



FCC ID: E9MGB40II

WMS40 GB 40

microtools guitar bug

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DRAFT

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Parts 74, 15, and 90 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded cables and I/O cords must be used for this equipment to comply with the relevant FCC regulations.

Changes or modifications not expressly approved in writing by AKG Acoustics may void the user's authority to operate this equipment.

This 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.



1 Safety and Environment

1.1 Safety

1. Do not expose the equipment to direct sunlight, excessive dust, moisture, rain, mechanical vibrations, or shock.

1.2 Environment

1. 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 bin.
2. When scrapping the equipment, remove the batteries, separate the case, circuit boards, and cables, and dispose of all components in accordance with local waste disposal rules.

2 Description

2.1 Introduction

Dear Customer:

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

1 GB 40 transmitter	1 long adapter plug	1 AAA size battery	1 black battery cover

Check that the package contains all the parts listed above. If anything is missing, please contact your AKG dealer.

2.3 Optional Accessories



CU 40 charger

2.4 Description

The **GB 40** is a **WMS 40** microtools Series miniature transmitter that has been specifically designed for electric guitars and basses but is also suited for keyboards.

The transmitter features a permanently attached, swiveling 1/4" jack plug that allows you to plug the transmitter directly into the output jack of your instrument. A built-in spring presses the transmitter against the instrument to hold it securely in place. The bottom of the transmitter is

fitted with a soft plastic pad that will leave no trace on the instrument.

The **GB 40** operates on a single fixed, quartz stabilized carrier frequency in the 710 MHz to 865 MHz UHF band and uses a permanently attached flexible antenna.

The color of the battery cover indicates the carrier frequency of your transmitter. You can replace the color code battery cover with the supplied black replacement cover.

2.5 Controls (Refer to fig. 1)

1 ON/MUTE/OFF: This slide switch provides three positions:

ON: Power to the transmitter is on.

M: The signal delivered by the microphone is muted while power and the RF carrier frequency remain on. This prevents the receiver from responding to interference from other transmitters.

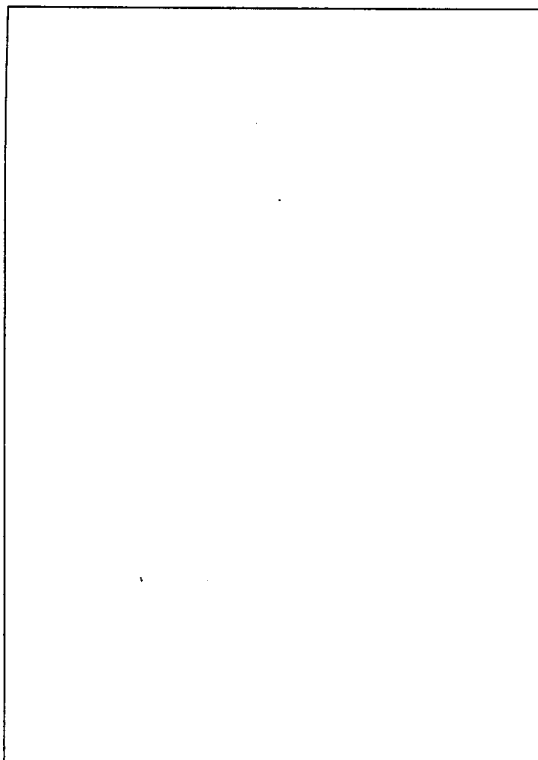


Fig. 1: GB 40 controls.

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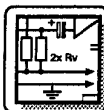
- OFF:** Power to the transmitter is off.
- 2 Battery compartment** for one 1.5-V AAA size battery (supplied). The color of the battery compartment cover indicates the carrier frequency of your transmitter:

Frequency	Color
US54: 710.400 MHz	reddish brown
US58: 734.600 MHz	purple
KR3: 745.650 MHz	mint green
KR4: 750.900 MHz	dark gray
EU62: 802.525 MHz	Bordeaux red
EU63: 812.800 MHz	yellow
SP1: 848.750 MHz	light blue
SP2: 851.750 MHz	yellowish green
UK69A: 854.900 MHz	violet
UK69B: 858.200 MHz	green
ISM1: 863.100 MHz	melon yellow
ISM2: 864.375 MHz	gray

- 3 Status LED:** Indicates battery status. LED flashes momentarily upon switching ON and extinguishes: battery is OK. LED lights constantly: battery will be

dead in about 60 minutes.

- 4 Input Gain:** This rotary pot sets the sensitivity of the transmitter's audio section.
- 5 Charging contacts** for charging a rechargeable battery inside the battery compartment using the optional CU 40 charger.
- 6 Jack plug:** 1/4" TS jack plug for plugging the transmitter directly into an instrument output jack.
- 7 Flexible antenna**



3 Setting Up

3.1 Inserting/Replacing and Testing the Battery

Refer to fig. 2:

1. Depress the snap hook on the battery compartment lid (1).
2. Pull the battery compartment lid (1) down to remove it from the transmitter.
3. If there is a dead or defective battery inside the battery compartment, remove the battery.
4. Insert the supplied or new battery (2) into the battery compartment as shown in fig. 2.
5. Set the ON/MUTE/OFF switch (3) to ON. The status LED (4) will flash momentarily. If the battery is in good condition, the status LED (4) will extinguish. If the status LED (4) lights constantly the battery will be dead within about 60 minutes. Replace the battery with a new one as soon as possible.

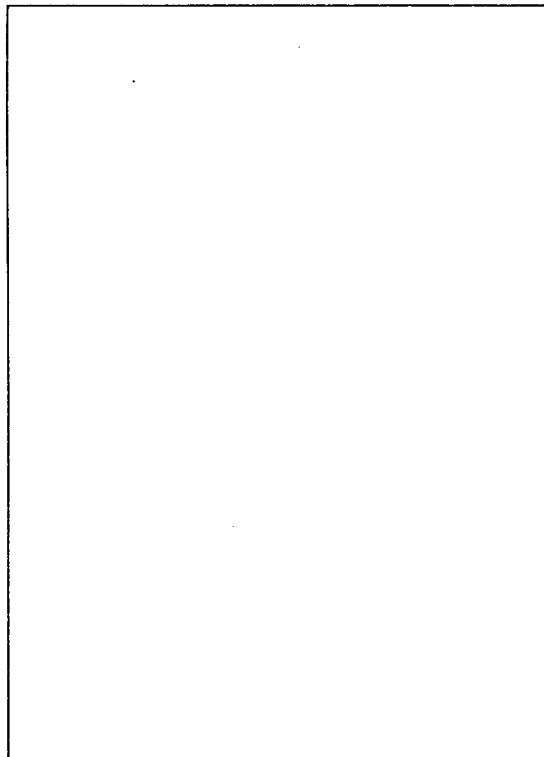


Fig. 2: Inserting the battery.

If the status LED (4) fails to flash momentarily the battery is dead. Insert a new battery.

6. Slide the battery compartment lid (1) onto the transmitter against the direction of the arrow to the point that the lid (1) will click shut.

3.2 Using Rechargeable Batteries

Refer to fig. 3:

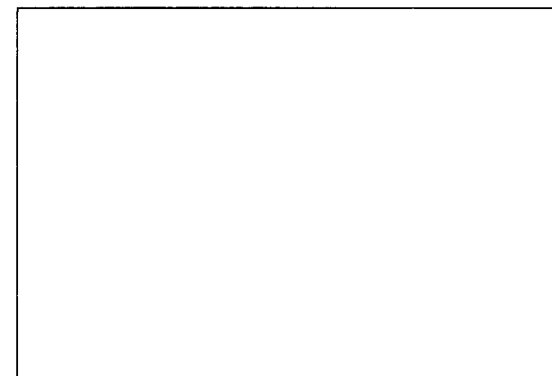


Fig. 3: Using the CU 40 optional charger.

Instead of dry batteries, you can also use a 1.5-V rechargeable battery to power the transmitter. We recommend SANYO HR-4U (650 mAh) or Panasonic Rechargeable PRO+ (550 mAh) NiMH rechargeable batteries.

To charge the battery, insert the transmitter (1) into the optional CU 40 charger

Important: The foam pad on the inside of the battery compartment lid (1) holds the battery in place. Do not remove the foam pad. If you do, the battery will not be held in place properly and may cause a rattling noise.

(2) as shown in fig. 3.

For details, refer to the CU 40 charger manual.



4 Operating Notes

4.1 Attaching the Transmitter

Refer to fig. 4:

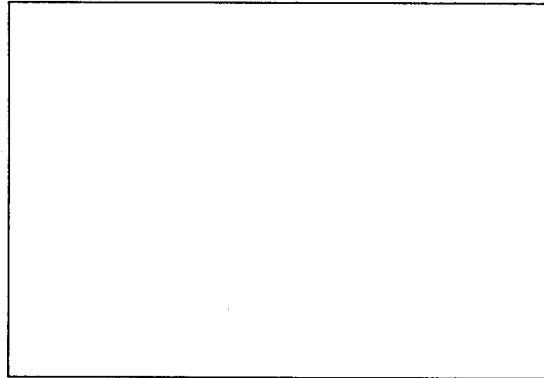


Fig. 4: Attaching the transmitter.

1. Swivel the jack plug (1) away from the transmitter (2) to the stop.
2. Insert the jack plug (1) all the way into

the output jack (3) on your instrument.

The spring inside the transmitter will hold the transmitter securely in place on the instrument. The soft plastic pad on the bottom of the transmitter will leave no trace on the instrument surface.

4.2 Setting Levels (Refer to fig. 1)

1. Check that the receiver is marked with the same color code as the transmitter.
2. Use a small screwdriver to turn the input gain control (4) on the transmitter to a position halfway between the left and right stops.
3. Set the ON/MUTE/OFF switch (1) to ON to switch power to the transmitter on.
4. Switch power to your sound system or amplifier on.
5. Turn the volume control on your

instrument all the way CW and play a few bars.

6. If your instrument sounds distorted turn the input gain control (4) down CCW to the point that you will hear no more distortion.

If your instrument sounds too quiet, turn the input gain control (4) up CW. As soon as your instrument sound becomes distorted, turn the input gain control (4) back down CCW to the point that the distortion will stop.

4.3 Instruments with Recessed Output Jacks (Refer to fig. 5)

If your instrument has a recessed output jack, the jack plug on the transmitter may be too short to make contact between the instrument and transmitter.

In this case, mount the supplied long adapter plug:

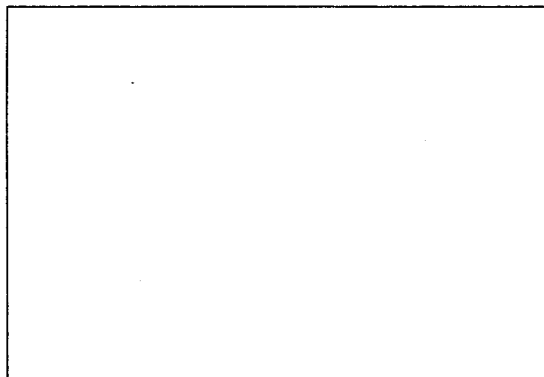


Fig. 5: Mounting the adapter plug.

1. Unscrew the jack plug (1) from the transmitter (2) CCW.
2. Screw the adapter plug (3) onto the threaded plug (4) on the transmitter (2) CW.

4.4 4.7 Troubleshooting

For troubleshooting hints, refer to your receiver manual.



5 Cleaning

To clean the transmitter case, use a soft cloth moistened with water.



6 Specifications

Carrier frequency range	710 to 865 MHz
Modulation	FM
Audio bandwidth	40 to 20,000 Hz
Frequency stability (-10°C to +50°C)	±15 kHz
Rated deviation	15 kHz (SP1, SP2: 13.5 kHz)
T.H.D. at 1 kHz	typ. 0.8%
Companer	integrated
Signal/noise ratio	typ. 103 dB(A)
RF output	typ. 5 mW
Current consumption	typ. 75 mA
Power requirement	single 1.5-V AAA size battery
Battery life	>11 hours (dry battery) >6 hours (rechargeable battery)
Audio input level for rated deviation	1050 mV/1 kHz
Size (WxDxH)	76 x 20 x 28 mm (3 x 0.8 x 1.1 in.)
Net weight	28 g (1 oz.)

CONPLIES WITH EN 60065:1998, EN 301489-9 V.1.1.1 (07-2000)
AND EN 300422-2 V.1.1.1 (07-2000)

Hiermit erklärt AKG Acoustics GmbH, dass das Produkt **WMS 40** die wesentlichen Anforderungen und sonstigen einschlägigen Bestimmungen der Richtlinie **1999/5/EG** erfüllt.

AKG Acoustics GmbH hereby declares that the product **WMS 40** complies with the essential requirements and other relevant provisions of Directive **1999/5/EC**.

AKG Acoustics GmbH déclare que le produit **WMS 40** satisfait aux exigences essentielles et autres dispositions y relatives de la Directive **1999/5/CE**.

Con la presente AKG Acoustics GmbH dichiara che il prodotto **WMS 40** è conforme alle richieste essenziali e alle altre disposizioni pertinenti della Direttiva **1999/5/CE**.

AKG Acoustics GmbH declara que el producto **WMS 40** cumple los requisitos esenciales y otras disposiciones aplicables de la Directiva **1999/5/CE**.

A AKG Acoustics GmbH declara que o produto **WMS 40** cumpre os requisitos

essenciais e as outras disposições relevantes da Directiva **1999/5/CE**.

AKG Acoustics GmbH verklaart hiermee dat het product **WMS 40** aan de essentiële eisen en overige desbetreffende bepalingen van de richtlijn **1999/5/EG** voldoet.

AKG Acoustics GmbH erklærer hermed at produktet **WMS 40** overholde de væsentlige krav samt andre relevante bestemmelser fra Direktiv **1999/5/EF**.

AKG Acoustics GmbH erklærer med dette, at produktet **WMS 40** oppfyller de vesentlige krav og andre relevante bestemmelser som fremgår av Direktiv **1999/5/EF**.

Härmed förklarar AKG Acoustics GmbH att produkten **WMS 40** uppfyller de väsentliga krav och andra relevanta bestämmelser som framgår av Direktiv **1999/5/EC**.

AKG Acoustics GmbH vakuuttaa, että tuotteen **WMS 40** täyttää tarvittavat **1999/5/EC** direktiivin mukaiset vaatimukset.

DECLARATION OF CONFORMITY

Document No. 177 / 5 - 2000
replace No. 171 / 5 - 2000

Type of Product: Wireless Microphone System, Handheld Transmitters
Brand, Model No.: RT48

Manufacturer: AKG Acoustics GmbH
A-1250 Wien, Lembkegasse 21 - 23
Austria

We declare that the above mentioned product is in conformity with European Directive:

No. 90/269/EEC;
Radio Equipment and
Telecommunications Terminal Equip.

The conformity is achieved by fulfilling (European Standards)
ETS 300443:1996, ETS 300444* and 300422:1993, IEC 60951:1996

Product identification no.:
Mikrofon Service GmbH
A-1040 Wien
A-10402 Strasshofen, Germany

City, Date: 56.2000

Manufacturer's Signature: *H. Leber*
Managing Director
Dr. Hugo Leber-Radlauer

This declaration certifies the accordance with the above mentioned EC-Directive but does not assure certain attributes of the product.

EG-Konformitätsklärung 7600.CE1
07-09-2000 / ltu

CE01230

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↑
statt WMS 40 → "S040" bzw.
"G840" bzw.
"MP40"

↑
AKTUELLE
CE-ERKLÄRUNG

Zur Verwendung in:
For use in:
Pour l'usage en:

Per l'uso in:
Para el uso en:
Para o uso em:

Voor het gebruik in:
Må anvendes i:
Får användas i:

Må anvendes i:
Käyttöön seuraavissa
maissa:

		R&TTed Countries																		
Set	MHz	AT	BE	CH	DE	DK	ES	FR	LI	GB	GR	IE	IS	IT	LU	NO	NL	PT	SE	FI
US54	710.4	✓	✓	✓	✓	-	-	✓	✓	-	-	✓	✓	✓	✓	-	-	-	✓	-
US58	734.6	✓	✓	✓	✓	-	-	✓	✓	-	-	✓	✓	✓	✓	-	-	-	✓	-
EU62	802.525	-	-	✓	✓	✓	-	✓	✓	-	-	✓	✓	✓	✓	✓	-	-	✓	✓
EU63	812.8	-	-	✓	✓	✓	-	✓	✓	-	-	✓	✓	✓	✓	✓	-	-	✓	✓
UK69A	854.9	-	✓	✓	✓	-	-	-	✓	✓	-	✓	✓	-	✓	-	-	-	✓	-
UK69B	858.2	-	✓	✓	✓	-	-	-	✓	✓	-	✓	✓	-	✓	-	-	-	✓	-
ISM1	863.1	✓	✓	✓	✓	✓	-	✓	✓	✓	-	✓	✓	-	✓	✓	✓	-	✓	✓
ISM2	864.375	✓	✓	✓	✓	✓	-	✓	✓	✓	-	✓	✓	-	✓	✓	✓	-	✓	✓
SP1	848.750	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	--
SP2	851.750	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	--
KR3	745.650																			
KR4	750.900																			

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DIE LISTE UIRD
 BEZÜGLICH
 SP1, SP2, KR3, KR4 ergänzt