

BVACO

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

VIGIL BVACO CHANGEOVER UNIT

Voice Alarm Systems have to meet and comply with very stringent regulations. Microphone and loudspeaker line monitoring is required as standard as is monitoring of the amplifiers and power supplies.

Therefore, the complete 'critical signal path' is monitored to ensure that if a fault does occur, warnings both audible and visual are given to the operators. This gives them the opportunity to either repair the fault or take alternative action in the event of an emergency.

The next obvious course of action is to make the system completely automatic and this we have done. We have developed a changeover unit that monitors the satisfactory operation of the system and in the event of an amplifier failure will substitute the reserve.

The BVACO unit has the following features:

1. It can accept up to 11 serving and 1 reserve amplifiers with balanced inputs which can be 0dB or DC access switchable using 1 amp relays.
2. It will provide 100V switching of 11 balanced outputs using 5 amp relays.
3. Surveillance is achieved using standard IMP18 modules and BEL1 end of line termination units.
4. The system has the intelligence to decide if it is a line or amplifier fault. When a fault occurs the reserve amplifier will be substituted into the faulty position and if this removes the fault the reserve will remain and the faulty amplifier indicated. If, however, the fault condition continues then obviously there is a line fault and the original amplifier is switched back to its normal position leaving the reserve available for future faults. A line fault condition will continue to be displayed on the appropriate surveillance module.
5. The reserve amplifier is continuously monitored to ensure it is ready to be switched into service when required.
6. It incorporates a main fault announcer panel which will accept 32 inputs making it suitable for accepting fault conditions from other pieces of equipment such as message modules, power supply units, etc.
7. Once a fault has been accepted the system is free to accept another fault
8. The accepted fault will repeat an audible and visual indication after an hour to act as a reminder that a fault condition still needs repairing
9. If ambient noise sensing or other forms of audio signal processing are being utilised, when a fault occurs this signal processor may be bypassed taking the input signal directly to the amplifier.
10. The main processor controller is monitored using a 'watchdog' and if it cannot be reset, will release all input/output switching, avoiding any input/output contention.