

# CircuitWerkes

## DTMF-16c TouchTone® Decoder & Silencer Option



*Optional single or dual  
rack mounts available*

The CircuitWerkes DTMF-16c remote control is a compact and rugged remote control unit that provides 16 optocoupled outputs using standard TouchTone® signals. The Silencer option board for the CircuitWerkes DTMF-16c Touch-Tone Decoder provides an inexpensive and convenient method for using DTMF remote-control tones in your program path without having the Touch-Tones on the air!

### The DTMF-16c features include:

- High-current (Darlington) optocoupler outputs
- Sixteen momentary or interlocked latching outputs
- All outputs are completely isolated from each other & appear on a standard DB-37 connector. (mating connector included)
- High impedance, unbalanced bridging input accepts a wide range of input levels
- New built-in anti-falsing circuit eliminates errors when used on program lines & speech circuits.
- New, selectable, two-tone sequence decoder eliminates errors on program lines & provides addressability for up to 15 decoders on a single line.
- All ICs socketed
- Power supply included
- High quality metal enclosure with optional rack mount.
- Two year limited warranty on factory-enclosed units

The DTMF-16c is excellent for controlling remote satellite receivers, network switching equipment, repeaters, or virtually any application where local control is inconvenient or impossible. Simply connect the DTMF-16c's bridging input across an audio line and its outputs will activate whenever a DTMF tone is received. The DTMF-16c is an inexpensive and convenient way to interface many news & satellite services to automation systems. For services using DTMF signals on voice channels, there are two methods of preventing false trips built into the standard DTMF-16c. First, an activation delay prevents falsing by delaying tone detection for an additional fraction of a second, allowing transient & erroneous audio passages to go undetected. The second method is a two-tone sequence mode. A common attention tone is followed by whatever output tone is to be decoded. Both methods are excellent for preventing false trips.

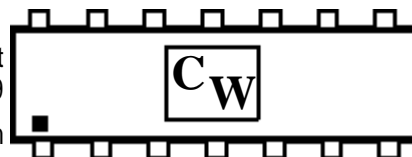
The Silencer™ equipped DTMF-16c takes its audio feed directly from your satellite receiver or other source. The audio output of the DTMF-16 feeds program audio to your console or switcher input. The control tones are automatically muted from the audio path. If your program material regularly contains Touch-Tones®, we can custom shift your control tones so that "normal" Touch-Tones pass through without muting.

The DTMF-16c's enclosure is all metal and is desk or wall mountable. With an optional rack mount adaptor kit, the RM-01, The DTMF-16c can be mounted in standard 19" racks. The DTMF-16/RM01 is one rack unit tall.

TouchTone® is a registered trademark of AT&T

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## **Application Notes for the CircuitWerkes DTMF-16 TouchTone® Decoder**

The DTMF-16c listens to an audio source (practically any audio source) and activates its appropriate output when it hears any one of the sixteen standard DTMF tones.

The DTMF-16c can operate in one of two possible modes: momentary or interlocked-latching. In momentary mode, the output stays on for the duration of the incoming tone. Interlocked-latching mode keeps the most-recently selected output on until a different DTMF tone is entered. The units are shipped from the factory set for momentary operation but can be changed to interlocked latching by moving one internal jumper.

The outputs are opto-coupled Darlington transistors. They are capable of operating practically any computer or logic input. They can be used to source or sink current (up to 150mA), making them ideal to drive slave relays or be used in place of relays in most DC applications.

### **Here's what some users are doing with their DTMF-16's.**

Decoding Automation Tones from radio networks (connected to satellite receiver) and interfacing them with your automation system.

Backup transmitter control over STL, radio, or telephone coupler.

Radio remote control of camera pan & tilt heads.

Appliance / Computer control over telephone or radio link.

Firing cart decks in studios (simultaneously muting audio channel) from a remote location.

Controlling an attention light at a remote broadcast via FM subcarrier.

Electronic outdoor billboard control via FM subcarrier.

Parade-Float control via radio link.

Online control of RPU gear and radio repeaters.

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