

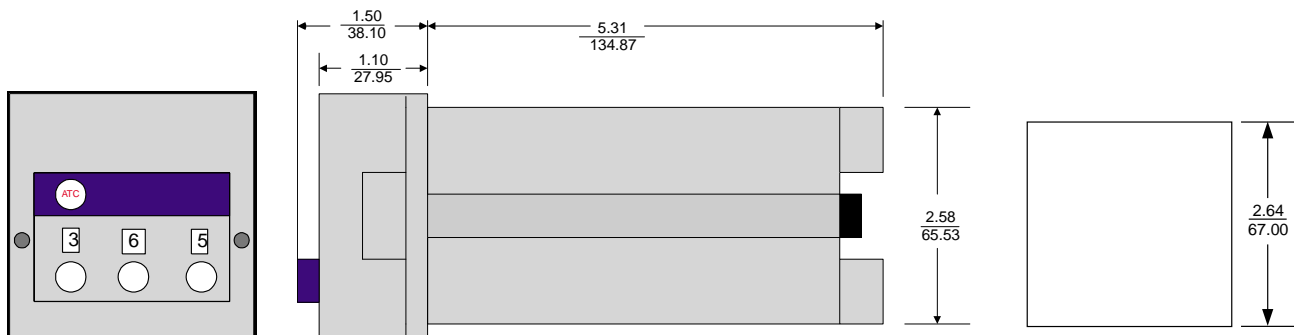
365B Long Ranger Timer



INSTALLATION
INSTRUCTION
November, 2000
3-0365-095-04-00

DESCRIPTION:

The 365B Timer is a microprocessor based digital timer with three rotary switches for setting and adjustment of the Preset. The Preset can be any three-digit value from .01 Sec to 999 Hrs. The Decimal and Range are switch selectable. There is a high-intensity blue vacuum fluorescent display which is DIP switch selectable to Timeup or Timedown. Two heavy duty 7A DPDT relays provide instantaneous, interval or delayed output control. Plug-in watertight panel mounting allows easy replacement without the removal of field wiring.

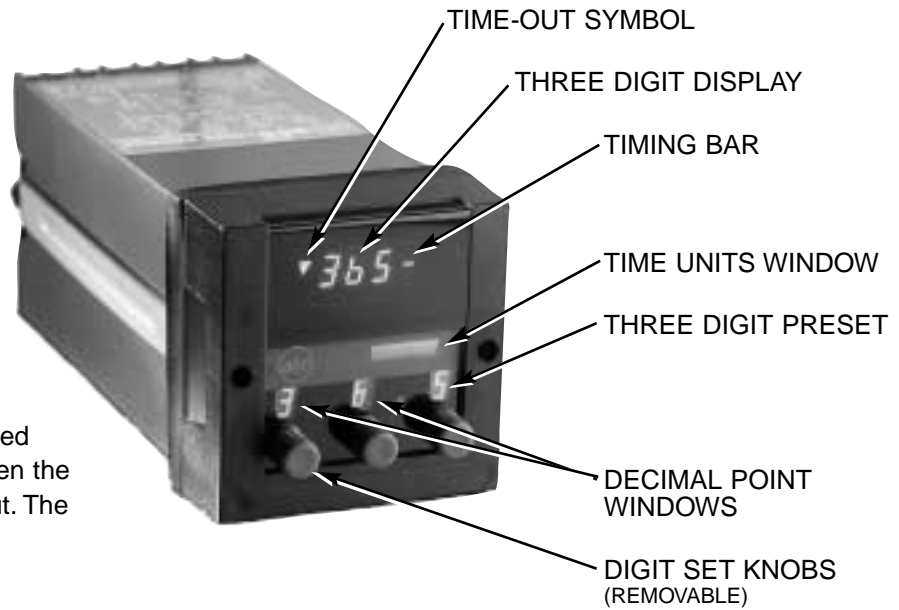


MOUNTING:

1. Cut out a 2 5/8" square mounting hole.
2. Mount timer to housing before mounting in the panel. Make sure the rubber gasket is flush with timer bezel before tightening the screws.
3. Slide housing with timer (as pictured above) through cut out until the gasket is against panel. Be sure there are no ripples in gasket and it is flat and flush to panel.
4. Holding the timer in place install the aluminum mounting bracket around the timer housing and slide it forward until the ends contact the rear of the panel.
5. Using the two screws provided, attach the bracket to the timer housing and tighten screws until the timer housing is fastened securely to the panel.
6. Install the mylar insulator over rear of bracket by sliding the end tabs between the bracket and the housing and allowing metal extensions on rear of bracket to go through the slots in insulator to hold it securely in place.
7. Important Note for Moist Environment:
For maximum water-tightness, the two (2) front screws securing the timer in the housing should be torqued to 4 inch pounds.

THE DISPLAY:

A high intensity blue vacuum fluorescent display consists of three digits and a decimal point. There is a horizontal timing bar "—" which appears to the right of the display and blinks once per second during timing. This is very useful in showing that the timer is timing especially when the digits do not change rapidly as in the hours ranges. There is also a triangular timed out symbol "▼" which indicates when the delayed relay is energized at time-out. The timing bar blinks rapidly at time-out as well.



CHANGING THE DISPLAY MODE OF OPERATION:

(ARRANGEMENT 30 MODELS)

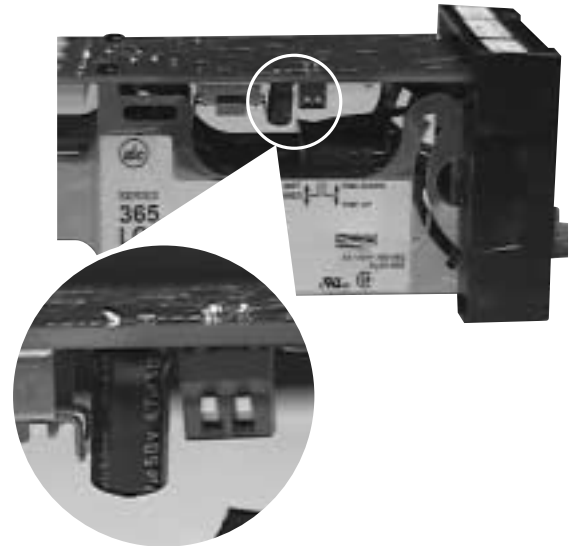
Depending on the position of an internal DIP switch, the 365's three-digit display will show elapse time (**TIMEUP**) or time remaining (**TIMEDOWN**) from the set point.

(ARRANGEMENT 50 MODELS)

Depending on the position of an internal DIP switch, the 365's three-digit display will time up (**TIMEUP & GO**) to the set point, the delayed relay energizes and continue timing until reset. When (**TIMEDOWN & GO**) is selected, the display will time down from the set point, the delayed relay energizes, and timing continues timing up from zero giving a direct overshoot reading. Timing will continue until reset.

(ARRANGEMENT 10 MODELS)

These units do not have a DIP switch or digital display. The display is a blinking LED which blinks once per second during timing and blinks rapidly after time-out.



ADJUSTING THE ROTARY SWITCHES:

The time preset is set with the rotary switch knobs located below each digit. These knobs can be rotated in either direction (CW or CCW). The time preset can be adjusted during timer operation, this will result in an immediate change in the timing cycle. Setting all three digits to zero will cause an instant time-out of the timer.

CHANGING THE TIMING RANGES:

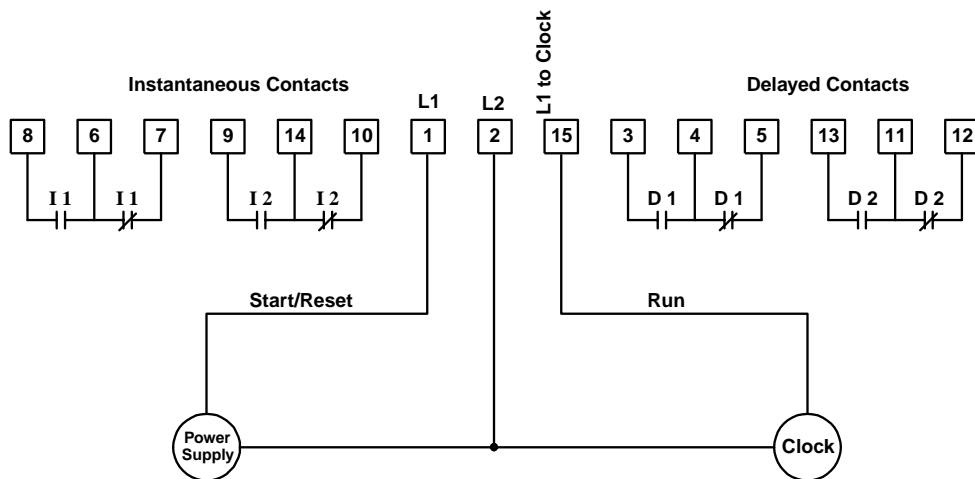
Decimal Point Location can be changed with the white plastic lever arm mounted behind the front face of the timer. This lever arm moves into three positions (**XXX, XX.X, XX.X**). With finger force you can change the position and at the same time observe the front of the timer. This sets the decimal point electronically as well as mechanically.

SEC-MIN-HRS can be changed by moving a small arm located in a slotted arc on the side plate of the timer. Depressing this arm slightly with a pencil or pen point allows selection of any one of three ranges. This sets the range electronically as well as graphically in the window on the front of the timer.

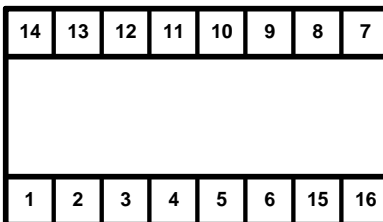
OPERATION:

As soon as power is applied to terminals 1 (L1) & 2 (L2) and a jumper from 1 to 15 (clock) of the timer. The instantaneous relay is energized and its contacts (8-6-7 & 9-14-10) change state. The timer starts timing, indicated by the display. When the preset value is reached, the display stops, the triangular timed out symbol lights, and the delayed relay energizes and its contacts (3-4-5 & 13-11-12) change state. The timer remains in this timed-out condition until reset by removing power from terminal 1 for at least 60 msec. At reset, both relays revert back to their shelf (without power) state.

WIRING



HOUSING TERMINALS:



SPECIFICATIONS:

Models - choice of three standard 120VAC models:

365B300Q10PX timing LED only, without display
365B300Q30PX, with display, timeup or time-down.
365B300Q50PX, with display timeup & go or time-down & go.

Each model available in 240VAC or 24VAC.

Timing Ranges

Nine (9) Switch-Selectable ranges
0 - 9.99, 0 - 99.9, and 0 - 999 Sec, Min, or Hrs.

Housing

72mm² DIN size, Plug-in design, fully gasketed dust and water-tight when panel mounted. Panel mounting bracket included.

Housing Terminals

16 Screw (6-32) terminals with saddle clamps accessible at rear.

Load Relays

Type: DPDT, Form C
Contact Rating: 7 Amps @ 120VAC, or 1/6HP@120VAC
Operate & Release Time: 10ms, max.
Life: 10 million operations (no load)

Power Requirements

120VAC, 50 or 60 Hz (10%, -20%)
Running <100mA@120VAC
240VAC, 50 or 60 Hz (10%, -20%)
Running <50mA @240VAC
24VAC, 50 or 60 Hz (10%, -20%)
Running <300mA@24VAC

Temperature Rating

32°F to 140°F (0 to 60 C)

Weight

Net: 1lb. 6 oz.
Shipping: 2 lbs.

Reset Time

Guaranteed not to reset <20ms.
Guaranteed to always reset>40ms.

Display

Arrangement 10: Red LED, blinks once per second during cycle, rapidly after time-out.
Arrangement 30 & 50: Cycle Progress 3-digit high-intensity blue VF display, 0.3 inch
Timing Bar: "—" display; blinks once per second during timing, rapidly after time-out.
Timed-Out Symbol: "Ñ", lights after time-out.

ORDERING CODE**365B****300****Q****30****PX****BASIC TYPE**

On-Delay Digital Timer

RANGE

300 .01 to 9.99, 99.9, 999 Sec, Min, Hrs

000 Special

VOLTAGE & FREQUENCY

Q 120 VAC, 50/60 Hz

R 240 VAC, 50/60 Hz

T 24 VAC, 50/60 Hz

K Special

ARRANGEMENT

10 Timing LED only, without Display

30 Selectable Timeup or Timedown w/Display

50 Selectable Timeup & Go or Timedown & Go w/Display

FEATURES

P Basic Plug-in unit with housing

S Surface mounted Plug-in unit*

X Standard unit

K Special

*Order with Surface Mounting Bracket, P/N 0353-260-27-00 as separate item.

A WORD ABOUT SAFETY

Most of ATC's products are designed for general use and not for specific applications. Because of this, we usually are not aware of how they eventually will be used. However, they are frequently employed in controlling automatic machinery or processes.

Although ATC makes product of high reliability, every product, given enough time, can be expected to fail. Statistically, devices can fail after a short period of time or a long period of time or anything in between. In essentially all cases, failure means (1) failure to provide a logic signal or power to an electrical load when it should or (2) the providing of such a signal or power when it should be absent. Less often, failure means failure to meet some other specification. But, in all cases, it means to do something unwanted or unexpected.

No ATC product is fail-safe in and of itself.

The photoelectric controls that we manufacture and/or market are for general industrial application and are not designed as a primary optical safety device and are not fail-safe in and of themselves.

Since the failure of automatic machinery or processes can create hazardous conditions for personnel or property, whatever the definition of failure might be, it is necessary to consider the consequences of failure and design of the application in which the ATC product is used so that failure will not create a hazard to personnel or property. The design must insure that any failure will result in a fail-safe condition and there will be no danger to personnel and/or property involved in the use of the product.

Designs incorporating controls of any kind should be carefully considered to provide for their eventual failure.

IMPORTANT NOTICE

Our recommendations, if any, for the use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of

our raw materials and in our manufacturing operations. However, since the use of this product is beyond the control of the manufacturer, no guarantee or warranty, express or implied is made as to such use or effects incidental to such use, handling or possession or the results to be obtained, whether in accordance with the directions or claimed so to be. The manufacturer expressly disclaims responsibility therefore. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material or use.

Warranties of Sale, disclaimer thereof and limitations of liability are covered exclusively by Automatic Timing and Controls' printed warranty statement for the controls. These instructions do not expand, reduce, modify or alter Automatic Timing and Controls' warranty statement and no warranty or remedy in favor of a customer or any other person arises out of these instructions.

**AUTOMATIC TIMING AND CONTROLS**