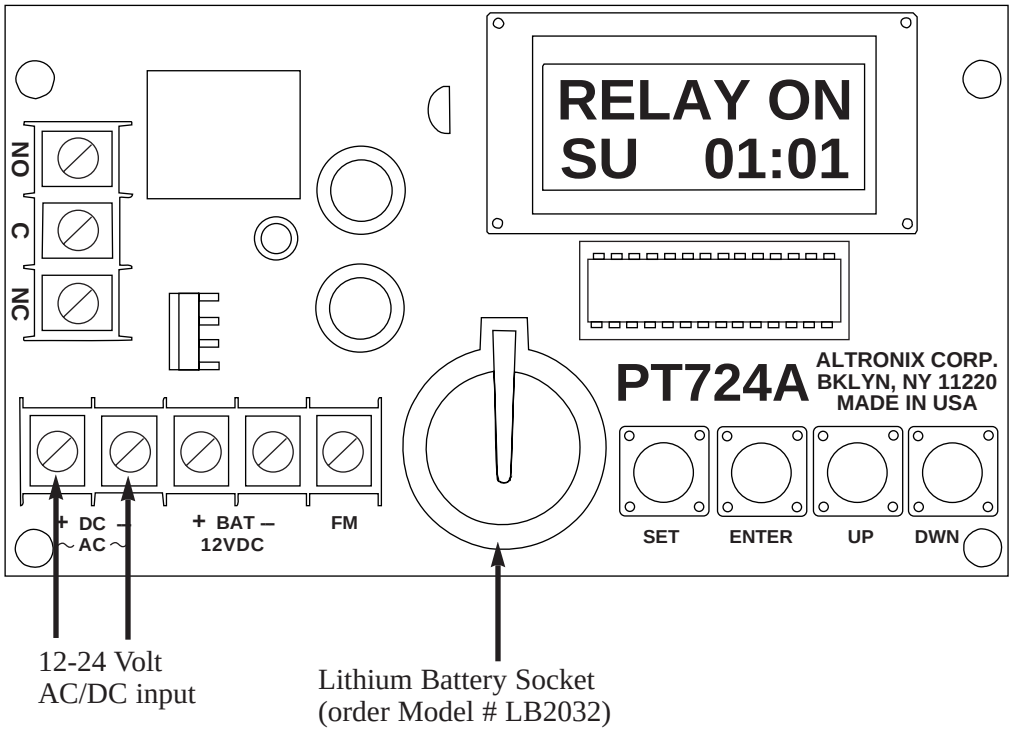
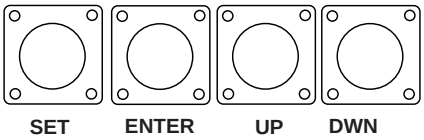


Fig. 1

Push Button Layout:



Push Button Description Table:

Push Button	Function/Description
SET	Scrolling keys for programming. Escaping out of existing programming.
ENTER	Accepts selections made to programming.
UP	Scrolls through selections.
DWN	Scrolls through selections.

UP and DOWN keys can be used to select data entries. After scrolling to the correct entry, depress ENTER to accept.

Programming Instructions

A. Setting Clock/Calendar:

Upon initial power up | RLY OFF SU 01:01 | will appear in display.

Depress SET | ENTER to SET TIME | will appear in display.

Depress ENTER | 01/01/01 SU/01:01 | will appear in display.

Enter the current date, day of week and time (military) by depressing UP and DWN to make the selection then depress ENTER to accept.
Next select either DS (daylight savings mode) or ST (standard time mode) by depressing set until

ENTER to SET BK appears in display.

Depress ENTER to scroll until flashing cursor appears under DS (daylight savings mode) in display. To change mode depress UP or DWN once ST (standard time mode) will appear in display. Depress ENTER to accept correct selection.

Note: The flashing cursor denotes location of data entry selection to be made. If an entry was made in error or requires changing, depress SET to backspace, make the correct selection and depress ENTER to accept data and advance the cursor.
To change or program clock/calendar simply repeat the steps above.

B. Setting Events:

Depress SET until | ENTER to SET EVENT | appears in display.

Depress ENTER | #01^ OFF SU 00:00 | will appear in display.

Depress ENTER until the flashing cursor appears under OFF in display. Now select type of event required, by scrolling using the UP and DWN push buttons until either:
ON - Relay ON (latching mode).
OFF - Relay OFF (latching mode).
PL - Relay Pulse (momentary).
appears in display and depressing ENTER will make selection.

When selecting the pulse mode PL01 will appear in the display. It is now necessary to assign the length of time (duration of relay activation). The pulse can range in length from 1 second minimum to 15 seconds maximum and is selected by using UP or DWN push buttons, then depressing ENTER to accept.
Note: If pulse duration is not selected relay output defaults to 1 second.

Next select the day of the week and time (military) by scrolling using UP and DWN push buttons and depress ENTER to accept.
You may continue to program events by repeating the previous steps or exit programming by depressing SET.
Note: When programming additional events it is necessary to select the next consecutive event number following the last event program to continue.

Note: When it is required to have the same event repeated on two (2) or more consecutive days of the week (Block Programming), enter the first day followed by the last day by depressing SUN through SAT.
Example:
1) Monday through Thursday depress MON followed by THURS.
2) Wednesday through Sunday depress WED followed SUN.

C. Setting Block Events (weekly repeat):

Depress SET until | ENTER to SET BK | appears in display.

Depress ENTER | BK=SA/SU TIME=DS | will appear in display.

Flashing cursor will appear at the location of the first day of the week desired. Depress UP and DWN to select day. Depress ENTER to confirm selection, then cursor will appear at the location of the last day of the week desired. Depress UP and DWN to select day. Depress ENTER to confirm selection. Depress ENTER again to escape.

D. Setting Holiday Events:

Depress SET until | ENTER to SET EVENT | appears in display.

Depress ENTER | #01^ ON HL 00:00 | will appear in display.

Next select HL to indicate as holiday event and time by scrolling using UP and DWN push buttons and depress ENTER to accept.
You may continue to program more holiday events by repeating the previous steps or exit programming by depressing SET.

E. Setting Holiday Dates:

It is now necessary to assign these holiday events specific calendar dates which they are to occur.
To select Holiday events depress SET until

ENTER to SET HOL | appears in display.

Depress ENTER | #01^ HOL SU 00:00 | will appear in display.

Note: Holiday events will override all regularly programmed events.

F. Delete/Disable Events or Edit Events:

Previously programmed regularly scheduled and/or holiday events may be deleted/disabled without having

to erase all events.

Depress SET until | ENTER to SET EVENT | appears in display.

Depress ENTER | #01^ ON TU 00:00 | will appear in display.

Now scroll using UP and DWN push buttons to the event you wish to delete, depress ENTER to move flashing cursor under relay option then depress UP and DWN push buttons until DIS is displayed, depress ENTER to confirm.

G. Delete All Events:

All previously programmed events can be deleted by depressing

SET until | ENTER to CLR MEM | appears in display.

Depress ENTER | CLEAR MEMORY? | will appear in display.

Depress ENTER | PRESS UP & ACCEPT | will appear in display.

Depressing UP push button will now clear all events previously programmed.
If you wish to escape from this selection depress any of the other push buttons: SET, ENTER and DWN.

Customer Event Log

Event #	Relay #	Day/Block	Holiday Dates	Event Type

Customer Event Log

Event #	Relay #	Day/Block	Holiday Dates	Event Type

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