# TIME SWITCHES  AP21 SERIES

## RING BELLS.. CONTROL LIGHTING, HVAC AND SECURITY EQUIPMENT.

**UP TO 30 POWERFUL PROGRAM STEPS - 210 EVENTS PER WEEK.**
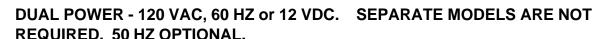
**UP TO 10 ANNUAL SKIP PLANS FOR SKIPPING HOLIDAYS AND SPECIAL EVENTS.**

**EASY - AUTOPROMPT PROGRAMMING**

**POWER FAIL BACK-UP. KEEPS TIME AND PROGRAM FOR 48 HOURS. NO BATTERIES REQUIRED!**

**PROGRAMMABLE, AUTOMATIC DAYLIGHT SAVINGS TIME, AND LEAP YEAR ADJUSTMENT.**

**RELAY OUTPUT - 15 AMP SPDT LATCHED or 0-99 SEC. MOMENTARY OPERATION.**

**DUAL POWER - 120 VAC, 60 HZ or 12 VDC. SEPARATE MODELS ARE NOT REQUIRED. 50 HZ OPTIONAL.**

**LOW POWER - IDEAL FOR SOLAR APPLICATIONS.**

**PROGRAM TRANSFER - AP21T**

## TWO YEAR WARRANTY

# DESCRIPTION

The AP21 SERIES Time Switches are single circuit, calendar programmable, solid state time switches. They are used for switching electric circuits according to a pre-set time and date program. They are designed to control lighting, heating, ventilating, air conditioning and security systems where holiday skip operation is desired.

There are three basic models: the AP21, the AP21T and the AP21TR. The AP21 and AP21T have an AUTO PROMPTING, alpha-numeric display and a 16 key, positive action keyboard that makes programming fast and simple. They are identical except that the AP21T has a Transfer Port. This port allows programs to be transferred from one AP21T to another, or to another AP21TR. Programs can even be transferred to or from a computer with the optional AP21COMP Software and Adapter kit. The AP21TR is a plug-in relay module that is programmed from an AP21T, or a computer, using the AP21COMP Software. Once programmed, the AP21TR will provide the very same switching functions as the AP21T.

# SPECIFICATIONS

## PROGRAMMING CAPABILITIES

*EASY TO USE* - 16 character alphanumeric, LCD display and "Auto Prompt" software provides display information to guide the operator during programming.

*UP TO 30 POWERFUL PROGRAM STEPS* - Select either a 16 step or 30 step program size from the keyboard. Each program step can be programmed for any day of the week, or for all 5 weekdays, or for both weekend days, or for everyday of the week providing up to 105 ON's and 105 OFF's, for a total of 210 events per week.

*UP TO 10 SKIP PLANS* - A 16 step program has 10 skip plans, a 30 step program has 3. Each skip plan has a starting and ending date during which all events are skipped.

*PROGRAMMABLE DST ADJUSTMENT* - The AP21 Series Time Switches can be programmed to automatically adjust their time for Daylight Savings Time changes according to U. S. law, even if the law changes.

*AUTOMATIC LEAR YEAR ADJUSTMENT*

*MANUAL OVERRIDE* - The output relay can be manually energized or de-energized from the keyboard.

*PULSED / MOMENTARY OUTPUT* - The output can be programmed to operate as a momentary contact, program-mable from 1 to 99 seconds.

## ELECTRICAL / PHYSICAL

Dual Power:  95 to 135VAC, 60 HZ (50HZ Optional). Or 10.5 -15 VDC. Less than 1Watt.
Output:  SPDT relay rated at 15 A resistive at 120 VAC or 28 VDC.
Wiring:  Terminal block - can accommodate wire sizes from 14 to 24 AWG.

*POWER FAIL BACKUP* - Program and time keeping are maintained for 48 hours on a rechargeable *capacitive backup system* in the event of a power failure. The relay output and the display are disabled during backup.

*TIME KEEPING* - Synchronous with the AC power line. During a power failure it is quartz crystal controlled with an accuracy of +/- .003% throughout its full temperature range.

*PROGRAMMED EVENTS* - On/Off events are program-mable with a one minute resolution and occur at the zero second of that minute.

Size:  AP21 - 3.7" W x 7.6" H x 1.6" D.
AP21T - 3.7" W x 8" H x 1.6" D.
AP21TR - 3.6" W x 4.8" H x 2.5" D. with base.

Weight - Approximately 2 lbs.
Mounting - Mounting holes provided.
Operating Temperature Range: -30 to +74 C.

# ORDERING INFORMATION

*AP21*  Time Switch, 1 SPDT Output, 30 Events Per Day, Dual Power - 120 VAC 60 HZ or 12 VDC.

*AP21T*  AP21 with program transfer port.

*AP21TR*  AP21 Plug-In Module 120 VAC 60 hz.

*OPTIONS and ACCESSORIES*

9100-1021 Connector and 48" Mating Wiring Harness.
9110-0041 Transfer Cable, 6 feet long.
0859-1008 Socket, 8 pin, used on AP21TR.

AP21COMP Software is also available for programming AP21T's and AP21TR's from a MSDOS computer. Contact the factory for all other versions.

# FOR ASSISTANCE CALL 800-444-7161