

In-Service CTB, Quick Start Guide

This guide, the operating manual, and additional information is available on the Product Support CD that came with your model 4200 In Service Test Processor.

Note: Following these instructions will set up equipment for in-service CTB tests using common settings (line number, timing switch, etc) for three specific analyzers. Other settings may be preferred. The 4200 Instruction manual – located on the Product Support CD that came with your Model 4200, and on the Download Files section at www.tvms.net, has much more information regarding set up options. Refer to the Instruction manual for In-Service C/N and In Channel Response test Instructions

HP 8591C Option 107:

Before the 8591C can be used for in-service CTB tests, five DLP files must be transferred to the analyzer. The necessary program and files are contained on the cd that came with your TVMS 4200's. If the cd is missing, the program and files can be downloaded directly to your computer from the www.tvms.net web site. Click on the "Download Files" button to locate the files.

Transferring files to the analyzer:

1. Insert the Product Support CD into your CD drive.
2. If the disk doesn't start automatically; navigate to, and double click on, the drive containing the Product Support CD. Typically "START, My Computer, ...").
3. Double click on "index.htm". The CD menu will appear on screen using your web browser.
4. Click on 8591C Software Installation
5. Follow the on-screen instructions to complete the installation.

Install the TVMS 4200 In-Service Test Processor on a selected channel.

1. Loop video through the 4200;
Move the signal from the modulator's video connector to the 4200's Video IN connector.
Connect a cable from the 4200's Video OUT connector to the modulator's Video In connector.
2. Loop the IF signal through the 4200;
Connect a cable from the modulator's Visual IF Out connector to the 4200's IF IN connector.
Connect a cable from the 4200's IF OUT connector to the modulator's Visual IF In connector.
3. Set the 4200's QUIET LINES, START switches to line 12 (Switch 2 up, all others down).
4. Set the 4200's QUIET LINES, #LINES switches to 1 (Switch 1 up, all others down).
5. Set the 4200's TIMING switch to position 1.
6. Attach the power module to the 4200 and place the MODE switch in the ON position. Check a TV monitor to be certain the channel is working properly. Temporarily enable the IF gate by placing the IF GATE switch in its up position. The picture on the monitor should not change. Return the IF GATE switch to its down position.

To perform In-Service CTB tests, starting from the Preset condition, use the following key presses:

1. CABLE TV ANALYZER
2. Setup, GATING YES, PAUSE YES, Prev Menu
3. CHANNEL MEAS
4. Enter channel number
5. Main, 2 of 3
6. CSO/CTB
7. If not on line 12, enter line 12
8. Continue (after a sweep, you can measure CSO or other coherent disturbances before enabling the 4200).
9. Gated CTB
10. Enable the 4200's IF Gate, Press Continue Bth Flds
11. Wait for two or more sweeps, read the beat level
12. Disable the 4200's IF Gate

Tektronix 2715

Create a new channel table to specify what lines will be used for gated tests:

1. Open the Tek 271X software
2. Click on [Execute], [Channel Table Editor], [OK]
3. For the "test" channels, change the following;
 - "Use Quiet" = YES
 - "Quiet Line" = 25
 - "Use ICR" = YES
 - "ICR Test Line" = 24
4. Save the table under a new name; [File], [Save As], filename
5. Connect the serial communications cable between the 2715 and the serial port of your computer.
6. Transfer the new table to the 2715; [Transfer], [To], [2714/2715]

Install the TVMS 4200 In-Service Test Processor on a selected channel:

1. Loop video through the 4200;
 - Move the signal from the modulator's Video In connector to the 4200's Video IN connector.
 - Connect a cable from the 4200's Video OUT connector to the modulator's Video In connector.
2. Loop the IF signal through the 4200;
 - Connect a cable from the modulator's Visual IF Out connector to the 4200's IF IN connector.
 - Connect a cable from the 4200's IF OUT connector to the modulator's Visual IF In connector.
3. Set the 4200's QUIET LINES, START switches to line 25 (All switches up).
4. Set the 4200's QUIET LINES, #LINES switches to 1 (Switch 1 up, all others down).
5. Set the 4200's TIMING switch to position 7.
6. Set the 4200's ICR SIGNAL switches to line 24 (8,4,2 switches up, switch 1 down), MBST, ON.
7. Attach the power module to the 4200 and place the MODE switch in the ON position. Check a TV monitor to be certain the channel is working properly. Temporarily enable the IF gate by placing the IF GATE switch in its up position. The picture on the monitor should not change. Return the IF GATE switch to its down position.

Set up the 2715 for In-Service CTB and run the test:

1. Select the channel table created above, [CATV/APPL], [CATV Measurements Setup], [Channel Table], ...
 2. Tune to the channel to be tested.
 3. Go to the **CSO** menu screen and enable [IN-SERVICE], then [SET UP CSO].
 4. Select [AUTO], then [SET UP TEST FREQUENCIES].
 5. Set one of the TEST FREQUENCIES to 0 MHz **OFFSET** (for the CTB test). You may also set offset frequencies for CSO tests by entering additional test frequencies of -1.25 MHz, -750 kHz, +750 kHz and +1.25 MHz. Keep in mind that the gate (and, therefore sound buzz) will be enabled for the duration of the test. You may want to run CSO tests separately from CTB to minimize the duration of the sound buzz.
 6. Back through the menus until the CSO menu is reached.
 7. Place the 4200's IF GATE switch in its up position and Press [0] on the 2715 to run the test.
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Avantron AT2500R

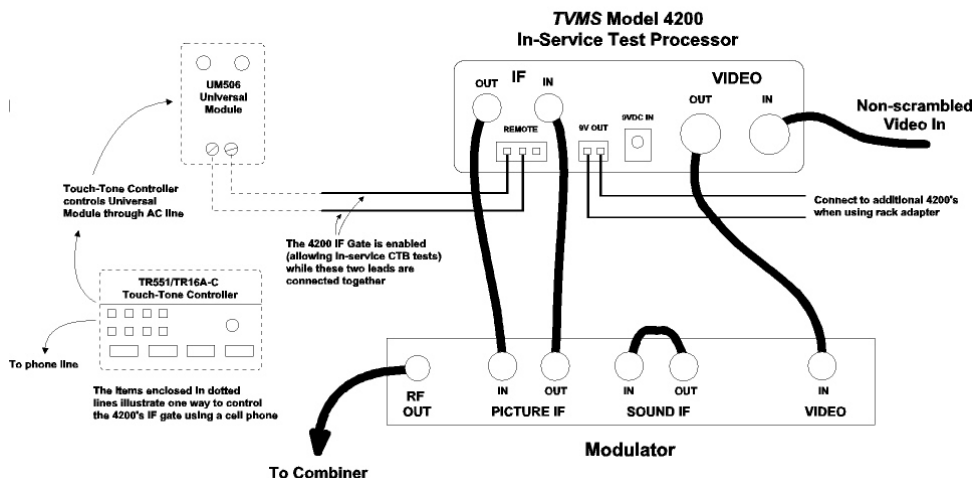
Install the TVMS 4200 In-Service Test Processor on a selected channel.

1. Loop video through the 4200;
Move the signal from the modulator's video connector to the 4200's Video IN connector.
Connect a cable from the 4200's Video OUT connector to the modulator's Video In connector.
2. Loop the IF signal through the 4200;
Connect a cable from the modulator's Visual IF Out connector to the 4200's IF IN connector.
Connect a cable from the 4200's IF OUT connector to the modulator's Visual IF In connector.
3. Set the 4200's QUIET LINES, START switches to line 12 (Switch 2 up, all others down).
4. Set the 4200's QUIET LINES, #LINES switches to 1 (Switch 1 up, all others down).
5. Set the 4200's TIMING switch to position 3.
6. Attach the power module to the 4200 and place the MODE switch in the ON position. Check a TV monitor to be certain the channel is working properly. Temporarily enable the IF gate by placing the IF GATE switch in its up position. The picture on the monitor should not change. Return the IF GATE switch to its down position.

Run the test:

1. Press MENU button
2. Select C/N, CSO, CTB
3. Select SINGLE for just CTB tests
4. Select CTB
5. Select Gated
6. If necessary, change the test line number to field 1 line 12
7. Enable the 4200 in the Headend
8. Run the test.

Typical Installation



Television Measurement Services
503-628-3764
www.tvms.net