

FEATURES

- Ultra Stable, Low Distortion 25Hz Generator For Cue Tones
- Active 25Hz Filters In Left & Right Channels
- Left or Right Channel 25Hz Record And Detection
- 1kHz Tone For Recording Reference Level Tone
- 25Hz Sensors For Recorder Stop And/Or External Switching
- Full Remote Control

GENERAL DESCRIPTION

The new Broadcast Electronics TG-2A Dual Tone Generator is used in the production of reel-to-reel tapes for use with broadcast program control systems.

The TG-2A incorporates a 25Hz oscillator, 1000Hz oscillator, two 25Hz sensors (for left and right channels), audio filters, logic circuitry and power supply in one single compact unit for the utmost in versatility. Its many useful features, modern electronic design and attractive styling make it a welcome addition to any radio station, music service or production facility.

SIMPLE, STRAIGHTFORWARD OPERATION — Operation of the Dual Tone Generator is simple and straightforward. As a reel of music or program material is recorded, it is first filtered by the Dual Tone Generator to remove all audio in the spectrum below 50Hz on both left and right channels. Then a low distortion, frequency stable 25Hz "cue tone" is recorded on either the left channel, right channel, or both channels simultaneously. The duration of the tone can be pre-set (from 0.1 sec to 2 sec) for the exact length of time desired.

When the reel of tape is played back on a program control system, the 25Hz "cue tones" on the left channel (stereo) will signal the program control system to start the next event. The use of the 25Hz signal on the right channel

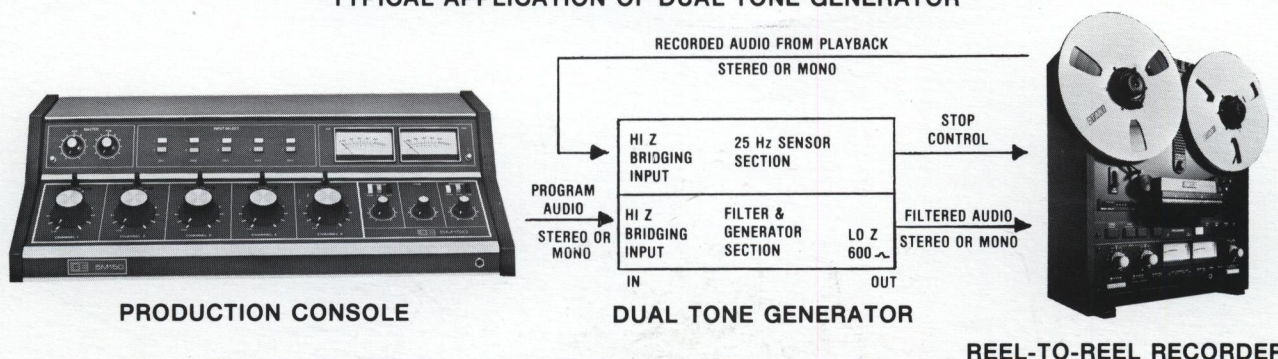
can indicate the beginning of the next block of programming for synchronized voice track machines.

1kHz REFERENCE TONE — The Dual Tone Generator can also be used to record a 1kHz tone on both left and right channels as a reference level tone on the beginning of a tape. When the tape is then cued up on the reel-to-reel machine in the program control system, it is a simple matter to set the audio levels on that machine to the 1kHz reference. There are many additional applications for the Broadcast Electronics Dual Tone Generator other than mastering reel tape with cue tones. Contact Broadcast Electronics for information on these applications.

ATTRACTIVE FRONT PANEL — The front panel graphics on the TG-2A are under a tough laminated polycarbonate overlay. This not only enhances the attractiveness of the unit but also makes it virtually impossible to scratch or wear the lettering away.

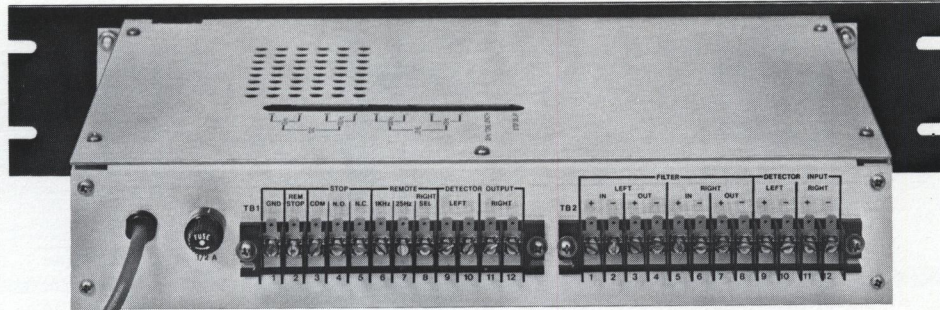
The BE Dual Tone Generator comes standard in a rack mount configuration, and fits any standard 19" rack. It can also be remote controlled for additional operational versatility. All inputs, output and remote connections are made through terminal block barrier strips on the rear panel.

MASTERING REEL-TO-REEL TAPES WITH CUE TONES TYPICAL APPLICATION OF DUAL TONE GENERATOR



Dual Tone Generator Model TG-2A

Rear View of
TG-2 Dual Tone
Generator shows
easy customer
access to barrier
terminal strips.



SPECIFICATIONS

DETECTORS

Input:

44 K ohm, balanced bridging at 0 dBm.

Sensitivity:

Detects 25Hz tones as low as -17 dBm.

Selectivity:

Rejects tones outside of the 20Hz to 30Hz range at +8 dBm input level.

FILTERS

Input:

44 K ohm, balanced bridging at 0 dBm.

Output:

Balanced low impedance capable of driving a 600 ohm load.

Output Level:

0 dBm output into 600 ohm with 0 dBm input level. 20 dB overhead (+20 dB output before clipping). 45 dB or more at 25Hz.

Noise:

75 dB below 0 dBm output.

Distortion:

THD .05% or less 50-20,000Hz.

IMD .01% or less, 60Hz/7kHz; 4:1 ratio.

Frequency Response:

± 75 dB 50Hz to 20kHz.

-45 dB or more at 25Hz.

Crosstalk: (Channel Separation)

Better than 70 dB separation at 1 kHz; 55 dB at 20kHz.

OSCILLATORS

1kHz - Frequency: ± 10 Hz; Distortion: Less than 5%; Output Level: Adjustable, -20 to +3 dBm.

25Hz - Frequency: ± 25 Hz; Distortion: Less than .75%; Output Level: Adjustable, -20 to 0 dBm.

Stop Delay:

Adjustable, 0-10 seconds.

Fixed Tone Length:

Adjustable, .1 to 2 seconds.

Operating Temperature Range:

0 - 50°C.

Power Requirements:

115V/230Vac, 50/60Hz, 20 watts.

Dimensions:

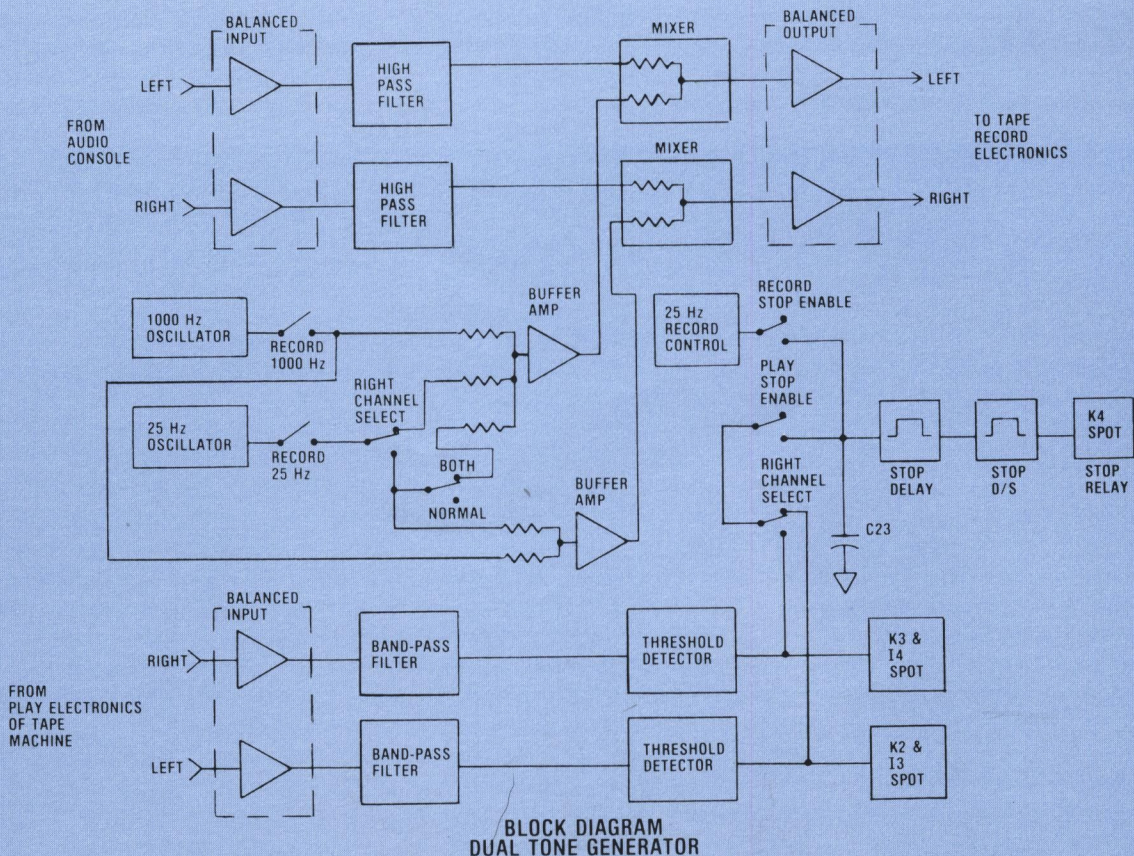
19" Wide \times 3 1/2" High, 8 1/2" Deep.

Weight:

5 lbs., 4 oz.; (packed - 8 lbs.).

ORDERING INFORMATION

MODEL	STOCK NO.	DESCRIPTION
TG-2A	908-6860-001	Dual Tone Generator



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