

<b>PROCEDURE</b>	<b>Satellite TV Conferencing Setup</b>
<b>PRIMARY KNOWLEDGE AREA</b>	Satellite TV Connections

**Prerequisites:**

The operator should know the following information before beginning:

- Satellite channel of the conference broadcast
- Phone number of conference contact in case of technical difficulties before or during the broadcast

**Overview:**

This document is for use in preparing for a satellite TV system video conference to be viewed at the college or for any other authorized and approved use of the system. The document may also be used in cases where the satellite receiver connections have become loose or inadvertently disconnected and need to be reconnected. There is a hardcopy “DSR 922 Operator’s Guide” located in the room with the satellite receiver box that provides additional detailed information about the box. Also, check the General Instrument web site for any additional information that may be posted there.

**Repair Contact:**

Satellite dish repair person:

Rick Faulkner  
67 Salem Street  
Wilmington, MA 01887  
(413) 246-9789 (cell)  
(978) 694-1549 (home)  
Company: NWS 1-800-562-7081

**PROCEDURE:**

The satellite receiver is located in room 110 (first floor) of the North Academic Building on the Bedford campus. The receiver is usually on a large steel cabinet on a shelf below the television that is being used with the receiver.

## Connecting the Satellite Receiver Box



Figure 1

There are over a dozen connections that must be properly made to the back of the DSR 922 receiver. This section of the document describes those connections.

Beginning on the far-right side and moving from right to left, the following cables and cords should be securely connected to the back of the receiver.

**WARNING:** Always ensure that the power cord to the receiver is unplugged before beginning as some circuits are capable of producing high voltage that may result in electrical shock if touched. See M1/M2 Connections below.

1. TV Channel Switch (0 connections)

*Ensure the switch is set to channel 3.*

This is not a connection, but a manual switch setting. You set this switch to the same channel that a TV would use with a VCR player for your local area. This is the channel that will be used to receive the satellite broadcast.

**Note:** To receive the satellite broadcast the TV must also be set to the same channel as the receiver once the TV is turned on.

2. To TV Connection (1 connection)

*Plug the white cable into the **TO TV** connection.*

This is the only white colored cable that is plugged into the back of the receiver.



Figure 2

3. Fixed Connections (3 connections)

Connect the cable labeled **Fixed** and containing three color-coded wires to the corresponding colored **Fixed** connections on the receiver.

The label *Fixed* is on the back of the receiver with three color-coded connections just to the right of the label. Immediately above the Fixed label and connections is a label *Variable* with three color-coded connections that are not used.

The leftmost and center *Fixed* wires pass along an audio signal with a fixed volume and the rightmost wire sends a video signal to the TV.



*Figure 3*

4. Antenna Connection (1 connection)

*Connect the antenna labeled A to the connection labeled A.*

This enables communication between the receiver and the remote control satellite dish antenna.

5. C/H Connection (1 connection)

*Connect the coaxial cable labeled C/H to the connection labeled C/H.*

This cable transfers C-Band LNB input from the satellite dish to the receiver.



Figure 4

6. K/V Connection (1 connection)

*Connect the coaxial cable labeled **K/V** to the connection labeled **K/V**.*

This cable transfers Ku-Band LNB input from the satellite dish to the receiver.

7. M1/M2 Connections (5 connections)

*Connect the three wires of the cable labeled **M1 M2** that are colored orange, tan, and green, to the horizontal set of three connections labeled **O** (orange), **T** (tan), and **G** (green).*

These wires connect the receiver to the actuator mechanism of the satellite dish.

**WARNING: The circuit between the two motor terminals (red and white wire connections) is capable of producing high voltage. Touching these terminals may result in electrical shock. Do not make or check connections to these**

terminals while the receiver is plugged into a wall outlet. **Always make sure the power cord is unplugged.**

*Connect the two wires of the cable labeled **M1 M2** that are colored red and white to the horizontal set of four connections using only the two center connections labeled **R** (red) and **W** (white).*

These are motor terminals, and the wires supply power to the actuator mechanism to move the satellite dish's position. The satellite dish is repositioned to receive the signal from the proper satellite for the channel selected.



*Figure 5*

8. Polarizer Connections (2 connections)

*Connect the two wires colored red and white on the cable labeled **Polarizer** to the connections above the **Polarizer** label on the receiver that have **W** (white) and **R** (red) labels.*

These wires connect the receiver to the polarizer, or in some cases a coaxial relay switch depending on the specific components and configuration.

9. Power Cord (P1) Connection (1 connection)

**Warning: Never plug in the receiver until all other connections are complete. Some of the other connections are capable of producing high voltage that may result in electrical shock.**

*Plug the power cord labeled **P1** into the connection labeled **P1** and the other end of the power cord into a wall outlet that accepts a polarized plug (one prong wider than the other).*

The receiver automatically enters a 30 second “warm up” mode when plugged in. The receiver displays “WM UP” on the front panel during this period and does not respond to commands until this time period is over.

## Selecting a Satellite Channel

Before activating the satellite equipment for a satellite video conference, you should have the following information:

- the channel the conference will be broadcast on
- phone number to call if there are technical difficulties with the broadcast itself

This information is usually supplied by the department that is paying to receive the video conference. This information is sent in an email from the department or may be sent directly to you by the broadcaster of the conference if your name was supplied to them as the operations contact for your site. This information typically becomes available about two weeks before the conference date.

There are two remote controllers involved in this process, one for the satellite receiver box (4D controller) and one for the TV (JVC controller). They are labeled “Satellite” and “TV” respectively.



*Figure 6*

1. Press either the **Power Button** on the front of the satellite receiver box or the **Power Button** on the satellite remote.

The power to the satellite receiver box is turned on.

2. Press either the **Power Button** on front of TV or the **Power Button** on TV remote.

The power to the TV is turned on.

3. On TV remote, press the **Menu Button**.
4. On TV remote, press + or – **Buttons** until INPUT = VIDEO1.
5. On TV remote, press **EXIT**.
6. On satellite remote, press **SAT**.

The menu of satellites displays.

7. On satellite remote, press the **left, right, up, or down arrow buttons** surrounding the Enter Button to move around and highlight the desired satellite channel.

There may be a delay as you move from satellite to satellite as the satellite dish starts to reposition itself to a highlighted satellite.

8. On satellite remote, press the **Enter Button** in the center of the arrow buttons to select the satellite and watch the broadcast on that satellite channel.

The broadcast for that satellite channel displays on the TV.

9. On satellite remote, if you wish to return to Menu from broadcast channel press **SAT**.

**Note:** If you are only testing this process or testing the satellite receiver and hardware, there are a few free channels available for testing including W9 9.

## SATELLITE INFORMATION (May 2004)

ID	NAME	LOC		ID	NAME	LOC
P3	PanAmSat	43çW		A2	Anik F1 Ku	107çW
P4	PanAmSat 3R Ku	43çW			EchoStar 6	110çW
P1	PanAmSat 1 C-band	45çW			EchoStar 8	110çW
P2	PanAmSat 1 Ku	45çW		E2	Anik E2	111çW
P9	PAS 9	58çW		A3	Anik E2 Ku	111çW
	EchoStar 3	61.5çW		M2	Solidaridad 2	113çW
	Rainbow 1	61.5çW			XM Rock	115çW
	Brasilsat B2	65çW		M5	SatMex 5	116.8çW
	Brasilsat B1	70çW		E1	Anik E1	118.7çW
W6	AMC 6	72çW		A1	Anik E1 Ku	118.7çW
K6	AMC 6 Ku	72çW			DirecTV 5	119çW
	Nahuel 1 Ku	72çW			EchoStar 7	119çW
G6	Galaxy 12	74çW			EchoStar 9	121çW

B6	SBS 6 Ku	74çW			Telstar 13	121çW
K5	AMC 5 Ku	79çW		G0	Galaxy 10R	123çW
	Nimiq 2	82çW		X0	Galaxy 10R Ku	123çW
	Brasilsat B3	84çW		G5	Galaxy 5	125çW
W9	AMC 9	85çW		G9	Galaxy 9	127çW
K9	AMC 9 Ku	85çW		T7	Telstar 7	129çW
	XMRoll	85çW		L7	Telstar 7 Ku	129çW
W3	AMC 3	87çW		C3	Satcom C3	131çW
K3	AMC 3 Ku	87çW		G1	Galaxy 1R	133çW
GB	Galaxy 11	91çW		C4	Satcom C4	135çW
XB	Galaxy 11 Ku	91çW		W1	AMC 7	137çW
	Nimiq 1 Ku	91çW		W8	AMC 8	139çW
	Brasilsat B4	92çW			Generic C	CA
L6	Telstar 6	93çW			Generic C	CB
T6	Telstar 6	93çW			Generic C	CC
G3	Galaxy 3C	95çW			Generic C	CE
X3	Galaxy 3C Ku	95çW			Generic C	CF
T5	Telstar 5	97çW			Generic C	CG
L5	Telstar 5 Ku	97çW			Intelsat Generic I-805	I1
G4	Galaxy 4R	99çW			Intelsat 2 Generic	I2
X4	Galaxy 4R Ku	99çW			Intelsat Ku Generic	IK
W4	AMC 4 Ku	101çW			Generic Ku	KA
K4	AMC 4 Ku	101çW			Generic Ku	KB
	DirectTV 1/R/2/4S	101çW			Generic Ku	KC
W1	AMC 1	103çW			Generic Ku	KE
K1	AMC 1 Ku	103çW			Generic Ku	KF
R4	G-Star 4 Ku	105çW			Generic Ku	KG
F1	Anik F1	107çW				

## Connecting the Conference Viewing Room

The white BNC cable that is connected to the back of the satellite receiver box already has its other end connected to a communications port for RM109 in the communications closet located in the Concert Hall on the first floor of the North Academic building.

The communications closet will be used to connect the conference viewing room to the satellite receiver. There are multiple rooms in the North Academic building that can be used as a conference viewing room for a satellite video conference.

**Note:** A room must have a V007 wall jack somewhere in the room to be a conference viewing room.

Connects the room as follows:

1. In the communications closet, connect a communications cable from the RM109 port to a port for the room number of the conference viewing room.
2. Connect a cable from the V007 jack in the conference viewing room into the back of the TV to be used.
3. Test that the connections work using a free satellite channel.