

Technical conditions for production of commercial spots, sponsor messages and teleshopping intended for dispatch to the TV Prima distribution network

Effective as of 1.1.2012

The following technical conditions are established for production of spots supplied to TV Prima:

1. Supplied programs must be recorded on one layer XD-Cam disc (maximum capacity 23GB).
2. Recorded format of the XD-Cam disc must be in standard resolution (SD) MPEG IMX 30Mb/s. Audio must be in format 4ch/24bits/48kHz.
3. Recorded video signal is checked on PAL equipment and must comply with international recommendation CCIR 601. The selected parameters are listed in table 1.
4. Picture signal must be recorded in side proportions 16:9 FHA (full height anamorphic).
5. Audio signal must be recorded in STEREO version, whereas the following audio track organization must be maintained:
 - A1 = L (left channel)
 - A2 = R (right channel)If the signal is MONO, the audio signal must be the same on both channels, A1 and A2.
Modulation of A1 and A2 cannot be in mutual counter-phase.
6. Reference tone frequency of 1 kHz must be recorded with a level of **-18 dBFS**. Modulation peaks of the program measured by digital meter cannot exceed the level of **-12 dBFS**.
7. Programs composed of music and speech respect a balanced physical perception of sound, that is, music and speech must be perceived with the same volume. The relation of the reference tone and sound modulation for VU meter, PPM and digital meter are shown in Fig. 1.
8. A continuous time code (TC) must be recorded throughout the length of the recording.
9. Signals on recording media must be organized as follows:
 - a) setting section
 - length 90 s
 - video: color bars PAL 100-0-75-0 as per table 2 and fig. 2

- audio: reference tone in accordance with section 2.5
- b) loading segment
 - 30 sec with black signal on video and without sound
- c) program segment
- d) run-out segment
 - 30 sec following end of program with black signal on video and without sound

A continuous video signal must be recorded throughout the length of the recording.

On the XD-Cam media, each segment must be marked as separate “CLIP”, in the case of the program segment, the start of the CLIP must be marked 5 frames (5f) prior to the beginning of video recording and the end marked 5 frames following the end of the video.

10. The offset between the video and audio cannot be subjectively perceptible and in accordance with the recommendation of CCIR cannot exceed 60 ms, in the case of audio skip ahead, respectively, 100 ms for sound to picture delay.
11. Level of the full picture signal cannot, in any case, exceed the value of 107 % b - w, that is, 750 mV and a value of - 25 % b-w, that is, - 175 mV against the black level. For 100 % video signal b-w is considered a level of 700 mV.
12. The recording medium must be augmented with:
 - A correctly completed label on the storage case
 - “TMZ List” (so called recording list) inside the storage case

The Label bears the following necessary information:

- media number
- program number
- program title
- length in the format hh:mm:ss:ff
- organization of audio tracks
- picture format
- legible name of company and employee who made the recording

TMZ List includes the following information:

- media number
- program number
- program title
- length in the format hh:mm:ss:ff
- organization of audio tracks
- picture format
- recording type (original, master, edit, etc.)
- for the broadcast master, the length is highlighted on the front side in the format hh:mm:ss:ff
- on the backside are marked all handlings of the medium, length, evaluation of picture and sound quality of the recording, company indication and the legible name of the employee who handled the medium.

14. The TV PRIMA sales department accepts multiple versions of commercials on 1 medium.

15. During production of a sponsor message it is necessary to incorporate the TV Prima template directly into the message in such a way that it is displayed for the duration of the message.
 If the sponsor is a program sponsor, it is necessary to incorporate the template with the “Program sponsor” subtitle.
 For a program sponsor production it is necessary to incorporate the “Program sponsor” subtitle template and supplement the listed sponsors with the required jingle of TV Prima/TV COOL in a length of 2 s, prior to the sponsor message and following the sponsor message.
16. Prima Television does not incorporate station ID into sponsor messages, the ident is already included in the template for the production of a sponsor message.

Table 1: Select parameters of PAL signal

Characteristic	Information
White level in contrast to black level	$0,7 \pm 0,02 \text{ V}$
Level of synch pulses	$0,3 \pm 0,009 \text{ V}$
Black burst level	$0,3 \pm 0,009 \text{ V}$
Duration of line fade out indicator	$12 \pm 0,3 \mu\text{s}$
Duration of line synchronization indicator	$4,7 \pm 0,2 \mu\text{s}$
Duration front delay	$1,5 \pm 0,3 \mu\text{s}$
Duration end delay	$5,8 \pm 0,5 \mu\text{s}$
Duration of lead in border (10 - 90 %) line synchronization indicator	$0,2 \pm 0,1 \mu\text{s}$
Start of color synchronization signal in regard to time reference OH	$5,6 \pm 0,1 \mu\text{s}$
Error of chrominance signal for color bars	30°
Error level of chrominance signal for color bars	5 %
Signal to noise level for luminance signal	- 40 dB
Signal to noise level for chrominance signal	- 40 dB

Fig. 1: Deviation of VU meter, peak meter PPM and digital meter for reference tone and sound modulation

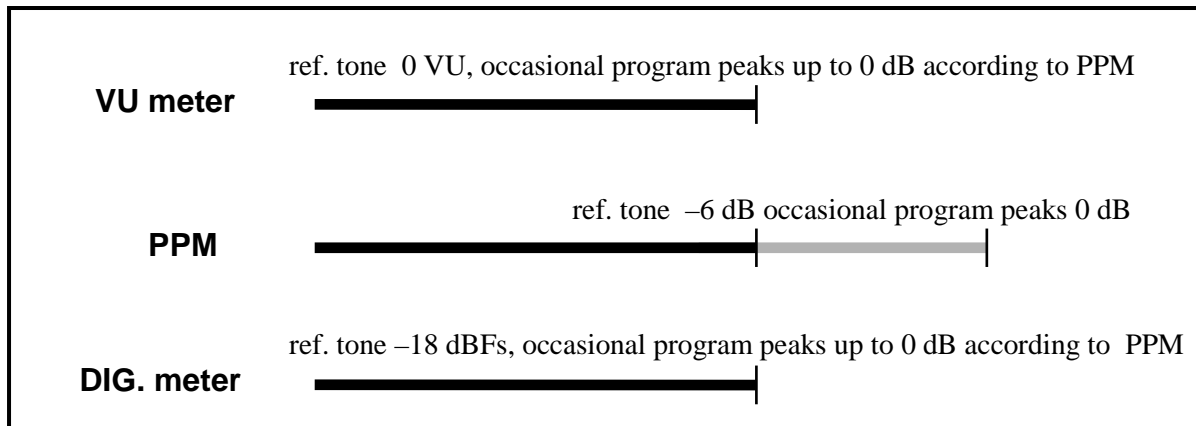


Table 2: Color stripe values for PAL 100/0/75/0 according to CCIR

Stripe color	Luminance	Chrominance		
	level	frequency	angle in degrees	
	(mV)	(mV)	line n	line n+1
W white	700	0	-	-
YL yellow	465	470	167	193
CY cyan	368	664	283,5	76,5
G green	308	620	240,5	119,5
MG magenta	217	620	60,5	
R red	157	664	103,5	256,5
B blue	60	470	347	13
Black burst	0	300	135	225

Fig. 2: Full PAL signal – color stripes 100/0/75/0

Black level BURST DURATION 10 +/- CYCLE (SYMETRICAL WITH BLACK LEVEL)

