SYNCHRONIZING PANASONIC AG-HVX200 CAMERAS
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See also HVX-200 manual Page 59 (in other manuals in the "NTK_look here" folder)

The AG-HVX200 offers the ability to synchronize the timecode preset to any DV device.   You can plug in a DV camera or DV deck into your camera (through the IEEE1394 jack) and the AG-HVX200 can automatically read the time code form the other device and synchronize to it (when shooting DV). This makes synchronizing timecode between multiple cameras a breeze.

The key to synchronizing the cameras is to use FREE RUN timecode. For most normal recording situations, its typical to use REC RUN. However, for synchronizing multiple cameras, FREE RUN has some compelling advantages. If all the cameras are initialized with the same timecode preset, then the timecode will be identical on all the cameras throughout the day (barring any timecode drift). This can make matching up takes in the edit bay easy and effortless.

You'll designate one camera as the "master timecode" camera and all other cameras will synch to the master camera. Make sure the cameras are set in the FREE RUN mode, and all cameras need to be set equally to either DROP FRAME or NON-DROP FRAME.

Make sure the master camera is in the camera mode. In the RECORDING SETUP menu, make sure the AG-HVX200 is configured to FREE RUN and PRESET mode (don't worry about setting the TC PRESET menu item; the camera will automatically read that from the master camera through the 1394 cable). Also, make sure 1394 REGEN is set to OFF. Finally, switch to MCR/VCR mode and set the 1394 IN PRESET menu item to ON. Exit the menu system. You'll see "1394TC" displayed on the LCD indicating that the camera is ready to receive external timecode data.

Next, connect your camera to the master camera via a 1394 cable. Press the TC SET button and your camera will force its TC PRESET menu item to match the timecode its receiving through the 1394 port. You can disconnect the 1394 cable, as from this point on the cameras should stay in sync. Note: the only data that gets transferred through the 1394 cable is the value that gets assigned to the TC PRESET menu setting; all the other settings (such as DF/NDF, REC RUN/FREE RUN, etc) are not transferred when pressing the TC SET button. You have to make sure that those settings are compatible between cameras manually; or, if you are configuring timecode between two AG-HVX200 cameras, you can ensure that they are set equally by transferring the User File from the master camera to the other identical camera via the SD card before setting the timecode itself. Transferring the User File will equalize the settings of the camera setup information (but not scene files) to the other camera; this includes setting the timecode-related settings equally.

Sync Drift: Once you set the timecode preset to be the same, all the cameras should record the exact same timecode for any scene, regardless of when you start or stop shooting, so when shooting with multiple cameras you can usually synchronize the footage by lining it up according to the timecode. However, be aware that sync may drift slightly between cameras throughout the day, and if you turn off one of the cameras, change batteries, or switch a camera to/from MCR mode, that can briefly interrupt the flow of timecode. To maintain perfect sync you will probably need to re-sync the cameras after doing so. It's a simple matter of reconnecting the 1394 cable, switching to VCR/MCR mode and pressing the TC SET button. Absolute frame accuracy is not guaranteed when using the timecode sync method.