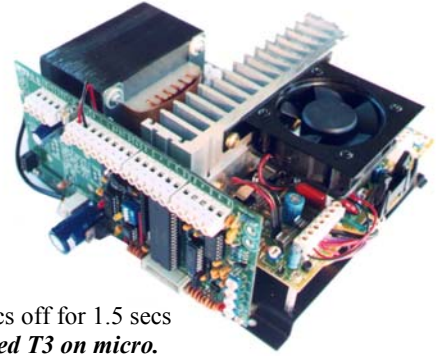


Model SZ120 EV2000 Series

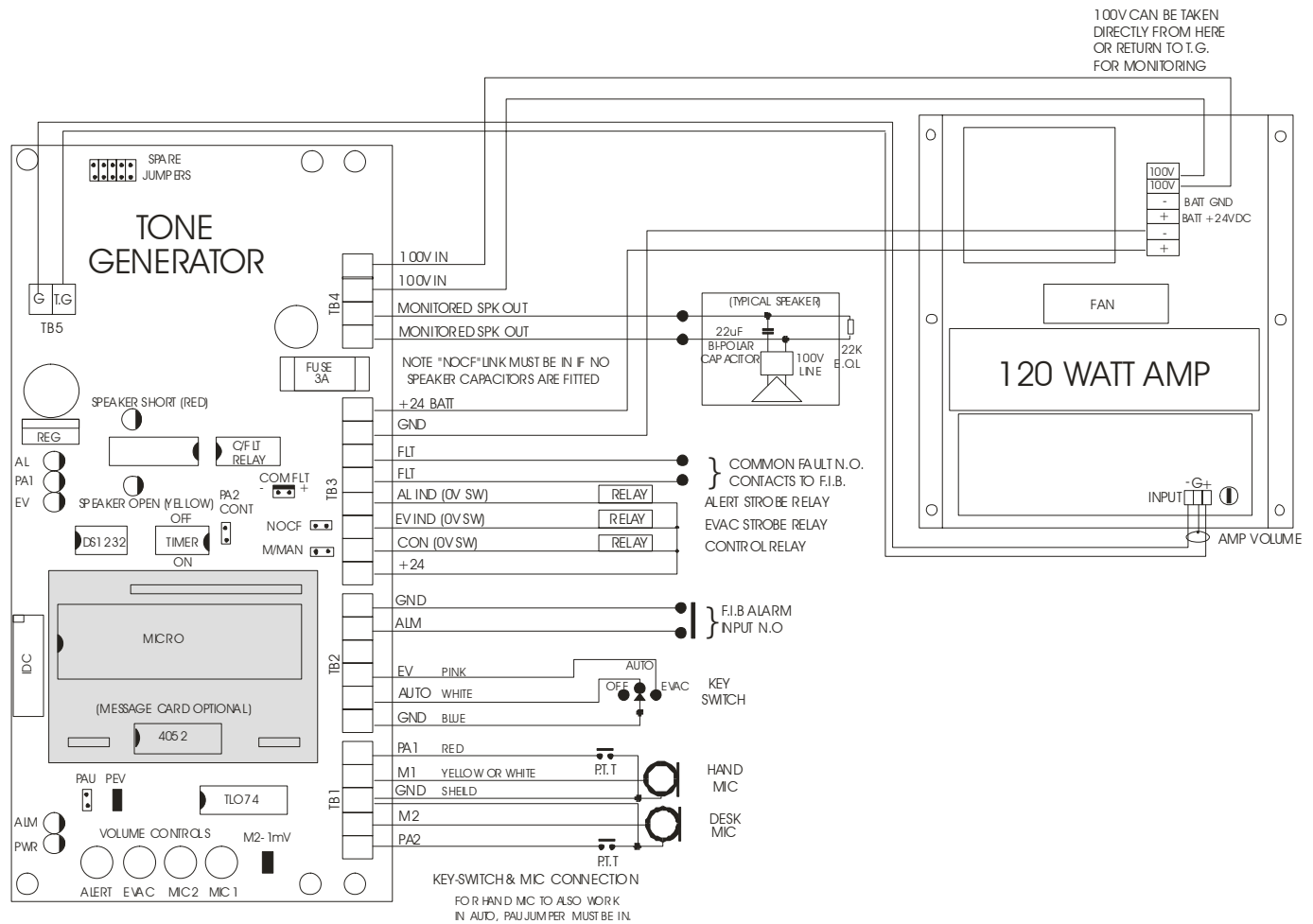


SPECIFICATIONS

Wattage output	120watts
Voltage output	100 volt line
Speaker impedance	83 ohms max
Voltage supply	23-30vdc
Current stand-by	260mA
Current loaded	8A
Fuse rating	Tone generator 3A m205 / Amplifier 8A m205
Alert tone	Stepped 420 Hz on-off 6.25secs
Evacuation tone 2220	Increasing 500-1200 Hz for 3.25 secs @ 4 secs
Evacuation tone T3	Temporal pattern - 3 x 0.5s pulses 500-1200 Hz for 3 secs off for 1.5 secs
	Note T3 replaces 2220 Evacuation tone on units marked T3 on micro.
Dimensions Unit	220mm L x 210mm W x 100mm H



CIRCUIT DIAGRAM



NOTE – TYPICAL REDBACK MICROPHONE CONNECTIONS

EV2000	C-0333 MIC	C-0335 MIC
GND	SHIELD/BLUE	SHIELD/WHITE/BLACK
M1 (MIC AUDIO)	WHITE	RED
PA1 (0V P.T.T)	RED	BLUE

EV2000 Series Evacuation Units

The EV2000 series evacuation units are a combined tone generator and amplifier used to alert and evacuate occupants of a building in an emergency situation. They can be operated manually, or automatically from the Fire Panel. The units also have the facility to allow the use of the speaker system for everyday paging via two separate inputs. One for a hand held microphone and the other for a desktop paging microphone/ music source. The EV2000 units are normally supplied in modular form for easy fitting to new or existing panels. They also can be supplied in a cabinet with their own batteries and charger as a stand alone configuration. Available in 15, 40, 60, 120 and 250 watt models.

Features:

- ⇒ Tones supplied ISO8201(marked T3)
- ⇒ C-Tick approved
- ⇒ 24 volt DC operation
- ⇒ Fire Indicator Board input
- ⇒ 0-9 minute digital Alert to Evacuate timer
- ⇒ Hand-held microphone input
- ⇒ Desk microphone/background music input
- ⇒ 100 volt speaker output with line monitoring
- ⇒ Output for speaker fault condition
- ⇒ Alert and Evacuate outputs to drive strobe relay board
- ⇒ Control output
- ⇒ Facility for plug-in voiceover card (Mess4)
- ⇒ 003 Key Switch to standard units (*Off/Auto/Evac.*)

Optional Extras:

- ⇒ Hand-held microphone (C.B type)
- ⇒ Desk microphone std or with pre-amp
- ⇒ Multi-zone paging microphones, 8, 16 & 32 zone
- ⇒ Mess4- message card. (*Alert/Evac/False Alarm & Test*)
- ⇒ Keypad control with 003 key switch & touch controls.
- ⇒ Selector-switch (*Off/Auto/ P.A/Alert/Evac*)
- ⇒ Strobe relay card 5 amp with monitoring, allows you to drive strobes using only 2 wires.
- ⇒ LMU4 4 zone line monitoring cards, for use with multiple speaker circuits.
- ⇒ Cabinet
- ⇒ Batteries and chargers

Instructions

Key switch (PAU jumper fitted)

“Auto”- The system is in stand-by mode. If a fire alarm is activated, the alert tone will sound. If the timer has been set, the alert tone will time out and change to the evacuate tone.

The hand microphone (If fitted) can be activated by pressing the push-to-talk button on the side of the microphone and speaking into the microphone.

Auto is the only position in which the 003 key can be removed.

The auxiliary input (M2) will only operate in Auto and is disabled if an alarm occurs.

“Off Position”- the system is disabled from distributing audible & visible signals throughout the building.

“Evac Position”- Evacuation tone will sound. The hand microphone (If fitted) can be activated by pressing the push-to-talk button on the side and speaking into the microphone. This will override the evacuation tone.

Selector switch (PEV jumper fitted)

“Off Position”- the system is disabled from distributing audible & visible signals throughout the building.

“Auto”- The system is in stand-by mode, if a fire alarm is activated, the Alert tone will sound, if timer has been set the tone will change to Evacuate. The auxiliary input (M2) will only operate in Auto and is disabled if an alarm occurs.

“P.A. Position”- The hand microphone (if fitted) can be activated by pressing the push-to-talk button on the side of the microphone and speaking into the microphone.

“Alert Position”- manually selects the Alert tone.

“Evac Position”- manually selects the Evacuation tone.

EV2000 Series



Speaker load guide	
Maximum Impedance	
250 watt	= 40 ohms
120 watt	= 83 ohms
60 watt	= 166 ohms
40 watt	= 250 ohms
15 watt	= 665 ohms

CONNECTIONS *All models*

TB1	PA2 M2 GND M1 PA1	Mic 2 control-input ground to activate (non-latching) Auxiliary input mic level 1mV or music level 100mV. Ground for microphones. Microphone input, mic level only 1mV. Mic 1 control-input, ground to activate (non-latching PAU in, latching PEV in).
TB2	GND AUT EV AL ALM GND	Key switch or selector switch common. Auto input, ground to activate (cancels any latching). Evacuate input, ground to activate (latching). Alert input ground to activate (latching). FIB input, ground to activate (non-latching). FIB common.
TB3	24 OUT AL IND EV IND CON OUT FLT FLT GND +24	Fused +24vdc output, use to run relays/ strobe relays etc. Alert strobe output, 0v switch, to drive strobe relays 800mA max! - use Evactron strobe relay card. Evacuate strobe output, 0v switch, to drive strobe relays 800mA max! - use Evactron strobe relay card. Control output, 0v switch with system activation, to add PA2 link PA2 CONT, 800mA max! N.O contacts, close on speaker fault or power off, run to master alarm if required. N.O contacts, close on speaker fault or power off, run to master alarm if required. Battery ground in. Battery + 24vdc in.
TB4	SPK OUT SPK OUT 100V IN 100V IN	100v monitored speaker output \ To speaker circuit, use 22k "end of line resistor" 100v monitored speaker output / for speaker circuit if using monitoring. 100v in, from line transformer \ Take 100v directly from line transformer to 100v in, from line transformer / speakers if monitoring is not required.

If monitoring not used on SZ40,60,120,250 and T.G place 22k resistor across 1 and 4 on TB4 to stop O/C led showing fault

TB5	B- T.G A- GND	+ .5 volt audio output (SZ60, 120 & 250) or 8 ohm to speaker transformer (SZ40 only) - .5 volt audio output (SZ60, 120 & 250) or common to speaker transformer (SZ40 only)
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JUMPERS

Place jumpers in board for following

Spares jumpers, located at end of the circuit board (5 way holder)

- PAU- Place in if you are using a key switch.
- PEV- Place in if you are using a selector switch or facia control.
- M2 1mV- Place in to make M2 input at mic level (1mV) leave out for M2 at line level (100vV) *ie music etc*
- NOCF- Place in to disable a speaker short from muting the amplifier.
- PA2 CONT- Place in ,to link PA2 input to the control output.

TIMER SETTINGS

TIMER SETTINGS IN ALARM MODE (ALERT TO EVAC) CHANGEOVER TIME IN MINUTES																
Dip Switch	Straight to Evac	30 sec.	1	1½	2	2½	3	3½	4	4½	5	6	7	8	9	Stay in Alert
SW1	On	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	Off
SW2	On	Off	On	On	Off	Off	On	On	Off	Off	On	On	Off	Off	On	Off
SW3	On	Off	Off	Off	On	On	On	On	Off	Off	Off	Off	On	On	On	Off
SW4	On	Off	Off	Off	Off	Off	Off	Off	On	On	On	On	On	On	On	Off

NOTE- THE KEY SWITCH SHOULD BE IN THE "OFF" POSITION WHEN POWERING UP ALL EV2000 UNITS