

AIRMATE^{USB}



ALIGNMENT OF N-1 (MixMinus)

NOTE: This alignment has already taken place at the factory, however if you later on replace the AIRMATE TELCO module you need to follow the next steps for a correct alignment of the N-1 signal.

1. Power down the AIRMATE and open the bottom side.

2. On the bottom side of the TELCO you'll find the two trim pots VR1 R and VR2 L, in the picture shown in the Orange circle.

3. Activate the 'LINE IN' switch on the TELCO module.

4. Connect an audio source to the LINE IN connector of the TELCO first Left only, easiest is a 1kHz 0dB tone from a signal generator. If you don't have a signal generator you can also generate a 1kHz sine wave with Audacity on your PC connected to the Cinch LINE IN connector. Be sure that it is +4dBu at the program output.

5. Power up the AIRMATE

6. Move the fader to the top position. Set TELCO send potentiometer to Maximum. Press the ON switch. Press the Line in switch.

7. Make a Call to the Telco.

8. Turn the L trim potentiometer until the sine wave is at its lowest level heard through the telephone.

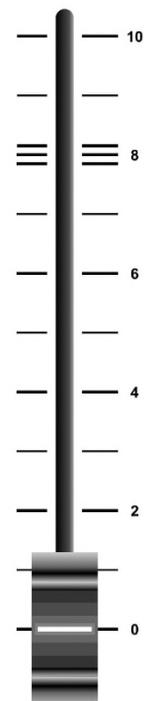
9. Swap the connected cinch from the L cinch to the R cinch and repeat step 8.

10. Then connect both cinchs and listen if the level stays at the same level. When turning the Telco Send to 12 O'Clock the sine wave would be gone at the telephone.

Good luck!



RC balance adjustments on location/in the field



The Resistor/Condenser is a onetime only adjustment. Only in those situations where the TELCO module will be connected to another telephone line a repeated adjustment could be necessary.

NOTE: The R/C balance trimming can only be performed after you have correctly followed the N-1 alignment procedure as written above. (only necessary if you install new modules)

1. Power down the AIRMATE.
2. Connect a 0dBu unbalanced sine wave from a signal generator to one of the other modules and activate the **LINE and ON switches, CUE needs to be off!!** If you don't have a signal generator you can also generate a 1kHz sine wave with Audacity on your PC connected trough USB. Be sure that you adjust +4dBu at the program output of the mixer.
4. Connect the telephone system to the TELCO module's WALL connector.
5. Connect a Phone appliance to the "TO PHONE" connector.
6. Power up the AIRMATE.
8. On your TELCO module deselect Line In.
Set Telco send to 12 O'clock. Set Gain to 12 O'clock.
9. Now make a call to the TELCO and take the call by pressing CONN and move the fader up.
10. Now locate the "C ball" rotary switch (close to switch "LINE" and "GAIN" potentiometer).
11. Now measure the Program output with an oscilloscope. Adjust the "R. Bal" trimmer above the "C ball" rotary switch while moving the Telco modules fader up and down till the sine wave on the oscilloscope almost doesn't change.
12. It can happen that you'll have to change the "C ball" switch to a different value to get a better result. When moving the fader up and down a minimal change in level should be observed on the oscilloscope screen. Repeat step 11 and 12 until you get the best results.

With an oscilloscope and 1kHz sine wave it is easier to find out if there is a change in the signal level (Sine wave) when listening it can be more difficult.

Good luck!

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