
AE-373 SERIES
ELAPSED TIME / RUN TIME ACCUMULATOR

**AE-373 SERIES ELAPSED TIME / RUN TIME ACCUMULATOR
REV 09/18/00**

DESCRIPTION

AE-373 Series Elapsed Time / Run Time Accumulators are available with 1", 2.3", 4", 8", or 12" high digits, visible from 5 feet to 500 feet away. They are available in 2, 4 and 6 digit versions, depending on the digit size ordered. The Elapsed Time / Run Time Accumulator can count up elapsed time as long as a signal is applied. The accumulation will stop when the signal is removed or can be reset by a separate signal.

This manual covers all AE Series displays from two digits to six digits, including two-sided versions with the Elapsed Time / Run Time Accumulator option (373) installed. To simplify the manual the term's "timer", or "AE Device" may be used to cover any of the specific models.

The model numbers of the AE-373 Series are derived from the digit size and the number of digits in the display, followed by the 373 suffix. For example the AE24-373 is 2.3 inch, four-digit display and the AE126-373 is a twelve-inch, six-digit display. For two-sided versions, the model number would have /2. For example: AE84/2-373 would be the model number for a Two-Sided, Eight Inch, Four Digit, Elapsed Time / Run Time Accumulator. Each AE Display can be configured in a number of ways. Some will have different enclosures including wall mount, rack mount, two sided wall or ceiling mount, and NEMA type enclosures for all applications. For your specific model number and hardware configuration refer to the drawings at the back of this manual.

For multiple display system the Master/Driver Option (348) can be added. This option allows you to connect up to 40 remote displays to the AE-373 Series Elapsed Time / Run Time Accumulator for displaying the same elapsed time in many locations.

Applications include: Production down time accumulators, cycle timers, etc. They are easily interfaced with photoelectric, infrared, and mechanical limit switches, process control computers (PLC's) and other equipment.

The AE Series Elapsed Time / Run Time Accumulators are configured from standard modules to provide specific size, number of digits, color, brightness, enclosure type, mounting, wiring, and power requirements.

See the drawings at the back of this manual for your specific configuration.

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SPECIFICATIONS

Digits:	1, 2.3, 4, 8 and 12 Inch High, Seven Segment Digits are available. For additional digit specifications, see the drawings at the back of this manual for your specific model.
Number of Digits:	Models are available with 2, 4 or 6 digits. See the drawings at the back of this manual for your specific model.
Count Signal:	5V DC to 120V AC or DC. Can be jumpered for dry contact closure input. Elapsed time accumulates when signal is present – Holds elapsed time when absent.
Reset Signal:	5V DC to 120V AC or DC. Can be jumpered for dry contact closure input. Elapsed time is set to zero when applied.
Power:	120 VAC – The power required varies with the size and number of digits. Optional power includes 50 HZ, 12 VAC, 12 to 15 VDC and 220 VAC.
Accuracy:	Synchronous with the AC power line when power is applied. On battery backup a 0.005% crystal time base is used.
Battery standby:	Self-charging, 9V Ni-Cad. Stores elapsed time for up to 4 hours. Elapsed time and reset are functional during power outage, but displays are blank.
Operating Temperature:	0 to 50 Degrees C
Enclosure:	Black anodized aluminum with .118" thick red acrylic lens. The back panel is .125" thick black, ABS plastic. The size varies with the size and number of digits. See the drawings at the back of this manual. A 1210-0101 mounting bracket is provided for wall mounting to a single or double gang box. <u>Optional enclosures are available.</u>
Wiring:	Clearly labeled, pigtail lead wires (#18 AWG) are provided. Optional terminal blocks, power cords, and connectors are available.
Output:	12-15V DC Sensor power output
Options:	There are numerous options available for the AE-373 Series Elapsed Time / Run Time Accumulator. Some include: (1/2) Two Sided Version, (348) Master/Driver Output, (376) Relay Output, and (PC8) Add 8 FT. Power Cord. When options are ordered, supplemental information is provided with addenda and additional drawings.

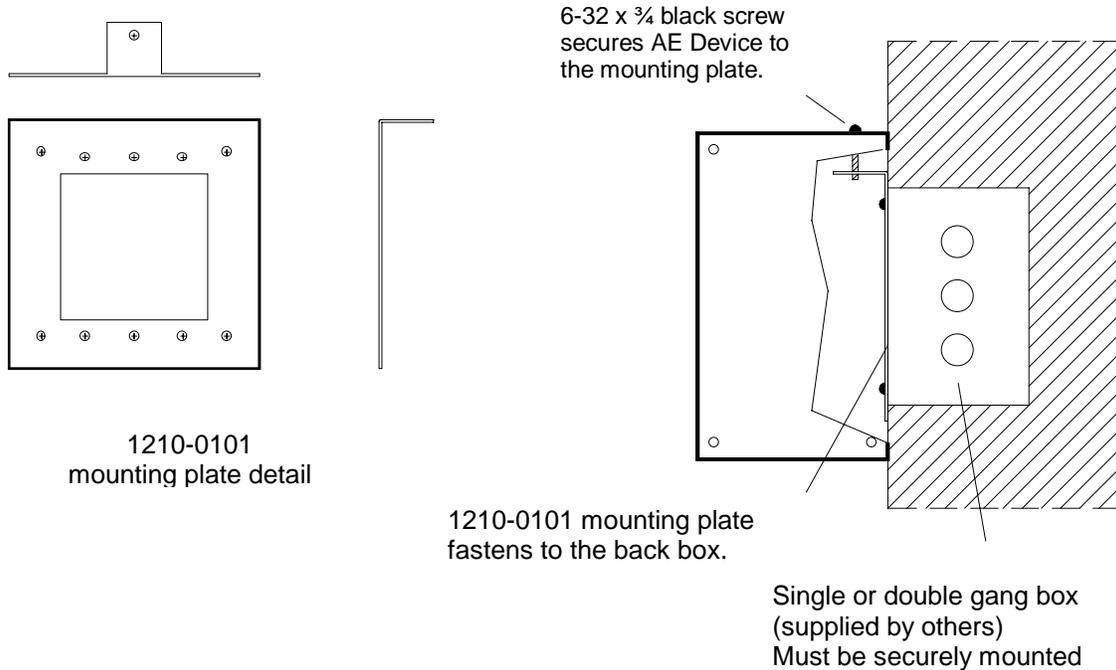
For all other options refer to the drawings at the back of this manual for additional specifications.

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INSTALLATION

MOUNTING

The AE Series Displays can be mounted in a variety of ways. Things to consider for mounting include ambient light, viewing area, ambient temperature, dirt or dust. Most models are supplied with one or more 1210-0101 mounting brackets for wall mounting to a single or double gang box. See the detail below. For other mounting options, such as ceiling mounts or double-sided mounts, refer to the specific drawings.



WIRING

There are many wiring configurations for the AEXX Series Timer, depending on the functions used and the options installed. On most units the AC power has been pre-wired and clearly labeled pigtail leads are provided at the back panel for termination in a single or double gang box as shown above. Some models come with AC power cords or 12 VAC power modules. These can be plugged into a standard 120 VAC outlet. For any other power configurations, refer to the specific wiring diagrams provided.

On most standard units, clearly labeled pigtail leads wires are provided for the power at the back panel of the unit. Labeled pigtail leads are provided for the count and reset signals as well as for the sensor power output. For any other signal configurations, refer to the specific wiring diagrams provided.

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OPERATION

Before applying power, be sure all wiring is completed. Apply power to the unit. The displays will rotate during the power on self-test and then a version number will appear for a few seconds before the display shows all zeros.

USING THE ELAPSED TIME / RUN TIME ACCUMULATOR

The COUNT signal can be any voltage level from 5V DC to 120V AC or DC switched through a SPST switch or relay, or an active signal such as an open collector output from a PLC or proximity detector properly wired to the COUNT input. Elapsed time will accumulate when the signal is applied. It will stop and hold when the signal is removed.

Elapsed time will accumulate up to the maximum count allowed by the number of digits in the display. It will roll over to zero and continue counting elapsed time.

The RESET signal can be any voltage from 5V DC to 120V AC or DC switched through a SPST momentary switch or relay, or an active signal such as an open collector output from a PLC or proximity detector properly wired to the RESET input. The elapsed time will be reset to zero when the signal is applied.

The RESET signal overrides the COUNT signal. As long as the RESET signal is applied, the COUNT signal is ignored.

If power is lost, a rechargeable battery backup system will store the elapsed time for up to four hours. Also the COUNT and RESET signals are functional during power loss.

TECHNICAL SUPPORT

For any questions concerning installation and operation of this product, contact our factory at:

PHONE (800) 444-7161
OR
FAX (318) 797-4864

SERVICE POLICY

It is recommended that all service for this product be done by the factory or by a factory authorized service representative. Applied Technical Systems will provide ongoing service support in and out of warranty. Send your repairs to:

APPLIED TECHNICAL SYSTEMS
815 KING PLACE
SHREVEPORT, LA 71115

APPLIED TECHNICAL SYSTEMS
WARRANTY POLICY

ATS warrants its products to be free of defects in material and workmanship for a period of 24 months from the date of purchase. ATS will repair or replace any product returned to its authorized factory service center within the warranty period so long as there is no evidence that the product has been abused, misused, damaged by lightning, overloads of any kind or water, or altered in any way.

Products returned for warranty must be returned with freight prepaid. ATS will pay normal freight charges to return the product to the customer. Special premium freight requested by the customer will be charged to the customer.

ATS disclaims any warranties expressed or implied, including merchantability and/or fitness for a particular purpose. In no event shall ATS be held liable for incidental or consequential damages.