

Thomson PS27108 CTC187BF2



Pix 1. Highlighted Flesh tones look cyan



Pix 2. Adjacent channel interference.

Pix 1 Symptom: Appears to have a chroma demodulation defect. Approximately 180 degree phase shift in chroma signals that contain flesh tones. This phenomena occurs only on two channels while using the main tuner. Using the video input to the television from a VCR and receiving the same channel, the problem is not evident. The customer was using an external television antenna with moderate signal strength. The symptom only affects the bright flesh tone parts of the picture.

Cure: At one point earlier someone had replaced the EPROM for a "Dead Set" condition. No one bothered to realign the tuner. The clue was every of the alignment parameter was 31. The tuner needed a complete alignment. Realignment was accomplished by using the tuner alignment jig by Thomson TAG-001, the trouble was corrected.

Note: It is not recommended that the tuner alignment parameters be copied from any other television set even if you have the same chassis number and suffix. Every tuner is different. The tuners may have the same parts, and component physical locations but there are subtle differences in the distributed capacitance within coils, lead dress, etc... These differences are the reason we need the individual alignment parameters. This tuner operates in frequencies from 55.25 Mhz to 874 Mhz. A slight tweak or an innocuous bend in a coil will effect it inductance and distributed capacitance within the coil. These factors will negatively effect the performance of these tuners if not compensated for by correct alignment.

Pix 2. Symptom: Adjacent channel interference on several channels. This photo is difficult to see the symptom. But if you look very closely you can see the VBI bar at the ear lever of the subjects in the photo. This customer is on CATV. The symptom was originally declared as a CATV related problem. But CATV was ruled out when the problem was not visible on a second television.

Note: **This trouble was not visible on all channels, or when an outside antenna was used.**

Cure: In this unit the alignment appeared correct. No alignment errors could be found. When measuring the AGC voltage at U1001(12) or at the C2306(+) the voltage never varied from a "no signal" to a "have signal" condition. A choice had to be made to replace the Mixer/Oscillator U7301, or the Jungle IC1001. It was decided to replace U7301. This was a lucky guess and it corrected the the symptom.

Dennis Viereck
wa6ati@mindspring.com