



# T-GEN 50 Tone Generator

*T-GEN 50 is a tone generator and PA amplifier module for use as an occupant warning system, providing 50 watts rms of tone into a 100 volt line. Several different tones can be selected including the AS 2220 Alert and Evacuate signals and the ISO 8201 Evacuate Signal.*

## Features

- Power output (rms) 50W tone, 25W speech @ 27Vdc
- Higher output using Master/Slave operation
- Alert and Evacuate tones to AS 2220.1
- ISO 8201 Evacuate Signal (with keywords)
- RH3, HeeHaw and Wail alternative tones
- Optional Public Address (PA) microphone
- Six stage rising amplitude Alert tone
- No-tone version with recorded bell sound
- Programmable Alert to Evacuate time delay (0 - 600 sec, or manual)
- Pre-recorded "Alert" and "Evacuate" voice messages (two "Evacuate" options)
- Background music input
- Test Link for unobtrusive speaker tests

## Description

The T-GEN 50 tone generator and Public Address amplifier module generates emergency warning signals for alarm and occupant warning systems where a full EWS to AS 2220 or AS 1670.4 is not required. T-GEN 50 provides 50 watts rms of alarm tone into a 100 volt line. Different tones can be selected including the AS 2220 Alert and Evacuate signals and the ISO 8201 Evacuate Signal. T-GEN 50 provides speaker line fault supervision, public address facilities and pre-recorded voice messages. Readily available accessories ensure that installing the T-GEN 50 is quick and easy.

## Part Numbers

### T-GEN 50 Modules

PA0766	ISO 8201, Australian & NZ voice
PA0886	Bell, Australian & NZ voice, no tone

## Specifications

### Mechanical

Dimensions	125 x 195 x 55mm (HWD) Circuit Module
Weight	0.65 kg

### Electrical

Supply Voltage	19.6 to 28.8 VDC
Quiescent Current	Lk1 on      Lk1 off (Lk1=bias link; off for PA Speech) 32mA      47mA (add 17mA if Fault Relay is enabled)
Full Output Current	2.2A (50W tone) into 200 Ohm load at 24Vdc
Connections	Screw Type, 2.5mm <sup>2</sup>

### Tone Options (these vary between models)

Emergency Warning	AS 2220 Alert & Evacuate, ISO 8201 Evacuate Signal
RH3	5Hz sweep, 500Hz to 1400Hz
Hee Haw	1Hz alternating, 500Hz & 580Hz
Wail	4 second sweep, 350Hz to 1300Hz to 350Hz
Test Tone	20dB 500Hz 0.5 sec on, 3.5 sec off
Alert to Evac Time	0, 30, 60, 90, 180, 300, 600 sec or Alert only
Recorded Messages	Two messages (Alert & Evac), 0 to 7 sec Evac, 0 to 4 sec Alert, field-recordable, standard messages supplied (Alert = Bell on PA0886), Recorded message option with all tones.
Indications	Fault LED, Record LED

### Environmental

Operating Temp Range	-5°C to +45°C
Storage Temperature	-20°C to +70°C
Relative Humidity	0 to 95% non-condensing

### Inputs

Alarm-	O/C=Fault (if supervision enabled), 10k=Normal, S/C=Alarm
Auto/Isolate/Evac-	O/C = Auto, 10k = Isolate, S/C = Evacuate
Sig	Slave input. 3V p-p into 40k for full output. Fault supervision on input (fault < 2.5VDC)
Background Music	2.7V rms into 27k for full output. Two way 0.1" connector
Microphone	3mV - 100mV rms (AGC) into 6k6 for full output. Four way 0.1" connector includes PTT

### Outputs

Line+/Line-	50W rms square wave, 25W rms sine wave @ 100V into 200 Ohm. Two supervised branches, 1 x 56k or 2 x 100k EOL resistors
Sig	Master output, 3V p-p tones, 2.5V p-p audio at full volume
Fault Relay	Normally energised, changeover contacts, 30VDC 2A
Def-	24V, 1mA transistor pulldown on fault
Speaker Output	Low level 6mW into 8 ohms to monitor recorded message, 2mm tab connectors

### Field Adjustable Controls

8 Way DIP switch	Selects Alert to Evac time, Alarm Input fault supervision, Alarm Input latching, Evacuate tone type, mode
Links	Slave/Master, Low Level Test Tone, Bias, Select Fault Relay or Def-, Record Enable
Play Switch	Play back recorded message to local speaker output
PA Volume	Potentiometer on PCB
Speech Volume	Potentiometer on PCB

## Master/Slave Operation

For higher power outputs T-GEN 50 modules may be interconnected, with one module configured as the master and the others as slaves. The slaves deliver the amplified master signal to their own supervised speaker lines, which ensures that all tones in the warning system are synchronised.

## Accessories

### Auto/Isol/Evac Switch & Bracket

Rotary switch pre-wired with 2 metre flying leads.	
Dim	100x100x50mm (HWD)
Finish	Zinc plated steel with Black on White polyester label
Part No	ME0291



### Dynamic Microphone

Fitted with PTT switch & plug, 1.5m cord.	
Dim	95x70x60mm (HWD)
Part No	ME0290

### 1U 19" Rack Control Panel

Includes Auto/Isol/Evac rotary switch, does not include T-GEN.	
Dim	45x483x50mm (HWD), 0.3kg
Finish	Grey Gloss Powdercoat
Part No	ME0289



### 3U 19" Rack Control Panel (pictured)

Includes A/I/E key switch, T-GEN, mic.	
Dim	134x483x80mm (HWD), 2kg
Finish	Grey Gloss Powdercoat
Part No	FPO698 (including PA0766)

### T-GEN Cabinet

Empty cabinet matching Series 1948 PSU. Space & mounting hardware for one T-GEN 50 module (not included).	
Dim	295x240x85mm (HWD), 2.5kg
Finish	Cream Wrinkle Powdercoat
Part No	ME0292 (003 lock)



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