Installation/Programming Guide for

Altronix®

PT724A
365 Day 24 Hr. Timer/Controller

Altronix® 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 an independently controlled form "C" relay contact that provides 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. Individually selected holiday exceptions can be programmed to override 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 contacts are 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.

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:

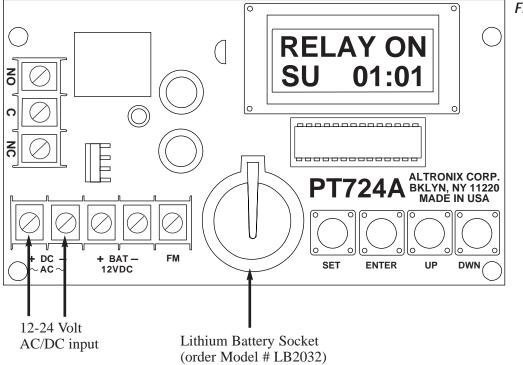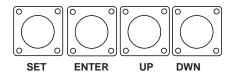| Terminal Legend	Function/Description
NO, C, NC	Dry Contact output used to switch controlled devices. When these relays are energized (ON) the NC and C terminals are open and the NO and C terminals are closed. When this relay is de-energized (Off) the NC and C terminals are closed and the NO and C terminals 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

12-24 Volt
AC/DC input

Lithium Battery Socket
(order Model # LB2032)

Push Button Layout:

SET	**ENTER**	**UP**	**DWN**

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:

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.

A. *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 or BK* for weekly repeat 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.

*see section B

B. *Setting Block (weekly repeat):*

Next select block programming by depressing **SET** untill

> ENTER to
> SET BK

appears in display.

Depress **ENTER**

> BK = SA/SU
> TIME = DS

will appear in display.

Example: To select Monday thru Friday repeat operation. With flashing cursor under SA depress **UP** or **DWN** to

change to MO then depress **ENTER** to move flashing cursor to SU and depress **UP** or **DWN** to change FR. Depress **ENTER** flashing cursor will now be under TIME = DS. Press **ENTER** if you wish to select DS (daylight savings mode). If your area does not require Daylight Savings adjustment depress **UP** or **DWN** to change to (standard time mode) ST will appear in display. Depress **ENTER** to accept correct selection.

C. *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**.

D. *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.

E. *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.

F. *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.
Note: If clock was set prior to programming events. You should re-program clock to insure accuracy.

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

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Event #	Relay #	Day/Block	Holiday Dates	Event Type

Altronix is not responsible for any typographical errors.