



UniVox® TV-200

*Environmental friendly loop amplifier
for flat screen TV, with built-in TV-sync*

Installation Guide

UniVox® TV-200 (Part No 212011)

Thank you for choosing a UniVox® TV-200 from Bo EDIN AB. We hope that you will be satisfied with the product. We recommend reading through the complete Installation guide before installing and using the product.

UniVox® TV-200 is a whole new generation of loop amplifiers for wireless listening through hearing aids (in T position) with new features necessary for connection to modern TV's. Correction of time delay between sound and picture (TV Sync) and built-in automatic Scart control are some of the features that enables and facilitates the use together with modern flat screen plasma and LCD TV's.



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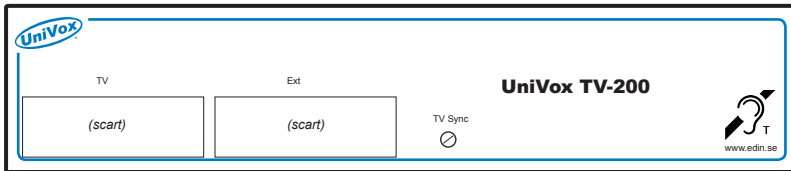
Introduction

UniVox® TV-200 is a professional loop amplifier that enhances the speech intelligibility when listening through the T-coils in your hearing aids.

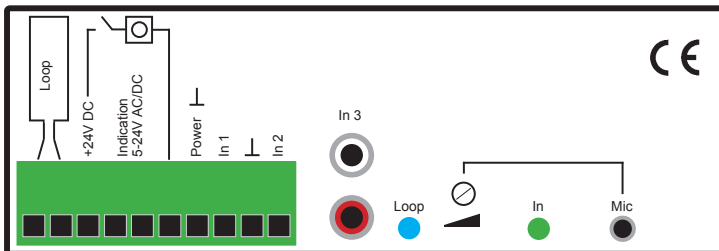
With new components and a new construction the environmental strain has been reduced substantially (half the weight, reduced copper by 90% and lower power consumption).

All UniVox® amplifiers produce a very large output current to fulfil and exceed the requirements according to the international standard IEC 60118-4. To ensure high quality all products undergo carefully testing procedures.

Overview



1. Yellow LED



4. Green LED

3. Blue LED

2. Loop wire connection

For the user

UniVox® TV-200 is adjusted by a technician and no maintenance is normally needed. Don't try to adjust the amplifier yourself as this might make trouble shooting more difficult.

Description of indicators

Yellow LED **(1.)** indicates that the amplifier is turned on.

Green LED **(2.)** indicates that the amplifier is turned on and is connected to a signal source (TV, DVD, radio etc.).

Blue LED **(3.)** indicates that the amplifier is transmitting sound to hearing aids, i.e. is *only* lit when someone is speaking or other sound is being transmitted.

Function control

1. Check that the amplifier is turned on (yellow LED lit). Carry on to step 2. If not, check that the power cord is correctly connected to the amplifier and to mains.
2. Input signal has to be properly connected (green LED **In** shall be lit). Carry on to step 3. If not, check that the cables between the amplifier and the signal source/s (TV, DVD, radio etc.) are correctly connected.
3. Blue LED is lit whenever the amplifier is transmitting the sound to the hearing aid. This shows that the system is working correctly. If you don't hear anything in your hearing aid, check that the hearing aid works and is set in T position.

Error examples

You don't hear anything through your hearing aids:

1. If the blue LED **(3.) Loop** is lit, the hearing aid is not working right. Remedy: Check the hearing aid batteries and that the hearing aid is set in T position.
2. If the blue LED **(3.) Loop** is not lit, check that the loop wires **(4.) Loop** is properly connected. If the green LED is not lit, there is no contact with any input signal source (TV, DVD, radio etc.). Perform a function control as described above.

Mounting and placing

UniVox® TV-200 is either wall-mounted, see screw holes on the bottom (page 10), or placed on a flat and stable surface. The wire between the loop figuration and the loop amplifier should not exceed 10 meters and the wires should be paired or twisted.

Important!

The amplifier normally runs hot during use and needs free space for cooling through the top and bottom. To avoid possible fire or discolour, the amplifier must be kept at a distance from fragile and easily flammable materials.

Preparatory connections

1. Connect the loop wire to the amplifier's connector terminal marked **Loop**.
2. Connect a suitable input signal source.
3. Connect the amplifier to mains or a 12-24V DC power source. Yellow LED is lit.

Default settings

1. Check that there is an input signal (green LED **In** is lit).
2. Adjust the microphone sensitivity (see drawing) so that the green LED **In** is lit during program peaks.
3. Adjust the magnetic field strength by turning the control knob **Loop** so that program peaks occasionally reach 400mA/m. Use only UniVox® FSM field strength meter with RMS measurement and 125ms integration time. Check the sound quality with the loop receiver UniVox® Listener. In certain cases it might be suitable to increase the treble. The treble control can be found inside the TV-200 (the only control knob inside). When increasing the treble there is an increased risk of self-oscillation and distortion.

Special settings for TV

- LCD/Plasma TV's usually have well working RCA/phono connectors. Connect to **In 3**.
- SCART: First always check that the present SCART system works, i.e. the TV changes picture automatically when an external unit (DVD etc.) is turned on. Remove the existing SCART cable from the TV and connect it to the output **Ext** on the TV-200. Connect a new SCART cable between the SCART output on the TV and the SCART input **TV** on the TV-200.
- Sound adjustment/TV sync: Modern flat screen TV's often have a time difference (sound delay) between the sound from external units and the sound from the TV. Use the **TV sync** adjustment potentiometer to achieve the best sound (no echo effects).

Detection system in the loop

The acoustical detection system can be connected in two ways:

1. Door bell with power switch
2. External triggering voltage **5-24V AC/DC**

The acoustical indication muffles the sound in the loop and starts a wide banded harmonic sound that cover most of the frequency non-linear hearing impairments. See the installation guide on the amplifier.

General advice for planning

- Plan for a 2x1.5mm² paired wire. First try to connect as a 2-turn loop. If the desired field strength is not reached, parallel the two wires thereby creating a 1-turn loop. As an alternative a flat copper foil can be used if the room to install a standard round wire is limited.
- Normally reinforced rooms can reduce the coverage area by about 50%.
- Never put analogue input cables close/parallel to the loop wire.
- Avoid dynamic microphones to reduce the risk of magnetically feedback.
- Avoid putting the loop wire close to/on metal constructions or reinforcing structures. This might reduce the field strength substantially.

- If the smallest side of the looped area is larger than 10 metres, another loop figuration should be used, for example a figure eight or SLS solution.
- Is the overspill outside of the loop acceptable? If not, plan for a UniVox® SLS system with heavily reduced overspill.
- Plan all other electrical equipment in order not to create disturbing magnetic fields.
- Do not put the loop wire close to a stage area to avoid feedback from electric instruments and dynamic microphones.
- Always measure and certify the loop installation with UniVox® FSM field strength meter according to the IEC 60118-4 standard.

You can fill out a UniVox® Certificate for induction loops (pdf) by downloading the form at www.edin.se, see Measuring/Control, Standard for measurement of induction loops – IEC 60118-4.

Technical description

Electrical power

Built-in switched power supply 110-240V AC.

12-24V DC as primary power supply or backup. Connection to 12V DC will reduce the effect.

Coverage area

170m² room loop according to IEC 60118-4:2006.

Loop output

Screw terminal

Inputs

Mic 3.5mm, 2-250mV/5k Ω (built-in phantom power)

TV/Ext SCART, 35mV-10V/5k Ω

In 1 screw terminal, 35mV-10V/5k Ω

In 2 screw terminal, 35mV-10V/5k Ω

In 3 RCA, 35mV/5k Ω

Indication

External door bell/telephone signal or trigger voltage can activate the built-in indication system with tone generator in the loop.

Metal loss correction/treble control

0 - +18dB for correction of high frequency drop due to metal, screw driver control.

Loop current

Loop Screw driver control on the side.

Indicators

Power connection Yellow LED

Loop current Blue LED

Input signal Green LED

Security and warranty

Basic knowledge in audio and video installation techniques is required to achieve existing regulations.

The installer/planner is responsible for the installation hereby avoiding any risk or cause of fire.

Please also note that warranty is not valid for any damage or defects on the product due to incorrect or incautious installation.

Maintenance and care

Under normal circumstances UniVox® loop amplifiers do not need any special maintenance. Should the unit become dirty, wipe the unit with a slightly damp cloth. Do not use solvent or heavy cleaning agents.

Trouble shooting guide

Verify the control LED's following the instructions in this installation guide. Use UniVox® Listener to check the sound quality and basic level of the loop.

Service

Should the system not work after having made the product test as described above, please contact the local distributor of the product for further instructions. If the product should be sent to Bo EDIN AB, please enclose a filled Service Form, see www.edin.se, Support.

Technical data

For additional information, please refer to product data sheet/brochure and CE certificate which can be downloaded from “Product databank” at www.edin.se. If required, spare part lists or other technical documents can be ordered through support@edin.se.

Accessories

Part No Description

281015	Audio cable, 3.5mm male to 2 RCA male, 1.5m wire
242401	13A, Electret microphone with velcro, 3.5mm male, 1.8m wire

Loop signs, boundary and wireless microphones are available as accessories.

Recycling directives / Environment

When this product is finished with, please follow existing disposal regulations. Thus if you respect these instructions you ensure human health and environmental protection.

Measuring and control instruments

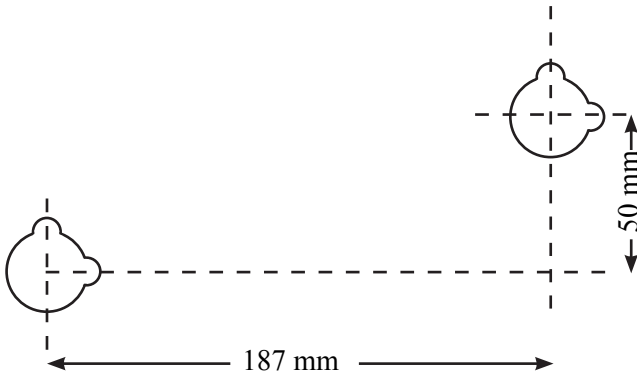


UniVox® FSM 2.0, field strength meter
Professional instrument for measurement and control of induction loop systems according to IEC 60118-4.

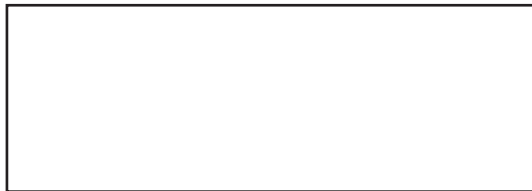


UniVox® Listener
Loop receiver for quick and easy sound quality test and check of the level in the loop.

Screw hole distances for wall mounting



Distributor



Bo EDIN AB, founded in 1965, develops, produces and sells wireless loop systems and assistive listening devices under the brand name UniVox®. To ensure a high quality all products undergo careful tests and to fulfil our customers' needs the wide range also includes products from other companies. Approximately 50% of our sales are exported.

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