FH-1 Remote Control Key Pad

The FH-1 is a remote-control accessory designed to enhance the operating flexibility of your FT-1000MP.
The FH-1 permits the following remote control features, which may be selected via Menu Item 7-9 on the FT-1000MP:

1. Contest Memory Keyer Control
2. VFO/Memory Control
3. Main/Sub VFO Control

For operating details, please see your transceiver's Operating Manual.

Lock Switch
This switch disables the keys on the keyboard, so as to prevent accidental frequency or function change.

Connection Plug
Connect the 3.5-mm two-conductor miniature mono plug to the REMOTE jack on the rear panel of the FT-1000MP.

Template
The two-sided Mylar template includes labeling for the "Remote Control" functions on one side, and the "Contest Keyer" plus "Main/Sub VFO Control" functions on the other.
Turn the Mylar sheet over when changing remote control functions.

Keyboard
The function of the keys depends on the operating mode of the FH-1, selected via Menu Item 7-9.

Insert a pencil-like tool under this place when remove the Maylar Template.

Installation & Operation

1. Turn the transceiver off, then connect the plug from the **FH-1** to the **REMOTE jack** on the rear panel of the transceiver.
   Be certain to connect the **FH-1** to the **REMOTE jack**, not other jacks which may be similar in appearance.
2. Place the **FH-1** in the most convenient position on your operating desk, and turn the transceiver on.
3. Select the desired remote control mode from the Menu system as follows:
   Press and hold in the FT-1000MP's [**FAST**] key, and while holding it in press the transceiver's [**ENT**] key to activate the menu viewing mode.
   Rotate the [**MEM/VFO CH**] knob to select Menu Item 7-9.
4. Now select the desired remote control function from the available choices, by rotating the Main VFO knob.
   Now press the [**ENT**] key on the transceiver to exit the menu setting mode.
5. Place the Mylar Template, with the appropriate side up, on the **FH-1** (The "Main/Sub VFO" control mode is initially installed at the factory).
   If you wish to reverse the Template, remove the Mylar sheet, and turn it over.
   To remove the Mylar Template, insert a pencil-like tool under the small indentation on the bottom right-hand side.
   Carefully arch the Mylar Template upward, and remove the sheet from the **FH-1**. After reversal, gently place the top "notch" into position, followed by the bottom notch.
6. During operation, the Lock switch may be helpful in avoiding accidental band or frequency change, or inadvertent activation of contest messages.

⚠️ **Do not press two keys on the FH-1 simultaneously, as improper operation may result.**

Information Regarding Contest Keyer Operation

The **FT-1000MP** Operating Manual's explanation of Contest Memory Keyer operation may be somewhat incomplete. Please observe the following notes regarding Contest Memory Keyer operation:

1. Use the "Iambic 2" Keyer mode (Menu Item 7-0).
2. The so-called "CQ Message" (activated by Key #1) is the message slot which must be used for generation of a contest serial number (e.g. 599 001, 599 002, etc.).
3. To imbed a contest serial number in a message, insert four question marks ("????") at the point in the message where you want the contest number.
   Four digits will not necessarily be sent, depending on whether you have three- or four-digit contest number playback selected via Menu Item 7-6.
   But your must send four question marks (not three) to imbed the contest number correctly.
4. A contest number will not function in the "MSG 0" ~ "MSG 3" slots.
5. For amplifier or external antenna tuner adjustment, the "TUNE" key on the FH-1 will put out a steady carrier. This switch is a momentary type, not controlled by a ten-second timer.
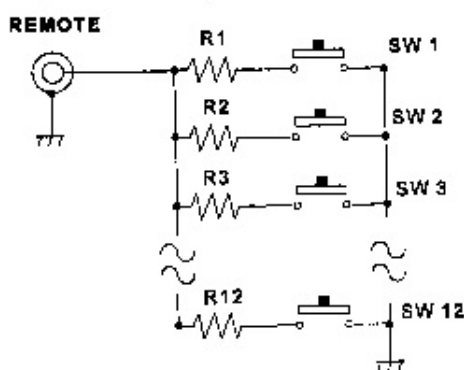
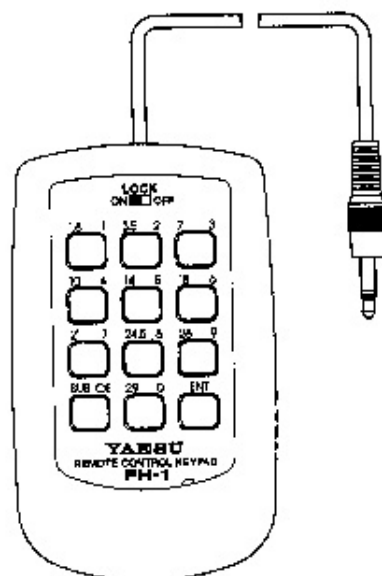# Remote Control Operation

Introduction

You can select and activate various transceiver functions via the optional FH-1 Remote Control Keypad (available from your Yaesu dealer) connected to the **REMOTE** jack on the rear panel of the transceiver. A remote-control keypad may also be built at home, utilizing the diagram and resistance/voltage chart below. When constructing your own keypad, use 0.5%, E96 (precision metal film) resistors so as to ensure that the precise voltages specified are generated.

Remote Control Circuit

Remote control operation is provided by reading a voltage across a ladder resistor network in the keypad matrix as a key is pressed. Twelve distinct, precise voltages are used to activate the twelve available functions. The voltage chart below documents the required voltage for the corresponding key closure on the keypad.

\#Key	Voltage Level	Resistor Value-Ω
1	0.78 V	866
2	1.10 V	1330
3	1.40 V	1820
4	1.73 V	2490
5	2.04 V	3240
6	2.34 V	4120
7	2.66 V	5360
8	2.96 V	6810
9	3.27 V	8870
10	3.59 V	12000
11	3.91 V	16900
12	4.22 V	25550

Remote Control Voltage Level

Four transceiver remote control features are available via Menu Selection 7-9. Once the desired remote control operating mode is selected, pressing a key activates one of the functions available in that operating mode; the function activated by a key closure might be a CW message play-back, a contest number being incremented upward, or a front panel function being duplicated.

The four remote control features available are:

I. Contest Memory Keyer - the recording and playback of repetitive contest messages are accomplished via the keypad.

II. VFO/Memory Function Control - in this mode, the remote control keypad duplicates the front panel keys that relate to VFO/Memory selection and programming.

III. Main VFO-A Control - In this mode, the remote control keypad duplicates the functions of the front panel **BAND** keypad (keys ▢ ~ ▢, plus ▢ and ▢) as applied to VFO-A.

IV. Sub VFO B - same as above, except keypad inputs are applied to VFO-B.

The features and programming techniques for the remote control features are discussed below, beginning with the contest memory keyer.

I. Contest Keyer Control

The FT-1000MP includes a contest memory keyer which includes a number of automated features which reduce operator fatigue during long hours of contest operating.