
AEXX-200F SERIES
4-DIGIT LINE FREQUENCY MONITORS

AEXX-2200F SERIES 4-DIGIT, LINE FREQUENCY MONITORS
REV 10/08/01

DESCRIPTION

AEXX-200F Series Line Frequency Monitors are precision large digital displays that measure power line frequency with a 0.01 Hz resolution over a range of 45 Hz to 65 Hz. They are ideal for applications where line frequency needs to be viewed from a distance greater than what is provided by the typical line frequency panel meter.

These 4-digit displays are available with 1", 2.3", 4", 8", or 12" high super bright LED digits, visible from 5 feet to 500 feet away.

This manual covers all AE Series displays, including two-sided versions with the Line Frequency Monitor option (200F) installed. To simplify the manual the term's "display", or "AE Device" may be used to cover any of the specific models.

The model numbers of the AEXX-200F Series are derived from the digit size and the number of digits in the display, followed by the 200F suffix. For example the AE24-200F is 2.3-inch, four-digit display and the AE124-200F is a 12-inch, four-digit display. For two-sided versions, the model number would have /2. For example: AE84/2-200F would be the model number for a Two-Sided, Eight Inch, Four Digit, Line Frequency Monitor. 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 AEXX-200F Series Line Frequency Monitor for displaying the same line frequency in many locations.

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SPECIFICATIONS

- Function: Measures and displays line frequency from 45.00 Hz to 65.00 Hz with a 0.01 Hz resolution.
- The same line power that powers the display is monitored internally. No other input wiring is required.
- Line frequency readings are averaged and displayed according to an adjustable preset.
- Settings: The number of line frequency readings to be averaged can be adjusted internally to provide an average 1, 16, 32, 64, or 128 readings. A rotary selector switch is provided. Factory setting is 128 readings averaged.
- Accuracy: 0.025%, +/- .01 Hz. Operating temperature is 0 to 50 Degrees C.
- 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: Four digits with two decimal places (45.00 to 65.00) See the drawings at the back of this manual for your specific model.
- Power: 120 VAC, 50/60 Hz – The power required varies with the size of the digits. Optional power includes 12 VAC, 24 VAC and 220 VAC.
- 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. Optional enclosures are available.
- Wiring: Clearly labeled, pigtail lead wires (#18 AWG) are provided. Optional terminal blocks, power cords, and connectors are available.
- Options: There are numerous options available for the AEXX-200F Series Line Frequency Monitor. Some include: (/2) Two Sided Version, (348) Master/Driver 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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SETTING THE “NUMBER OF READINGS TO BE AVERAGED PRESET”

The “Number of Readings to be Averaged Preset” is factory set for 128 readings which will update the display about once every two seconds. For applications requiring different averaging a rotary switch adjustment is provided on the PCB Assembly. See the drawing at the back of this manual for more detail.

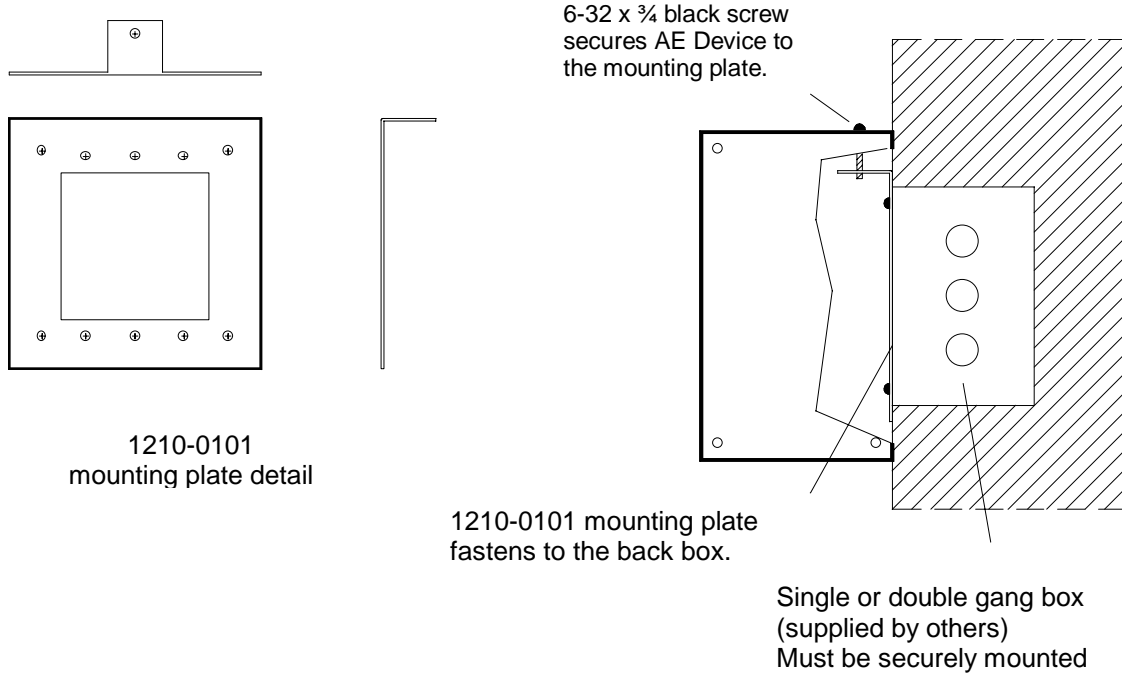
SWITCH SETTING	# OF READINGS AVERAGED	DISPLAY UPDATE
0	1	32 per sec
1	16	4 per sec
2	32	2 per sec
4	64	1 per sec
8	128	1 every 2 sec

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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

On most standard units, clearly labeled pigtail leads wires are provided for the power at the back panel of the unit. Additional pigtail leads may be included depending on the options installed. Refer to the addendum sheets provided for those options. Also, see the wiring diagrams for more detail at the back of this manual.

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. After the self-test, line frequency will be displayed.

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
849 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.