Film-Tech

The H404 A/B board is used to switch between the AP20 and a secondary processor (such as CP650/500/65) to the speaker amps at one location.

Relays are used on the H404 to switch the audio output for 8 channels. When the relays are open or not engaged, audio passes from the second processor to the amps. When the relays are activated or closed, the second processor is switched out and audio now passes from the AP20 to the amps.

Control of the relays is provided by the AP20 GPIO that must be programmed so that when AP20 audio is desired, GP09 goes low.

Kit Parts List (Datasat Digital Entertainment (DDE) Part# 9007H43600):
· H404 A/B board, DDE part# 9030H40400A
· Auxiliary power supply, DDE part # 2202120D05 (100-240VAC in, +12VDC @1amp out)
· E682 Automation "loop thru" cable for XD10/XD20 (if used), DDE part # 9022E68200
· H435 GPIO cable, DDE part # 9022H43500

You may also request a master settings file that contains macros needed by the AP20 to activate the H404 A/B board. Contact techsupport@datasatdigital.com for more information.

The H404 board's J4 RCA connector is used for power in from the auxiliary power supply.
· Tip is +DC and sleeve is ground.

The E682 cable is used to allow a loop through connection for XD10/XD20 automation, if used.

The H435 cable connects control from the AP20 GPIO to the H404 relays. H435 has two connectors: The 3-pin connector connects to J5 on the H404 board and the 25-pin connector connects to the AP20 automation GPIO.
· Pin 14 is the control line from AP20's GP09
· Pin 12 is the ground
· Pin 13 is +DC from the auxiliary supply ("user supply" on the AP20 GPIO)

Connecting the H404 Board
1. Mount the H404 board in the audio rack making sure its traces are not touching any metal surface.

2. Connect the AP20 Analog audio out to the H404 A/B board's "NO input" **J3** connector.

3. Connect the second processor audio in to H404 A/B board's "NC input" **J1** connector.

4. Connect the H404 A/B board's "output" **J2** connector to the monitor amps.

5. Connect the auxiliary power supply to AC and the H404 board at **J4**.

6. If using the XD10/XD20 in the system, use the E682 "loop thru" cable:
· connect E682 **P3** to the XD10/XD20 automation connector
· connect E682 **P2** "to cinema processor" to the AP20 GPIO (automation) connector
· connect E682 **P1** "loop thru" to H435 P1 connector (H435 3-pin connector connects to the H404 at J5)

Program GP09
7. Program GP09 as needed or request the master settings file that contains the macros needed to operate the H404 A/B board from Datasat Techsupport. Once you get the file, copy it to a blank USB stick and download them load into the AP20.

8. Reboot the AP20.

Test

9. Test the system by playing audio from the AP20 and engaging GP09. Verify audio is heard in the auditorium.

10. Switch out the AP20 and verify that audio is now heard coming from the second processor.

11. If using the XD10/XD20, go into the XD10/XD20 menu and select to play test tones. When the test tones play, verify the AP20 automatically switches in GP09 and you can hear the test tones in the auditorium.

12. Go back into the XD10/XD20 menu and select to stop playing the test tones. Verify that the AP20 automatically switches out GP09 and you no longer hear the tones in the auditorium.

Please refer questions to Datasat Digital Entertainment Technical Support

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