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BY EDIN

# Univox® P-Loop 2.0

Portable loop case for up to 150 m²

User Guide

Univox® P-Loop 2.0 Part no 212031

# Content


Introduction ..... 3
Included in the package ..... 3
System overview ..... 4
Installation and use ..... 4
Setting up the loop ..... 4
One turn loop ..... 4
Figure 8 loop ..... 4
Connecting mains power ..... 5
Connecting signal source(s) ..... 5
Adjusting input sensitivity ..... 6
Wireless microphone systems ..... 6
Adjustment of loop current level ..... 7
Acoustic amplification with an active speaker ..... 7
Tapping the signal ..... 7
Troubleshooting ..... 8
Safety and warranty ..... 9
Maintenance and care ..... 9
Service ..... 9
Technical data ..... 10
Environment ..... 10
Measuring devices ..... 11

# Introduction

## Univox® P-Loop 2.0

Thank you for choosing a Univox® product. We hope you will be satisfied!

Univox® P-Loop 2.0 is a compact, portable loop system used to enhance speech intelligibility for hearing aid users with the hearing aid in T-position. The loop system is very easy to use and can operate in rooms of various sizes up to and including 150 $m^2$.

All Univox® amplifiers have a very high output current capability resulting in powerful and secure products fulfilling existing standards, IEC 60118-4.

Univox P-Loop 2.0 portable loop case contains a complete portable loop system with a built-in amplifier with a 35 m loop cable on a dispenser and accessories depending on which loop solution you have chosen. A 15 m extension cable is also included as well as the loop test instrument Univox® Listener. Several built-in wireless microphone options are available. The microphone level is preset if you have bought a P-Loop 2.0 with two wireless microphones. Please refer to the separate Okayo user guides with addendum for a more detailed instruction of how to set levels of microphones and amplifier.

We hope that the product will meet your highest expectations!

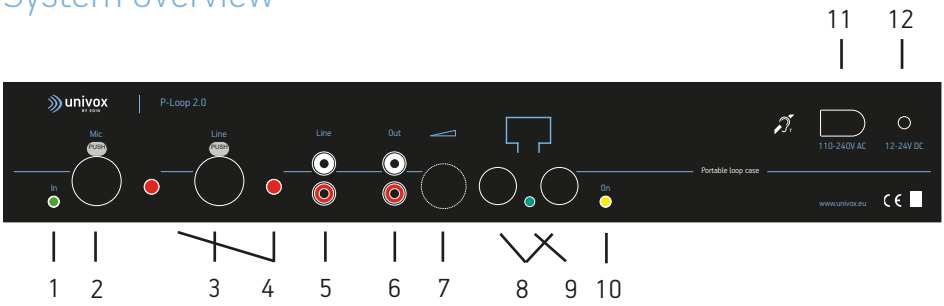
### Included in the package:

- P-Loop 2.0 with built-in loop amplifier
- Loop cable bobin with 35 m cable
- Loop cable extension, 15 m
- Univox® Listener test instrument with batteries
- DC-adapter for connection to 12/24 V batteries
- 2-pin power cord
- Instruction manual

### If you have purchased P-Loop 2.0 with a wireless microphone system from Okayo:

- EJ-702DR Plus wireless receiver
- EJ-701TM Plus handheld transmitter and/or EJ-7XT Plus pocket transmitter with headset microphone
- HDC-702 or HDC-707 charging stations with PSU or charging cable for EJ-701TM Plus handheld transmitter
- Rechargeable batteries
- Instruction manual

# System overview



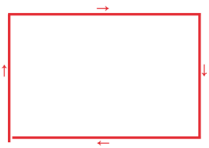

1. In – Green LED level in XLR Mic/Line
2. Mic – balanced XLR, 9-21 VDC phantom power
3. Line – balanced XLR
4. Level controls for XLR inputs
5. Line – line in, unbalanced RCA
6. Out – line out, unbalanced RCA
7. Loop current control
8. Loop cable connection 6.35 mm
9. Blue LED loop current indication
10. On – yellow LED mains
11. 110-240 VAC – mains connection
12. 12-24 VDC – DC connection (DC adapter)

# Installation and use

## Setting up the loop

Place the case anywhere along the perimeter of the intended loop. If you do not have access to a power extension cord, make sure you place the case close enough to the power outlet for the included power cord to reach. Pull out the loop cable from its dispenser and place it around the area that you want covered. There is no need to pull out more cable from the dispenser than is required. Connect both ends of the cable to the amplifier's loop terminal (8). If needed there is a 15 m extension cable, making the maximum coverable area 150 $m^2$

**Note.** Construction metal can affect the hearing loop to the extent that the loop area needs to be reduced, alternatively place the cable in a figure 8.



One-turn loop

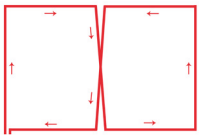


Figure 8 loop

## Connecting mains power

Connect the mains cable to the socket marked 110-240 VAC (11) on the amplifier and to the power outlet. If correctly connected the yellow LED (10) will light up.

If P-Loop 2.0 is used in an environment with a DC voltage source (eg 24 VDC on board a bus), the voltage source should instead be connected to the amplifier's 12-24 VDC voltage input (12) with the included DC adapter.

**Warning!** Be careful not to close the lid of the bag and pinch and damage the connection cord. Damaged connection cable can lead to a risk of the metal parts of the bag becoming live! Damaged connection cord must be replaced immediately. Contact the point of sale to get the correct replacement cord.

## Connecting signal source(s)

There are three different audio inputs:

- XLR Mic input (2), microphone sensitivity with 9-21 V phantom power
- XLR Line input (3), line sensitivity
- RCA Line input (5), line sensitivity

Wired electret microphones are always connected to the microphone input Mic (2), the general sensitivity of which is already set correctly for microphones. It also has a built-in phantom power to the microphone (9-21 V power source dependant).

- 230 V=21 V phantom power
- 12 V=9.7 V phantom power
- 24 V=21.4 V phantom power

Balanced sound sources, e.g. a mixer table or amplifier, is connected to the balanced XLR input Line (3). Both XLR inputs have red potentiometers for fine-tuning the input level (see Adjusting the input sensitivity p.5).

Unbalanced sound sources, e.g. a computer or a CD / MP3 player, is connected to the RCA input Line (5). There is no potentiometer for fine adjustment of the input level at the input and adjustment can therefore not be made in the amplifier. Instead, adjust the level of the signal by adjusting the volume control of the audio source until In (1) lights up.

## Adjusting input sensitivity

Set all adjustments to the minimum position (counter-clockwise). Make sure that all connected audio sources except for the one being adjusted are turned off. Turn the signal source on. If you are adjusting a microphone, make sure that someone is speaking into it. If another type of source is being adjusted, make sure that program material is playing.

Slowly adjust the sensitivity by turning the knob (3) clockwise until the In LED (4) lights up. The sensitivity adjustment should be based on the weakest signal, i.e. when adjusting for a microphone the weakest signal is the weakest voice that will use the microphone. Do not increase the level beyond that the LED just lights up. If the level is too high there is a risk of self-oscillation or distorsion and feedback.

**Note.** When adjusting the RCA line input (5), adjust level on the source unit.

## Wireless microphone systems

If you have bought P-Loop 2.0 with a wireless microphone system from Okayo, you can read more in the enclosed user manual.

**Note.** The EJ-701/702-DR Plus wireless receiver is connected to and powered by the built-in amplifier directly via pre-installed cables. None of the three inputs on the top of the amplifier is therefore used. This means that it is possible to connect a maximum of 5 signal sources directly to P-Loop 2.0.

If you want to use an EJ-701TM Plus handheld transmitter/microphone and an EJ-7XT Plus pocket transmitter simultaneously, it is important that you set up the system in the correct order. The sensitivity of the hand-held transmitter EJ-701TM Plus is deliberately low so that the hand-held transmitter can be used in front of loudspeakers without any feedback. Because the high difference in sensitivity to the EJ-7XT Plus pocket transmitter, the system must be set up in the following order:

1. Start by setting the EJ-701TM Plus sensitivity control to the "HI" position
2. Set the level control (volume knob) in the corresponding receiver module in maximum position
3. Adjust the output level (loop current) to the normal level (see Adjusting the output current of the loop current p.7)
4. Now the entire chain transmitter - receiver - amplifier is set correctly for the hand-held transmitter EJ-701TM Plus
5. Set the pocket transmitter by first setting the sensitivity control on one side of the pocket transmitter to the "LOW" position
6. Set the level control (volume knob) in the corresponding receiver module to 12 o'clock
7. If the sound level of the pocket transmitter in the loop is perceived as too low, the level must be adjusted, first with the level control of the receiver module and if this is not sufficient, the sensitivity control on one side of the pocket transmitter must be set to "MID"

## Adjusting loop current level

Adjust the loop current level with the knob marked ◿ (6). The blue LED indicator (9) indicates when the loop is transmitting.

Use the testing device Univox® Listener (included) to adjust the loop current level. Please consult the included user guide for instructions on how to use the device.

## Acoustic amplification with an active speaker

In rooms without a loudspeaker system, it may be advisable to use a portable, active speaker with built in wireless receivers to also acoustically enhance the sound. A slight acoustic amplification is often welcomed even in smaller rooms, especially when listening for a long period of time, and it is perceived to be more natural by both lecturers and listeners if the sound is acoustically amplified when speaking in a microphone.

The Okayo GPA-670BD1 is a small, light-weight and flexible active speaker (with built-in amplifier) especially suited for enhanced speech intelligibility. The GPA-670BD1 has a rechargeable lithium ion battery that provides 4-6 hours of operation, but can also be used connected to a wall outlet. The speaker has the same type of dual wireless receiver module as the diversity receiver in the P-Loop 2.0 case. This means that the sound from the wireless microphones is transmitted simultaneously to the loop and the loudspeaker. No cables are necessary.

It is recommended to use a tripod floor stand for easy and flexible placement of the loudspeaker. If the loudspeaker is set up at the back of the room and directed towards the speaker, those who are located in the back of the room (and thus farther away from the speaker) get a helping acoustic boost, while those sat closer to the speaker will hear acoustically anyway. A larger distance between the microphone and the loudspeaker minimizes the risk of feedback.

## Tapping the signal

The signal from the amplifier can be tapped to an external system from the RCA out (7). Please consider the risk of feedback if the system includes loudspeakers.

# Troubleshooting

| Symptoms | Possible cause | Solution |
|---|---|---|
| Yellow LED "On" does not light up | The power cord is not correctly connected | Ensure correct connection in the P-Loop and in the wall socket |
| | The power cord is damaged | Replace the power cord immediately |
| | The built-in PSU is damaged | Contact the point of sale for repair |
| Green LED In lights up, but blue LED ⊔ does not light up | No or too weak current in the loop | Adjust the loop level output level with the knob ◿ |
| | The loop cable is not properly connected to the amplifier | Check that the 6.35 mm connectors of the loop cable are properly connected to the loop output of the amplifier |
| Neither green LED nor blue LED is lit. | No input signal | Check that any signal source is connected properly |
| | The input signal too low | Adjust the level of the signal source until the green LED In lights up |
| Distorted/poor sound quality | Too high level of signal source | Adjust the level of the signal source until the green LED In goes out. Then adjust the level until the green LED lights up again |
| | Too wide a distance between the loop lengths | Try to reduce the area on the loop, or place the loop in a figure eight |
| | The listener is too far from the loop | Position the listener closer to the loop |

Use the Univox® Listener to control the sound quality and level of the loop.

# Safety/warranty

We provide a 2-year material and factory warranty (calculated from the date of receipt) on Univox® P-Loop 2.0.

The warranty does not cover faults that have arisen through intervention, negligence, incorrect connection/installation of the product or force majeure.

If a warranty claim is approved, repair or replacement is performed (Bo Edin AB decides which) at no cost to the buyer.

Bo Edin AB shall not be held liable for interference in radio or TV equipment, and/or for direct, unintentional or subsequent damage or loss to any person or unit, if the equipment has been installed by unqualified and/or unauthorized personnel and/or if installation instructions in the product installation guide have not been strictly followed.

# Maintenance and care

Under normal circumstances Univox® loop amplifiers do not need any special maintenance. Should the unit become dirty, wipe it with a clean damp cloth. Do not use solvent or strong detergents.

# Service

Should the product/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, avaliable at www.univox.eu/support.

# Technical data

Please see separate datasheets for Univox® P-Loop 2.0, Univox® Listener and Okayo wireless microphone systems.

For additional information, please refer to product data sheet/brochure and CE certificate which can be downloaded from www.univox.eu, Downloads. If required other technical documents can be ordered from support@edin.se.

# Environment

To prevent possible harm to the environment and human health, please dispose of the product responsibly by following statutory disposal regulations.

# Measuring devices

**Univox® FSM Basic, field strength meter**

Instrument for professional measurement and control of loop systems according to IEC 60118-4

Part no 401014

**Univox® Listener**

Loop receiver for fast and simple check of the sound quality and basic level control of the loop.

Part no 230450/230453

Distributor

Univox by edin, the world's leading expert and producer of high quality hearing loop systems, created the very first true loop amplifier 1969. Ever since our mission is to serve the hearing community with the highest degree of service and performance with strong focus on Research and Development for new technical solutions.

(Univox) Bo Edin AB
Stockby Hantverksby 3,
SE-181 75 Lidingö, Sweden

+46 (0)8 767 18 18
info@edin.se
www.univox.eu

Hearing excellence since 1965

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