



A10 Multi-Tester, 120 to 277 VAC Test Transceiver

FEATURES

- Transmits X10 and Receives A10 and standard X10 (including Preset Dim) and extended code
- Displays noise level on the power line
- Displays signal level on the power line
- Can log noise and frame data over a 24 hour period
- Auto transmit mode for system testing
- Adjustable transmit voltage in 33.3mv increments
- Time/Date (24 Hour Format)
- Selectable 0°, 30°, 60°, 90°, 120°, 150° transmit pulse
- Shows received X10 packets as one frame or two frames...can be used to determine whether signal is repeated or original
- Can be used as P1 Test Transmitter



APPLICATIONS

- Generate test signals to verify proper receiver operation.
- A10 Product Configuration Tool
- Display signal strength on line from other transmitters and two way receivers
- Use to test potential installation sites for possible installation problems
- Pinpoint loads to be filtered by logging power grid noise levels (user defined time periods up to 24 hours).

PRODUCT DESCRIPTION

The AT004 is an X10 Transceiver, able to send and receive A10 or standard X10 signals. Keypad enables the selection of transmit signal levels, single or continuous signal transmission, user choice of zero crossing degree shift and display or

log the level or frame data on the power line, on AT004's Liquid Crystal Display (LCD). Manufactured under Advanced Control Technologies, Inc.'s U.S. Patent No. 6,229,432.

ORDERING INFORMATION

Specify: AT004 Test Transceiver

SPECIFICATIONS

Electrical Parameters:

Supply Voltage:	120 to 277 VAC, +/- 10%
Frequency:	50 or 60 Hz.
Current Draw:	315 mA (rms) at 120 VAC, 60 Hz 250 mA (rms) at 115 VAC, 50 Hz 280 mA (rms) at 208 VAC, 60 Hz 325 mA (rms) at 240 VAC, 60 Hz 270 mA (rms) at 240 VAC, 50 Hz 380 mA (rms) at 277 VAC, 60 Hz
Circuit Protection:	The AT004 circuit is protected by a 500 milliamp, 350 V, Time Lag, non-

removable fuse for over-current protection.

Receive Parameters:

The AT004 will accept power line carrier transmission signals with minimum strength of 25mV peak to peak. The carrier frequency of this signal will be 120kHz \pm 4kHz. The pulse width will be 1ms \pm 10% and occur no later than 200ms after the zero crossing of the main voltage

Transmit Parameters:

General:

The AT004 will output power line carrier transmission signal with a minimum of 6V peak to peak strength into a power line with a 5 Ω load attached. The carrier frequency will be 120 kHz \pm 1kHz. The transmission pulse will be 1ms \pm 10% and will start no later than 200ms after the zero crossing of the mains voltage and when enabled an additional pulse will be transmitted no later than 200ms after the 30° point of the half wave.

Transmit Locations:

All transmission locations (0°, 30°, 60°, 90°, 120°, & 150°) can be individually activated or deactivated through the SETUP menu.

NOTE: More than four activated transmit locations may deliver unsteady transmit level results.

NOTE: The 0° transmit location must remain enabled if the automatic level adjustment is to remain active. If the 0° transmission is disabled, the circuit will always adjust to maximum transmit level.

Transmit Level:

The level of the powerline carrier transmissions can be adjusted through the setup menu. When the level is set from 0 to 150 the automatic level adjustment will be active. This will readjust the signal level for line loading conditions. The maximum adjustable level is 5V peak to peak (level setting of 150). Any setting above this will result in a maximum output (\geq 6V peak to peak).

Display:

16 Character x 2 Row LCD, Bottom viewing angle. Contrast adjustment is possible with adjustment potentiometer on the right side of the case.

Mechanical Parameters:

Dimensions:

4.00" W ´ 7.50" L ´ 2.13" H.

Weight:

16 oz.

Power Connections:

Power Connection Socket:

Keyed Header

120 VAC Power Cable:

Two Prong Polarized Plug on 4 ft. cord to Locking Keyed Receptacle (ACT Replacement Part No. HW080).

208 to 277 VAC Power Cable:

Insulated Alligator Clip Connections on 5 ft. cord to Locking Keyed Receptacle (ACT Replacement Part No. HW076).

Membrane Keypad:

The membrane switch keypad has a minimum cycle life of 1,000,000 cycles/compressions of each key.

Environmental Parameters

Operation Temperature Range

32 to 120° F (0 to 49°C)

Storage Temperature Range

-20 to 150° F (-29 to 66°C)

Operation Humidity Range

10 to 95% non-condensing