

XTB-523 X10 Powerline Interface Operation

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ELECTRICAL CONNECTION

The XTB-523 can be plugged into any standard 120V 60Hz AC receptacle. The closer that receptacle is to the distribution panel, the stronger signals will be throughout the home. This may be a factor when the repeater capability is enabled. A good tuned-circuit passive coupler like the XPCP should be installed near the electrical panel to propagate the strong X10 signal over to the opposite phase when X10 devices are on both phases. Immediately after being plugged in, the XTB-523 transmits "P Status ON" to indicate it has powered up, and the LED will flash briefly.

XTB-523 OPERATION

The XTB523 emulates the X10 TW523/PSC05 in the default configuration. No mode changes are required. If there are other controllers, but no other repeater in the home, the repeater capability can be enabled as described in the section on Mode Programmable Options.

The XTB-523 includes command storm shutdown, and will disable its transmitter when there is excessive X10 activity. It will handle a burst of about 200 commands, or 40 per minute continuous. Activity beyond that limit will cause the XTB-523 to disable its transmitter until the powerline is clear of all activity for 10 seconds. The LED will flash rapidly while the XTB-523 transmitter is disabled due to a command storm shutdown.

The X10 transmitter in the XTB-523 auto tunes itself to 120KHz using the powerline as a reference. This may be a something to consider when using the XTB-523 in an installation powered by a generator.

By default, the XTB-523 only transmits the X10 burst following each 60Hz zero crossing. If three-phase transmission is enabled, all bursts will be transmitted, and the output power reduced slightly.

XTB-523 LED STATUS INDICATIONS:

Dim green:	The unit is powered up and monitoring the powerline.
Bright green:	A command is being received.
Orange flicker:	A command is being transmitted or repeated.
3 red flashes:	A receiving error occurred due to noise or a weak signal.
4 red flashes:	A transmission error occurred due to noise or a collision.
5 red flashes:	An error occurred during mode programming.