

AR130
AR125

BSS

Broadening the boundaries of sound signal processing.

AR130 PHASE CHECK SYSTEM

Through continual involvement in areas relating to sound reinforcement, BSS recognised the need for a consistent and reliable method for checking the polarity of installed sound systems from the input of a mixing console to the acoustical sound input from the speaker drive units.

The AR130 test system, comprising of two hand held units, enables the accurate checking of polarity on any electrical two wire circuit or of any electro acoustical unit such as loudspeakers. The SOURCE unit provides an encoded sinewave test tone whose frequency can be selected to match the frequency range of the equipment under test. The DETECTOR unit provides the polarity indication and can be directly connected to microphones, cables or power amplifier outputs without the need for range switching.

The AR130 is accurate for all systems and provides excellent results even for high frequency loudspeaker drive units where unidirectional pulse techniques often produce inconsistent results.

AR130 FEATURES

- An encoded test signal, which is not a unidirectional pulse, enables reliable and consistent testing of loudspeakers, including high frequency compression drivers.
- Performance is unimpaired by crossovers, compressor-limiters or speaker protection devices.
- Four presettable tone frequencies, variable output level and 'battery low' indicator.
- Large range for detector input voltage reliably accepts most microphones through to power amplifier outputs, without the need for range switching.
- No direct connection required between source and detector, other than the component under test, which may be a single item, or a complete system.
- All circuitry except batteries housed inside steel box for protection and strength. A steel front panel, recessed switches and connectors provide for a virtually indestructible unit.
- The source unit can also function on its own as a test oscillator for general purpose testing.

AR125 XLR/JACK LEAD and FUSE TESTER

An invaluable tool for those involved with interconnecting audio leads and electronic equipment. Simple and easy to operate giving clear and unambiguous indications of the wiring in any 3 pin XLR style or mon/stereo 1/4 inch jack style connectors. The fuse test facility allows the integrity of small fuses to be inspected without the need for a resistance meter.

AR125 FEATURES

- Tests for connection of any pin to XLR shell.
- Tests for connection of XLR shell to XLR shell without connection to any pin.
- Accepts both Post Office and American size 3 pole jack plug.
- Fuse test facility for 20mm, 22mm and 1 1/4" sizes.



- Top mounted sockets, on heavy gauge steel panel, allow unit to be used as "work bench" for supporting connectors during repair.
- Rear mounted XLR sockets with shell contact fingers.
- LED indicators for long battery life.
- Snap acting touch switches.

WHY USE ENCODED SINEWAVE TEST TONE FOR THE AR130?

In testing the polarity of equipment and connecting cables in a sound system, the aim is to ensure that all respective parts are working with signals that have the same phase alignment so as to avoid cancellation effects when two opposing phase related signals are summed together, either electronically or acoustically. Since some parts of a system can be frequency selective, ie crossovers and loudspeakers, it is desirable to test the component parts with a signal whose character resembles that of the program material with which it is working. The most obvious choice for this is to use a sinewave carrier whose frequency can be tuned to suit the frequency range of the particular component under test. Due to its impulse response, using a unidirectional contoured pulse form of test tone can cause problems in the testing of loudspeaker drive units, giving inconsistent results.

The AR130 system encodes polarity information onto a sinewave carrier whose frequency is adjustable over the whole of the audio spectrum. Results are consistent and it will also detect phase inversions at specific frequency points within a speaker system. The testing of wide band electronic equipment and general purpose connecting cables can be performed at any frequency.

AR130 SPECIFICATION

AR130S-SOURCE

This provides a continuous, symmetrically encoded tone, of pre-settable frequency and level.

Output frequency	Range 1: 56Hz to 560Hz Range 2: 260Hz to 2k6Hz Range 3: 620Hz to 6k2Hz Range 4: 1k5Hz to 15kHz All frequencies within 10% of stated range, and are adjustable by screwdriver access through front panel.
Output level	Controlled by a three position switch and a preset control adjustable by screwdriver access through front panel. Middle Position: set by preset within range -1dBv to -34dBv. Upper position: as set for position 1, but 10dB lower. Lower position: 0Db fixed, for direct connection to loudspeakers. Output impedance for positions 1 and 2 sufficient to drive 600 ohms.
Output switch	Output impedance for position 3 sufficient to drive 8 ohms. Enables selection of either NORMAL polarity, REVERSE polarity, or signal MUTE. Output connector is XLR3-32 or equivalent.
Powering	Two PP3 size 9 volt batteries giving an approximate life of 35 hours for alkaline cells. Battery LOW indicator on front panel indicates end of reliable life.
Size and Weight	100 x 75 x 38mm. 300 gms excluding batteries.

AR130D-DETECTOR

This provides indication of polarity status for the input signal, when used in conjunction with AR130S.

Input level	Input voltage to be within the range of 1 mv rms to 50v rms for reliable operation. Input impedance variable with level, minimum 600 ohms. Input connector is XLR3-31 or equivalent.
Polarity Indicator	Two LEDs to indicate normal or reverse polarity. If input signal is too low, these LEDs will not illuminate.
Powering	Two PP3 size 9 volt batteries giving an approximate life of 50 hours for alkaline cells. Battery LOW indicator on front panel indicates end of reliable life.
Size and Weight	100 x 75 x 38mm. 240 gms excluding batteries.

AR125 SPECIFICATION

Maximum lead resistance tolerated	1k ohm
Typical test current	5 mA
Battery	9 volt PP3 size
Size and weight	100 x 75 x 38mm 230 gms excluding battery.

GUARANTEE

All units are guaranteed for a period of one year against defective workmanship and components, providing the unit is returned to the point of purchase for the repair. As part of our design philosophy, only the highest quality parts are used throughout. The design and construction of all BSS products is such that they are capable of giving many years of trouble free operation.

We reserve the right to alter any of the above specifications without prior notice

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