



ARTIST ELITE®



Professional UHF Wireless Systems

AEW-DA550C Diversity UHF Antenna Distribution System, 540-565 MHz

AEW-DA660D Diversity UHF Antenna Distribution System, 655-680 MHz


Installation and Operation

Prior to use of this product, review all safety markings and instructions.

	<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	<p>AVIS RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR</p>	
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To prevent electric shock, do not remove the cover. There are no user-serviceable parts inside. Internal adjustments are for qualified professionals only. Refer all servicing to qualified service personnel.

Pour prévenir un choc électrique, ne pas ouvrir le couvercle. Il n'y a aucune pièces de rechanges à l'intérieur. Tout ajustement interne doit être fait par une personne qualifié seulement. Référez tout réparation au personnel qualifié.

	<p>Warning/Attention: To prevent fire or shock hazard, do not expose this appliance to rain or moisture. Pour prévenir feu ou choc électrique, ne pas exposé l'appareil à la pluie ou à l'humidité.</p>
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WARNING: This apparatus must be grounded.
This product is a safety class 1 product. There must be an uninterruptible safety earth ground from the main power source to the product's AC input. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

ATTENTION: Cet appareil doit être mise à la terre.
Cet appareil est de classe de sûreté 1. Il doit y avoir un ininterrompable de mise à la terre de sécurité provenant de la source principale de courant de l'appareil de l'entrée du courant alternatif. Quand la protection a été affaiblie, débrancher le fil de courant jusqu'à la mise à terre a bien été réétablie.

The detachable IEC type power input cord supplied is intended for use in regions with mains voltage in the range of 100–125VAC only. Use only the furnished power cord that includes the appropriate NEMA 5-15P/ANSI C73.11 type attachment plug.

For use in geographical areas with mains voltage outside of the range 100–125VAC, it is necessary for the user to utilize a power cord rated and configured for operation in their region. Replace the supplied power cord with a cord rated for correct voltage operation.

AEW-DA550C and AEW-DA660D Installation and Operation

The AEW-DA550C and AEW-DA660D are UHF active unity-gain diversity antenna distribution systems. Identical in all other respects, the AEW-DA550C operates over a nominal 540-565 MHz range, while the AEW-DA660D operates over a nominal 655-680 MHz range. These units are designed to complement wireless systems operating in the Audio-Technica "C" Band (541.500 - 566.375 MHz) or "D" Band (655.500 - 680.375 MHz), as well as other wireless systems operating in the same frequency ranges.

For conciseness, only the AEW-DA550C model is mentioned in the following instructions. All information in this manual applies to both models, except as noted.

The AEW-DA550C provides two identical sections, one for each antenna of a UHF diversity wireless system. Each section in the unit comprises an antenna input, four bandpassed, isolated receiver outputs, and a bandpassed "cascade" directional coupler to supply signal to additional AEW-DA550C units. All RF connectors are BNC-type. Ten BNC-to-BNC RF interconnect cables are included with the unit.

Antennas can be remotely located from the unit. However, due to signal loss in cables at UHF frequencies, use the lowest-loss RF cable type(s) practical for any cable runs over 25 feet. RG-8 is a good choice. Use only copper-shielded cable, not CATV-type foil-shielded wire.

Either passive or active antennas may be used. Both antenna input jacks offer switchable +12V DC output on their center pins to operate Audio-Technica powered antennas or other in-line RF devices, if desired. Up to 250 mA can be drawn from each antenna input jack.

Additionally, four jacks on the rear panel provide 12V DC (center **positive**) to power as many as four receivers operating on 12 volts at up to 500 mA each. Included with the unit are four DC cables appropriate for use with ATW-R310 (or like-powered) receivers.

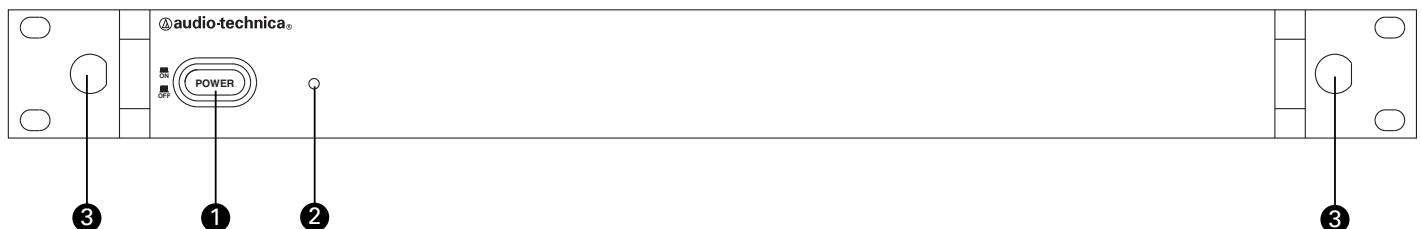
The 12-volt supplies for powering receivers and in-line devices are short-circuit protected.

The unit features a steel case with steel-reinforced front panel and rear rack-mount supports for extreme durability. An included set of RF cables and connectors permits front-panel antenna mounting.

Front Panel Controls and Functions (Fig. A)

1. POWER SWITCH: Press switch to apply AC power to unit. Press again to turn unit off.
2. POWER INDICATOR: Shortly after power is applied, the indicator will light.
3. FRONT-MOUNT ANTENNAS: Cables and panel connectors are included to permit attaching antennas at the front panel.

Figure A Front Panel



Power Connections

The switching power supply is designed to operate properly from any AC power source 100–240V, 50/60 Hz without user adjustment. Simply connect the receiver to a standard AC power outlet, **using only an IEC 320-type input cordset approved for the country of use.** Power to the unit is controlled by the front-panel Power switch.

An auxiliary AC “jumper” (pass-through) outlet is provided on the rear panel, and a “jumper” power cordset is included, to simplify power connections by “daisy-chaining” together an array of AEW receivers and antenna distribution units. Maximum output from the auxiliary AC outlet is 500 watts; it is fused internally. **Do not exceed the 500W power limit. Do not connect high-current devices, such as power amplifiers, to this outlet.**

Front-mount Antennas

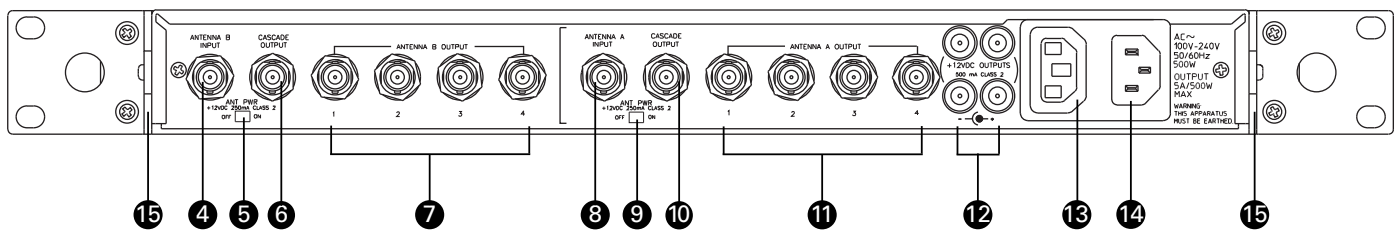
BNC-to-BNC connectors and jumper cables are included with the unit to permit mounting antennas on the front panel.

- BNC-BNC through-panel connectors: Remove the nut and lock-washer from each connector. Install the connectors **from the front** into the two panel holes. Note that the flat on the threaded section must be aligned with the flat in each panel hole. Secure each connector from the back with its lock-washer and nut, tightening the nut firmly.
- BNC-BNC cable jumpers: Connect the jumpers to the rear antenna jacks first; then attach them to the BNC connectors on the front panel. Make certain the bayonet twist-rings are **fully latched** on the connectors at both ends.

Rear Panel Controls and Functions (Fig. B)

4. CHANNEL “B” ANTENNA INPUT: Attach the “B” antenna here, or extend it with a low-loss antenna cable. (Antenna and cable not included.) The antenna input jack also is capable of providing +12V DC output on its center pin at up to 250 mA to power in-line RF devices.
5. CHANNEL “B” ANTENNA POWER SWITCH: Enables or disables +12V DC on the Channel “B” Antenna Input connector (#4).
6. CHANNEL “B” CASCADE OUTPUT: Directional coupler provides RF output to additional distribution systems operating in the same frequency band. Each cascade output should be connected to only one other unit’s input, and no more than three distribution units total should be “daisy-chained.”
7. CHANNEL “B” DISTRIBUTION OUTPUTS: Four jacks provide RF distribution to receivers operating in the same frequency band. Each output should be connected to only one other antenna input, without “daisy-chaining.” Unused outputs do not require termination.
8. CHANNEL “A” ANTENNA INPUT: See #4 above.
9. CHANNEL “A” ANTENNA POWER SWITCH: Enables or disables +12V DC on the Channel “A” Antenna Input connector (#8).
10. CHANNEL “A” CASCADE OUTPUT: See #6.
11. CHANNEL “A” DISTRIBUTION OUTPUTS: See #7.
12. DC OUTPUT JACKS: Provides 12V DC (center **positive**) at up to 500 mA from each jack to power receivers. Connect the included ATW-RDCN cables here to supply 12V DC to up to four ATW-R310 (or like-powered) receivers.
13. AUXILIARY AC OUTLET: An auxiliary AC pass-through outlet and included IEC “jumper” power cordset simplify making power connections to an array of AEW receivers and antenna distribution units. Maximum output from the auxiliary AC outlet is 500 watts; it is internally fuse-protected.
14. AC POWER INPUT: IEC-type connector for 100V–240V AC, 50/60 Hz power input. No adjustment for mains voltage/frequency is necessary.
15. REAR RACK MOUNT: Mounts are provided at the rear of the side panels to permit attachment to rear rack rails in racks so equipped.

Figure B Rear Panel



Specifications

Nominal Frequency Range AEW-DA550C AEW-DA660D	540-565 MHz 655-680 MHz	Power Input	100-240V AC, 50/60 Hz, auto-adjusting, 500W maximum. (Includes AC pass-through load.)
Nominal Amplifier Gain	0 dB, ± 3 dB	Dimensions	19.00" (480.0 mm) W x 1.92" (48.8 mm) H x 11.00" (280.0 mm) D
Nominal Cascade Gain	-3 dB, ± 3 dB	Weight	5.9 lbs (2.7 kg)
Input Impedance	50 ohms	Accessories Included	IEC 320-type 120V power cordset; IEC 320-type AC pass-through cable; 10 BNC-to-BNC 1.5' RF interconnect cables; front-mount antenna cables and connectors; 4 ATW-RDCN DC power interconnect cables; 4 plastic feet with screws.
Output Impedance	50 ohms		
In-line Antenna Power	+12V DC on RF input jacks, 250 mA maximum per jack		
External Receiver Power	12V DC, center positive, 500 mA maximum per jack (4 total)		

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