

BVC6 & BVC100

(100V Line Volume Controls)

Installation Details



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PRECAUTIONS AND GENERAL SAFETY INFORMATION

Environmental Conditions

Temperature (Operating & Storage)	Nominal 25°C, transitory -5°C to +40°C
Humidity Range / IP Rating	0% - 90% Non-Condensing / IP30

This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or may allow water or other liquids to come into contact with the unit or its external connections.

In the close proximity of some radio frequency transmitting devices, the signal to noise ratio of this product may be reduced. If this occurs, re-location of the equipment or the signal cables is recommended.



CAUTION

This product must only be disposed of in accordance with the WEEE directive.



CAUTION

These Safety Precautions apply to assembled systems, however they may not all be applicable to every item within that system.

Failure to follow these instructions and guidelines may cause personal injury and/or damage to the equipment.



WARNING

This equipment is intended for continuous operation and as such should be permanently connected to the mains supply.

This unit does not contain an external mains switch.

For servicing, an all-pole Switch / Circuit Breaker with a separation of 3 mm in each pole should be incorporated in the electrical supply spur feeding the unit, and this must be suitably marked to prevent inadvertent or accidental usage.



WARNING

Always ensure that this equipment is correctly earthed by connection to an AC mains supply with a protective earth connection.

GENERAL SAFETY INFORMATION CONTINUED



WARNING

Voltages in excess of 35V RMS AC are considered Hazardous and in certain circumstances can be lethal.

This product contains wiring and terminations that are energised to 100V RMS AC audio signals.



WARNING

If Functional Testing, Maintenance, or Repair is to be completed with the Mains Power (and/or battery backup) connected then this should only be undertaken by personnel who are fully aware of the danger involved and who have taken adequate precautions and training.

Terminals marked with the "High Voltage" symbol are considered hazardous and the external wiring connected to these terminals requires installation by suitably trained personnel.



WARNING

Note that this equipment uses battery backup, and if the Mains Supply is disconnected Hazardous voltages will still be accessible on the terminals marked with the "High Voltage" symbol.



WARNING

The 24V DC batteries used within this system can deliver extremely high currents that can cause fire or burns.

Care should be taken to ensure tools or jewellery etc. are prevented from causing a Short Circuit.



WARNING

Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.



WARNING

If battery isolation / disconnection is required then the 0V cable to the chassis should be disconnected first.



WARNING

Always replace blown fuses with the correct type and rating.
If a fuse continues to blow further investigation is required.

GENERAL SAFETY INFORMATION CONTINUED



WARNING

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.
Dispose of battery carefully to avoid environmental damage.
Do not dispose of battery in a fire.



CAUTION: ELECTRO-STATIC SENSITIVE DEVICES

This product contains Electro-static Sensitive Devices.
Observe the relevant precautions for the protection of ESDs if internal covers are removed.



NOTE

These volume controls are considered for Public Address use and are not approved for use within an EN54-16 or BS5839-8 compliant Voice Alarm system.

BVC6 (6WATT) VOLUME CONTROL

The volume control is fitted into a single surface box and can be used with any number of loudspeakers provided the load does not exceed 6 Watts.

The control has 9 steps of 3dB.

A volume restoration relay is fitted. This enables the volume control to be over-ridden when required. This is normally used when announcements and warnings must be heard at full volume irrespective of the setting of the volume level.

BVC100 (100WATT) VOLUME CONTROL

The volume control is fitted into a single surface box and can be used with any number of loudspeakers provided the load does not exceed 100 Watts.

The control has 9 steps of 3dB.

A volume restoration relay is fitted and operates in the same way as the BVC6.

Connection Details

All internal components are mounted on the back of the front panel, and connections are made via a socket connector which is a push fit onto pins on the circuit board. As the connector can be mounted either way round, the terminals are marked on the circuit board and should be wired as follows:

- 'IN' 100 volt line input from amplifier.
- 'OUT' Output to speakers.
- 'PAGE' 100 volt line 'page' / 'emergency' from dedicated paging amplifier (if no such amplifier is available, strap 'PAGE' to 'IN').
- 'RLY' 24 volt DC to energise relay (see Fig. 1).

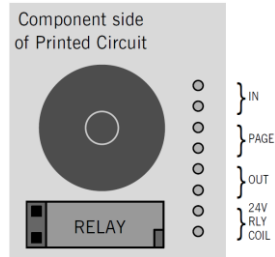


Figure 1. Showing relay in the "24V to over-ride" position.

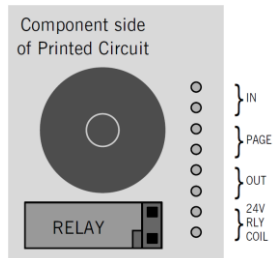


Figure 2. Showing relay in the "0V to over-ride" position.

Voice restoration relay.

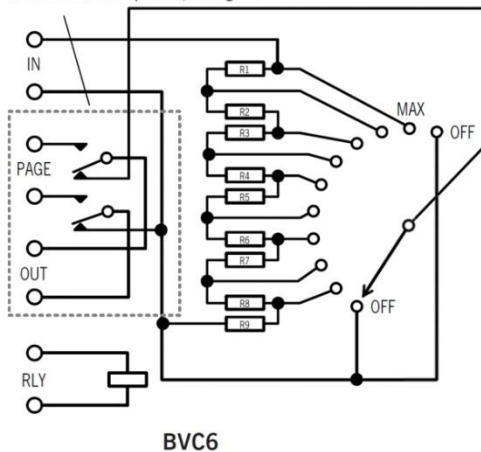
It is normally fitted as shown in Fig. 1, so that 24 volts DC applied to the 'RLY' terminals on the circuit board causes the volume control to be by-passed.

For special applications this mode of operation may be reversed so that removal of 24volts initiates volume restoration. Should the unit be required to operate in this mode the relay must be removed from its socket and replaced in the alternative position as shown in Fig. 2.

To do this proceed as follows:

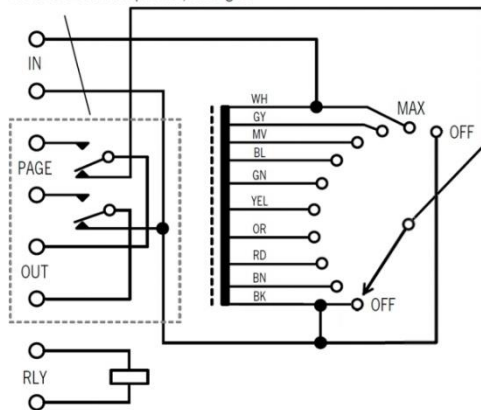
1. Remove panel assembly from the back box and remove the control knob with a small screwdriver.
2. Undo the switch retaining nut and separate the module from the front panel.
3. The relay has eight pins which are easily bent, so carefully withdraw it from its socket by pulling vertically away from the circuit board.
4. Keeping the relay the same way round relative to the socket, move it to the position shown in Fig. 2, align the pins and press home firmly.
5. Reassemble the unit taking care not to forget the shakeproof washer fitted between the switch and the front panel and also not to strip or cross thread the plastic thread of the switch bush.
6. Refit the knob.

Voice restoration relay is shown in the 24V over-ride position, see Fig. 1.



BVC6

Voice restoration relay is shown in the 24V over-ride position, see Fig. 1.



BVC100

BVC6		
R1	680	4w
R2	680	4w
R3	680	1w
R4	680	0.5w
R5	680	0.5w
R6	680	0.5w
R7	220	0.25w
R8	220	0.25w
R9	220	0.25w