

## WHAT IS EchoLink?

EchoLink allows you to communicate with other amateur radio stations over the internet, using VoIP (voice-over-IP) technology. The EchoLink software program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing your communications capabilities.

To use EchoLink, you must register using your call sign on their website and download the EchoLink software program (free of charge). Refer to the website for PC hardware and other requirements.

Official EchoLink Website: <http://www.echolink.org>

**Note:** EchoLink is a registered trademark of Synergenics, LLC.



## SETTING UP EchoLink Sysop MODE

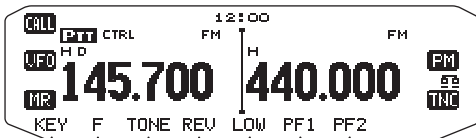
Connect the TM-D710 to a personal computer to use the system as a base station (link bureau) for EchoLink relaying.

When connecting to a personal computer and using the EchoLink Sysop mode, the hard flow control operation RTS and CTS computer terminals operate the same as and are changed with the SQC (squelch control signal output to the computer) and PKS (transmit control signal input from the computer) data terminals.

The current band becomes the same as the data band which is selected in menu No. 517, regardless of the transmission band and operation band.

Use the PG-5H (interface cable kit) when connecting to a personal computer.

- 1 Turn the transceiver power OFF.
- 2 Press **[PF2] + Power ON** to turn EchoLink Sysop Mode ON.
  - The  icon appears on the display when EchoLink Sysop mode is ON.
  - When the MCP-2A "EchoLink RX Monitor" is turned ON and an audio signal is output to the PC side, the  icon blinks.



- To turn EchoLink Sysop Mode OFF, press **[PF2] + Power ON** again.

### Note:

- ◆ You cannot use EchoLink Sysop mode when the built-in TNC is turned ON.
- ◆ We recommend you set Menu 520's SQC output setting to SQL when using EchoLink Sysop mode.
- ◆ When a noise or other such signal is sent from the link bureau to the internet when using CTCSS and DCS, set the EchoLink "RX Monitor" function to "Busy only" (this can only be set with the MCP-2A) to verify the usage condition of the operating frequency. Because of this, when EchoLink Sysop mode is ON, all received signals on the EXT.DATA band side are output through the speaker, regardless of a CTCSS and DCS mismatch. (When CTCSS and DCS matches, only the voice signal is output from the data terminal.)
- ◆ When EchoLink Sysop mode is ON, it cannot communicate with the MCP-2A. When using the MCP-2A, be sure to turn EchoLink Sysop mode OFF.

EchoLink Sysop Mode ON		
PC terminal		PC
TxD	→	RxD
RxD	←	TxD
SQC	→	CTS
PKS	←	RTS
GND	↔	GND

EchoLink Sysop Mode OFF		
PC terminal		PC
TxD	→	RxD
RxD	←	TxD
RTS	→	CTS
CTS	←	RTS
GND	↔	GND

## STORING EchoLink MEMORY

There are 10 dedicated EchoLink DTMF Memory channels available. You can store up to 8 digits in each channel.

- 1 Enter Menu mode and access Menu 204.



- 2 Rotate the **Tuning** control to select an EchoLink channel number from EL0 ~ EL9.
- 3 Press the **Tuning** control to set the selected channel number.
  - The name entry display appears.



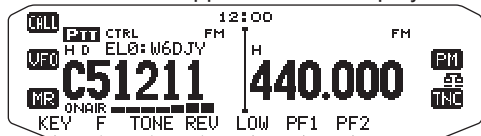
- 4 Enter the name for the channel, then press the **Tuning** control to set it.
  - The call sign and conference name (for board rooms that can do round QSO) of the other station which is connected via EchoLink, or the control command name, etc., are entered into the EchoLink memory name.
  - The code entry display appears.



- 5 Enter a DTMF code for the channel, then press the **Tuning** control to set it.
  - The node number of the other station and conference which are connected via EchoLink, or the DTMF code of the control command, etc., are entered into the EchoLink code.

### Transmitting EchoLink Memory

- 1 Press and hold the microphone [PTT].
- 2 While transmitting, press the **Tuning** control.
  - The last called EchoLink DTMF Memory channel name and number appears on the display.



- 3 While still transmitting, rotate the **Tuning** control to select your desired EchoLink Memory channel, then press the **Tuning** control to set the channel.
  - The stored code scrolls across the display and is transmitted.

### Note:

- ◆ In step 2, press the microphone [C] key before pressing the **Tuning** control, to transmit the converted DTMF code of the EchoLink "Connect by Call" function. (example: JA1YKX)  
"C" "51 21 10 93 52 92 #" (# is automatically added to the end of the DTMF code)
- ◆ In step 2, press the microphone [0] [7] keys before pressing the **Tuning** control, to transmit the converted DTMF code of the EchoLink "Query by Call" function. (example: JA1YKX)  
"0" "7" "51 21 10 93 52 92 #" (# is automatically added to the end of the DTMF code)
- ◆ When only the EchoLink memory name has been registered, the EchoLink "Connect Call" function transmits the converted DTMF code. (example: JA1YKX)  
"C 51 21 10 93 52 92 #" (C is automatically added to the beginning of the DTMF code and # is automatically added to the end)
- ◆ **Call Sign/ DTMF Code Conversion Table**  
When a character other than an alphanumeric character is used (such as "." and "/"), the DTMF conversion stops at the character before that non-standard character.

	1	2	3	4	5	6	7	8	9	0
0	1	2	3	4	5	6	7	8	9	0
1	Q	A	D	G	J	M	P	T	W	
2	Z	B	E	H	K	N	R	U	X	
3		C	F	I	L	O	S	V	Y	

### Selecting a Transmit Speed

Some repeaters may not respond correctly if a code is transmitted at fast speed. If this happens, change the EchoLink transmission speed from FAST (default) to SLOW.

- 1 Enter Menu mode and access Menu 205.



- 2 Set the speed to FAST or SLOW.