

Amplifier Terminal Panel

ATP

Overview

The Amplifier Terminal Panel is a 19 in rack mount device that interfaces the Audio Power Amplifiers to the control panel. The Amplifier Terminal Panel monitors primary AC power to Audio power amplifiers. If the amplifiers are active and primary power fails, the ATP transfers the amplifiers to battery power. The ATP contains a battery charger capable of charging 40 AH batteries. The ATP contains terminals to connect preamp signals from the control panel to the power amplifier for connection of the power amplifier output. The ATP is the originating point for the audio power risers. The front panel of the ATP contains a green power LED, amber trouble LED and and amber trouble silenced LED. A momentary switch is available on the front panel for trouble silence. The ATP provides a battery saver feature that applies battery power to the amplifiers only when two conditions are met; low or no AC power and a Fire Alarm or page request. This feature may reduce the battery size requirements by a factor of 8.

Standard Features

- Built in battery charger
- Charges and supervises 40 AH batteries
- Battery saver feature
- Low standby current
- High efficiency switch mode power supply

- Ground fault detection circuitry
- Terminates 2 audio power amplifiers
- Integral trouble buzzer with silence switch
- Supervises low or no AC power
- Standard 19 in rack mount
- Convenient AC power receptacle for two amplifiers
- Black front plate
- Trouble and Silenced LEDs

Application

The ATP is used in Life Safety Audio Evacuation systems. One ATP supports two Audio Power Amplifiers. The power amplifiers may be configured in a dual channel system or a single channel system. Typically the ATP is placed in a central banked system in the same 19" free standing rack enclosure as the power amplifiers. In large highrise applications, the ATPs and audio power amplifiers may be placed in various locations in a distributed amplifier format. Distributing the amplifiers reduces the length of the risers and consequently reduces power lost in the riser wiring. When more than two power amplifiers are required at at single location multiple ATPs may be placed in the enclosure and their preamp terminals wire in parallel. Two trouble signals are generated by the ATP and must be supervised by a zone in the nearest fire alarm field panel. Power fail and ATP trouble signal are normally open relay contacts that close on a fail condition.

Engineering Specifications

The Audio Power amplifiers shall be monitored for loss of AC power. The amplifiers shall not be provided with battery power if AC power is lost unless a fire alarm condition exists or the system operator initiates a page request. The ATP shall be capable of charging and supervising batteries up to 40 AH capacity. 120 Vac convenience receptacles shall be available for each amplifier being powered. The ATP shall be fully supervised for internal faults as well as brown out and ground fault.

Specifications

Primary Power	Voltage: 120 Vac Current: 20 Amp max.
Secondary Power	Battery size max: 40 AH Standby current: 240 mA
Battery Charger	Charge current max: 1.75 Amps; Trickle charge: 5 mA Battery size max: 40 AH; Battery size min: 15 AH
Ground Fault Detection	<15K Ohms to common or 24Vdc
Temperature Range	32° - 120° F (0° - 49° C)
Agency Listings	UL, FM, CSFM, MEA, ULC
Humidity Range	85%, non condensing
Dimensions	5/14 W x 19 D x 5 1/2 H in. (13.3 W x 48.3 D x 14 H cm)
Weight	14 lbs (6.5 Kg)

Ordering Information

Model	Description
ATP	Amplifier Terminal Panel
Related Parts	
1B3-125	125 Watt, audio power amplifier
1B3-250	250 Watt, audio power amplifier
URSM	Universal Riser Supervisory Module