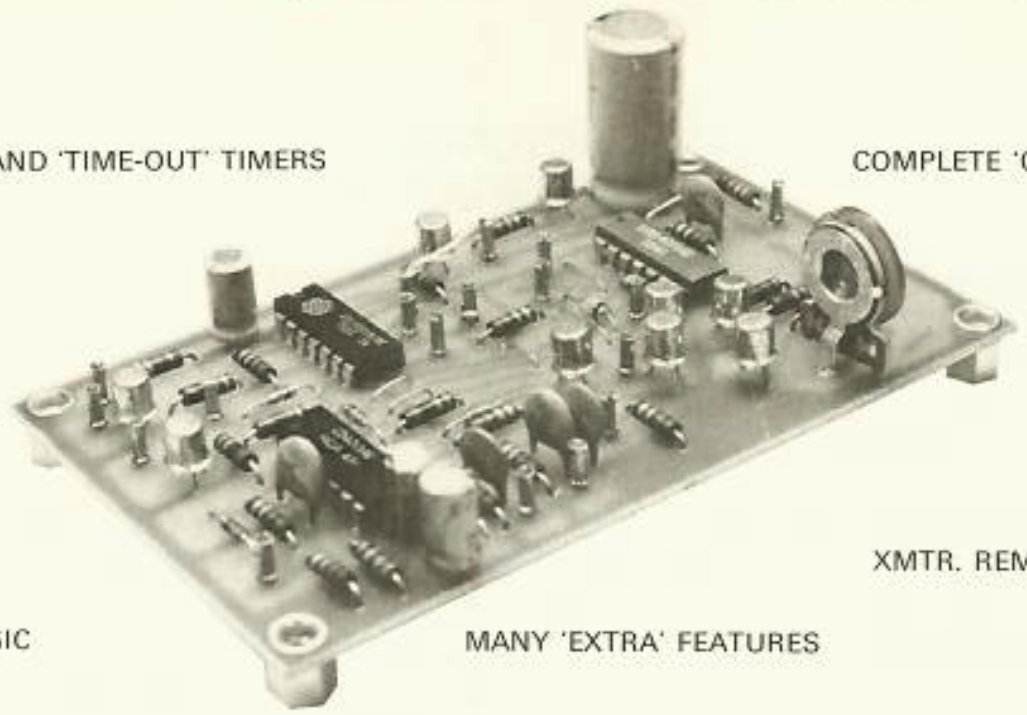
CTC100
COR/TIMER/CONTROL BOARD

CARRIER 'HANG' AND 'TIME-OUT' TIMERS

COMPLETE 'COR' CIRCUITRY



XMTR. REMOTE CONTROL INPUTS

CMOS LOGIC

MANY 'EXTRA' FEATURES

The CTC100 is a highly versatile solid state unit capable of accomplishing all the major 'COR', timing, and sequencing operations required in a typical radio repeater application. Extensive use is made of CMOS Logic in order to provide a very high degree of control flexibility and long term reliabilty with minimal overall current requirements. Provisions are made to allow incorporation of a number of sophisticated control/test functions using only inexpensive user - supplied push button switches. There are also provisions to trigger front panel status indicator lamps.

CONTROL/ TEST FUNCTIONS

These controls are extremely helpful for repeater setup, testing, and control.

COR SIMULATE - An alternate action function which simulates an incoming signal to the COR Circuitry. Useful for repeater testing, or for timer adjustments. (Keys the repeater transmitter.)

COR DISABLE - Used to prevent incoming signals from triggering the COR Circuits; or to locally reset the time-out timer.

LOCAL INHIBIT/ RESET - Used to clear a remotely initiated repeater shutdown; or, to locally set the repeater inhibit condition. (Positively deactivates the repeater transmitter).

LAMP DRIVERS

Open collector lamp driver transistor switches are provided to trigger a number of useful repeater status indicators. Among these are the following:

INCOMING SIGNAL - Indicates that the COR has been activated by either an incoming signal, or by an activation of the "COR SIMULATE" switch.

COR SIMULATE - Indicates that the presently indicated COR actuation is due to local simulation with the corresponding test switch.

INHIBIT/RESET - Indicates that the repeater has been inhibited from transmitting, either thru a remote control input, or, via the local "INHIBIT/RESET" switch.

TIMERS

On board timers are provided to control the duration of both the carrier "Hang" time and "Time-Out" time intervals. These timers are capable of being adjusted remotely of the board. Additionally, an on-board jumper wire arrangement allows the user to program the unit so that "Time-Out" reset occurs either upon dropping the input signal, or upon dropping the repeater carrier.

REMOTE CONTROL

Circuitry has been provided to implement a positive acting remote control of the repeater transmitter via a pair of TTL compatible inputs to the board. A positive going pulse or 0 to 5V level shift on one input will inhibit the transmitter, while a similar pulse on the other input will restore normal operation. These inputs are directly compatible with most commercially available touch tone decoders (such as our TTC100), or other triggering methods.

SOLID STATE SWITCHING

An open-collector transistor switch closure to ground is provided to trigger a repeater identifier (such as the SPECTRUM ID250), and an input is also provided so that the identifier can hold the transmitter on for the duration of its cycle. Actual transmitter keying is accomplished via an open-collector transistor switch closure to ground. A separate transistor switch is also provided to switch auxiliary devices, such as Autopatch, etc. (Follows COR action.)

SPECTRUM COMMUNICATIONS CORP.

'Specialists in Repeater Systems'

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