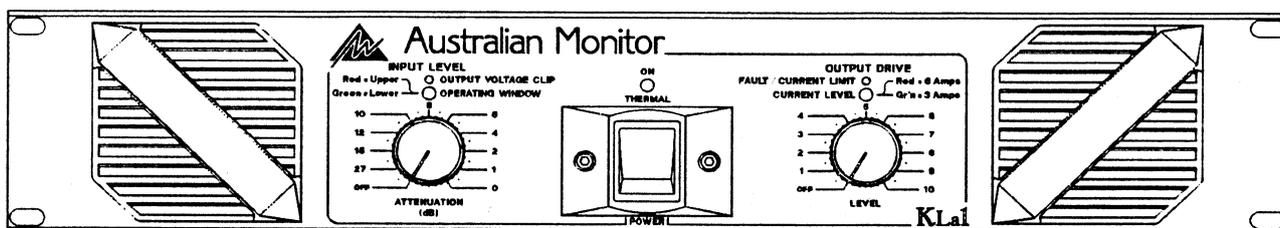


# Australian Monitor

## KL<sub>a</sub>

### K-SERIES LOOP AMPLIFIERS



Australian Monitor is proud to introduce to you its range of Induction Loop amplifiers. Modelled on the successful K-Series range, these amplifiers utilise our unique impedance and phase sensing system to provide a constant current into a single turn Induction Loop, resulting in clarity and detail whilst maintaining total stability.

Two models are offered, the **KL<sub>a</sub>1** for loops requiring up to 6 Amps peak current and the **KL<sub>a</sub>2** for loops requiring up to 12 Amps peak current.

Hosting most of the features and protection networks of the K-Series Audio Amplifiers the **KL<sub>a</sub>** loop amplifiers offer some additional circuitry, controls and Indicators to assist in the correct set-up of a quality Induction Loop system.

These include:

- Internal limiter with 250mV threshold and front panel indication
- 10dB into compression indicator
- Input Level Control for adjusting input signal for the ideal operating window
- Dual level output current indicators
- Low frequency output current limiting (and indication)
- Loop disable relay at turn on
- Loop open / voltage too high indication
- Binding Post and Speakon loop connections
- Active Balanced Inputs
- Signal Ground "LIFT" switch.

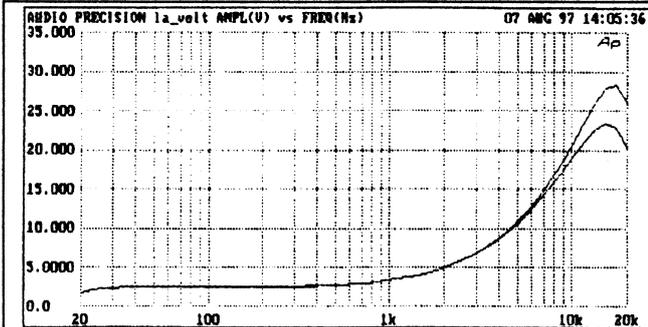
**Additional features include:** Custom designed - heavy duty chassis, open modular construction for ease of servicing, well regulating high current power supply, Input signal strapping connectors, massive heatsinking, Front to back cooling and a dual speed axial fan.

**Protection features include:** Mains inrush current suppression, Input muting at turn on, Input over-voltage protection, RF interference suppression, Short-circuit protection, Mains Circuit Breaker, Independent DC supply rail Fuses.

The layout, grounding, decoupling and componentry have been optimised to provide the user with stability, reliability and longevity.

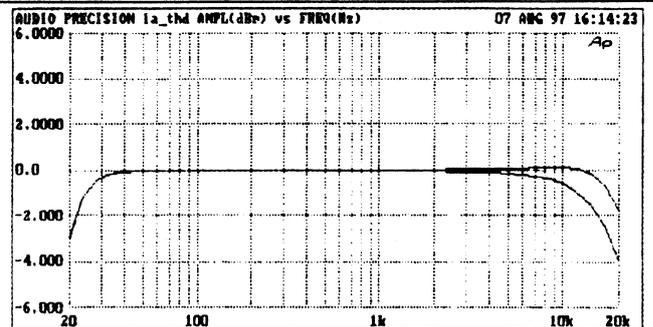
a constant radiation from the piece of wire (through the audio bandwidth) you must maintain a constant current into the load.

The following graphs show performance / transfer characteristics of a KLa1 into 50 metres of 2.00 mm<sup>2</sup> cable being driven at 5 Amps.



Output Voltage Vs Frequency

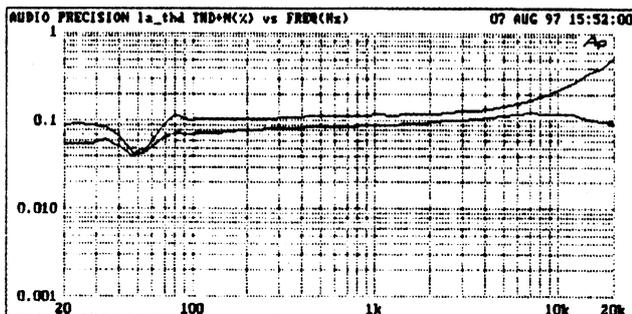
The above graph (lowest trace) shows the output voltage variation of a KLa1 required to maintain a constant current of 5 amps into the Induction Loop.



Current Output Vs Frequency

The above graph (lowest trace) shows the Frequency Response relative to current output of the KLa1. 0dB reference = 5amps @ 200Hz.

*This Loop exhibits an impedance of 0.5 ohm at 200Hz and an impedance of 4 ohms at 10kHz. Power into the loop @ 200Hz = 12.5 VA but @ 10kHz the power = 100 VA. A constant voltage type amplifier driving the same loop at 5 amps @ 200Hz would be down 18dB @ 10kHz.*



The graph on the left (lowest trace) shows Total Harmonic Distortion whilst driving the loop @ 5 Amps.

Distortion is typically less than 0.1% THD+N

Input Sensitivity for rated output = 250mV

Frequency response = 20Hz to 15kHz (+/-3dB)

Two traces are shown on the graphs above. The KLa Loop Amplifiers have an internal adjustment (RV-1) which allows for the higher frequency response to be extended. The upper trace on the graphs show a fully compensated high frequency response. This adjustment would normally be left at the factory preset (no compensation), but could become useful in circumstances where the loop was not properly calculated.

Australian Monitor is on hand to help the specifying and general assistance in Induction Loop Systems envisaging the use of its products. Associated documentation is available to assist installers, contractors and consultants in properly calculating with charts for Peak Current Vs Loop Area and Wire Gauge Vs Wire Length used.



29 Hope street, Ermington 2115, Sydney, Australia. Tel: 61 2 9874 9355 Fax: 61 2 9874 9366  
Email: Ausmon@mypostbox.com