Quick Start: AV sync test

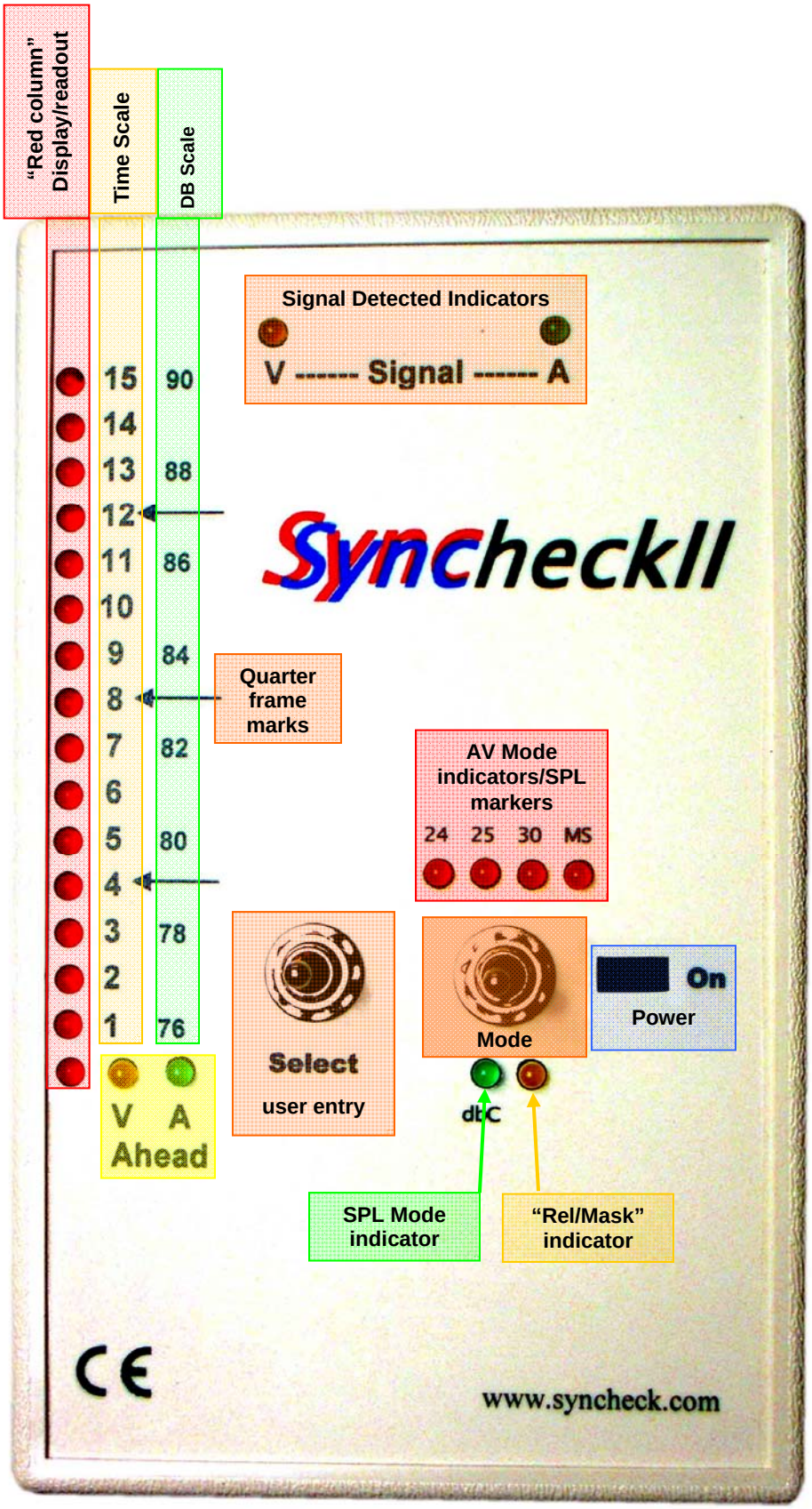
(Refer to picture on back of this sheet or on page 2 of your User Manual)

1. **Perform your first test in a quiet room with low light.** Bright ambient light can affect results. Start with lowered lights until you are comfortable with SyncheckII's operation. Noise from nearby activity and talking should be avoided.
2. **Insert a FRESH 9 volt battery into SyncheckII.** We strongly recommend using a new battery. A weak battery will likely cause erratic operation that is not obvious to a new user.

3A. ***If you are a WORKSTATION user*** load an appropriate test file(skip this step if not applicable). Our CDR contains a selection of test movie files in several popular codecs. Browse to the **One Per Second DV Files** folder (or another codec if you prefer). Import a file that matches your system's settings: PAL, NTSC, 24, or 23.976 frames per second. Standard definition files can be used with high definition, standard definition, and low resolution display systems. Import audio and video from the same movie into your workstation so they may be played together. Test movies are relatively short. The preferred method to extend playback time is to duplicate the files back-to-back several times. *Be aware that some systems cannot maintain perfect synchronization between audio and video during looped playback. Looped playback selections are not recommended.*

3B. ***If you are using our optional test DVD*** (Screening room and home theater systems) load the Syncheck DVD into your player. Select the One Per Second menu, then select 3kHz pips.

4. **Turn on SyncheckII and click the Mode switch to the up position, toward the 4 red LEDs.** Press the Select switch down a few times to cycle through display mode choices to match your system frame rate. An NTSC user (29.97 frames per second) should select "30", a PAL user should select "25", 24 (23.976) users should select "24". Do not choose "MS" milliseconds at this time because the maximum error time that can be displayed is much shorter than with the other choices. It is best to use milliseconds only after you have verified that your system's offset is less than about 4 video frames.
5. **Play the test movie and adjust audio pips to a comfortable level.** SyncheckII's microphone is sensitive and allows a wide range of playback volume. Playback volume must be high enough to flash the upper green "A" LED in exact step with the audible pips. If the microphone picks up unwanted ambient or handling noises, those noises will cause extra flashes and incorrect readings. In a noisy environment you may bypass the microphone by plugging in an unbalanced signal directly. A cable has been provided that matches Syncheck's 9mm input jack.
6. **Point SyncheckII toward your flashing video display.** The upper yellow "V" LED should flash in exact step with the video display. If it does not, try moving closer to/or further from your screen or lowering the ambient light level. If ambient light level is very high SyncheckII may detect inaccurately or not at all. **Some plasma** screens emit high amounts of infrared light that effectively blinds Syncheck's sensor and prevents good detection . It may help to hold Syncheck at an angle to the screen. Consult the user manual for other tips if you have trouble.
7. **During operation, both upper "A" and "V" signal LEDs should flash** exactly in step with your screen's visible flashes and audible pips.
8. **Determine whether picture or sound is arriving first.** Look at the green and yellow LEDs located at the bottom of the column of 16 red LEDs. If the yellow LED is lit, the video flash is earlier than the audio pip. If the green LED is lit, the audio pip is earlier than the flash. Both LEDs will be lit if the flash and pip arrive at nearly the same instant, within approximately ½ millisecond of each other.
9. **Read the amount of audio-video offset**. One of the LEDs in the red column will be blinking and another may be lit steadily. The digit next to a steady LED (when present) indicates a number of whole frames while the blinking LED indicates additional $1/16^{th}$ fractions that are added to the whole frame value to make up the total offset time. When both blinking and steady indications require the same LED, that single LED will blink. **Examples**: if you see a steady "3" and a blinking "11", the error is 3 and $11/16^{th}$ frames. If you see a blinking 3 and no steady digit, the error is 3 and $3/16^{th}$ frames. (**For Milliseconds indication,** the steady LED indicates *tens of milliseconds,* while a blinking LED indicates single milliseconds. For example if you see a steady "9" and a blinking "3", the offset time is 90 plus 3, or 93 milliseconds.)
10. **One or both steady/blinking LEDs may jump from one digit to another with each consecutive flash-pip.** This is common with many playback system configurations. Variations within ½ video frame are generally considered acceptable. A fully gen-locked system will not exhibit any jumping digits.
11. **Read your User Manual, included on the CDR with your SyncheckII!**


"Red column" Display/readout
Time Scale
DB Scale
Signal Detected Indicators
V ------ Signal ------ A
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
90
88
86
84
82
80
78
76
SyncheckII
Quarter frame marks
AV Mode indicators/SPL markers
24 25 30 MS
Select
user entry
Mode
On
Power
V A
Ahead
dB C
SPL Mode indicator
"Rel/Mask" indicator
CE
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