



## Connecting FreeSpeak II to an Analog Wired Com System IATSE Local 122 Audio Education



Complete documentation and How-Tos can be found here:

<https://www.clearcom.com/freespeakii-knowledge-center/>

The first thing to understand about using the FreeSpeak II System: USE A COMPUTER. It is possible to do almost everything from the front panel, but it is extremely slow and awkward. In our current technology environment, a laptop with a hardwired ethernet connection is a tool that any A2 should carry with them on the job. Fortunately, you do not need any special software with the FreeSpeak II system. All you need is a web browser. The software is built into the base station.

**\*\* NOTE:** This is not an intercom training guide, or a training guide on using the FreeSpeak II. This is only a quick reference to help you get setup quickly. Many features that are important to understand are not covered here. Look into our other classes for full intercom training. This guide is specifically to help users in the field get their small analog systems connected to a FreeSpeak II system with a minimum of trouble. Attending further education with ClearCom and IATSE Local 122 is highly recommended.



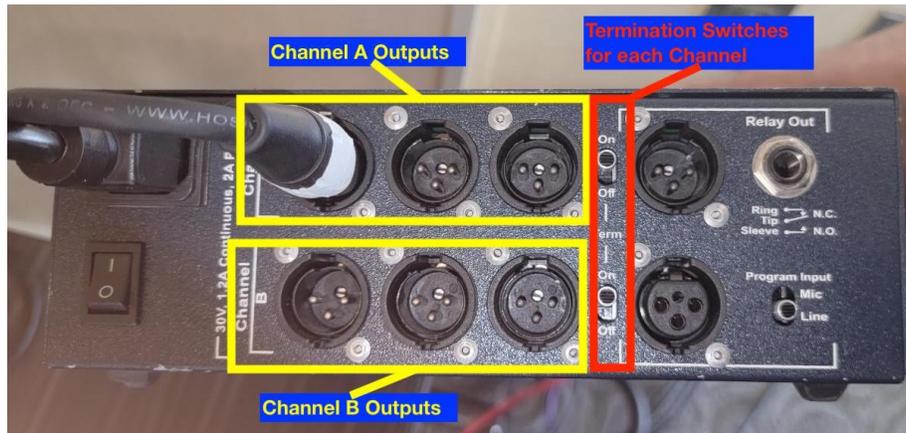
# Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

## Cable Connections from your Analog System to the Freespeak II



Pictured is a standard analog clear-com 2-channel base station:

- This station has separate outputs for Com Channel A and Com Channel B
- When this station is supplying power to the com system, the termination switches should be "ON"



Pictured here is a standard analog RTS 2-channel Base Station:

- Each output carries two channels of com
- On this station, both outputs are the same, and carry two channels of intercom.
- Termination is automatically enabled with this device

**\*\* A Note about Freeman Systems:** Freeman designs their com systems into their Camera Switching Racks. So, If you are working on a freeman show that is using a camera switching rack, then the Clear-Com Power supply is built into that rack. The back of that rack has outputs for Channel A and Channel B. Channel B is dedicated for cameras. You will use the Channel A output to distribute the production channel to everyone. Their ClearCom Beltpack/Headset kits include a power supply like the one shown above, when a camera switching rack is not available.



# Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

The Freespeak II has a number of intercom ports to connect to. However, the standard analog ClearCom and RTS systems we are accustomed to are known as “2-Wire” com systems, because they use 1 wire for the ground, and two wires for power and signal.

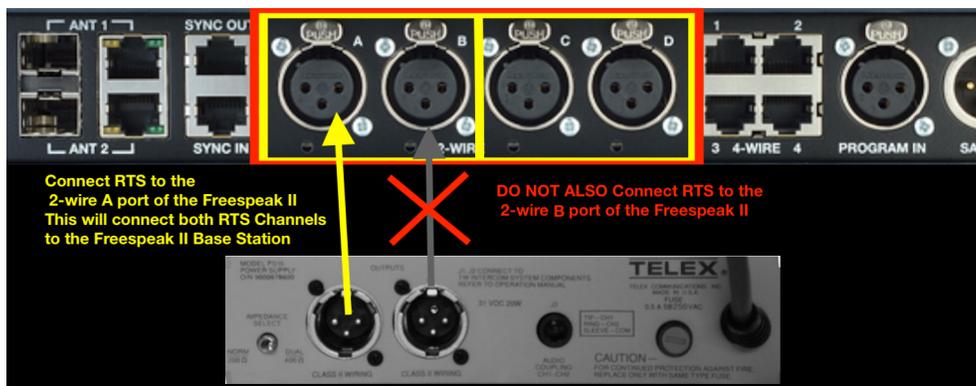
- The Freespeak II system has four 2-wire ports, labeled A, B, C, D.
- When connecting either ClearCom analog or RTS analog to the Freespeak II system, you will connect the outputs of your analog power supply into these 2-wire ports.



## Connecting to ClearCom:



## Connecting to RTS:



- For RTS, Use 2-wire ports A or C on the Freespeak II. A/B are duplicates. C/D are duplicates.



## Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

### Connecting your computer to the Base Station:

- **Turn Off Wi-Fi on your computer.** This will make sure your computer uses the hardwired line
- Connect an ethernet cable from your ethernet port directly into the “LAN 1” port on the back of the Freespeak.
- If you are using an Ethernet switch, you can plug both the Freespeak LAN 1 port and your computer into the switch.



### Finding the IP Address for the Base Station:



- Press the “Menu Key” on the front panel  
Use the knobs for each screen to navigate the menus  
Window 01: Networking  
Window 02: Preferences  
Window 03: IP Address  
Window 04 will show the IP address of the base station
- Now, open a web browser on your computer  
Type in the IP address of the Base Station  
Sometimes, it doesn’t connect the first time. If so, try again.  
The username and password should both be “admin”  
Once you are connected, you should see the Overview page for the base station
- IF “admin” and “admin’ DO NOT WORK, Then follow these steps to get the password:
- Press the “Menu Key” on the front panel  
Use the knobs for each screen to navigate the menus  
Window 01: Administration  
Window 02:CCM Access  
Window 03: Default Password  
Window 04: The password is displayed here  
**DO NOT EVER CHANGE THE DEFAULT PASSWORD!!! IT CAN NOT BE RECOVERED**

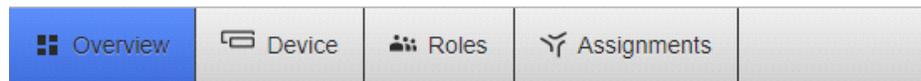


## Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

Below is the Overview Page. This is the page you will see first after you log into the Freespeak II. This particular screenshot shows a device with 7 beltpacks and 4 antennas. The tabs at the top of this window are very important for navigating the system.

The Overview window is a great place to keep tabs on what's going on with your Freespeak II system at any given time. Here you can see how many packs are on each antenna, what packs are active, and any errors that may be popping up over time.

(Navigation Tabs)



(The Overview Window)

The screenshot shows the 'Overview' page in a web browser. At the top, there are navigation tabs: Overview (selected), Device, Roles, and Assignments. The main content area is titled 'Wireless Beltpacks' and contains a table with columns for ID, Role, Status, Key, Gain, RMK, Call, and 10 antenna columns (TCVR1-TCVR10), plus a Total column. A search bar and a 'Key Legend' are also visible. An 'Actions' menu is open, showing 'CALL' and 'RMK' options.

ID	Role	Status	Key	Gain	RMK	Call	TCVR1	TCVR2	TCVR3	TCVR4	TCVR5	TCVR6	TCVR7	TCVR8	TCVR9	TCVR10	Total
031883	BAKER	13h	A B C D M				5	1	0	1	0	0	0	0	0	0	7
031947	BRINA	17h	A B C D M				0	0	0	0	0	0	0	0	0	0	0
026572	DANO	17h	A B C D M				0	0	0	0	0	0	0	0	0	0	0
026571	MIDGE	16h	A B C D M				0	0	0	0	0	0	0	0	0	0	0
012515	SCOTTY	17h	A B C D M				0	0	0	0	0	0	0	0	0	0	0
026627	TIM Z	17h	A B C D M				0	0	0	0	0	0	0	0	0	0	0
013737	zack	17h	A B C D M				0	0	0	0	0	0	0	0	0	0	0



## Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

Once you have logged in, you will need to assign your ports to channels on your freespeak. This is where you assign your 2-wire port modes as ClearCom or RTS, and what channel they communicate with on the Freespeak II.

*Navigate as shown below (\*Refer to numbers on drawing):*

1. Click on the “Devices” Tab.
2. Click on the “Ports” button on the left side
3. Here are each of the 2-wire ports. Click on the port (A, B, C, D) you want to edit to see its settings.
4. After choosing the port you are connected to, go to the “Mode”, and click on the blue underlined text. Choose RTS or ClearCom from the Pop-up menu.
  - a. If you are connected to an intercom power supply, then set the “Power” to “Disabled”. Only enable this if the Freespeak II needs to act as the power supply.
  - b. If you are in RTS Mode, then Port A is channel 1 of the RTS line, and Port B is channel 2 of the RTS line.
5. Next, assign the Freespeak II intercom channel from the “Channel Assignment” Item. Clicking on the blue underlined text will bring up the window with your available channels. Assign your port to a CHANNEL. DO NOT assign directly to a pack or a Role.
6. Check the termination for the port. Termination should be “Disabled”, unless the Freespeak II is acting as the power supply.

The screenshot displays the web interface for configuring a Freespeak II device. The browser address bar shows '192.168.4.12/view/device/0/ports'. The navigation menu includes 'Overview', 'Device', 'Roles', and 'Assignments'. The 'Device' tab is active, showing 'FSII#1' with IP '192.168.4.12'. The left sidebar has 'Ports' selected. The main content area shows 'Audio Ports' with a list of 2-Wire ports (A, B, C, D) and 4-Wire ports (1-4). The '2W-Port A' is selected. The 'Interface Settings' section shows 'Power: Enabled' and 'Mode: RTS'. The 'Port Settings' section shows 'Label: 2W-Port A', 'Channel Assignment: PRODUCTION', 'Group Membership: Unassigned', 'Input Gain: 0 dB', 'Output Gain: 0 dB', and 'RX Call Signal: Disabled'. The 'Termination' is set to 'Enabled'.



## Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

At this point, your analog intercom is connected to a channel on your Freespeak II. The only thing you need to do now is build your roles on the freespeak.

*Navigate as shown below (\*Refer to numbers on drawing):*

1. Click on the “Roles” Tab
2. Select the Role you want to edit
3. Select which button you want to assign to a channel (Buttons A, B, C, or D)
4. Click on the blue underlined text for “Key Assignment”, and select the Channel you assigned your 2-wire port to.
5. Set “Key Behavior” to “Talk & Force Listen”. This means you can always listen to that channel, but talk only works when you press the button. This is what users will expect for normal operation.
6. You can set the talk button to “Latching” or “Non-Latching”. It is recommended to leave this in “Non-Latching” mode unless the user asks for it to be latching.

The screenshot shows the web interface for configuring roles on a Freespeak II system. The browser address bar shows `192.168.4.12/view/roles`. The navigation menu includes Overview, Device, Roles (highlighted with a yellow box and labeled #1), and Assignments. The main content area is for the 'FSBP Default' role, with 'ADD', 'CLONE', and 'RESET' buttons. A 'Sort by' dropdown is set to 'Name'. A list of roles is shown on the left, with 'FSBP Default' selected (highlighted with a yellow box and labeled #2). The 'Keyset' section (highlighted with a yellow box and labeled #3) shows buttons A, B, C, D, and REPLY. Button A is assigned 'PRODUC...' (highlighted with a yellow box and labeled #4). The 'Key Assignment' is 'PRODUCTION' (highlighted with a yellow box and labeled #4), 'Key Behavior' is 'Talk & Force Listen' (highlighted with a yellow box and labeled #5), and 'Talk Latch' is 'Latching' (highlighted with a yellow box and labeled #6). The 'Groups' section shows 'Group Membership' as 'Unassigned'. The 'General Settings' section includes 'Description', 'Display Brightness' (Very High), 'Dimmed Tallies' (Disabled), and 'Allow Caller Latching' (Disabled).



## Connecting Freespeak II to an Analog Wired Com System IATSE Local 122 Audio Education

### Step-by-Step Summary

#1) Make your cable connections:



#2) Turn off Wifi, and Connect your computer network to the Freespeak II IP Address

#3) Go to Device-> Ports, and Select the Mode and Channel for each 2-Wire port you are using

#4) Go to Roles, and program your Roles with the channels they need

#5) Register your Freespeak II beltpacks and assign a separate Role for each beltpack.