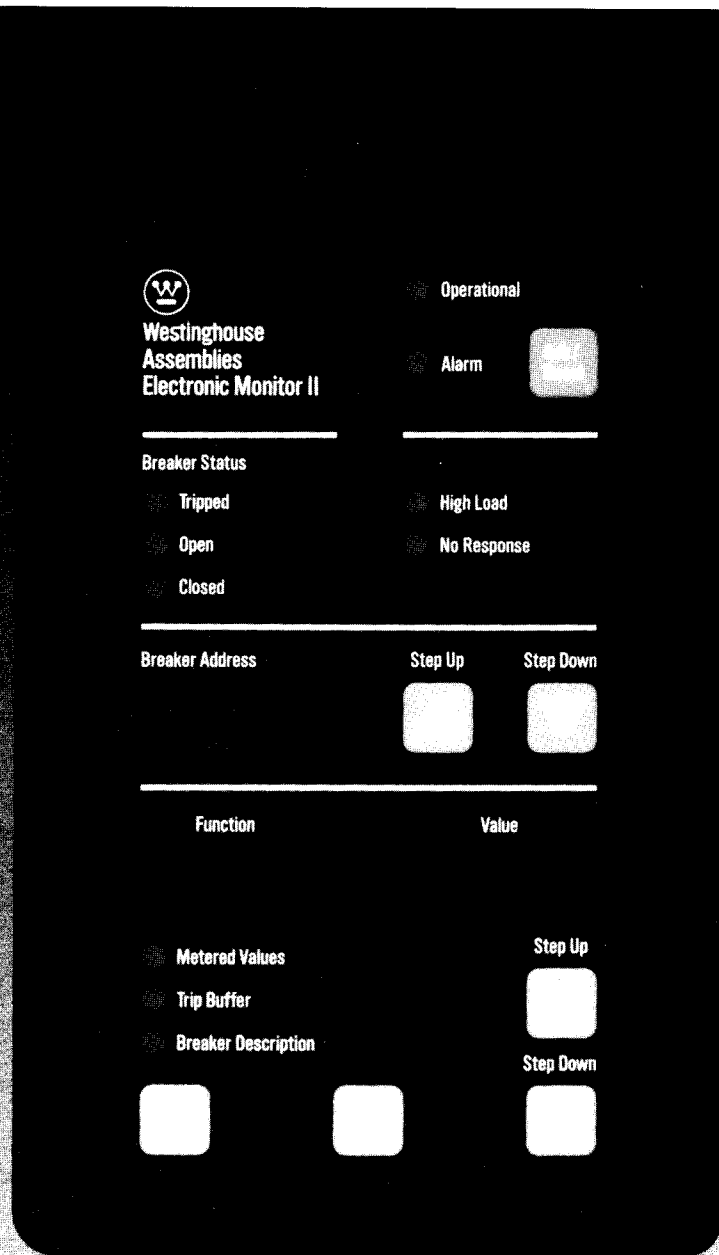




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 Mailed to: E. D. C-1100A, 8300A

Assemblies Electronics Monitor II





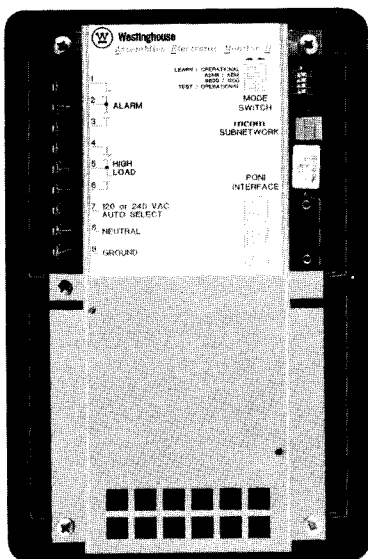
**Assemblies Electronic Monitor II:
centralized monitoring
in one standard package.**

The Assemblies Electronic Monitor II (AEM II) is a microprocessor-based, self-contained, door-mounted device designed to perform the following:

- Monitor and display parameters of up to 40 circuit breakers equipped with microprocessor based Digitrip RMS 700 and/or RMS 800 Trip Units.
- Pass information from as many as 40 Digitrip RMS 700 and/or RMS 800 Trip Units, and up to 8 IQ Metering Devices to a computer or programmable controller. The Metering Devices can be any combination of IQ Data Plus IITM (or IQ Data PlusTM) metering and voltage protection devices and IQ Data or IQ Generator metering devices.

In one standard compact package, the AEM II provides a centralized alternative to individually mounted and wired ammeters and ammeter switches, circuit breaker position indicating lights, and alarm contacts. Separate metering transformers are not required.

Rear View



Self-Learning

No programming is required. Just place the mode switch, on the rear of the AEM II, in the "Learn Network" position and then return it to the "Operational" position. The AEM II will poll the local area network (LAN) and store the addresses of Digitrip RMS 700 and/or RMS 800 Trip Units and IQ Metering Devices that are on the LAN and have addresses from 01 to 99 (decimal).

A custom description for each breaker and metering device can be entered on the 8-digit alphanumeric window of the AEM II for easy location reference.

Non-Volatile Memory

The program directing the functions is permanently stored in the AEM II so there is no need to reload after an AC power loss.

The addresses, types of devices, and descriptions are stored in memory during the learn mode are also retained throughout a power loss. Unless there has been a change in the local area network, it is not necessary to re-enter the learn mode after an AC power loss.

Communications

Communications between the AEM II and Digitrip RMS and/or IQ Metering devices is accomplished by using a twisted pair of conductors on the highly reliable IMPACC network.

The AEM II can be selected to communicate on the LAN at either 1200 baud or 9600 baud.

Remote Communications Option

The AEM II can transmit all data from Digitrip RMS and/or IQ Metering devices to a remote computer over IMPACC. This is achieved through use of the addressable communications module that is easily field mounted on the back of the AEM II. The addressable communications module is a housing for the INCOM chip, necessary for two-way communications between the AEM II and the remote computer.

The AEM II can be selected to communicate to the remote computer at either 1200 baud or 9600 baud.

This option provides, with appropriate communications modules, the following modes of communications:

- Locally (distances less than 7500 feet) using INCOM or RS232C protocol.
- Off-site monitoring (distances further than 7500 feet) using telephone modems.

The remote communications option can be included at any time by simply adding the addressable communications module to the AEM II. Consequently, communications capabilities can increase as a system expands.

No reprogramming of the AEM II is required when the addressable communications module is added.

Parameters Displayed

The following are displayed on the membrane NEMA 3R, 12 faceplate.

- Circuit breaker status.
- AC current (each phase and ground, if the trip unit has a ground element).

- Power in megawatts.
- Peak power demand. (non volatile)
- Energy used in megawatt hours. (non volatile)
- Breaker trip unit in test mode.
- Long delay pickup (overload in progress)
- Missing or defective rating plug.
- Unit failed RAM check.
- Unit failed ROM check.
- Negative power.
- Cause of circuit breaker trip.
- Circuit breaker address.
- High load condition (current through the circuit breaker exceeds 85% of the "Long Delay" setting for at least 40 seconds).
- Custom description.
- Trip buffers.

There is no need to go to each circuit breaker location to determine its load and/or status. This information can be obtained for up to 40 circuit breakers at one location with the AEM II.

In addition to the faceplate displayed parameters, these additional parameters are available for viewing on the remote computer:

- Circuit breaker type.
- Current rating of circuit breaker rating plug.
- All IQ Metering device information.

The remote computer can also open and close any circuit breaker on the network.

Alarms

- Circuit breaker address.
- Circuit breaker status.
- Cause of trip, if tripped.

A separate Form C contact is available for a customer's remote alarm. Depressing the ACK/Reset pushbutton on the AEM II will acknowledge the alarm and:

- De-energize the alarm relay to silence the remote alarm.
- Change the Alarm LED from steady on to flashing.
- Stop cycling the alarmed breakers on the AEM II display.

The alarm data is stored in the AEM II memory and displayed whenever the alarmed breaker address is in the breaker address display window. The AEM II contains a trip buffer that will store 120 trips by device. This buffer remains in memory after power loss and can be accessed at any time for troubleshooting or maintenance purposes. Trips can be purged individually, or the oldest will be overwritten when the buffer is full.



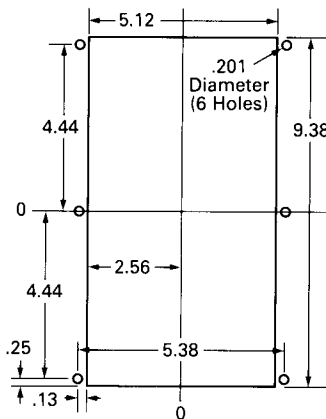
User Friendly

- Operator panel (faceplate) is self-explanatory.
- Help function scrolls explanations across the alphanumeric window for any condition.
- Self-learning.
- Minimal external connections (3 wires for AC input and 2 wires twisted pair for communications with the LAN).

Flexible

- Can be mounted on a switchgear assembly to monitor one or more assemblies.
- Can be mounted at a remote location to monitor one or more assemblies.
- Each assembly can be monitored from a distance of up to 7500 feet.
- Remote communications option can be added at any time. No internal changes are required.
- Remote communications option can interface with a variety of networks.

Chassis Cutout Dimensions

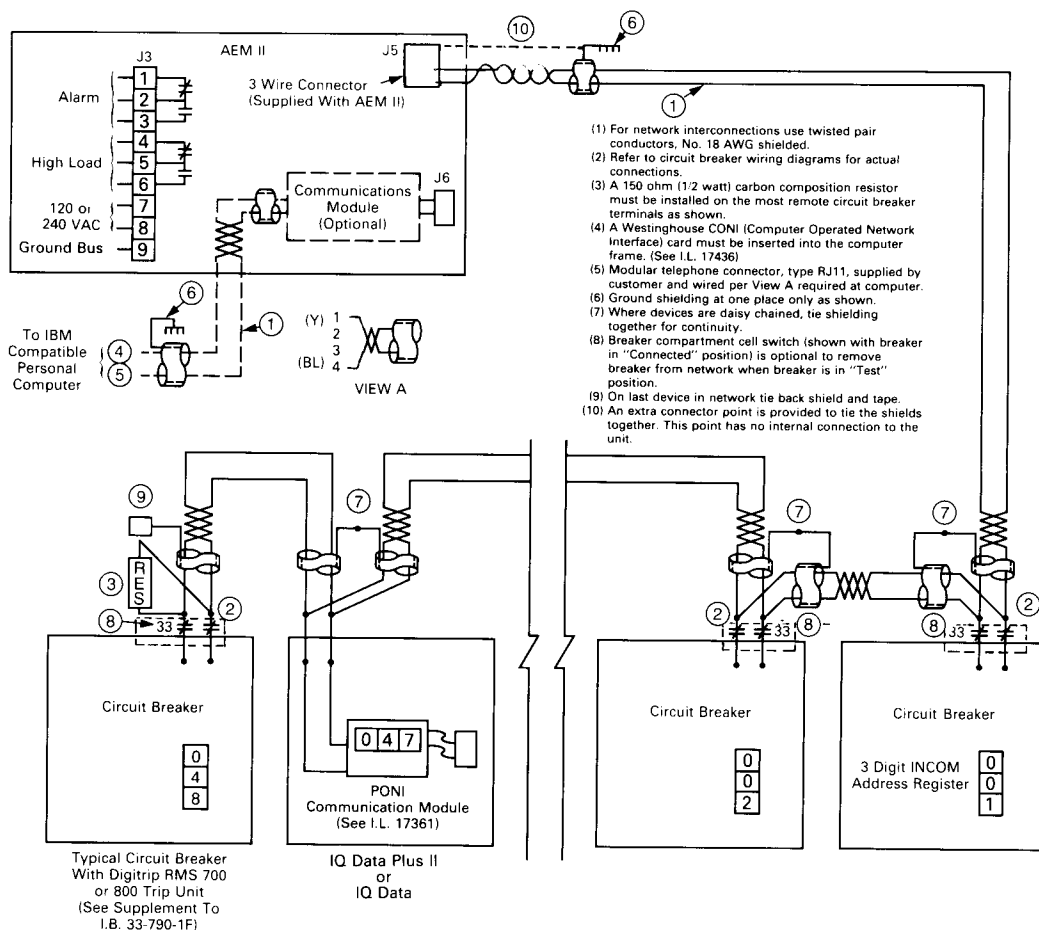


These dimensions must be -0 and +0.050 inches.

General Specifications

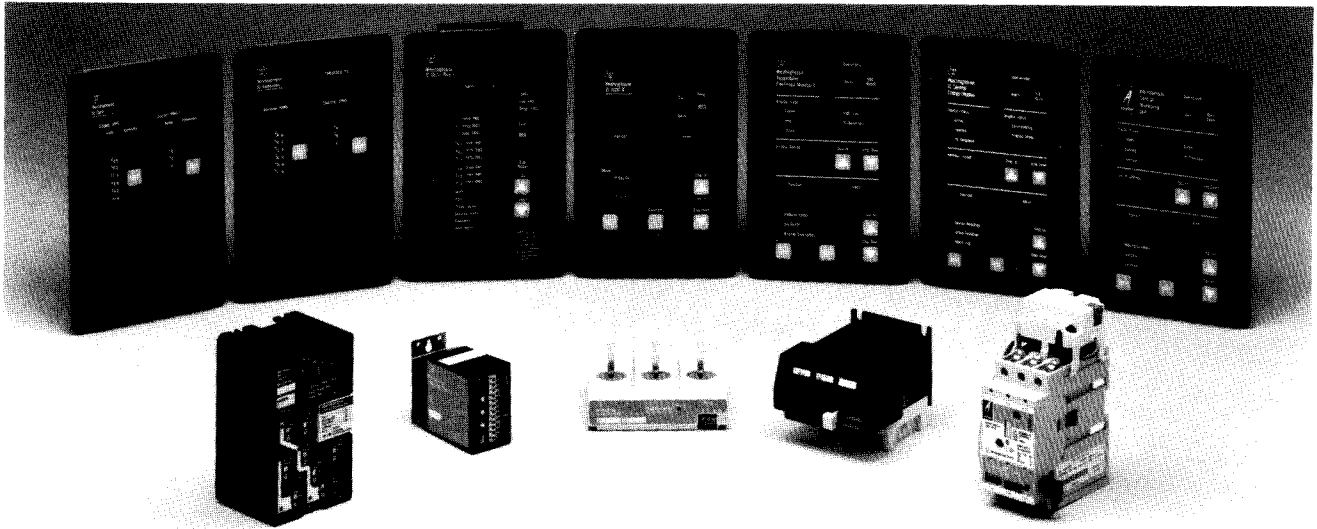
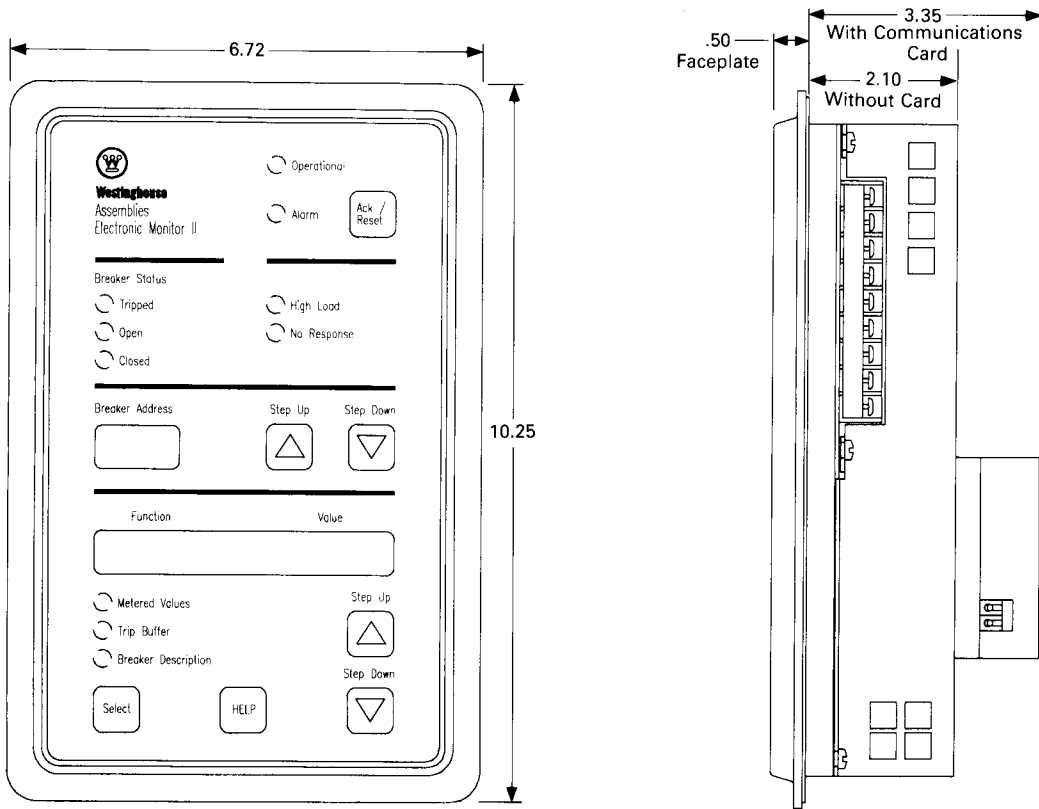
Power Requirement	10 VA maximum
Input Voltage	120 or 240 VAC +20%, -20% auto selecting
Operating Temperature	0°C to 70°C 32°F to 158°F
Storage Temperature	-20°C to +85°C (-40°F to +185°F)
Humidity	0-95% R.H. noncondensing
Alarm and High Load Contact Ratings	10 Amperes @ 277 VAC (Resistive) 10 Amperes @ 30 VAC (Resistive) 1/3 Hp @ 125, 250 VAC

Typical Wiring Diagram





Dimensions (In Inches)



Westinghouse IMPACC Compatible Devices

Westinghouse Electric Corporation
Distribution and Control Business Unit
Electrical Components Division
Pittsburgh, Pennsylvania, U.S.A. 15220