



free solo Antenna Splitter

Active Antenna Splitter

Thomann GmbH

Hans-Thomann-Straße 1

96138 Burgebrach

Germany

Telephone: +49 (0) 9546 9223-0

Internet: www.thomann.de

06.03.2024, ID: 314056 (V5)

Table of contents

- 1 General information..... 5**
 - 1.1 Symbols and signal words..... 5
- 2 Safety instructions..... 7**
- 3 Features and scope of delivery..... 9**
- 4 Installation and starting up..... 10**
- 5 Connections and controls..... 13**
- 6 Technical specifications..... 15**
- 7 Protecting the environment..... 17**



4 free solo Antenna Splitter
Active Antenna Splitter

1 General information


This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under www.thomann.de.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is used in wireless transmission systems to distribute and amplify the incoming antenna signals. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.



NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the “Technical specifications” chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

3 Features and scope of delivery

This appliance is used when multiple radio links are to be operated with a single antenna pair.

The following features characterise the device:

- Amplifying the high frequency signal of a pair of antennas and distribution to 4×2 antenna outputs in the frequency ranges of 470 MHz to 608 MHz, 614 MHz to 694 MHz, 823 MHz to 832 MHz and 863 MHz to 865 MHz.
- Central 12 V power supply for up to four devices
- Suitable for 19-inch rack mounting

Included accessories: 12 V power supply, 2 UHF omnidirectional antennas, 10 BNC cables

4 Installation and starting up

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

Notes on radio transmission

Before you start, make sure that the frequencies of the connected wireless systems are legitimate in the respective country and check whether the operation must be registered with the responsible authority. For more information see the wireless system user manual.

Rack mounting

The unit has been designed for rack mounting in a standard 19-inch rack; it occupies one rack unit.

Attaching and connecting antennas.

Attach the supplied antennas to appropriate positions, such as the PA rack. To improve the transmission quality and to adapt to the spatial conditions, the antennas are rotatable and swivelling. Position the antennas so that all used transmitters (e.g., wireless microphones, body-pack transmitters) are within radio range. Install a BNC cable from both antennas to one of the antenna inputs each of the device.

Setting up the high-frequency connection

Connect one antenna output pair of the device each to the two antenna inputs of a wireless system. To do so, use the supplied BNC cables.

Connecting the power supply



NOTICE!

Damage to the external power supply due to high voltages!

The device is powered by an external power supply. The external power supply can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires.

Make sure that the voltage specification on the external power supply matches the local power grid before plugging in the power supply.

Only operate the external power supply from professionally installed mains sockets that are protected by a residual current circuit breaker (FI).

As a precaution, disconnect the power supply from the power grid when storms are approaching or if the device will not be used for a longer period.

Connect the 12 V outputs of the device to the 12 V power supply inputs of the wireless systems. To do so, use the supplied power cords.

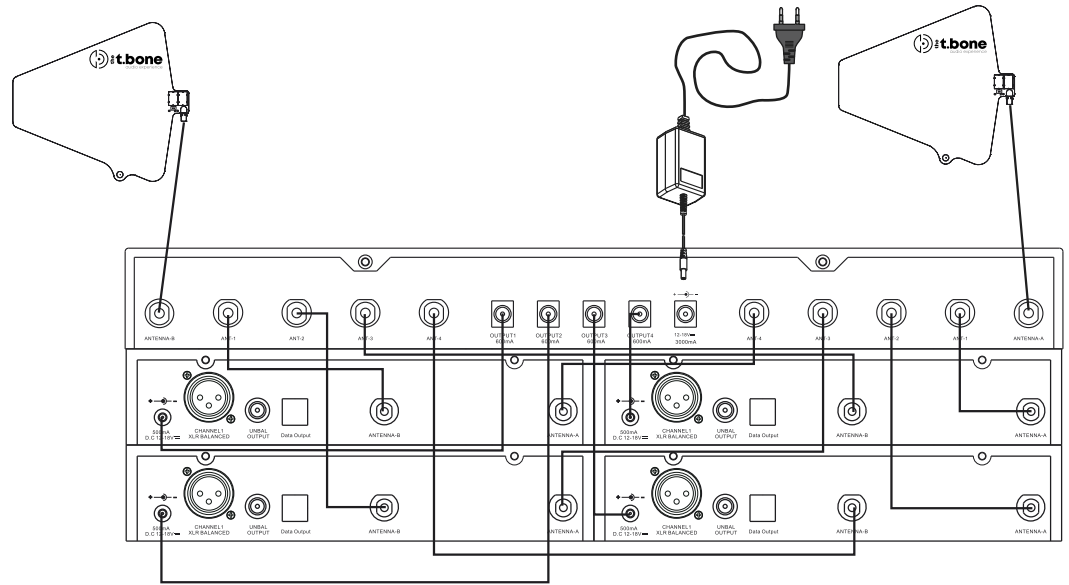
Connect the power supply to the device and then plug the mains plug of the power supply into the power outlet.

Taking system in operation

Now switch on the device and the connected wireless systems.

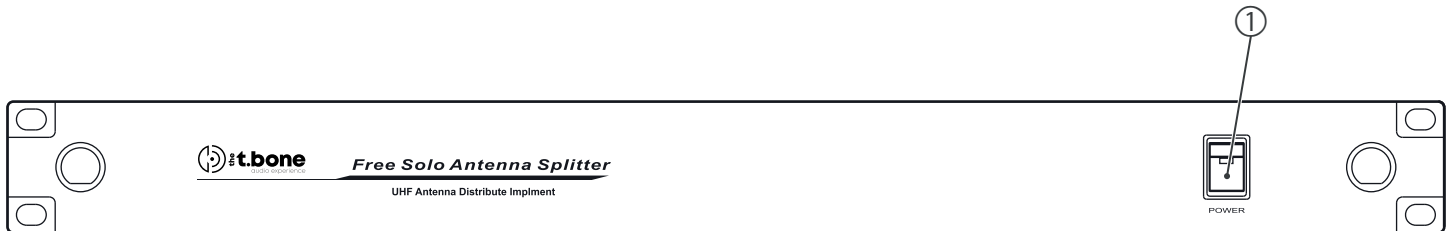
Example

The following figure shows how to connect the device to the optionally available paddles and to four wireless systems. Instead of the paddles, you can also connect the device to the antennas included in the delivery.



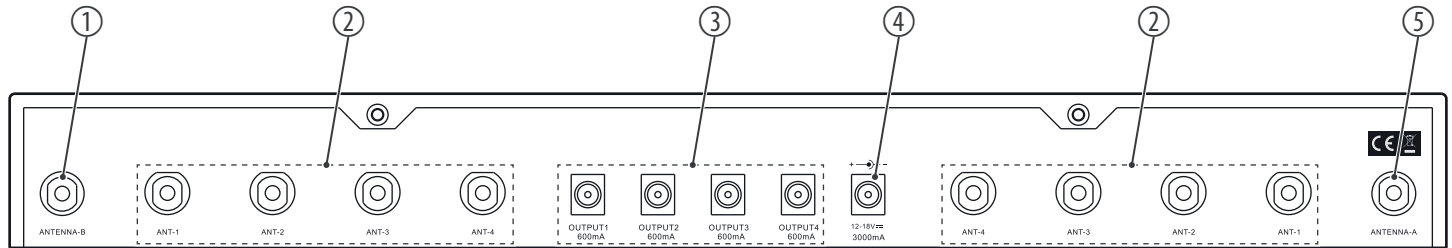
5 Connections and controls

Front



- 1 [POWER] | Main switch. Turns the device on and off.

Back



- 1 [ANTENNA-B] | BNC panel sockets for the cable connection to the supplied UHF omnidirectional antennas
- 2 [ANT-1] ... [ANT-4] | BNC panel sockets for the cable connection to the connected wireless systems
- 3 [OUTPUT1] ... [OUTPUT4] | Power supply connections for the connected wireless systems. The power supply for the connected wireless systems is active even when the antenna splitter is off.
- 4 Socket for connecting the supplied power supply.
- 5 [ANTENNA-B] | BNC panel sockets for the cable connection to the supplied UHF omnidirectional antennas

6 Technical specifications

Input connections	Power supply	1× Socket for connecting the power adapter
	Antenna / booster	2× BNC inputs (9V DC for active antennas / booster)
Input impedance	50 Ω	
Output connections	Power supply of the connected wireless systems	4× DC out socket, 600 mA
	Wireless systems	2× BNC panel socket
Output impedance	50 Ω	
Frequency range	470 MHz ... 608 MHz, 614 MHz ... 694 MHz, 823 MHz ... 832 MHz, 863 MHz ... 865 MHz	
Transmission power	+15 dBm	
Antenna gain	3 dB (+/-3 dB)	
Power supply	External power adapter, 100 - 240 V ~ 50/60 Hz	
Operating voltage	12 V...18 V $\overline{\text{---}}$ / 3,000 mA, centre positive	
Installation properties	19 inches, 1 RU	
Dimensions (W × H × D), without antenna	410 mm × 45 mm × 160 mm	

Technical specifications

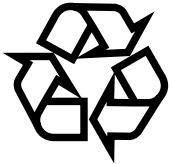
Weight	2 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

Further information

Component type	Antenna splitter
----------------	------------------

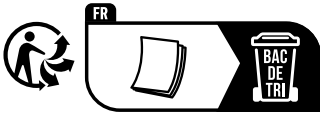
7 Protecting the environment

Disposal of the packing material



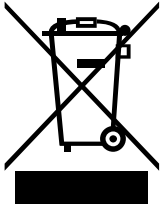
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.



Observe the disposal note regarding documentation in France.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. When disposing of the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste management facility. Proper disposal protects the environment as well as the health of your fellow human beings.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

You can return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

If your old device contains personal data, delete those data before disposing of it.

