PT724A Series
365 Day 24 Hr. Timer/Controllers

Models Include:

PT724A
- Timer module

DPT724A
- Timer module equipped with snap track for DIN rail mount capability

PT724AE
- Timer module in enclosure

Installation Guide

ⒶAltronix®

More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix models PT724A/DPT724A/PT724AE are extremely versatile 24 Hour 365 Day Event Timers designed to support a wide range of applications. Such applications include: Home and Building Automation, Security, Access Control, Lighting Control, Etc. PT724A/DPT724A/PT724AE are 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/DPT724A/PT724AE will compensate for daylight savings time if desired. Individually selected holiday exceptions can be programmed to override regularly scheduled events.

Specifications:

Input:
- 12 to 24 VAC or VDC operation.

Relay:
- Form "C" relay contacts are rated 10A @ 120VAC/28VDC.
- Standby current: 10mA (relay off)
   50mA (relay on).

Features:
- 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.
- Standard or Daylight Savings Time settings.
- Automatic compensation for leap year.

Visual Indicators:
- Alphanumeric LCD display simplifies programming.

Battery Backup:
- Built-in charger for 12VDC sealed lead acid or gel type batteries (Max charge current 100mA).
- Optional lithium battery backup maintains clock. Order Altronix part # LB2032.

Mechanical:
- **PT724A** - Timer module.
  Board Dimensions (approx.):
  3" x 5.25" x 1" (76.2mm x 133.4mm x 25.4mm).
- **DPT724A** - Timer module equipped with snap track for DIN rail mount capability.
- **PT724AE** - Timer module in enclosure.
  Enclosure Dimensions (H x W x D approx.):
  8.5" x 7.5" x 3.5" (215.9mm x 190.5mm x 88.9mm).

Installation Instructions:

1. Mount PT724A/PT724AE/DPT724A in desired location.

   Carefully Review:
   Basic Operation   **(pg. 3)**
   Terminal Identification Table   **(pg. 3)**
   Push Button Layout and Description   **(pg. 4)**
   Programming Instructions   **(pg. 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 included. Order part LB2032) in battery holder *(Fig. 1, pg. 3)* 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/PT724AE/DPT724A 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 override all regularly scheduled events.
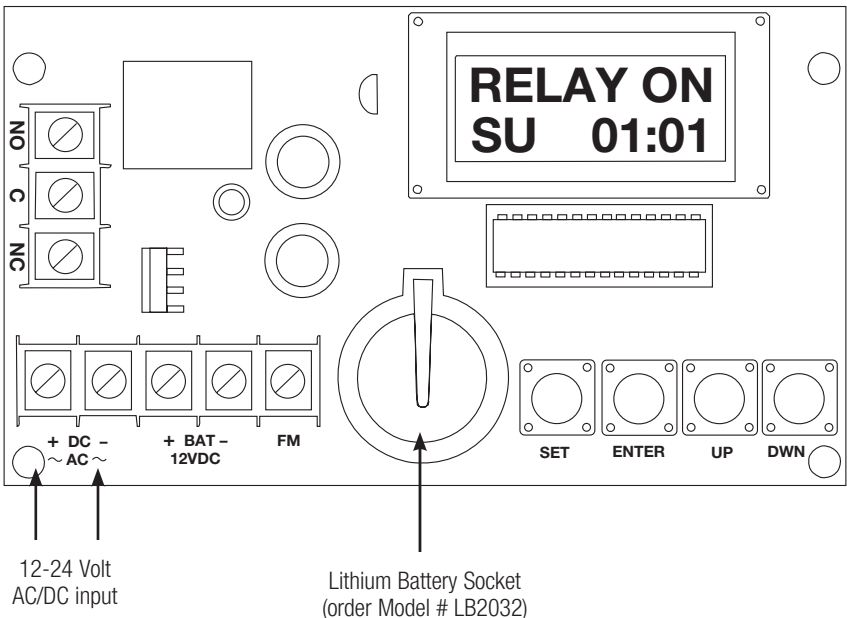
Output Relay Modes:

Mode	Status
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 stand-by 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.
DOWN	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 on display.

Depress **SET**.   `ENTER to SET TIME`   will appear on display.

Depress **ENTER**.   `01/01/01 SU/01:01`   will appear on 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 on 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 on display.

Depress **ENTER**.   `#01^OFF SU 00:00`   will appear on 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), or **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 on display.

Depress **ENTER**.

```
BK=SA/SU
TIME=DS
```

will appear on 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 on display.

Depress **ENTER**.

```
#01^ ON
HL 00:00
```

will appear on display.

Next select HL to indicate as holiday event and time by scrolling using **UP** and **DWN** push buttons and depress **ENTER** to accept. Exit programming by depressing **SET**. If no holiday event has been entered and a holiday date is entered, the unit will stay in its last position when that date comes up.

Note: When a holiday event is entered, all holidays will follow that event.

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 on display.

Depress **ENTER**.

```
#01^ HOL
SU 00:00
```

will appear on 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 on display.

Depress **ENTER**

> #01^ ON
> TU 00:00

will appear on 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 on display.

Depress **ENTER**.

> CLEAR
> MEMORY?

will appear on display.

Depress **ENTER**.

> PRESS UP
> & ACCEPT

will appear on 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**.

DPT724A ST3 Drawing:
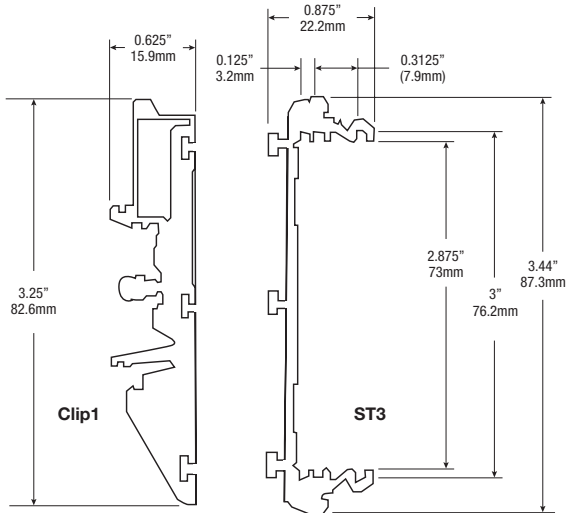
PT724AE
Enclosure Dimensions (H x W x D approximate):
8.5" x 7.5" x 3.5" (215.9mm x 190.5mm x 88.9mm)

7.25" (184.2mm)

3.625" (92mm)

1.25" (31.8mm)

3.5" (88.9mm)

1.25" (31.75mm)

2" (50.8mm)

2" (50.8mm)

8.125" (206.4mm)

0.6" (15.2mm)

1.125" (28.6mm)

6.05" (153.7mm)

0.6" (15.2mm)

1.125" (28.6mm)

1" (25.4mm)

1" (25.4mm)

0.6" (15.2mm)

6.05" (153.7mm)

0.6" (15.2mm)

1.25" (31.75mm)

3.5" (88.9mm)

1" (25.4mm)

1" (25.4mm)

5.25" (133.35mm)

1" (25.4mm)
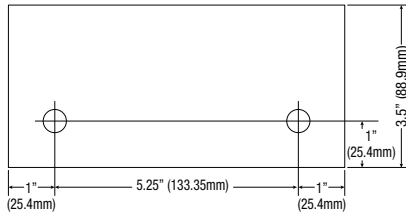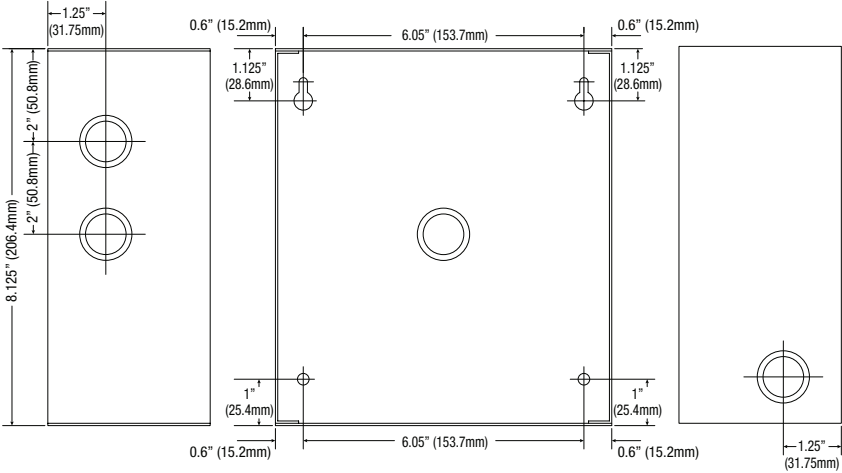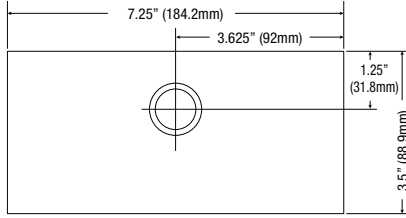
Customer Event Log

Event #	Relay #	Day/Block	Holiday Dates	Event Type

MEMBER