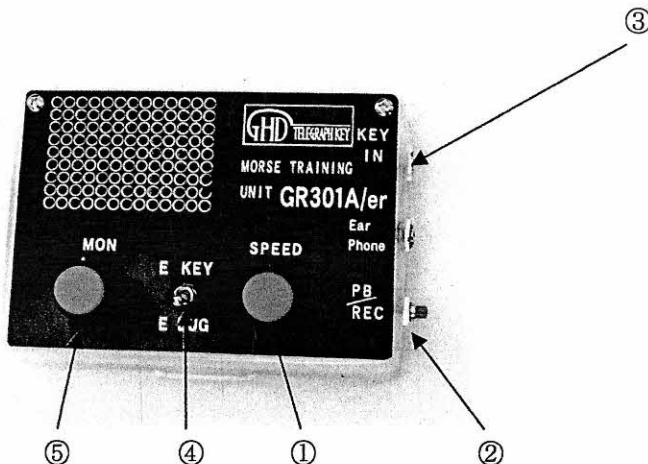


# MORSE TRAINING UNIT Instruction Manual

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Thank you for choosing the morse training unit, GR301A/er.



## 1 How to Connect and Operate

- 1 For iambic keyer mode, connect the outer conductor (braid) of the accessory shield cord to "Earth" (common) terminal of the Key, the red colored core to "Dot" terminal and white colored core to "Dash" terminal. Insert the plug of the cord to the jack "KEY IN ③".
- 2 Turn the **MODE SWITCH** ④ to "E-Key", for iambic mode, and to "E-Bug" for auto-bug mode\* operation.
- 3 For **Straight Key** or other manual keys, i, e, bug-Key, sideswiper, etc., connect the braid of the accessory shield cord to "Earth" (common) terminal and the white colored core to the output terminal of the key. (The Red core is not used.) Turn the **MODE SWITCH** ④ to **E BUG** side.
- 4 The loudness of the monitor speaker may be adjusted with **knob** ⑤.
- 5 The knob ① is to set the speed of the keyer.  
(When operating by the auto-bug mode, it will control the "Dot" speed.)
- 6 Press the "**PB/REC**" switch ② to "Record" or to "Replay" the message.

## About Auto-Bug mode

\* The "Auto-Bug" keyer mode enables you to make the bug-key like signals easily, using the keyer paddle. At this mode, the output is on while you are pushing the "Dash" lever of the paddle. Pushing the "Dot" paddle, dots come out automatically. The keyer secures one dot length of space between dashes and between dashes and dots, however quickly you manipulate the paddle. This helps you to make neat signal, although it is a kind of

manually controlled one. Try to signal "599", VA, etc, with a little longer dashes. The signal may be different and individual.

## 2 FEATURES

- ① Two operational modes, **E KEY** (Iambic) and **E BUG** (Auto-Bug).
- ② With **Auto-bug mode**, the "Dash" length is manually controlled.  
(Manual Key signals are processed as the "Dash" input with this mode.)  
The spaces between the "Dots" and manual "Dashes" are adjusted to secure one dot length. By means of this, you can make the "Bug-Key" like codes without intensive practice.
- ③ One channel message memory is equipped for **E KEY** mode.  
It is enabled at **E BUG** mode, too, although the signal is converted to **E KEY** mode when recorded. Manual key signals are not properly recorded.
- ④ The message memory is non-volatile. The message is not lost through changing batteries.
- ⑤ The operation **Mode** is seen on the panel by switch setting.  
Easy operation for recording and replaying the message.
- ⑥ The power is supplied only by two UM4 batteries. (The battery is installed when delivered.) To replace, use UM4 alkaline batteries.  
The current consumption is approx. 1mA when the monitor beeps.)
- ⑦ Monitor Speaker installed. (Relatively loud for this compact size.)
- ⑧ Automatically sleeps when not in operation. Therefore, no power switch is installed.

## 3 HOW TO USE

### 3.1 Preparation

First, check if 2 pieces of UM4 batteries are installed. Be sure that the direction of each battery is right. Next, connect the cord with plug to the Paddle, and insert the plug into the "Key In Terminal" ③ at the side of the case.

Set "**SPEED**" (Speed) and "**MON**" (Monitor) knobs at the center position.

### 3.2 Operation by "E KEY"(Iambic) mode

Turn the "**MODE SWITCH**" to "**E KEY**".

Press the "dash" lever of the paddle to send "dashes", press the "dot" lever for "dots" and press both levers to send the "dashes" and "dots" alternately. (In the case of right hand operation, thumb controls "dot" and the forefinger, for "dash".)

Adjust the Monitor sound loudness with the **MON** knob and the signal speed with **SPEED** knob.

### 3.3 Operation by "Auto-Bug" mode

Turn the "**MODE SWITCH**" to "**E BUG**". (Auto-Bug) And begin with slow speed.

Press the "Dash" lever of the paddle longer than usual and check if the signal is on while you are pressing. The length of "Dash" is flexible, and the length of "Dot" and the minimum length of "Space" are automatically controlled.

The "Space" between "Dash" and "Dot", the "Space" between "Dash" and "Dash" are automatically adjusted to one dot length even when you switch the paddle very quickly.

Try to signal various codes, the signal spaces are adjusted. Then, set to your ordinary speed. You will find the adjustment by the keyer is smooth, or, you may not even notice to any adjustment. (The longer space than "dot" cannot be corrected.)

### **3.4 Operation with a Straight Key, or other Manual Keys (Bug Key, Sideswiper, etc.)**

Refer to "1. How to Connect and Operate" to connect to the key.

Set the "MODE SWITCH" to "**E BUG**" and set the speed to the maximum.

Then, the monitor beeps according to your keying.

## **4 How to use Message Memory**

### **4.1 Memory Channel**

The keyer has one channel of message memory. "**PB/REC**" switch is used to enable it.

### **4.2 Message Recording**

Set the "Mode Switch" to "**E KEY**". (In "**E BUG**" mode, the recorded message is converted to that of iambic mode.)

To start recording, press "**PB/REC**" switch for about 2 seconds.

Then, the monitor beeps "**R**". Release "**PB/REC**" button by "**R**" beep finishes. Next, the monitor beeps "**BT**". Usually, the speeds of "**R**" and "**BT**" are different. The speed of "**BT**" is the set speed of the keyer. Then you know what speed you should key at.

Now the keyer is ready to record the message you signal. Manipulate the paddle and record the message.

To finish recording, press the "**PB/REC**" again. Then the monitor beeps "**AR**" and the keyer finishes recording.

When the memory becomes full of its capacity, the keyer automatically beeps "**AR**" and finishes recording.

### **4.3 Deletion of Message**

If you want cancel the recording, press "**PB/REC**" button after "**BT**" without entering any signal. The Keyer beeps "**T**" and cancels the message in the memory.

In case you make a mis-keying, press "**PB/REC**" button and finish the recording, and then cancel the recording by above procedure, or, just over-write.

### **4.4 Playback of Message**

To play back the memory, press the "**PB/REC**" button instantly.

Immediately after releasing the button, the message is played back.

To stop playback on the way, press the "Dash" Paddle.

If the "Memory" is empty, the monitor only beeps "T" after you push the "PB/REC" button.

#### **4.5 The Capacity of Message Memory**

About 1000 pieces of "Dash", "Dot" or "Space" may be recorded.

(In letters, approx. 250 letters.)

- Design, Color and Parts may be changed without prior notice.
- Do not disassemble or detach the circuit board, otherwise, the keyer may not perform properly.
- If the keyer is not used for long, detach the batteries, to avoid the possible damage by leakage.

The batteries should be replaced at least once a year.

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