G920A
SOUND LEVEL LIMITER

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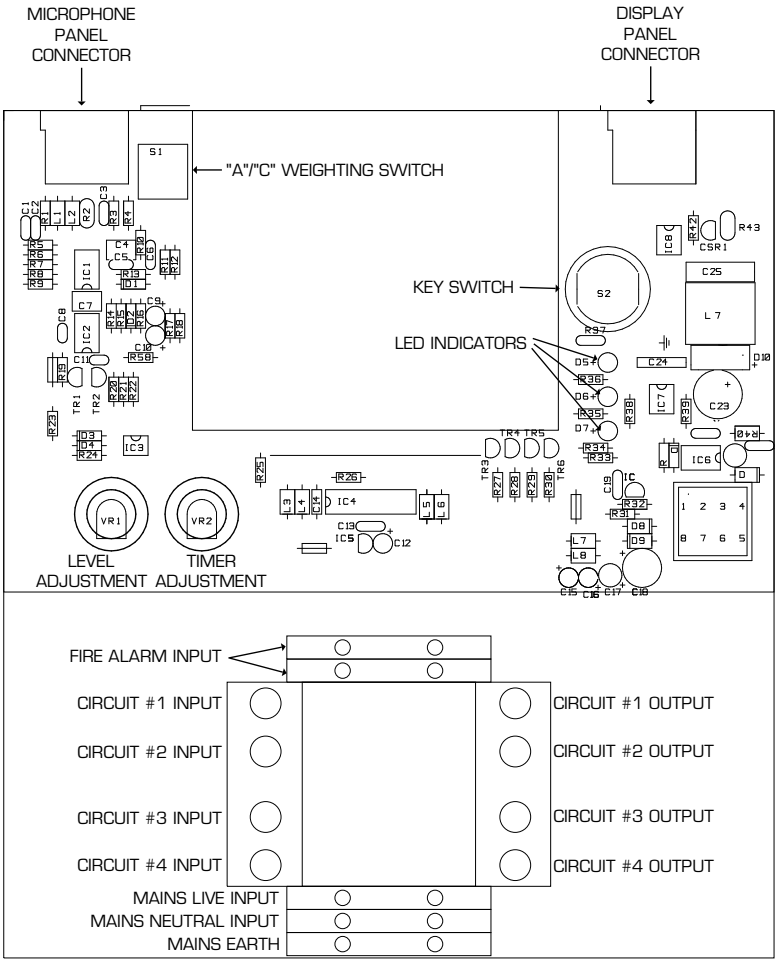
IMPORTANT

Installer and Users please note:

These instructions should be read carefully and left with the user of the product for future reference.

The G920A must be installed by a competent electrician in accordance with the current IEE wiring regulations.

Installation of the Control Panel



Remove the screws along the bottom front edge, and above and below the keyswitch. Four fixing holes are provided so that the control panel can be attached to a wall. To access the top fixing holes, it may be easier to remove the top panel.

The diagram on page 3 shows the unit with its front cover removed.

Connect the mains input terminals in the control panel to a 230V AC mains supply. The supply should be protected by a fuse or circuit breaker rated at 6A.

- Brown = Live (phase)
- Blue = Neutral
- Green/Yellow = Earth
- **The unit must be earthed.**

If the G920A is to be used to switch the mains power to audio equipment then the supply to this equipment should be routed through the contactor. A four pole contactor is provided, which can be used to switch either:

- three-phase and neutral,
- two single-phase circuits switched on live and neutral,
- or four single-phase circuits switched on live only.

A diagram on the cover of the contactor shows which terminals are connected when the contactor switches on. The maximum load must not exceed 40 Amps at 400V AC on each circuit.

The G920A may also be used to control audio equipment in the event of a fire alarm being activated. A 24V signal, either AC or DC of either polarity is required from the fire-alarm panel. This should be connected to the two RED terminals. Permission to connect to the fire alarm circuit should be obtained from the alarm maintenance company.

Alternatively, if the fire alarm interface is not being used, and the audio equipment should need to be disconnected for any other reason (e.g. from building security) then this can

be achieved using a 24V signal connected to the red terminals.

Connecting the microphone panel

The Microphone panel should be situated in the area where the sound level is to be monitored. It should be mounted on the wall or ceiling, and fits a single-socket flush- or surface- mount box. It may be mounted up to 50 metres from the control panel.

Connect the microphone panel to the control box using Cat-5 cable. The Microphone panel is fitted with Krone style terminals, use a termination tool such as P213Z to ensure proper connections. The wiring colours are shown on the panel.

W = White

GE = Green

BU = Blue

O = Orange

BR = Brown.

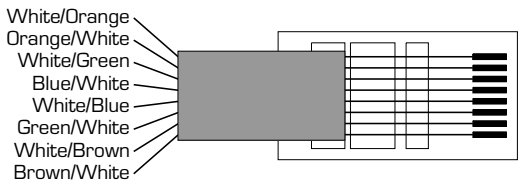
GE/W refers to a wire that is mainly green, but with a white tracer or white stripe.

W/GE refers to a wire that is mainly white, but with a green tracer or green stripe.

The GE/W cable is twisted in a pair with the W/GE cable.

The same applies to the other three colours.

Some manufacturers of cables use a solid colour cable instead of the cable with a white stripe. e.g. GE/W would be green with no stripe.



Connect a RJ45 plug to the end of the cable that connects to the control panel. Wiring colours are shown (This is the standard wiring for CAT5 cable and RJ45 plugs). If a more rugged connection is required, then the Neutrik RJ45 plug may be used, as it affords more protection from damage. Connect to the RJ45 socket marked "Microphone Panel"

Connecting the LED indicator panel.

The G920B remote indicator panel should be connected to the socket marked "LED Panel" using an RJ45 plug and CAT5 cable. Connections are the same as for the Microphone panel. Up to four G920B indicator panels may be connected to one control unit. The G920B panel is not supplied as standard with the control unit, and may be purchased from an Eagle dealer.

Connecting the audio interface.

To connect the G920C interface, remove the two screws holding the blank fascia panel to the top panel of the control unit, and remove the blank fascia panel. Insert the G920C audio control unit, making sure that the plug connects with the socket on the control unit's circuit board. Replace the two fixing screws.

The G920C should be connected between mixer and amplifiers. The audio input signal from the mixer should be connected to the female 3-pin XLR connectors, and the audio output to the amplifiers should be connected to the 3-pin male XLR connectors. In normal operation the G920C has unity (0dB) gain, so the output signal is the same amplitude as the input signal. Inputs and output are both balanced line.

The G920C audio interface is not supplied as standard with the control unit, and may be purchased from an Eagle dealer.

Operation

The G920A continuously monitors the sound level, and disconnects the mains supply to the amplifiers if the maximum level is exceeded.The supply remains off for a time period and then it is reconnected. The sound level at which it turns off, and the time period before it turns back on can be adjusted internally.

The keyswitch allows the unit to operate with the output permanently on for setting up purposes.

Coloured LED indicators show when the sound level is approaching the maximum level.

Display	**Operation**
Green	Normal operation
Amber	6dB below trip level
Red	3dB below trip level
Flashing red	Output disconnected
Flashing amber	Anti-Tamper circuit
Flashing green	Fire alarm or unit initializing

The wiring between the microphone unit and the control panel is monitored by a anti-tamper circuit, which will disconnect the mains supply to the amplifiers if a fault is detected.

If the G920C Audio interface is fitted then the signal to the amplifiers will be attenuated as soon as the unit reaches the amber state, in order to reduce the audio signal to an acceptable level.

Setting up.

Setting up should be carried out by the installer. The sound level and disconnect time are set on the preset controls inside the main control unit. The labelling refers to the sound level at the microphone unit, and should only be taken as a guide, as room acoustics may cause some

difference between the sound level at the microphone and te sound level over the area being monitored. This is especially true if it is not possible to achieve an optimum position for the microphone unit.

The frequency response weighting switch should be set to either "A" or "C" as the regulations require. The Noise at Work Regulations and most other legislation refers to "A" weighting. The frequency response weighting switch is located adjacent to the RJ45 socket for the microphone panel (see diagram on page 3).

Set the MONITOR keyswitch to the clockwise position (where the output will be on all the time). Play music or a test signal through the audio system and monitor the sound level with a sound level meter: set the LEVEL preset in the main control unit so that the red LED starts flashing at the appropriate level. This will be the level at which the output is disconnected when the keyswitch is returned to the anticlockwise (normal running) position.

Set the TIMER preset to the time period for which the output is to be disconnected. If the mains switching is not being used (only the audio interface) then the TIMER can be set to zero, in which case the output will switch back on immediately after it has been disconnected. If the mains switching is being used then a minimum disconnect time of 5 seconds should be selected. It should be noted that repeated connection and disconnection of audio equipment (especially large power amplifiers) is not beneficial to the longevity of the equipment.

Technical Specification.

Dimensions:	286 × 225 × 82mm
Weight:	1.9kg
Power requirements:	230V ~ 50Hz 5VA
Switching capacity:	4 × 400V 40A
Monitoring range:	70db to 110dB
Weighting	"A" or "C" to EN60651
Microphone Panel	
Dimension:	85 × 85 × 26mm
Weight:	0.1kg
Microphone type:	Electret condensor Omnidirectional
Connections:	Krone-style terminals
G920B	
Dimension:	85 × 85 × 26mm
Weight:	0.1kg
LEDs:	21 super-bright
Connections:	Krone-style terminals
G920C	
Dimensions:	113 × 93 × 40mm
Weight:	0.1kg
Audio Input	775mV rms (0dBm) balanced
Audio Output	0-775mV rms (-94dBm to 0dbm) quasibalanced
Maximum attenuation:	94dB
Connections:	3-pin XLR
Input:	Female
Output:	Male
Connections:	pin 1 = ground pin 2 = signal+ pin 3 = signal-

Standards

EN60065	Electrical Safety
EN55103	Electromagnetic Compatibility
EN60651	Microphone response

Guarantee

This product is guaranteed for a period of 24 months against faulty components or manufacture from the date of manufacture, or 12 months from date of purchase, whichever is the longer. Upon proof of purchase, Eagle shall, at its own option, repair or replace the defective item at no cost to the purchaser.

This guarantee is contingent upon the proper use of the product in the application for which it is intended and does not cover products that have been modified, subjected to unusual physical conditions, or electrical conditions outside its specification, or damaged in any way.

This guarantee is limited to the product only and does not cover carriage costs, installation costs or travel expenses. Your statutory rights are not affected.

In the event of any problems with this product contact the retailer from which it was purchased for technical assistance, or e-mail sales@electrovision.co.uk

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