## CircuitWerkes' CP-1a Call progress Decoder Option Board

The CircuitWerkes CP-1 Call Progress Decoder is a precision tone decoder designed to listen for the presence of dial tone or busy signals on telephone systems that do not provide end of call battery signalling. When dial tone or busy is detected for a period of several seconds, the CP-1 causes the autocoupler to hang up. Note: high ambient audio levels can mask (or simulate) central office call progress tones, so some adjustment of send audio may be required for reliable operation. The send audio level may need to be set slightly lower than normal to allow the call progress decoder to recognize the tones.

The call progress decoder is jumperable to detect either or both dial (via J1) and busy (via J2, position "B") tones. Completely removing J1 or J2 disables that particular function. Also, when J2 is set for the "A" position, any call progress tone will cause a hang-up. Because this mode is relatively easy to false trip, it should be used only as a last resort when your phone system does not provide busy or dial tones. To detect all tones, J4 must also be in the "A" position. The "620" position is for detecting single 620Hz tones used in some foreign phone systems. The length of time required for disconnection is adjustable by the two potentiometers on the board. 3 to 10 seconds is suggested for both types of signals to prevent false tripping. Turning the pots clockwise increases the delay before hang-up. J3 adds 10dB of gain to the input & MUST be "on" for busy detection.

Note: If you have an original version of the CP-1 (date code is <u>not</u> 8/15/98 or later) J1 & J2 are busy and dial tone respectively, also there is no "all" mode on the earlier CP-1.



