



Alsbaugh Morse Keyboard Encoder

Operating Instructions

Morse Express

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Code Key Assignments

Keyboard Key	Resulting Morse Character
- hyphen	■●●●●■ hyphen
= equals	■●●●■ BT “break text” or “pause”
[left square bracket	■●■●● KN named station go ahead
] right square bracket	■●■●● parenthesis (“ or “ ”)
\ back-slash	■●●■● slash or slant bar
Backspace or Tab	●●●●●●●● error
; semi-colon	■■●●●● colon “:”
‘ apostrophe	●■■●●● apostrophe or “single quote”
, comma	■■●●■ comma
. period	●■●●■ period
/ slash or numeric keypad /	●●■●●● question mark (IMI)
numeric keypad 0 or Ins	●■●●● AR end of transmission
numeric keypad 1 or End	●■●●● AS wait
numeric keypad 2 or DownArrow	■●■●● KN named station go ahead
numeric keypad 3 or PgDn	●●●■●■ SK end of work
numeric keypad 4 or LeftArrow	■●●●■● BK break, more commonly sent as B K
numeric keypad 5	●●●■● SN understood, seldom used now
numeric keypad 6 or RightArrow	■●■●■ period

The Keyboard Buffer

You can “type ahead” using the keyboard buffer, which can hold 18 characters including spaces. This means that while you are sending at any speed, you can type faster up to a point where you are 18 characters ahead of what is being sent. The Buffer LED will turn on when there are 12 or more characters in the buffer, and it will go off when there are fewer than 6. You can use this feature to regulate word entry. Keep an eye on the Buffer LED and type more slowly when it turns on, until it turns off again. Typing slightly ahead will produce the smoothest and most precise Morse, because the spaces between characters will be generated automatically. If you are typing at or below the sending speed, the encoder will sometimes have to wait for you to type another character, resulting in poor spacing.

Speed Setting

The encoder's default sending speed is 20 WPM, with normal 1:3 (ITU) spacing. To change the speed, press Function Key 9 (F9) and then a two digit number representing the speed you wish to set, in words per minute. Use the number keys on the top row, not the numeric keypad (which is assigned to other characters). For example, set the keyboard to 8 WPM you press F9 and then 08. For 40 WPM you would press F9 and then 40.

Farnsworth or proportional spacing is available. With Farnsworth spacing, the characters are sent at a relatively high speed, but the spaces between characters and words are lengthened, resulting in a slower overall speed. The spacing is adjusted by pressing F11 and then a two digit number between 01 and 99. The number determines the length of a character space, and the default is 3 (in ITU Morse a character space is equivalent in time to three dits). The higher the number you set with F9, the more space will be added and the lower the overall sending speed. Generally speaking the overall speed should be no more than half of the character speed, unless you are in a training situation or a QSO with a much slower operator. For the record, ARRL Morse code examinations at 5 WPM use a character speed of 15 WPM, spaced out to 5 WPM overall.

Function key 10 can be used to verify the character speed and Farnsworth spacing settings. Press it and the encoder will send the word PARIS. The number of times that PARIS is sent in one minute is the overall speed in words per minute.

To restore the default speed and spacing (20 WPM ITU), press the Esc key TWICE.

Message Memories

The encoder has four message memories. Function Keys 1 through 4 are used to SEND the messages, and Function Keys 5 through 8 are used to RECORD them. Memory 1 is played by pressing Function Key 1, and recorded by pressing Function Key 5. Memory 2 is played by F2 and recorded by F6, and so forth.

To load (record) a message into a memory, press one of the recording keys (F5 through F8). Type the message you wish to record, and then press the Enter key to finish recording. There is a limit of 250 characters per message. Note that the encoder will not send while you are recording a message (and you will not hear the sidetone).

To send a message, press the corresponding Function Key (F1 through F4). You can interrupt sending at any time by pressing the Esc key (or your straight key if you have connected one). The contents of the memory are actually poked into the keyboard buffer, so you may see the Buffer LED turn on during a memory send. If you do see it, wait until it turns off before pressing other keys (except of course to cancel sending immediately with the Esc key).

To erase a message from memory, press the record button (F5 through F8) and then immediately press the Enter key. Note that the contents of the memories and the speed settings are preserved even after the power is turned off.

Other Operational Features

The encoder has three LEDs to indicate operational status— power on, sending, and buffer full.

Separate stereo phone jacks provide for:

Audio: (side-tone) output

Straight key : “bypass” which also stops a message that is being sent.

Buffer send: the tip and ring connections are used to trigger the sending of message buffers.

Transmitter: keyline from the transmitter, which can be either positive or negative keyed (the encoder sends through a relay).

The keyboard jack is a standard DIN-5 connector for “AT” style keyboards. A PS-1 to AT or USB to AT adaptor may be needed with some keyboards.