

T14-1 Transport hearing loop driver

Hearing Loops are the only assistive listening technology suitable for use on public passenger vehicles to communicate service broadcasts and emergency announcements to hearing aid users.



T14-1LB: 24V DC power, Wago connectors

The T14-1 can cover a whole bus or coach with a single amplifier making it the most cost effective solution available.

Covered by Ampetronic's 5 year warranty and offering performance you can rely on, the T14-1 requires little to no maintenance minimising lifetime costs.

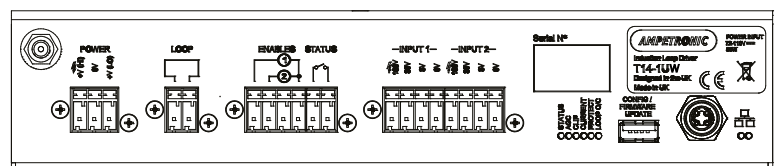
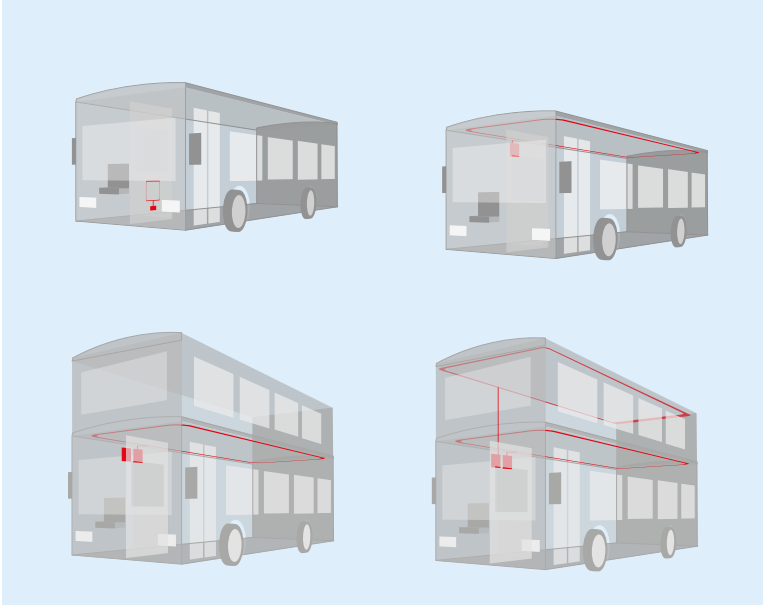
Networking features give the operator remote access to configure and control the system and can integrate reporting features with the TCMS.

With power supply options to suit most common rail and commercial vehicle power systems it is the obvious choice for any quality on-board audio system that requires an Audio Induction Loop.

Features and benefits

- **Less weight than most alternatives in its class**
- **Remote technical support and network features to control and configure the system**
- **Enables reporting features to be integrated with the Vehicle Content Management System**
- **Metal Loss Compensation**
- **Low lifetime cost**
- **Excellent reliability backed by a 5 year warranty**
- **Class D output stage driver for maximum efficiency, unsurpassed in its field**
- **Generating less heat than other drivers in its class**
- **Dual analogue inputs**
- **Transformer isolated inputs**
- **Industrial Ethernet port**
- **USB firmware configuration and update port**

Transport loop configurations



Applications include

- **Buses & Coaches**

T14-1 Product Information

Power Options

T14-1LB

Nominal voltage	24V DC
Voltage range	16.8 - 45V DC
Isolation	1500V DC
Overcurrent protection	8.9A
Final fault protection	Non-replaceable fuse, T 25A
Power Consumption	Typical audio 61W (2.47A) Quiescent 10.3W (0.43A) Peak* 252W (10.5A)

* Short term peak at full 1kHz sine output

Standards Compliance

Automotive:
The T14-1LB is compliant with automotive regulation UN/ECE R10 encompassing the requirements of EN 50498.

Ampetronic drivers have a CE mark for all relevant safety and EMC standards.

Loop Performance

The T14-1 will enable an Audio Frequency Induction Loop system that meets the requirements of IEC 60118-4 and relevant parts of IEC TR 63079. To fully meet the requirements of these Standards, correct design, installation, commissioning and maintenance are required.

Standards compliance to IEC 62489-1

All information specified on this datasheet has been compiled in accordance with the IEC 62489-1 Standard and reflects actual performance in realistic applications.

Accessories

See T14-1 product handbook for mounting, connector and other accessories.

INPUTS

Power Supply	See Power Options (left)
Power Connectors	WAGO 769 series detachable 3-way block
Input 1 & 2	Pin selectable 3V/30V/100V balanced isolated line for each input
Sensitivity	3V -15dBu / 30V +3.85dBu / 100V +14.8dBu
Input Enables	Isolated control input per channel
Input & Control Connectors	Audio inputs, status and enables through WAGO 769 series detachable blocks
Ethernet control I/O	HTML and Telnet control interface M12 circular Industrial Ethernet (TCP/IP), 10/100M
VOIP Input (option)	SIP/RTP network audio input through ethernet connection G.711 A-law & u-law LPCM

OUTPUTS

Loop Output	14.0A _{RMS} (19.8Apk) at least 60 seconds continuous 1kHz
Drive Current	Sine wave, peak >21A Continuous pink noise >6.6A _{RMS}
Drive Voltage	>24V _{RMS} (33Vpk) available at maximum output current
Loop Connector	WAGO 769 series detachable 2-way block
Status Output	Isolated relay contact and network options (inc. SNMP) Monitoring of loop resistance and operating status

AUDIO SYSTEM

Freq. Response	65Hz to 7kHz ±3.0dB / 100Hz to 6.5kHz ±0.5dB relative to 1kHz at low level.
Automatic Gain Control	The AGC is optimised for speech. Dynamic range >36dB
Metal Loss Correction	Dual slope configurable MLC up to 4dB per octave

PHYSICAL

Dimensions	Width 258mm (body) / 295mm (with mounting flanges) Depth 221mm Height 54.5mm
Weight	1.5kg ±0.2kg
Operating temperature	According to EN50155 to OT4 -40°C to +70°C (+85°C for 10 mins at startup)
Construction	Clear passivated Aluminium
IP Rating	WAGO IP40

COMPLIANCE

Bus/Coach: UN/ECE-R10	Electromagnetic Compatibility for Automotive and Mobile Vehicle Sensors inc. EN 50498 Electromagnetic compatibility (EMC). Product family standard for aftermarket electronic equipment in vehicles
Safety & General Standards: EN 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements
EN 55032 & EN 55035	Electromagnetic Compatibility of Multimedia Equipment
2014/53/EU	RED (Radio Equipment Directive)
2011/65/EU	RoHS (Restriction of Hazardous Substances Directive)

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