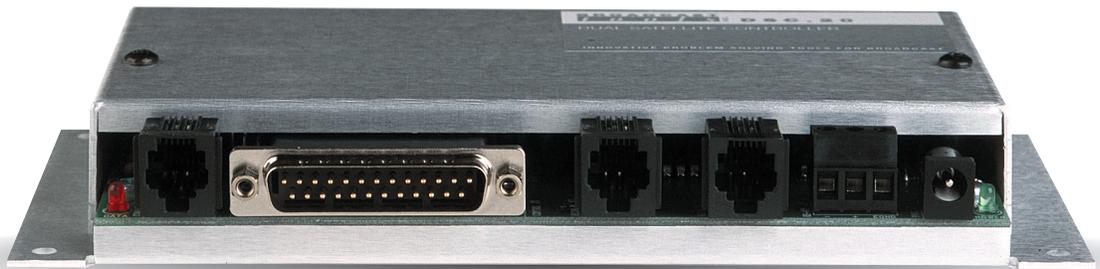




EA 34

BROADCAST[®] tools INC

Upgrade Instructions



DSC-20

Firmware version 4.4 or higher
Date: 10/08/2008

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Description

With Westwood One upgrading from the StarGuide II/III to the IDC MAX receiver and ABC/CC moving to the XDS Pro receiver, new requirements are needed to operate these receivers via their RS-232 control port. The login requirements are new and are addressed with this upgrade, while the original functions remain the same. The DSC-20 may be used to control StarGuide II/III and Wegener Unity 4K receivers or other devices requiring RS-232 serial control.

This upgrade provides the following features.

1 - User programmable login script for each receiver port, if used. The script is inserted before the memory location data is transmitted. Each script supports the following features.

- a - Up to 48 characters in length.
- b - Programmable delay (\$) from 0.1 to 9.9 seconds, if required.

2 - Execution of each memory location from the user menu. Display of the last selected memory location is also provided. By purchasing the optional Broadcast Tools® ESS-1 (Ethernet to serial converter), the DSC-20 may be programmed, controlled and monitored (if the control port isn't being used by another controlling device, such as an automation system PC) over a LAN/WAN or the Internet.

DSC-20 Prepping

1 - The upgrade **WILL CLEAR** your current programming. I recommend you make a hard copy of your programming. Follow the steps below to make the copy:

- a - Bring up HyperTerminal (instructions may be downloaded from our web site under "Downloads"), then press the "SPACE BAR" to display the menu.

NOTE: If you are a Microsoft "VISTA" OS user, you may have to download "PUTTY".

LINK: <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

- b - Select the menu item(s) you need to back up.
- c - Place the cursor in the area you want to save, then hold down the "ALT" key, and press the "Print Screen" key. Now paste the screen shot into your favorite word processing program.
- e - Repeat the above procedure for all data you want to capture.
- f - Save the file to your hard drive and print out a hard copy.

2 - Replacing the processor chip requires you to perform the following steps:

- a - Remove power and all cables from the DSC-20.
- b - Move the unit to a flat surface.
- c - Remove the cover.
- d - Locate U3 (40-pin chip) and carefully remove it.
- e - Carefully install the new chip (**verify pin 1**) for the correct pin orientation.
- f - Reapply power and verify that the power LED is illuminated.
- g - If the unit is working properly, remove power
 - h - Install the cover.
- i - Reinstall the DSC-20.
- j - Reapply power
- k - Reattach all cables
- l - Download the WW1 "MAX" or ABC XDS Pro program guide from the following links:
http://www.broadcasttools.com/pdf/StarGuide_IDC_MAX.pdf
http://www.broadcasttools.com/pdf/ABC_XDSPro_ChGuide.pdf

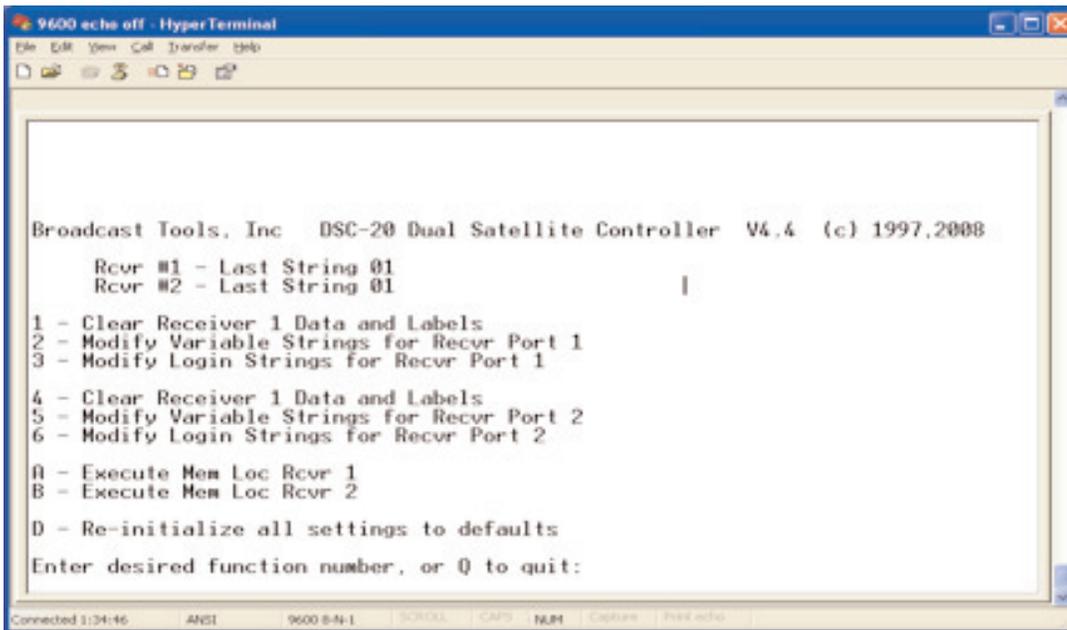
m - Follow the programming steps on the proceeding pages

WW1 / IDC “MAX” receiver port ONE setup

Follow the steps below to enter the login script for receiver port ONE (1).

1 - Bring up HyperTerminal or favorite comm. program and press the “SPACE BAR”

The display should look like the following screen shot.



```
9600 echo off - HyperTerminal
Broadcast Tools, Inc  DSC-20 Dual Satellite Controller  V4.4  (c) 1997,2008
  Rcvr #1 - Last String 01
  Rcvr #2 - Last String 01
1 - Clear Receiver 1 Data and Labels
2 - Modify Variable Strings for Recvr Port 1
3 - Modify Login Strings for Recvr Port 1
4 - Clear Receiver 1 Data and Labels
5 - Modify Variable Strings for Recvr Port 2
6 - Modify Login Strings for Recvr Port 2
A - Execute Mem Loc Rcvr 1
B - Execute Mem Loc Rcvr 2
D - Re-initialize all settings to defaults
Enter desired function number, or Q to quit:
```

2 - Select menu item 3 (Modify Login Strings for Recvr Port 1)

3 - Set the delay (\$) to 10 (one second)

4 - Enter the following string:

\<enter key>\$\<enter key>\$\<enter key>\$admin\<enter key>\$12345\<enter key>\$, press the enter key to terminate (store) the command.

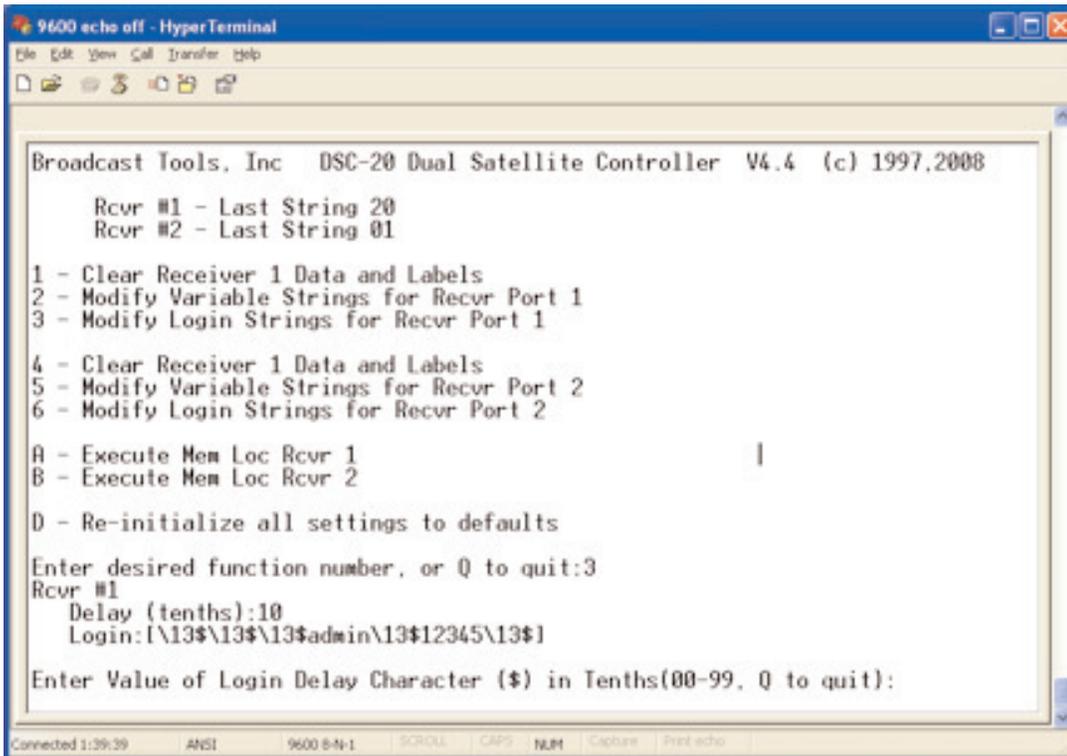
Example: Press backslash, press enter key, hold down the shift key, then press the 4 key (to enter the \$), press backslash, press enter key, hold down the shift key, then press the 4 key (to enter the \$), press backslash, press enter key, hold down the shift key, then press the 4 key (to enter the \$), type **admin** (lowercase) press backslash, press enter key, hold down the shift key, then press the 4 key (to enter the \$), type **12345**, press backslash, press enter key, hold down the shift key, then press the 4 key (to enter the \$), press enter key to terminate (store) the command.

The login string looks like this **before** the final enter key is pressed to terminate (store) the string:

\\13\$\\13\$\\13\$admin\\13\$12345\\13\$

Note: If you make a typing mistake, you **MUST** start over.

The display should look like the following screen shot.



```
9600 echo off - HyperTerminal
File Edit View Call Transfer Help
Broadcast Tools, Inc  DSC-20 Dual Satellite Controller  V4.4  (c) 1997,2008
Rcvr #1 - Last String 20
Rcvr #2 - Last String 01
1 - Clear Receiver 1 Data and Labels
2 - Modify Variable Strings for Rcvr Port 1
3 - Modify Login Strings for Rcvr Port 1
4 - Clear Receiver 1 Data and Labels
5 - Modify Variable Strings for Rcvr Port 2
6 - Modify Login Strings for Rcvr Port 2
A - Execute Mem Loc Rcvr 1
B - Execute Mem Loc Rcvr 2
D - Re-initialize all settings to defaults
Enter desired function number, or Q to quit:3
Rcvr #1
Delay (tenths):10
Login:\13$\13$\13$admin\13$12345\13$1
Enter Value of Login Delay Character ($) in Tenths(00-99, Q to quit):
```

The last step is to enter the receiver port and channel information.

NOTE: The program channel information is available from your program provider or the following links:

http://www.broadcasttools.com/pdf/StarGuide_IDC_MAX.pdf
http://www.broadcasttools.com/pdf/ABC_XDSPro_ChGuide.pdf

The MAX receiver is equipped with four stereo analog and AES outputs. They are labeled 1 through 4, while the program channels range from channel 1 to 67.

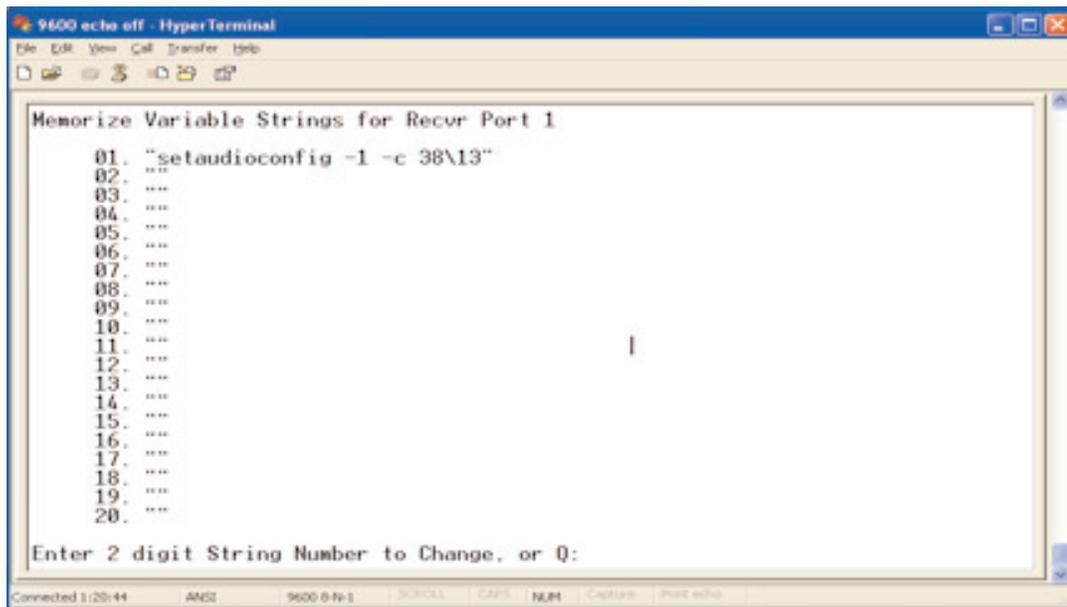
The following example is for memory location one for receiver port one. We will program for audio output 1, channel 38.

- 1 - Select menu item 2.
- 2 - Select memory location 01
- 3 - Type the following: setaudioconfig -i 1 -c 38\<enter key><enter key>

Note: There is a space between the g (of the command setaudioconfig) and the dash. There is also a space between the 1 and the dash and between the c and the 38.

Note: If you make a typing mistake, you MUST start over.

The display should look like the following screen shot.



NOTE: You may use the above same procedure for receiver port 2.

ABC XDS Pro receiver login and baud rate change procedure

Note: The following procedure should be done before setting up the receiver for operation with the DSC-20.

1 - Start a terminal session (using HyperTerminal or equivalent) by connecting your PC's com port to the receiver's M&C port. The default settings for this port are 115200, 8, N, 1.

2 - Press the enter key. You should see a "Hudson" prompt.

3 - Log in by typing **LOGIN(space)TECH(space)RADIO**

4 - The login confirmation will be displayed.

5 - Enter **BAUD(space)(desired baud rate)<enter key>**

Example: To set to 9600, enter **BAUD 9600 <enter key>**

6 - Change the baud rate of HyperTerminal back to 9600 baud.

7 - The following example should be followed to configure receiver port two for the ABC XDS Pro receiver.

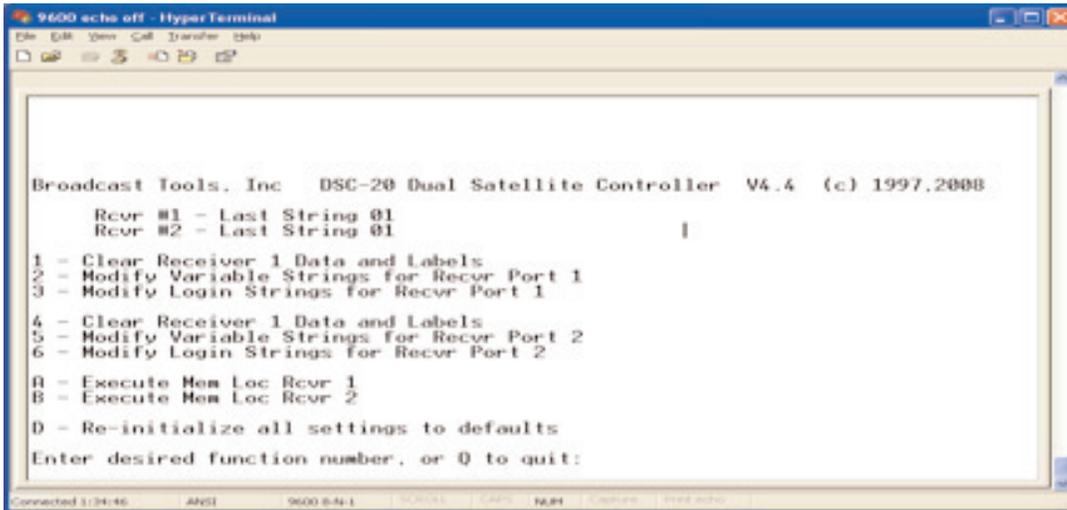
ABC "XDS Pro" receiver port TWO setup

Follow the steps below to enter the login script for receiver port TWO (2).

1 - Bring up HyperTerminal or favorite comm. program and press the **"SPACE BAR"**.

DSC-20 Upgrade Instructions

The display should look like the following screen shot.



```
Broadcast Tools, Inc  DSC-20 Dual Satellite Controller  V4.4  (c) 1997,2008
  Rcvr #1 - Last String 01
  Rcvr #2 - Last String 01
1 - Clear Receiver 1 Data and Labels
2 - Modify Variable Strings for Recvr Port 1
3 - Modify Login Strings for Recvr Port 1
4 - Clear Receiver 1 Data and Labels
5 - Modify Variable Strings for Recvr Port 2
6 - Modify Login Strings for Recvr Port 2
R - Execute Mem Loc Recvr 1
B - Execute Mem Loc Recvr 2
D - Re-initialize all settings to defaults
Enter desired function number, or 0 to quit:
```

2 - Select menu item 6 (Modify Login Strings for Recvr Port 2)

3 - Set the delay (\$) to 10 (one second)

4 - Enter the following string:

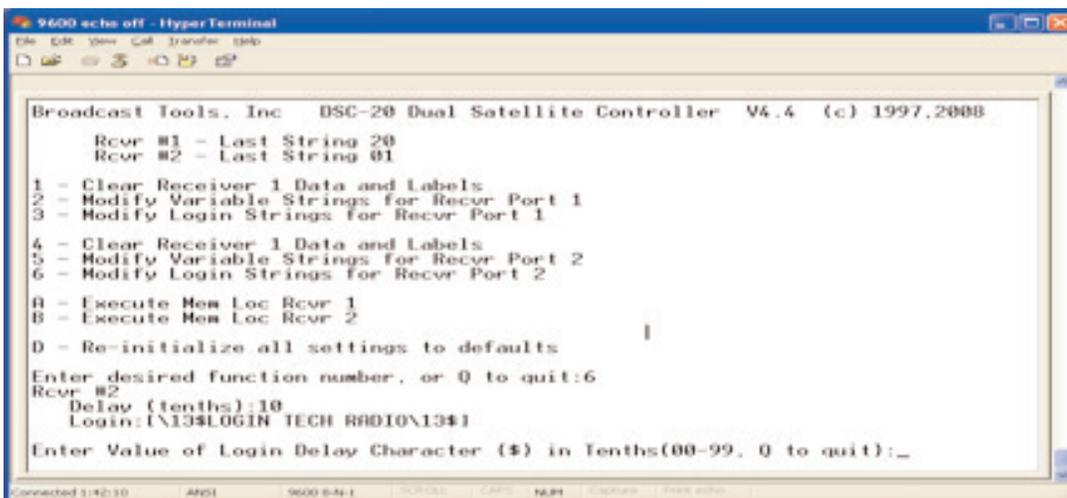
`\<enter key>$LOGIN<space>TECH<space>RADIO\<enter key>$<enter key>`

Example: Press backslash, press the enter key, hold down the shift key, then press the 4 key (to enter the \$), type **LOGIN**, then press the space bar, type **TECH**, then press the space bar, type **RADIO**, then press backslash, press the enter key, hold down the shift key, then press the 4 key (to enter the \$), press the enter key to terminate (store) the command.

The login string looks like this **before** the final enter key is pressed to terminate (store) the string: `\13$LOGIN TECH RADIO\13$`

Note: If you make a typing mistake, you **MUST** start over.

The display should look like the following screen shot.



```
Broadcast Tools, Inc  DSC-20 Dual Satellite Controller  V4.4  (c) 1997,2008
  Rcvr #1 - Last String 20
  Rcvr #2 - Last String 01
1 - Clear Receiver 1 Data and Labels
2 - Modify Variable Strings for Recvr Port 1
3 - Modify Login Strings for Recvr Port 1
4 - Clear Receiver 1 Data and Labels
5 - Modify Variable Strings for Recvr Port 2
6 - Modify Login Strings for Recvr Port 2
R - Execute Mem Loc Recvr 1
B - Execute Mem Loc Recvr 2
D - Re-initialize all settings to defaults
Enter desired function number, or 0 to quit:6
Rcvr #2
Delay (tenths):10
Login:\13$LOGIN TECH RADIO\13$
Enter Value of Login Delay Character ($) in Tenths(00-99, 0 to quit):_
```

The last step is to enter the receiver port and channel information.

NOTE: The program channel information is available from your program provider or this link: http://www.broadcasttools.com/pdf/StarGuide_IDC_MAX.pdf
http://www.broadcasttools.com/pdf/ABC_XDSPro_ChGuide.pdf

The XDS receiver is equipped with four stereo analog and AES outputs. They are labeled A through D, while the programs (PID) range from 100D to 1059.

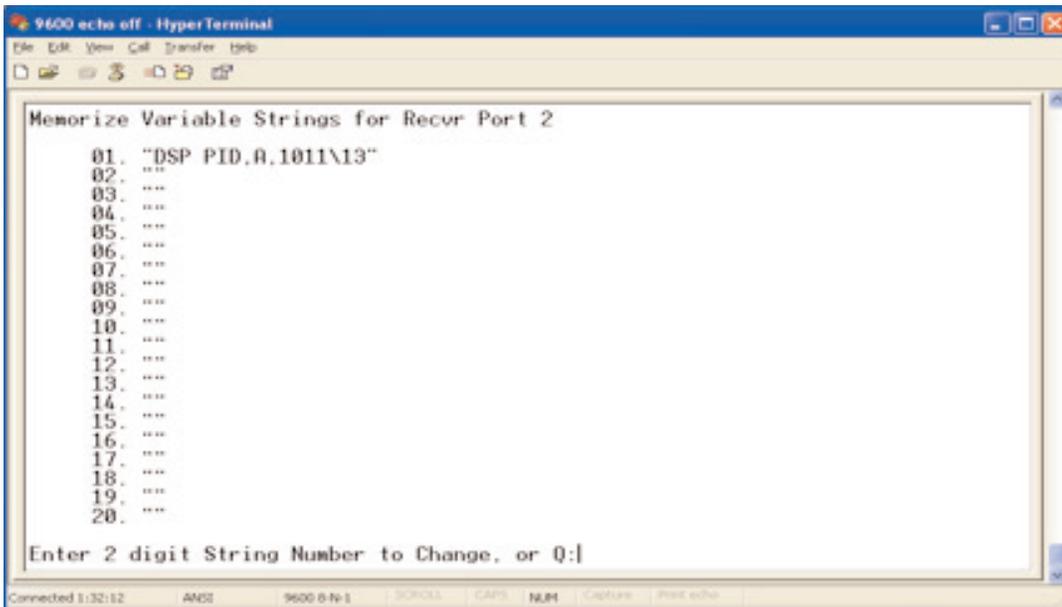
The following example is for memory location 01 for receiver port 2. We will program for audio output A, PID 1011.

- 1 - Select menu item 5.
- 2 - Select memory location 01
- 3 - Type the following: **DSP PID,A,1011**<enter key><enter key>

Note: There is a space between the P (of DSP) and the P (of PID).

Note: If you make a typing mistake, you MUST start over.

The display should look like the following screen shot.



NOTE: You may use the same procedure for receiver port 1.