



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

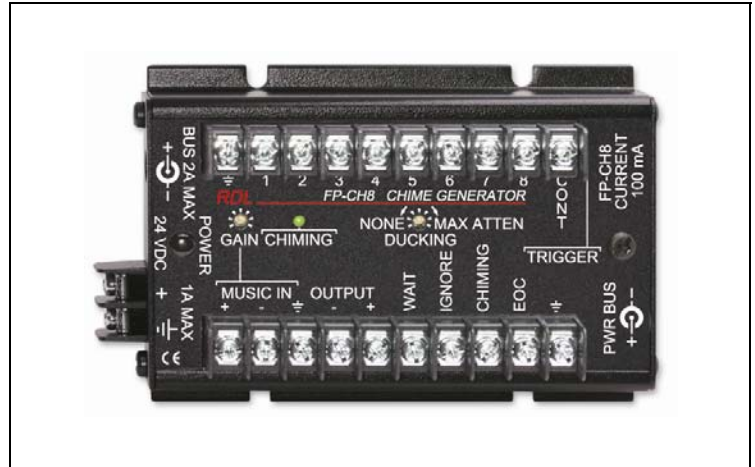
FLAT-PAK™ SERIES

Model FP-CH8

Chime Generator

ANYWHERE YOU NEED...

- 8 Individually Selectable Electronic Chimes
- Selectable Single or Repeated Chime
- Synthesized Bell Harmonics for Natural Sound
- External Chime Actuation
- Input for Background Music or Paging Audio
- Automatic Ducking



You Need The FP-CH8!

APPLICATION: The FP-CH8 is an electronic chime generator that produces eight different synthesized chimes. Each chime can consist of up to 3 tones and 3 harmonics selected to produce sonically natural effects. Certain chimes are single tones and some are a sequence. Each of the 8 chimes is triggered by an individual external closure to ground. A momentary closure to ground is required to start a chime. A single additional **CONT** (continuous) terminal is also provided. Each chime plays once unless the **CONT** terminal is grounded. The continuous function causes a chime strike or sequence to repeat until the **CONT** terminal is ungrounded. This function causes tone chimes (Chimes 4 and 8) to be extended in duration until the **CONT** terminal is released. Background music or paging audio may be connected to the **MUSIC IN** input. When a chime plays, the music source will be quickly faded to a level set on the front-panel **DUCKING** trimmer. The ducking fade depth may be set for 0 dB to fully off, allowing chimes to be mixed with the music or to interrupt the music. The front-panel **CHIMING** indicator illuminates while the music is ducked and a chime is playing.

Chime patterns are described as follows:

- | | | | |
|------------------|-----------------------------|------------------|---------------------|
| 1: Single strike | 2: Double strike | 3: Triple strike | 4: Tone ring |
| 5: Manual strike | 6: Descending triple strike | 7: Eurosiren | 8: Multi-tone alert |

A chime is activated by a remote momentary closure to ground. The external trigger causes the chime to play each time the terminal is grounded. Single chime patterns (Chimes 1, 4 and 5) will restart immediately if they are re-triggered. This allows a pushbutton to initiate repetitive strikes. If the FP-CH8 receives trigger inputs for sequential chime patterns (Chimes 2, 3, 6, 7 and 8) while any chimes are playing, up to 3 such trigger requests will be stored. Following the chime that is playing, the module will play the stored chime requests in the order received with 2 seconds between each chime playback. If a stored chime request was accompanied by a simultaneous closure of the **CONT** terminal, that chime will play continuously for 5 seconds.

A **WAIT** terminal is provided to prevent the module from ducking the music audio and playing the chime. As long as the **WAIT** terminal is grounded, the module will not play, but up to 3 chime requests will be stored. Upon release of the **WAIT** terminal, each chime request is played in the order received with 2 seconds between chimes. If a stored chime request was accompanied by a simultaneous closure of the **CONT** terminal, that chime will play continuously for 5 seconds. An **IGNORE** terminal is also provided. When the **IGNORE** terminal is grounded, all incoming chime triggers are ignored. Grounding the **IGNORE** terminal while a chime is playing will abort the event. While the module is chiming, the **CHIMING** output terminal is held low. This terminal is used to control other equipment or modules. At the conclusion of each chime, the **EOC** (end of chime) terminal pulses to ground for 100 mS. This terminal may be used to trigger other equipment or modules.

Used alone or in conjunction with other RDL RACK-UP®, STICK-ON®, TX™, or FLAT-PAK series products, the FP-CH8 can be the foundation for many innovative audio systems!

FLAT-PAK™ SERIES

Model FP-CH8

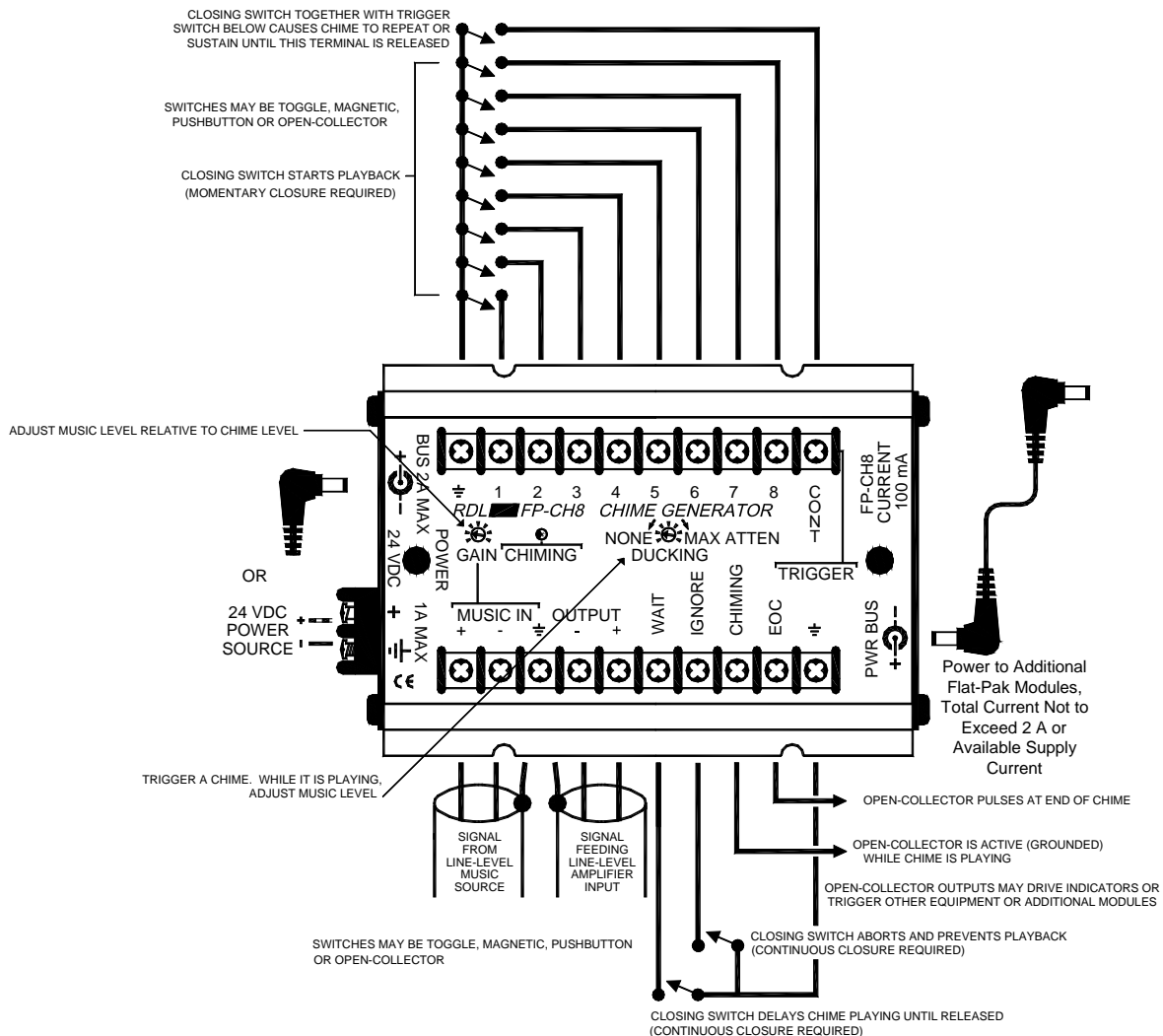
Chime Generator

Installation/Operation



EN55103-1 E1-E5; EN55103-2 E1-E4

Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



TYPICAL PERFORMANCE

Music Input

Inputs: 50 kΩ balanced or unbalanced
 Input Signal: -20 dBV (unbalanced) to +4 dBu (balanced)
 Maximum Input Level: +22 dBu
 Frequency Response: 20 Hz to 50 kHz (+/- 0.5 dB)
 THD+N: < 0.05% (unity gain, 50 Hz to 20 kHz)
 Noise below +4 dBu: < -70 dB (unity gain)
 Headroom: > 16 dB (above +4 dBu)
 Gain: Unity to +22 dB (adjustable)
 Ducking Level: Unity to fully off (adjustable)

Control Terminals

Input Configuration: Pull to ground, 0.5 mA
 Trigger Inputs (8): Trigger on high to low transition

Control Inputs (3):

WAIT (play delay), **IGNORE/Abort** (no playback), **CONT** (continuous repeat of triggered chime)

Output Configuration:

Control Outputs (2): Open collector @ 100 mA
CHIMING (low when chiming),
EOC (low 100 mS at end of chime)

Output

Output: 150 Ω balanced or 75 Ω unbalanced
 Output Signal: +4 dBu nominal
 Power Requirement: 24 to 33 Vdc @ 100 mA, Ground-referenced

Dimensions:

Width: 3.25 in. 8.26 cm
 Length: 5.00 in. 12.70 cm
 Height: 1.36 in. 3.46 cm

Radio Design Labs Technical Support Centers

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