

POLAR 10/12 MK2

Manual 1.0

Important Safety Instructions! Read before connecting!

This product has been built by the manufacturer in accordance with IEC 62368-1 and left the factory in safe working order. To maintain this condition and ensure non-risk operation, the user must follow the advice and warning comments found in the operating instructions. If this product shall be used in vehicles, ships or aircraft or at altitudes exceeding 2000 m above sea level, take care of the relevant safety regulations which may exceed the IEC 62368-1 requirements.
WARNING: To prevent the risk of fire and shock hazard, do not expose this appliance to moisture or rain. Do not open case – no user serviceable parts inside. Refer service to qualified service personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to the presence of externally accessible hazardous voltage. External wiring connected to any terminal marked with this symbol must be a "ready made cable" complying with the manufacturers recommendations, or must be a wiring installed by instructed persons only.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.



This symbol, wherever it appears, tells you: Take care! Hot surface! To prevent burns you must not touch.



All electrical and electronic products including batteries should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.



Read these instructions. Keep these instructions. Follow all warnings and instructions marked on the product and in this manual.

- Do not use this product near water. Do not place the product near water, baths, wash basins, kitchen sinks, wet areas, swimming pools or damp rooms.
- Do not place objects containing liquid on the product – vases, glasses, bottles etc.
- Clean only with dry cloth.
- Do not remove any covers or sections of the housing.
- The set operating voltage of the product must match the local mains supply voltage. If you are not sure of the type of power available consult your dealer or local power company.
- Before connecting the device, please ensure that the mains supply you are using is equipped with adequate protection against short circuiting and grounding faults when the device is plugged in.
- To reduce the risk of electrical shock, the grounding of this product must be maintained. Use only the power supply cord provided with this product, and maintain the function of the center (grounding) pin of the mains connection at any time. Make sure the mains outlet used provides a proper protective ground connection.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the device! Power supply cords should always be handled carefully. Periodically check cords for cuts or sign of stress, especially at the plug and the point where the cord exits the device.
- Never use a damaged power cord.
- Unplug this product during lightning storms or when unused for long periods of time.
- This product can be fully disconnected from mains only by pulling the mains plug at the unit or the wall socket. The product must be placed in such a way at any time, that disconnecting from mains is easily possible.

- Fuses are to be replaced exclusively by qualified personnel, and then only with fuses of the proper type and rating.
- Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled or objects have fallen into the product.
 - If the product has been exposed to rain or moisture.
 - If the product does not operate normally when the operating instructions are followed.
 - If the product has been dropped or the cabinet has been damaged.
- Do not connect external speakers to this product with an impedance lower than the rated impedance given on the product or in this manual. Use only cables with sufficient cross section according to the local safety regulations.
- Keep away from direct sunlight.
- Do not install near heat sources such as radiators, heat registers, stoves or other devices that produce heat.
- This apparatus is for moderate climates areas use, not suitable for use in tropical climates countries.
- Do not block any ventilation openings. Install in accordance with manufacturer's instructions. This product must not be placed in a built-in installation such as a rack unless proper ventilation is provided.
- Always allow a cold device to warm up to ambient temperature, when being moved into a room. Condensation can form inside it and damage the product, when being used without warming up.
- Do not place naked flame sources, such as lighted candles on the product.
- The device must be positioned at least 20 cm/8" away from walls.
- Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the product. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.
- Use only accessories recommended by the manufacturer, this applies for all kind of accessories, for example protective covers, transport bags, stands, wall or ceiling mounting equipment. In case of attaching any kind of accessories to the product, always follow the instructions for use, provided by the manufacturer. Never use fixing points on the product other than specified by the manufacturer.
- This appliance is NOT suitable to be used by any person or persons (including children) with limited physical, sensorical or mental ability, or by persons with insufficient experience and/or knowledge to operate such an appliance. Children under 4 years of age must be kept away from this appliance at all times.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock.
- This product is capable of delivering sound pressure levels in excess of 90 dB, which may cause permanent hearing damage! Exposure to extremely high noise levels may cause a permanent hearing loss. Wear hearing protection if continuously exposed to such high levels.
- The manufacturer only guarantees the safety, reliability and efficiency of this product if:
 - Assembly, extension, re-adjustment, modifications or repairs are carried out by the manufacturer or by persons authorized to do so.
 - The electrical installation of the relevant area complies with the requirements of IEC (ANSI) specifications.
 - The unit is used in accordance with the operating instructions.
- This product is optimized for use with music and speech signals. Using this product with sine wave, square wave or other kind of measuring signals at higher level may lead to severe damage of the product.

General Notes on Safety for Loudspeaker Systems



Mounting systems may only be used for those loudspeaker systems authorized by the manufacturer and only with the mounting accessories specified by the manufacturer in the installation instructions. Read and heed the manufacturer's installation instructions. The indicated load-bearing capacity cannot be guaranteed and the manufacturer will not be liable for damages in the event of improper installation or the use of unauthorized mounting accessories. The system's load-bearing capacity cannot be guaranteed and the manufacturer will not be liable for damages in the event that loudspeakers, mounting accessories, and connecting and attaching components are modified in any way. Components affecting safety may only be repaired by the manufacturer or authorized agents, otherwise the operating permit will be voided.



Installation may be performed qualified personnel only, and then only at pick-points with sufficient load-carrying capacity and in compliance with local building regulations. Use only the mounting hardware specified by the manufacturer in the installation instructions (screws, anchors, etc.). Take all the precautions necessary to ensure bolted connections and other threaded locking devices will not loosen.



Fixed and portable installations (in this case, speakers and mounting accessories) must be secured by two independent safeties to prevent them from falling. Safeties must be able to catch accessories or parts that are loose or may become loose. Ensure compliance with the given national regulations when using connecting, attaching, and rigging devices. Factor potential dynamic forces (jerk) into the equation when determining the proper size and load-bearing capacity of safeties.



Be sure to observe speaker stands' maximum load-bearing capacity. Note that for reasons of design and construction, most speaker stands are approved to bear centric loads only; that is, the speakers' mass has to be precisely centered and balanced. Ensure speaker stands are set up stably and securely. Take appropriate added measures to secure speaker stands, for example when:

- the floor or ground surface does not provide a stable, secure base.
- they are extended to heights that impede stability.
- high wind pressure may be expected.
- there is the risk that they may be knocked over by people.

Special measures may become necessary as precautions against unsafe audience behavior. Do not set up speaker stands in evacuation routes and emergency exits. Ensure corridors are wide enough and put proper barriers and markings in place when setting speaker stands up in passageways. Mounting and dismounting are especially hazardous tasks. Use aids suitable for this purpose. Observe the given national regulations when doing so.



Wear proper protection (in particular, a helmet, gloves, and safety shoes) and use only suitable means of ascent (ladders, scaffolds, etc.) during installation. Compliance with this requirement is the sole responsibility of the company performing the installation.



WARNING! After installation, inspect the system comprised of the mounting fixtures and loudspeakers to ensure it is properly secured.

The operator of loudspeaker systems (fixed or portable) must regularly inspect or task a third party to regularly inspect all system components in accordance with the given country's regulations and have possible defects repaired immediately.

We also strongly recommend maintaining a logbook or the like to document all inspections.

Also be sure to provide sufficient safety margins for the rigging points used for flown systems. Observe the given national regulations when doing so.



Professional loudspeaker systems can produce harmful volume levels. Even prolonged exposure to seemingly harmless levels (starting at about 95 dBA SPL) can cause permanent hearing damage! Therefore we recommend that everyone who is exposed to high volume levels produced by loudspeaker systems wears professional hearing protection (earplugs or earmuffs).

Manufacturer: Stamer Musikanlagen GmbH, Magdeburger Str. 8, 66606 St. Wendel, Germany

POLAR 10/12 MK2

Welcome to the HK Audio family!

Thank you for choosing a brand-name product made by our company. It was engineered and built with the greatest care so it will serve you well for many tomorrows to come.



Even if you already have extensive experience with sound systems, there will still be some things that are new to you about this product. So be sure to read these operating instructions carefully and keep them for future reference.

Here's wishing you the best sound at every occasion!

Your HK Audio Team



Note: This product's performance may be affected by strong electromagnetic fields or electrostatic discharges. If this occurs, its functionality can be restored by switching it off and on again. If this does not help, you will need to move the device away from the source of interference.

Warranty

Register online with ease at www.hkaudio.com.



<http://warranty.hkaudio.com>

The warranty registration is only valid if made within 30 days of the date of purchase.

HK Audio

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Postfach 1509
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Fax: +49 6851 905 100

1 General Information

1.1 Unpacking and Inventory

Please check that all items are included in the delivery when unpacking the system. POLAR comes in two cartons and consists of a subwoofer, a columnar mid/high unit and a spacer. The subwoofer box also contains a padded protective cover for the subwoofer and a mains cable. The box with the column components contains the mid/high unit and the spacer, packed in a transport bag.

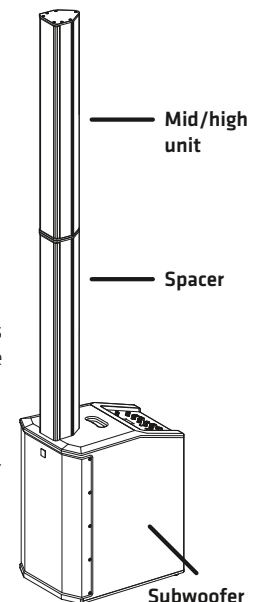
1.2 The Components

The Subwoofer

The active system subwoofer houses the woofer and the system electronics including power amplifiers. The signal-carrying plug-in base for connecting the column elements as well as a carrying handle are located on the top. Another handy grip routed into the bottom panel lets you comfortably carry the subwoofer with one or two hands. The integrated control panel with the display, control features and connectors slopes slightly toward the rear to protect the controls against damage. The bass reflex ports are located at the bottom of the front panel. The power off/on switch and mains socket are on the rear panel.

The Column

- The column consists of a mid/high unit and a spacer.
- The spacer is plugged into the subwoofer's plug-in base using the integrated signal-carrying connector. The mid/high unit is then attached to the spacer using the same connector system.
- This coupler provides a mechanical and electrical connection between the mid/high unit and spacer, so you do not need speaker cables to connect the two.

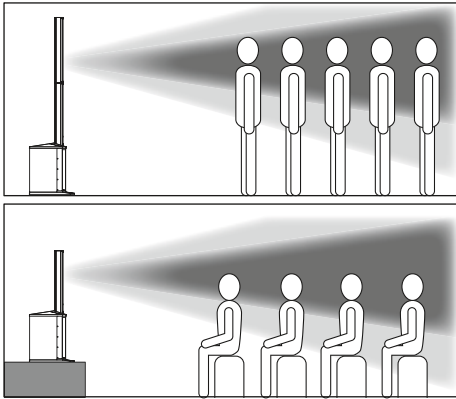


1.3 Setting up the System

Connecting Components

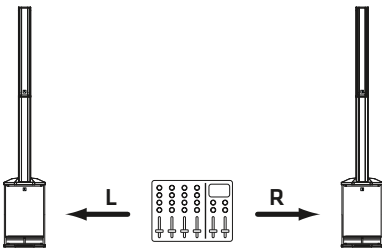
- Place the subwoofer on a level, stable surface.
- Connect the spacer and the mid/high unit to the subwoofer as described in section 1.2 above.
- Make sure the elements are firmly connected to each other.
- Plug the power cord into the rear mains socket.

Good to know: Feel free to set the system up without a spacer if you wish to place it on a high stage, table or the like.



Heads up! Do not transport or move the POLAR when it is assembled. This could damage the system or cause damage to property or personal injury!

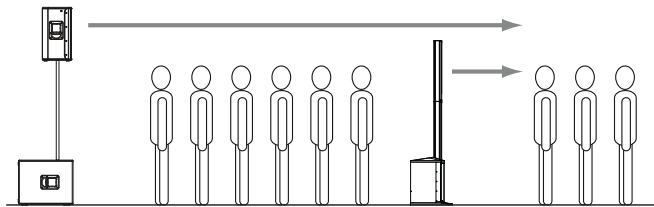
Stereo Setup



If you wish to run two POLAR 10 MK2 or Polar 12 MK2 in stereo, route the mixing console's left channel to the system on the left and its right channel to the system on the right. Make sure the DSP settings for Mode, EQ, Delay, and so on are identical for both systems. See chapter 3 for more on this.

Good to know: You can also operate a POLAR 10 MK2 and a POLAR 12 MK2 in stereo. Use the two Sub **10** knobs and the respective DSP settings (system EQs; see section 3.2 for more on this) to compensate for the differences in the two systems' bass response.

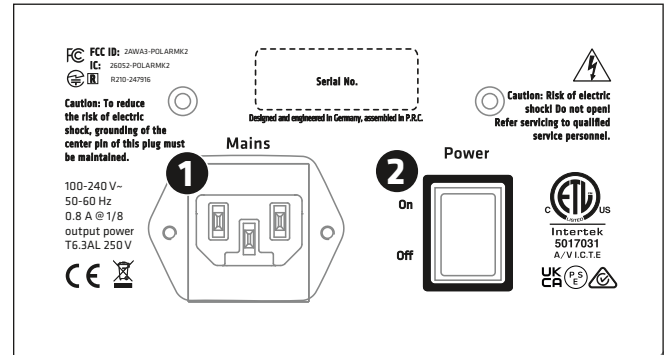
Delay Line for Distributed Systems



POLAR's Delay function lets you use it for a delay line. See section 3.2, Delay, to learn more about this. All you have to do is measure the distance between the main speaker and POLAR in meters, and enter that number to "Delay" in the DSP menu. POLAR factors the main speaker's delay into the equation, automatically calculates the delay time, and renders the signal with the proper delay.

2 Connections and controls

Rear



1 Mains

IEC mains socket for connection to the power supply. Please use the mains cable supplied.

Heads up! The set operating voltage of the product must match the local mains supply voltage. Connecting the enclosure to the wrong mains voltage may destroy its electronic components.

2 Power

Mains switch for switching the power supply on and off. When you switch POLAR on, it loads the most recently used DSP settings and will be ready to operate within seconds when the four channels' level indicators and the Master volume setting appear in the display.

Channel 1 and Channel 2 (Line/Mic)

Channels 1 and 2 are identically equipped and are used to connect microphones as well as instruments with a line output such as a keyboards.

3 Input

Balanced XLR/jack combo input socket. Connection is possible via XLR plug or 6.35 mm jack plug (balanced or unbalanced).

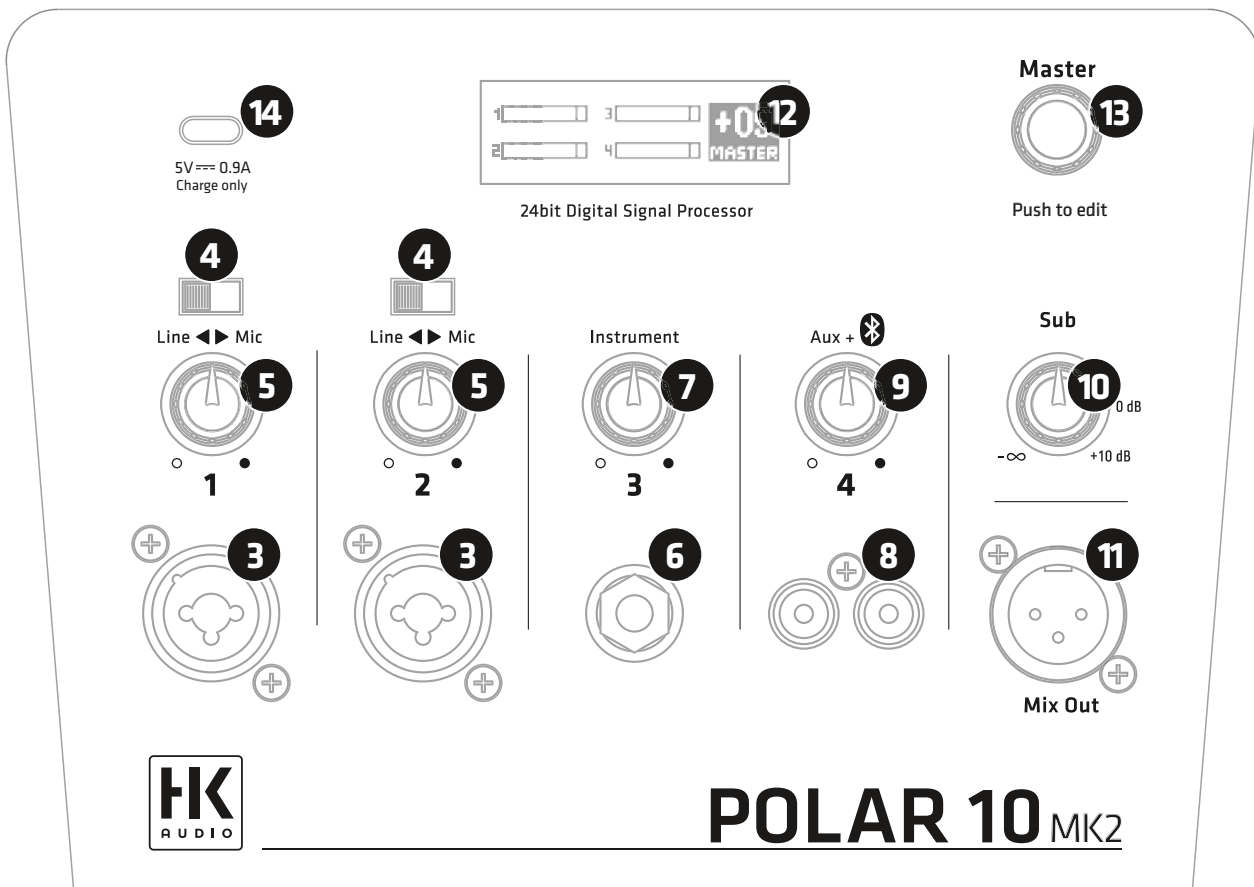
Good to know: A balanced signal is always preferable because it is less susceptible to HF and other interference.

4 Line/Mic

Selector switch for adjusting the sensitivity and impedance of the preamplifier. Set it to "Line" to connect a line-level device such as a mixing console, keyboard or the like. Set it to "Mic" to connect a dynamic microphone.

5 Volume

Turn this knob to adjust the signal level. In the full left position, the signal is muted; in the full right position, the maximum volume is reached.



Channel 3 (Instrument)

Use this input to connect an instrument with high-impedance (Hi-Z) output signals such as an electric or acoustic guitar or bass or an electric piano. The high-impedance input stage renders the instrument's full tonal and dynamic range.

6 Input

Connect instruments to this unbalanced 1/4" (6.35 mm) jack.

7 Volume

Turn this knob to adjust the signal level. In the full left position, the signal is muted; in the full right position, the maximum volume is reached.

Channel 4 (Aux + Bluetooth)

Connect stereo sources such as DJ consoles, CD/MP3 players or mixing consoles to Channel 4 and use it to stream audio via Bluetooth. Channel 4 accepts and renders Aux and Bluetooth signals at the same time.

8 Input

Unbalanced input (2x RCA jack) for connecting high-level audio sources such as CD/MP3 players, smartphones, DJ mixers or computers.

9 Volume

Turn this knob to adjust the signal level. This volume control affects both the Aux input and the Bluetooth input. In the full left position, the signal is muted; in the full right position, the maximum volume is reached.

Good to know: When using the Aux input while streaming audio via Bluetooth, balance the two signal levels by adjusting the Bluetooth player's volume to match that of the incoming Aux signal.

10 Sub

Rotary control for adjusting the bass level of the system. In the full left position, the subwoofer is muted; in the full right position, the maximum subwoofer volume is reached. The subwoofer level can be adjusted separately using the Sub knob. Turn the control to 0 dB for a balanced volume ratio between the column and the subwoofer.

Good to know: It is often a good idea to back off the bass slightly when placing the subwoofer in a corner or in very small venue. Reducing the amount of bass also increases the system's peak volume without triggering its limiter circuits.

11 Mix Out

This balanced XLR output provides a summed signal – that is, a mix of all input channels' signals.

Good to know: The Mix Out output is used to “pass on” the sum signal, for example to an FoH mixer, or to feed an additional speaker (monitor box) or a recording device. You can also send it another powered subwoofer if the unit has a high-cut or low-pass filter to suppress high frequencies.

12 LCD Display

In normal operating mode, this display indicates the input channels' levels and the Master volume.



In DSP mode, it shows the parameters of the currently selected DSP menu (see section 3.2, DSP Settings, for more on this).

Level Indicators

The four level indicators show the input channels' levels. The Overload section tells you the incoming signal is saturating the input because its level is too high. If Overload lights up, turn down the channel's input gain and/or the connected device's output level.

Good to know: POLAR has sufficient headroom to cope with occasional signal peaks. However, if an Overload indicator lights up continuously or it sounds like the signal is clipping, turn the given channel's volume down to prevent the distortion produced by an overloaded system.

Good to know: It is important to dial in the proper signal levels to minimize noise. The best way to do this is by maxing out the channel levels: turn up the input channels' volume until the Overload indicator lights up at the loudest signal peak, and then back it off just enough so the Overload indicator no longer lights up. Then turn the Master knob up only as far as you need it to go.

13 Master (push to edit)

The Master knob on the right of the display serves primarily to adjust the system's overall volume. The current value is shown on the display. Control range: -60 to +10 in 1 dB steps. Pressing and holding the Master button locks the display and access to the DSP. Locked appears on the display. Press and hold again to unlock the display and regain access.

14 USB-C port for charging mobile devices

This USB-C port is used to maintain the charge of mobile devices such as mobile phones or tablets. It can also be used to charge small wireless systems with plug-on transmitters

Note: No media can be played via the USB-C port and the port is not a service socket.

3 DSP Menu

Press the Master knob (push to edit) to access and edit various DSP parameters listed in a menu. The display shows the currently selected parameter.

- Turn the Master knob to navigate the menu. Press it to select the current menu option or confirm your entry.



Heads Up: POLAR will exit the selected menu option and automatically return to the main Master Volume window if you do not make or confirm an entry within eight seconds. It does this to prevent inadvertent operating errors.

Good to know: The system's memory stores all current DSP settings when you power it down and reloads those settings when you power the system back up again.

The following functions are available:

3.1 Bluetooth

BT ON/OFF

Establish Bluetooth connection (press again to select between ON, OFF and TWS. Selecting ON makes POLAR visible to other Bluetooth devices).

POLAR can stream audio via Bluetooth, which is a wireless way of rendering music on mobile Bluetooth-enabled players such as smartphones and tablet PCs.

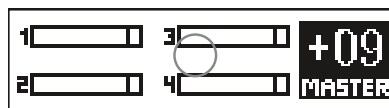
Connecting to a Bluetooth device

- Press the Master knob once. The display will show the menu option "BT ON/OFF".
- Press the Master knob again and the menu option "BT ON/OFF" will be selected. By turning the Master knob, you can select between OFF, ON and TWS. Selecting ON and pressing the Master knob starts the Bluetooth setup. Bluetooth-enabled devices should now be able to discover POLAR MK2. The Bluetooth icon in the display flashes slowly for 120 seconds, indicating that you can pair the system with a Bluetooth-enabled device during this two-minute window.
- Go to the Bluetooth menu of your player and select "HK Audio POLAR 10/12 MK2" to pair the two devices.
- The Bluetooth icon lights up continuously in the POLAR MK2 display as soon as the two are properly paired.

The display indicates the Bluetooth status:

• No Bluetooth icon

Bluetooth is off

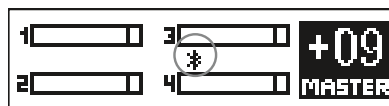


• Icon flashes slowly

You have 120 seconds to pair devices

• Bluetooth icon lights up continuously

Bluetooth successfully connected

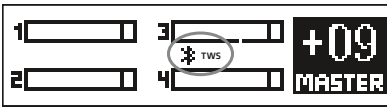


• Icon flashes quickly

Bluetooth pairing failed or the connection dropped out (e.g. out of Bluetooth range)

• Activate Bluetooth True Wireless Stereo TWS

First establish a Bluetooth connection to a POLAR MK2 system as described in section 3.1. Now select TWS under BT ON/OFF in the DSP menu on the POLAR MK2 connected via Bluetooth and confirm by pressing the Master button. You will now see the Bluetooth icon on the display of this POLAR MK2 and the word TWS will also flash. The POLAR MK2 will now search in its vicinity for another POLAR MK2. Now activate TWS on the second POLAR MK2 under the menu option BT ON/OFF by pressing and turning the Master button. If you have selected TWS, confirm by pressing the Master button. The two devices will now connect. This process can take approximately 15 seconds for the first TWS connection. The successful connection is indicated by TWS lighting up continuously on the display of both POLAR MK2 devices. Make sure the channel inputs and the Master are at the same level.



Good to know: If the Bluetooth icon flashes quickly, check if your Bluetooth device is within range, Bluetooth is enabled, and POLAR is selected in the list of Bluetooth devices. If POLAR does not appear in the list of Bluetooth devices, try Bluetooth Pairing again to reconnect.

The audio signals from the Bluetooth device are output via channel 4. Adjust the level with channel 4's Volume knob or with the control on the Bluetooth device. We strongly recommend turning channel 4's volume down before you hit the play button on your Bluetooth device.

Automatic connection to Bluetooth devices

When you switch POLAR back on again, it automatically searches for the most recently connected device for 120 seconds.

Once it finds that device, POLAR connects to it so you do not have to launch the BT ON/OFF function manually. If the device fails to connect after 120 seconds, you can either trigger an automatic search again by switching POLAR off and back on again, or launch the search manually via BT ON/OFF.

Switching Bluetooth Devices

You cannot switch to another device while a Bluetooth device is paired or POLAR is searching for the most recently connected device. You will have to launch the BT ON/OFF function to disconnect the currently paired device and connect another Bluetooth device.

Heads Up: BT ON/OFF always triggers a new attempt to pair a Bluetooth-enabled device and disconnects any current Bluetooth connection.

Range

POLAR supports Bluetooth 5. Bluetooth 5-enabled devices' range can extend up to 40 meters. Devices that do not support Bluetooth 5 typically run up to 10 meters, but that depends on factors such as the given device's quality, transmission power and current environment. For example, walls obstructing the transmission path or a protective cover on the Bluetooth device impede radio communication.

The sound drops out if the device moves out of range or behind walls that interfere with the signal. In this case, the Bluetooth icon in the POLAR display will flash quickly.

The connection re-establishes automatically if you bring the Bluetooth device back in range within 120 seconds, and the Bluetooth icon in the POLAR display will light up continuously.

Bluetooth Audio Stream Stutters or Drops Out

Audio streaming via Bluetooth is, by its nature, more susceptible to interference than a cable connection, as a constant data stream without interruption is required during music playback.

Ideally, there needs to be direct line-of-sight contact between POLAR and the Bluetooth device to enable interference-free playback without dropouts.

Good to know: When connected via Bluetooth, system sounds, notification sounds and ring tones from the Bluetooth device may also be played. You will need to deactivate these functions on your Bluetooth device if you wish to avoid unwanted interference during audio playback.

For more information on Bluetooth, please visit www.bluetooth.org.

3.2 Settings

System EQ

Hi EQ	Adjust high frequency: +/- 12 dB (default: 0 dB)
Mid EQ	Adjust mid frequency: +/- 12 dB (default: 0 dB)
Mid Freq	Set mid frequency: 70 Hz – 12 kHz (default: 1 kHz)
Low EQ	Adjust low frequency: +/- 12 dB (default: 0 dB)

POLAR's three-band EQ serves to tune the system's overall sound. Hi EQ and Lo EQ are shelving filters; Mid EQ is semi-parametric.

Good to know: Use the 3-band EQ to adjust the overall sound depending on the application and personal taste. It is often a good idea to dial down the bass a bit in small rooms with short distances between the system and walls and audiences. The same goes for high frequencies when a sensitive microphone or highly reflective surfaces such as glass walls or windows increase the likelihood of feedback. Use the semi-parametric midrange band to cut a specific frequency that is interfering with your sound or boost a frequency range that sounds a little thin.

Hi EQ: Use this parameter to boost or cut high frequencies. Control range: +/-12 dB • Frequency: 12 kHz

Mid EQ: Use this parameter to boost or cut midrange frequencies. Control range +/-12 dB

Mid Freq: Use this parameter to select and adjust the midrange center frequency. Frequency range: 70 Hz – 12 kHz

Low EQ: Use this parameter to boost or cut low frequencies. Control range: +/-12 dB • Frequency: 70 Hz

Good to know: The EQ settings only affect the speaker output, they have no effect on the Mix Out.

Mode

Mode	Music (default) Voice DJ
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Three preprogrammed modes let you tune the system's sound to suit the application.

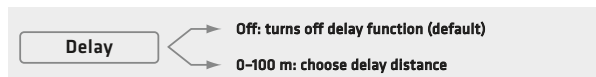
Music: This mode is your go-to choice for live applications and playing all kinds of music, apart from electronic music.

Voice: Optimized for the human voice, this mode is good for speaking engagements and for other speech applications.

DJ: This mode is the best choice for playing electronic music.

Good to know: Changing the Music/Voice/DJ mode does not overwrite the three-band EQ's settings. The three-band EQ is an independent, additional sound-shaping tool.

Delay



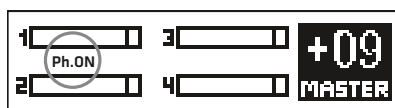
Use the "Delay" menu option if you need to delay the audio playback via the POLAR speakers. The system makes it easy to do this: simply set the delay from 0 (off) to 100 meters in 0.25 meter increments.

Good to know: The delay function comes very handy if you want to use POLAR as a delay line for larger events. In acoustically challenging venues, it can help you distribute sound more uniformly, improve speech intelligibility all the way to the back rows, achieve high-quality audio, and reduce the volume of the main PA up front by the stage. All you need to do to sync POLAR up with the main PA is enter the distance between POLAR and the stage in meters.

PH Power (phantom power)

Activating PH Power switches on a phantom voltage on CH 1 and CH 2. Ph. ON appears on the display.

Phantom power is required, for example, to operate condenser microphones.



3.3 Managing Presets



Load Preset

Five memory slots (U1 to U5) are available for storing your personal DSP settings. "U" stands for user preset. A user preset contains the settings for all parameters in the DSP menu (mode, three-band EQ, delay, display brightness, etc.).

Turn the Master knob to select the preset you wish to load from U1 through U5, and then press the knob to load the selected preset. "Exit" quits the menu without loading a preset.

Store Preset

This option stores the current DSP menu settings. Turn the Master knob to select the desired memory slot from U1 through U5. Confirm your selection by pressing the Master knob. A box serving to name this preset appears in the display. "Exit" quits the menu without saving a preset.

Text Editor: Turn the Master knob to access the text box and navigate the menu to the "Save", "Clear" and "Cancel" options. Once you have dialed up the text box, press the knob to select the first of the twelve character spaces, and then turn it to select a letter or character. Press the knob again to move to the next character space, and then turn it to select the next letter or character. Press the Master knob twice – without turning it – to exit the text box. The enter symbol, an arrow, will appear in the display. Now you can turn the knob to navigate from the text box to the "Save", "Clear" and "Cancel" options.

Save: Selecting "Save" lets you store the preset by pressing the Master knob. This takes you back to the U1 to U5 selection menu, where you can copy the preset to another memory slot or quit the menu via Exit.

Clear: Selecting "Clear" lets you wipe the Text box clean by pressing the Master knob so you can enter a new name.

Cancel: Selecting "Cancel" lets you stop the naming process by pressing the Master knob. This takes you back to the U1 to U5 selection menu, where you can select a different memory slot or cancel the entire saving process via "Exit".

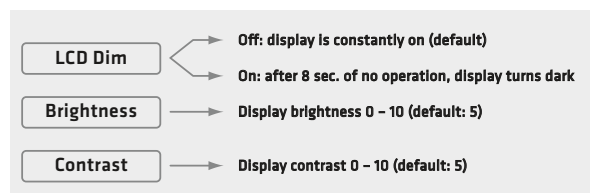
Erase Preset

This option serves to delete the selected preset. Pressing the Master knob does not yet erase the preset. A confirmation prompt appears first:

Confirm Erase: Yes/No

Turn the knob to select "Yes" or "No", and then press the Master knob to confirm your selection. "Yes" irrevocably deletes the preset; "No" takes you back to the DSP menu.

3.4 Display



LCD Dim: Deactivate (Off) this function if you want the display to remain bright. Activate it (On), and the display will dim eight seconds after you last used the Master knob. The readout darkens, but it will remain clearly legible. As soon as you use the Master knob, the display will brighten to the set level.

Bright: Adjusts the display's brightness from 0 to 10.

Contrast: Adjusts the display's contrast from 0 to 10.

3.5 Factory Reset



Reset

- "Reset" lets you restore POLAR's factory DSP settings.
- Pressing the Master knob does not yet trigger a reset. A security prompt appears first:

Confirm Reset: Yes/No

Turn the knob to select "Yes" or "No", and then press the Master knob to confirm your selection. "No" takes you back to the DSP menu, "Yes" irrevocably resets all DSP functions to the factory defaults, with "Music" mode activated, the Bluetooth connection severed, and all five user presets erased.

Good to know: This function comes in handy if you frequently rent the system out. It lets you quickly restore the factory settings before handing the system over to the next customer.

3.6 Exit DSP Menu



This menu option lets you quit the DSP menu and restore the Master knob to its function as a volume control. This also happens automatically if you leave the Master knob to idle for eight seconds.

• Español

• Italiano

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4 Technical Specifications

System

POLAR 10 MK2

POLAR 12 MK2

Key data		
Concept	Active column speaker system	Active column speaker system
System components	1 x subwoofer, 1 x spacer, 1 x mid/high unit	1 x subwoofer, 1 x spacer, 1 x mid/high unit
Max. SPL peak ³⁾	130 dB	130 dB
Crossover frequency	180 Hz	180 Hz
Transmission range -6 dB	42 Hz – 18 kHz	42 Hz – 18 kHz
Transmission range -10 dB	38 Hz – 20 kHz	35 Hz – 20 kHz
Opening angle -6 dB (horizontal x vertical)	120° x 30°	120° x 30°

Connections		
Analogue input	2 x XLR/jack combo (mic/line), 1 x 6.3 mm jack (instrument), 1 x stereo RCA	2 x XLR/jack combo (mic/line), 1 x 6.3 mm jack (instrument), 1 x stereo RCA
Mix output	1 x XLR	1 x XLR
Mains connection	1 x IEC connector	1 x IEC connector

Electronic data		
Preamplifier type	DSP preamplifier	DSP preamplifier
Amplifier type	Class D – bi-amped	Class D – bi-amped
Power amp output RMS	500 W	500 W
Power amp output peak	2000 W	2000 W
Power consumption	0.8 A/100 – 240 V nominal (EN 62368-1)	0.8 A/100 – 240 V nominal (EN 62368-1)
Maximum input level	16 dBu	16 dBu
Speaker protection	RMS/peak limiter	RMS/peak limiter
Sampling rate	24 kHz	24 kHz
Latency	2 ms	2 ms
Display	LCD	LCD
DSP functions	Presets, 5 storable user presets, delay, dimmable LCD, 3-band EQ, semi-parametric mid EQ	Presets, 5 storable user presets, delay, dimmable LCD, 3-band EQ, semi-parametric mid EQ
Filter presets	Music, Voice, DJ	Music, Voice, DJ
Bluetooth	Yes (5.0), TWS	Yes (5.0), TWS

Mechanical data		
Carrying handles	2 x handles	2 x handles
Enclosure material	Plywood, aluminium	Plywood, aluminium
Colour	Jet black (RAL 9005), Signal white (RAL 9003)	Jet black (RAL 9005), Signal white (RAL 9003)
Front grille	Steel front grille with anti-corrosive coating, fabric backing	Steel front grille with anti-corrosive coating, fabric backing
Accessories included	Transport cover (sub), transport bag (mid/high unit)	Transport cover (sub), transport bag (mid/high unit)
Dimensions (W×H×D), metric		
Dimensions (W×H×D), imperial	14 9/16 x 81 7/8 x 18 13/16 inch	14 9/16 x 84 1/8 x 18 13/16 inch
Weight, metric	26.9 kg	28.5 kg
Weight, imperial	59.3 lbs	62.83 lbs

Subwoofer

POLAR 10 MK2

POLAR 12 MK2

Key data and components		
Concept	Active subwoofer	Active subwoofer
Cabinet design	Bass reflex	Bass reflex
Colour	Jet black (RAL 9005), Signal white (RAL 9003)	Jet black (RAL 9005), Signal white (RAL 9003)
Low frequency	1 x 10" cone speaker	1 x 12" cone speaker
Crossover	High pass: 24 dB/oct., Low pass: 24 dB/oct.	High pass: 24 dB/oct., Low pass: 24 dB/oct.

Mechanical data		
Enclosure material	Plywood	Plywood
Finish	Acrylic coating	Acrylic coating
Carrying handles	2 x handles	2 x handles
Front grille	Coated steel front grille, fabric backing	Coated steel front grille, fabric backing
Dimensions (W×H×D), metric	37 x 56.2 x 47.8 cm	37 x 61.8 x 47.8 cm
Dimensions (W×H×D), imperial	14 9/16 x 22 1/8 x 18 13/16 inch	14 9/16 x 24 5/16 x 18 13/16 inch
Weight, metric	19.35 kg	20.9 kg
Weight, imperial	42.66 lbs	46.08 lbs

Mid/high unit

Key data and components		
Concept	Passive speaker column	Passive speaker column
Cabinet design	Closed	Closed
Midrange/HF driver	6 x 3" cone speaker	6 x 3" cone speaker
HF driver	1 x 1" compression driver	1 x 1" compression driver
Horn	Constant directivity horn	Constant directivity horn
Opening angle -6 dB (horizontal x vertical)	120° x 30°	120° x 30°

Mechanical data		
Enclosure material	Aluminium	Aluminium
Finish	Powder coating	Powder coating
Front grille	Coated steel front grille, fabric backing	Coated steel front grille, fabric backing
Dimensions (W×H×D), metric	10.7 x 82.7 x 12.8 cm	10.7 x 82.7 x 12.8 cm
Dimensions (W×H×D), imperial	4 7/32 x 30 9/16 x 5 1/32 inch	4 7/32 x 30 9/16 x 5 1/32 inch
Weight, metric	4.75 kg	4.75 kg
Weight, imperial	10.47 lbs	10.47 lbs

Spacer

Mechanical data		
Enclosure material	Aluminium	Aluminium
Finish	Powder coating	Powder coating
Front grille	Coated steel front grille, fabric backing	Coated steel front grille, fabric backing
Dimensions (W×H×D), metric	10.7 x 76.9 x 12.8 cm	10.7 x 76.9 x 12.8 cm
Dimensions (W×H×D), imperial	4 7/32 x 30 9/32 x 5 1/32 inch	4 7/32 x 30 9/32 x 5 1/32 inch
Weight, metric	2.8 kg	2.8 kg
Weight, imperial	6.17 lbs	6.17 lbs

3)

1 x mid/high unit @ 1 m, 10% THD, half space

1 x mid/high unit @ 1 m, 10% THD, half space

• Español

• Italiano

• Français

• Deutsch

• English

5 Accessories

POLAR MK2 Subwoofer Cover

Part number for POLAR 10 MK2 Subwoofer Cover: 1008276
Part number for POLAR 12 MK2 Subwoofer Cover: 1008277

The padded cover protects the subwoofer during transport and handling and is included with the product.

POLAR MK2 Column Carry Bag

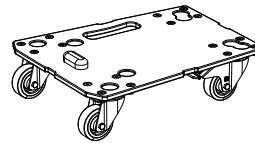
Part number: 1008278

The practical Carry Bag protects the mid/high unit and the spacer during transport and makes handling easier. It is included with the product.

POLAR MK2 Wheel Board

Part number: 1008222

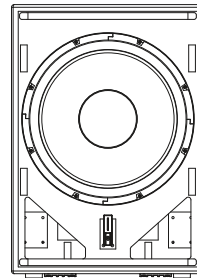
The POLAR MK2 Wheel Board helps you transport your POLAR MK2 system and POLAR 8. Equipment for using a tensioning belt is also available to avoid having to reposition it in the event of obstacles such as stairs or steps.



SONAR 115 Sub D

Part number: 1007908 (230V)

The perfect subwoofer addition to the POLAR MK2 for even more power on the dance floor.



Further information can be found here.

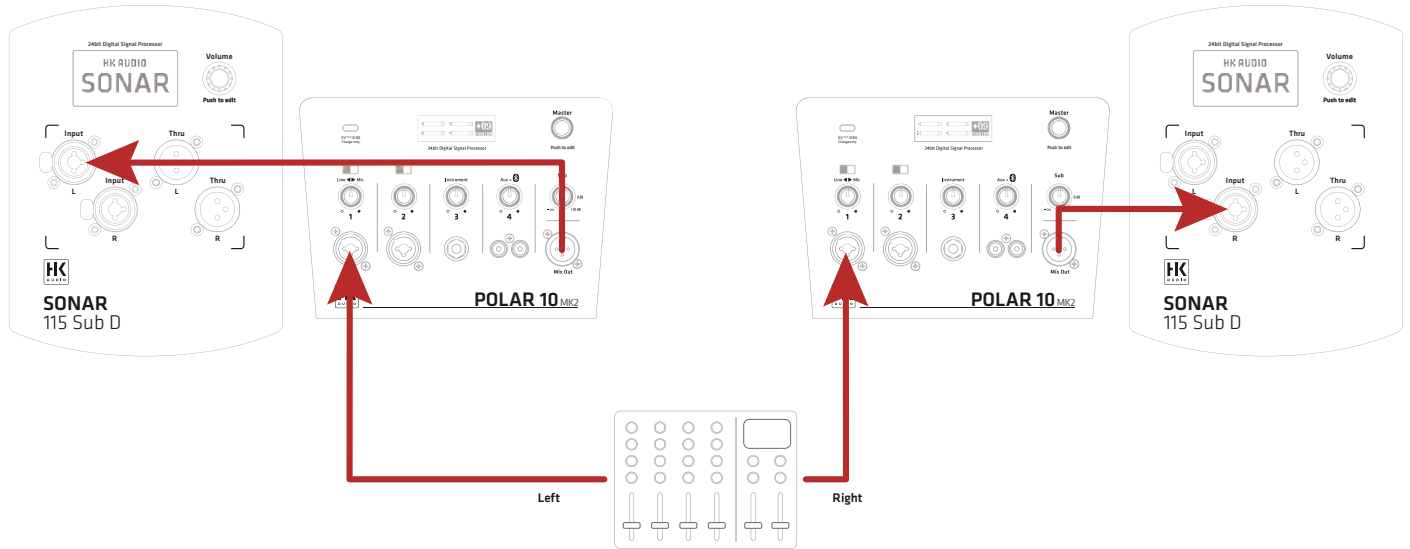


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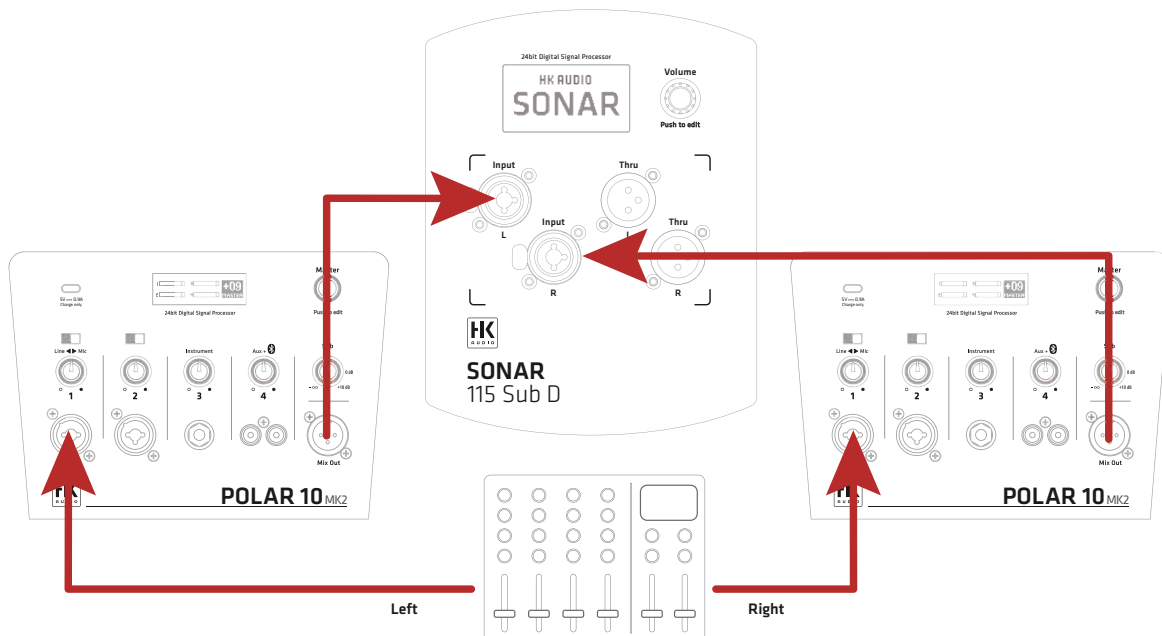
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6 Sub extension

Sub extension for POLAR 10 & POLAR 12 with two SONAR 115 Sub Ds



Sub extension for POLAR 10 & POLAR 12 with one SONAR 115 Sub D



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POLAR 10/12 MK2



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