



AKG.WIRELESS

WIRELESS
MICROPHONE
SYSTEM

WMS400 wireless microphone system **CU 400** dual-slot charger



Bedienungsanleitung S. 2

Bitte vor Inbetriebnahme des Gerätes lesen!

User Instructions p. 6

Please read the manual before using the equipment!

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Veuillez lire cette notice avant d'utiliser le système!

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Prima di utilizzare l'apparecchio, leggere il manuale!

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¡Sirvase leer el manual antes de utilizar el equipo!

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Favor leia este manual antes de usar o equipamento!



1 Safety and Environment

- 1.1 Safety**
1. Do not spill any liquids on the charger. This may cause short circuits and contaminate the charging contacts.
 2. If any liquid penetrates into the charging receptacle, disconnect the charger from power immediately and have the charger checked by AKG service personnel.
 3. Never use the charger to charge dry batteries. The charger will detect dry batteries and automatically deactivate the charging function.
 4. Use the charger in dry rooms only.
 5. The charger may be opened, serviced, and repaired by authorized personnel only. The charger contains no user-serviceable parts.
 6. Place the charger at least 1 inch away from walls or other equipment to ensure adequate heat dissipation from the charger. If the charger overheats, the charging cycle will be stopped immediately.
 7. Before connecting the charger to power, check that the AC mains voltage stated on the included power supply is identical to the AC mains voltage available where you will use the charger.
 8. Do not operate the charger with any power supply other than the included AC adapter with an output voltage of 5 VDC. Using a power supply with an AC output and/or a different output voltage may cause serious damage to the charger.
 9. If you will not use the charger for a long period of time, disconnect the charger from power. To prevent unwanted discharging, be sure to remove the transmitter(s) from the charger every time you disconnect the charger from power.
 10. Do not place the charger near heat sources such as radiators, heating ducts, or amplifiers, etc. and do not expose it to direct sunlight, excessive dust, moisture, rain, mechanical vibrations, or shock.
 11. Clean the charger with a moistened (not wet) cloth only. Be sure to disconnect the charger from power before cleaning the charger! Never use caustic or scouring cleaners or cleaning agents containing alcohol or solvents since these may damage the enamel and plastic parts.
 12. Use the charger for the applications described in this manual only. AKG cannot accept any liability for damages resulting from improper handling or misuse.



1.2 Environment

1. The charger will draw a low current even when the charging mode is off. To save energy, disconnect the charger from power if you will not use the charger for a long period of time. To prevent unwanted discharging, be sure to remove the transmitter(s) from the charger every time you disconnect the charger from power.
2. Be sure to dispose of used batteries as required by local waste disposal rules. Never throw batteries into a fire (risk of explosion) or garbage can.
3. When scrapping the charger, separate the case, circuit boards, and cables, and dispose of all components in accordance with local waste disposal rules.
4. The packaging of the charger is recyclable. To dispose of the packaging, make sure to use a collection/recycling system provided for that purpose and observe local legislation relating to waste disposal and recycling.



2 Description

2.1 Introduction Thank you for purchasing an AKG product. This Manual contains important instructions for setting up and operating your equipment. **Please take a few minutes to read the instructions below carefully before operating the equipment.** Please keep the Manual for future reference. Have fun and impress your audience!

2.2 Unpacking



Check that the packaging contains all of the items listed above. Should anything be missing, please contact your AKG dealer.

2.3 Description

The CU 400 has been designed specifically for use with the WMS 400 system. The charger provides two charging slots specially shaped to accept the HT 400/PT 400 transmitters. The charging slots operate completely independently so you can charge two rechargeable batteries simultaneously. You do not need to remove the battery from the transmitter for charging.

- Designed specifically for use with the WMS 400 transmitters, the CU 400 charger
- monitors battery voltages and temperatures during charging;
 - generates a flag signaling the end of the charging cycle upon reaching maximum capacity;
 - monitors all required safety parameters and will stop the charging cycle if one or more safety parameters are out of range.

The charger checks the battery inside the transmitter and will automatically deactivate the charging function if it detects a dry battery.

Indicators There is one **STATUS LED** in front of each charging slot. These tricolor (red/orange/green) LEDs indicate the current operating status of the charger.

DC input The **DC 5V jack** on the rear panel accepts the DC cable on the included AC adapter.

3 Connecting to Power



1. Check that the AC mains voltage stated on the included power supply is identical to the AC mains voltage available where you will use your system. Using the power supply with a different AC voltage may damage the unit.

Important!



Do not use any power supply other than the AC adapter supplied with the charger. Never connect the CU 400 charger to the PSU 4000 central power supply because the output voltage of the PSU 4000 is incompatible with the CU 400.

Important!



2. Connect the DC cable of the supplied AC adapter to the DC 5 V jack on the charger rear panel.
3. Connect the AC adapter to a convenient power outlet.
4. The charger is ready to operate. Note that both STATUS LEDs remain dark.

Refer to fig. 1.

4 Charging



Rechargeable batteries (those included or those you may buy later) are delivered uncharged or partially charged. Therefore, you will need to charge each new battery before using it.

Important!



Each charging slot features a tricolor STATUS LED that indicates the current operating status of the respective charging slot (">...<" marks an LED flashing in the respective color):

4.1 STATUS LEDs

STATUS LED	Status
---	The charger is ready to operate, no transmitter is inserted in the charging slot.
orange	The battery inside the inserted transmitter is being checked.
red	The battery is being charged.
green	The battery is fully charged; the charging cycle is completed.
>red<	Error.

Table 1: STATUS LED indications

1. Check that a rechargeable battery is inside the transmitter battery compartment.

Do not try to charge a dry battery.

If there is no battery inside the battery compartment, do not place the transmitter in a charging slot before you inserted a rechargeable battery into the transmitter.

2. **Make sure to switch the transmitter OFF before placing it in a charging slot.**

This is the only way to guarantee optimum charging.

3. Insert the transmitter into the charging slot so that the display on the transmitter faces the LEDs on the charger. The charger will automatically power the transmitter via the charging contacts.
4. **Never switch the transmitter ON during the charging cycle. This may cause the charger to falsely indicate a completed charging cycle before charging is actually completed.**

4.2 Inserting a Transmitter with a Battery Inside

Refer to fig. 2.

If the transmitter has been switched ON by accident during the charging cycle,

1. Remove the transmitter from the charger.
2. Switch the transmitter OFF.
3. Insert the transmitter into the charger.

Note:

The charging cycle will start automatically as soon as you insert a transmitter with a rechargeable battery into the charger.

4.3 Charging Cycle

STATUS LED	Status
orange	The voltage and temperature of the battery are being checked.
red	The battery is being charged. Charging time is approx. 1.5 hours for a completely discharged battery and proportionately less for a partially discharged battery. Charging two batteries simultaneously will extend the charging time to 3 to 4 hours.
green	The battery is fully charged; the charging cycle is completed. The charger has switched to trickle charging mode. You may remove the transmitter from the charger. Due to the charging process, the battery may heat up to +60°C. This is normal.

Table 2: Charging cycle

1. You may safely remove the transmitter at any time before the charging cycle is completed.
2. You may safely charge the battery inside the transmitter at any time, even before the battery is completely discharged.
3. At ambient temperatures above +40°C, the charger may overheat. As a result, the charging cycle may take considerably longer or stop altogether (STATUS LED flashing red).
As soon as the ambient temperature drops below +40°C, the charging cycle will be resumed automatically (STATUS LED will be lit red).
4. If the battery heats up to more than +60°C during a charging cycle (e.g., due to high ambient temperature), the charging cycle will be stopped automatically (STATUS LED flashing red). Most batteries will be unusable after being heated up to more than +60°C.
5. Excessive vibrations may cause the charging cycle to be stopped (STATUS LED flashing red), restarted (STATUS LED is lit orange), or appear completed (STATUS LED lit green) ahead of time. Make sure

4.4 Important Notes



4 Charging

the charger will not be subjected to vibrations during the charging cycle and will rest firmly on a hard surface.

6. Items 1 and 2 above notwithstanding, if you wish to extend the useful life of rechargeable batteries be sure to
 - completely discharge the battery every time, i.e., not to charge the battery before the battery warning appears on the transmitter display (see also the WMS 400 manual);
 - charge the battery fully every time, i.e., not to remove it from the charger before the charging cycle is completed;
 - avoid charging batteries at temperatures below +5°C or above +40°C. At these temperatures, the charging cycle will not start and the STATUS LED will be lit orange.
The charging cycle will be resumed automatically as soon as the battery temperature returns to the acceptable range.
 - use no batteries other than the rechargeable types recommended in section 7 Specifications.
7. Rechargeable batteries will only reach their full capacity after several charging cycles.
8. If you insert a transmitter with a dry battery into the charger, the charging cycle will be stopped immediately after the battery test and a few minutes of charging. The STATUS LED will start flashing red. Although there is virtually no risk of damaging the transmitter or charger, it is good practice not to insert transmitters using dry batteries into the charger.



5 Cleaning



- Important!**
1. Disconnect the DC cable from the rear panel DC 5 V jack.
 2. Use a cloth moistened (not wet!) with water to clean the surfaces of the charger.



- Important!** Never use caustic or scouring cleaners or cleaning agents containing alcohol or solvents since these may damage the enamel or plastic parts.



6 Troubleshooting

Problem	Possible Cause	Remedy
All LEDs dark.	<ul style="list-style-type: none"> • No defect. STATUS LEDs are not activated before you insert a transmitter with a battery into a charging slot. 	<ul style="list-style-type: none"> • (Insert transmitter with rechargeable battery.)
All LEDs dark although at least one charging slot is loaded.	<ol style="list-style-type: none"> 1. AC adapter is not connected to power. 2. DC cable is no not connected to charger. 3. One or more charging contacts fail to make contact with the transmitter. 4. Internal error. 	<ol style="list-style-type: none"> 1. Connect power supply to convenient power outlet. 2. Connect DC cable to charger. 3. Check contacts for resilience, or clean contacts. 4. Disconnect power supply or DC cable, wait for 10 seconds, and connect again. Should the problem persist, contact your nearest AKG Service Center.
STATUS LED flashing red.	<ul style="list-style-type: none"> • Charging cycle has been stopped: <ol style="list-style-type: none"> 1. Transmitter uses dry battery. 2. Charging contacts contaminated. 3. Inside temperature of battery is too high. 4. Inside temperature of charger is too high. 5. Battery defective (voltage <0.5 V). 6. Charger connected to incompatible power supply whose output voltage is too high: both STATUS LEDs flashing red. 7. Charger defective. 	<ol style="list-style-type: none"> 1. Remove transmitter from charging slot; replace dry with rechargeable battery. 2. Clean charging contacts on charger and transmitter with soft cloth. 3. Allow battery/charger to cool down, charging cycle will resume when temperature returns to acceptable range. Should the problem persist, contact your nearest AKG Service Center. 4. Make sure there is enough free space around charger to provide adequate heat dissipation. 5. Replace battery. 6. Use original AC adapter supplied with charger. 7. Contact your nearest AKG Service Center.

7 Specifications



Operating voltage:	5 VDC, 1.5 A max.
Recommended batteries:	NiMH or NiCd rechargeable with 1500 mAh minimum capacity
AC voltage:	refer to label on AC adapter
Charging current:	typ. 1.4 A in single-slot mode typ. 0.7 A if both slots are used simultaneously
Charging time:	typ. 1.5 hours in single-slot mode typ. 3 hours if both slots are used simultaneously (depending on battery type and capacity)
Size (LxHxD):	188 x 115 x 78 mm (7.4 x 4.5 x 3.1 in.)
Weight:	approx. 420 g (14.8 oz.)

This product conforms to the standards listed in the Declaration of Conformity. To order a free copy of the Declaration of Conformity, visit <http://www.akg.com> or contact sales@akg.com

FCC Statement

The device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.



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