

Professional UHF Wireless Systems

ATW-DA600 Diversity UHF Antenna Distribution System, 656-680 MHz

ATW-DA700 Diversity UHF Antenna Distribution System, 728-752 MHz

Installation and Operation



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

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	AVIS RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR	
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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.

	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.
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	Caution/Avis: Replace with same type 2.5A 250V fuse. Utiliser un fusible de rechange de même type de 2.5A 250V.
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ATW-DA600 and ATW-DA700 Installation and Operation

The ATW-DA600 is a UHF active unity-gain antenna distribution system operating over the 656-680 MHz range. The ATW-DA700 is identical in all respects to the ATW-DA600 except for its operating frequency range: 728-752 MHz.

The ATW-DA600 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 ATW-DA600 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 provide +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 350 mA each. Included with the unit are four polarity-inverting DC cables appropriate for use with ATW-R73 (or like-powered) receivers.

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

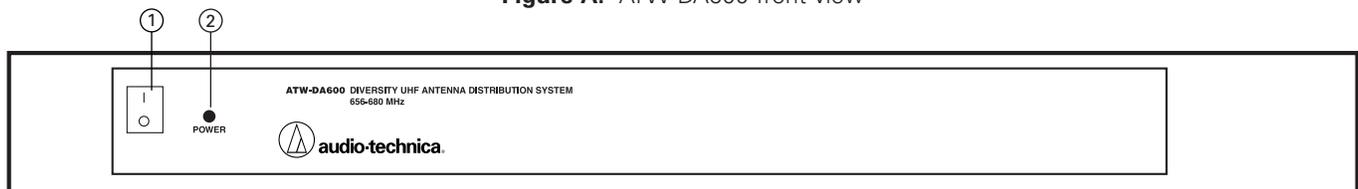
The unit's switching power supply is designed to operate properly from any AC power source 100-240V, 50/60 Hz without adjustment. Simply connect to a standard AC power outlet, using an IEC input cordset approved for the country of use. The unit normally is supplied with a 120V cordset.

The unit includes pre-installed rack adapters ("rack-mount ears") for mounting in a standard 19" rack. (#10-32 rack-mounting screws are not included.) If rack mounting is not required, the adapters may be removed by simply taking out the three screws holding each adapter in place. Save the adapters and screws for possible future use.

Front Panel Controls and Functions (Fig. A)

1. POWER SWITCH: Press switch On (I) to apply AC power to unit.
2. POWER INDICATOR: Shortly after power is applied, the indicator will light.

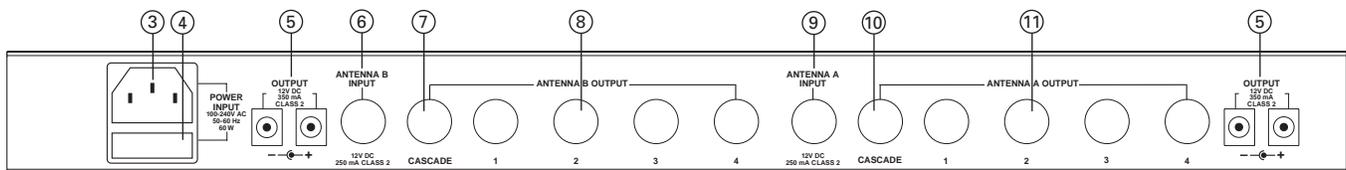
Figure A: ATW-DA600 front view



Rear Panel Controls and Functions (Fig. B)

3. AC POWER: IEC-type connector for 100V to 240V AC power input. No adjustment for mains voltage/frequency is necessary; connect an IEC input cordset approved for the country of use.
4. FUSE HOLDER: To check or replace fuse, disconnect the AC cordset and carefully remove the holder with a small screwdriver. Replace fuse only with the same type 250V 2.5A.
5. DC OUTPUT JACKS: Provides 12V DC (center *positive*) at up to 350 mA from each jack to power receivers. Connect the included ATW-RDCP polarity-inverting cables here to supply 12V DC (center *negative*) to up to four ATW-R73 (or like-powered) receivers.
6. 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 provides +12V DC output on its center pin at up to 250 mA to power in-line RF devices.
7. 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 input, and no more than three distribution units total should be "daisy-chained."
8. 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.
9. CHANNEL "A" ANTENNA INPUT: See #6 above.
10. CHANNEL "A" CASCADE OUTPUT: See #7.
11. CHANNEL "A" DISTRIBUTION OUTPUTS: See #8.

Figure B: ATW-DA600 rear view



Specifications

Useable Frequency Range	ATW-DA600 656-680 MHz ATW-DA700 728-752 MHz	Accessories Included	1 120V power cordset, 10 BNC-to-BNC 1.5' interconnect cables, 4 ATW-RDCP DC polarity-inverting 1.5' interconnect cables, 2 rack-mount adapters (installed), 4 self-adhesive feet.
Input Impedance	50 ohms	Optional Accessories	ATW-RDCN: Non-polarity-inverting DC interconnect cables (set of four). For use with receivers that have center <i>positive</i> DC jacks.
Output Impedance	50 ohms		ATW-RA1: Rack-mount antenna kit brings antenna inputs to the front of unit for ease of setup, or when unit is enclosed in a metal rack. Includes a pair of adjustable-length antennas suitable for UHF or VHF use.
Nominal Amplifier Gain	0 dB, ± 3 dB		
Nominal Cascade Gain	-3 dB, ± 3 dB		
In-line Antenna Power	+12V DC on RF input jacks, 250 mA maximum per jack		
External Receiver Power	12V DC, center <i>positive</i> , 350 mA maximum per jack		
Power Supply Input	100-240V AC, 50/60 Hz, auto-adjusting, 60W		
Dimensions	16.93" (430.0 mm) W x 1.92" (48.8 mm) H x 7.60" (193.0 mm) D		
Weight	5.9 lbs (2.7 kg)		

One-Year Limited Warranty

Audio-Technica professional wireless systems purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. **Prior approval from A.T.U.S. is required for return.** This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with the instructions. This warranty is void in the event of unauthorized repair or modification, or removal or defacing of the product labeling.

For return approval and shipping information, contact the Service Dept., Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, **A.T.U.S. will have no liability for any consequential, incidental, or special damages; any warranty of merchantability or fitness for particular purpose expires when this warranty expires.**

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Outside the U.S.A., please contact your local dealer for warranty details.

Extensive information about using wireless systems and accessories is available on the Audio-Technica Web site at **www.audio-technica.com**



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