

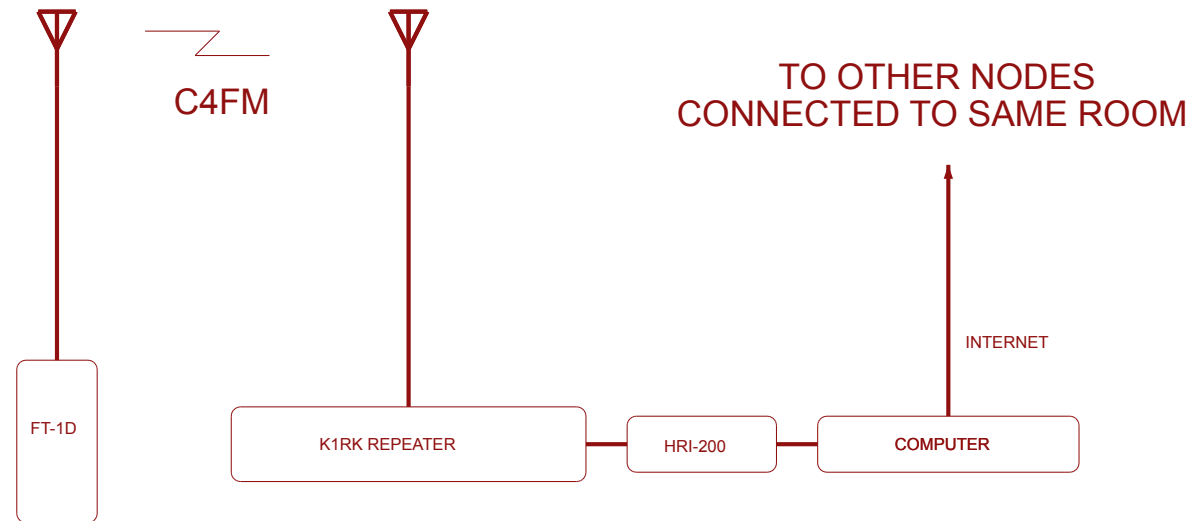
WIRES-X INTRO

USING YOUR C4FM CAPABLE RADIO TO CONNECT TO WIRES-X ROOMS

DEFINITIONS

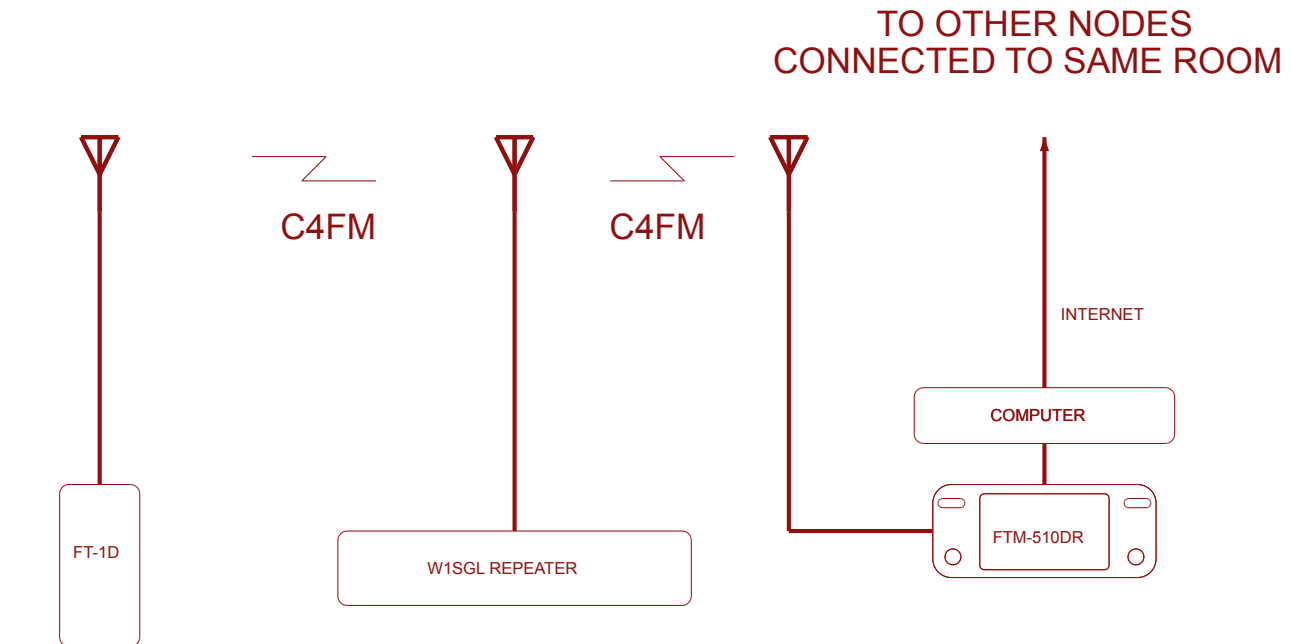
C4FM	A digital mode used by Yaesu. It is an open mode that is not copyrighted or otherwise restricted.
Node	An interface between a repeater and the Wires-X system. It consists of hardware and software.
Room	A radio address where multiple radios are connected allowing radio conversations between repeaters.

TOPOGRAPHY



K1RK WIRES-X CONNECTIONS

TOPOGRAPHY



W1SGL WIRES-X CONNECTIONS

INFRASTRUCTURE

- Any C4FM signal received by the repeater will be heard by the Node's radio.
- The radio will send the C4FM signal to the computer which will send the signal out to the Yaesu server which will send the signal to all nodes that are currently connected to the room that the node is connected to.
- The default room for the K1RK repeater is called Cape-Net-Fusion. If you transmit to the repeater in C4FM, then your signal will be heard by all nodes that are currently connected to that room. Other radios listening to the repeater will also hear you if they have C4FM mode selected.

INFRASTRUCTURE

- If the node receives a signal from the internet it will transmit that signal to the repeater in C4FM mode.
- The repeater sees the signal coming from the node as just another radio.
- The node ignores analog transmissions.

CAPE COD FUSION REPEATER NETWORK

- There are four repeaters on Cape Cod that are connected to the Cape-Net-Fusion Wires-X room.
 - K1RK in Falmouth
 - W1SGL in Barnstable
 - N1BFT in Dennis
 - N1BFT in Chatham
- If your radio is set to C4FM and you transmit to any one of these repeaters, the other three repeaters will also transmit your transmission.

CONNECTING TO A WIRES-X ROOM

- To transmit on C4FM, the radio must be set to transmit on C4FM. The radio is in C4FM mode if there is a  or  icon in the upper right corner of the screen.



CHANGING TO A DIFFERENT WIRES-X ROOM

- To change the node's connection to a Wires-X room, a C4FM radio with Wires-X capability is required.
- Press and hold the [DX] button until the the Wires-X logo in the upper left blinks. The screen will then show the Wires-X screen.



CHANGING TO A DIFFERENT WIRES-X ROOM

- Rotate the function knob to highlight SEARCH & DETECT then momentarily press the FUNCTION knob.



CHANGING TO A DIFFERENT WIRES-X ROOM

- Momentarily press the FUNCTION knob. At this point there are three options.
 - ALL. That will eventually bring up a list of all active Wires-X rooms.
 - SEARCH & DIRECT. Allows searching for a room by name.
 - Menu selected room saved in memory.



CHANGING TO A DIFFERENT WIRES-X ROOM

- Enter the first few characters of the room's name. Then press and hold the FUNCTION knob until the chime is heard.



CHANGING TO A DIFFERENT WIRES-X ROOM

- After a few seconds a new screen will appear that shows the rooms matching the search criteria.



CHANGING TO A DIFFERENT WIRES-X ROOM

- Rotate the knob to the desired room and then press the knob; and the node will connect to the room. Press the BACK button and the radio is ready to transmit.



CHANGING TO A DIFFERENT WIRES-X ROOM

- If a room has been stored in memory it can be accessed by choosing it from within a category.
- Bring up the SEARCH & DIRECT menu as before.



CHANGING TO A DIFFERENT WIRES-X ROOM

- Rotate the FUNCTION knob to highlight the category (C1 – C5) where the room is stored. Then momentarily push the FUNCTION knob. A list of available rooms is displayed. Scroll to the desired room and momentarily push the FUNCTION knob to go to that room.



USING WIRES-X WITH A HOTSPOT

- Hotspots cannot directly connect to Wires-X rooms.
- When using a hotspot with a Yaesu radio, the hotspot will connect to a reflector which is connected to a particular Wires-X room.
- The radio cannot change the reflector. It is necessary to change the reflector from the hotspot.
- Some reflectors allow changing rooms, others have only one room available.

COMMUNICATING IN A WIRES-X ROOM

- It is proper etiquette to return the node to the default room after finishing talking on a non default room.
- Wait a second or two after pressing the PTT before talking. The radio transmits data at the beginning of each transmission.
- Room IDs can be stored in the radio for quick selection. Please refer to the radio's user manual for the procedure.
- CAUTION! It is possible to have two or more nodes connected to the same repeater. If that happens, then conversations on one room will be heard on the other rooms! Not good!

SUMMARY

- Any C4FM radio can be used to communicate with a Wires-X room by connecting to a Fusion repeater that has a Wires-X node connected to it.
- A Wires-X capable radio is required if changing rooms is desired.
- All conversations on the repeater will be sent to the selected room
- All incoming conversations from the room will be transmitted by the repeater.
- Don't connect more than one node to a repeater.
- Each of the 4 repeaters can be programmed by authorized persons to only operate in analog mode. This allows the repeater to be used for emergency communications. There is no linking in this mode.
- There is a room called ARES-Cape-Cod which may be used for ARES communications at some future time.

C4FM Radios

- Yaesu FT-1D, FT-2D, FT-3D, FT-5D (C4FM and Wires-X)
- Yaesu FT-70D (C4FM only)
- Yaesu FTM-400D, FTM200D, FTM-300D, FTM-500D, FTM-510D, FTM-310R (C4FM and Wires-X)
- Yaesu FTM-100D, FTM-3200D, FTM-3200D, FTM-7250D (C4FM only)
- Yaesu FT-991 (C4FM only)

