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# U T V – 100 T X

## T V P L L S E N D E R K I T

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Before you use for the very first time, please read this document for information on using your TV PLL Sender.

**WARNING:** Wrong connections may damage your TV PLL Sender. If you are not absolutely sure how to wire this kit or device, please contact us before making any wishful attempts to see if it will work.

- To operate the unit you need to connect power. You can connect DC from 14V-18V (center pin positive) to the power supply jack.
- The TV PLL Sender is mainly used with a cable connection instead of an antenna. This allows distribution of a video/audio signal to your whole house/building by utilizing its central TV antenna wiring. If the signal is too strong for your particular installation, please use a coaxial attenuator.
- To use the Sender wirelessly, you'll need to connect an antenna to the RF Out (F-type jack). To avoid damage, always operate the unit with the RF Out connected to an antenna, or a 'dummy load'.

**NOTE:** Because the unit produces a DSB (double sided band) signal, it's not recommended to either amplify it or connect it to an external antenna (unless you filter the lower side band). Doing so may cause unwanted interference to the immediately lower channel.

- Connect your video and/or audio source to the corresponding RCA jacks. On the older kit version, see the markings on the PCB for which jack is video (the other one is audio). For the newer boxed version, the red RCA jack is video-in, and the white RCA jack is the audio-in.

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### C H A N N E L S E L E C T I O N

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**IMPORTANT:** Before you decide what channel to use, take extra care to first select a channel on your TV set that isn't occupied by any station, and if possible not even one with a weak signal (e.g. with 'snowy' picture). Selecting a 'clean' channel will give you a better picture at a longer distance and avoid unwanted possible interference in your neighbor's TV.

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### O P E R A T I O N

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The TVPLL has a small (8-character by 2-lines) LCD and a four-button 'keyboard'. When powered up the LCD displays the Information Page showing the current output mode (V-Video In or T-TEST), the current P/S ratio setting, the current channel (if channel selection was used last) or the word FRQ (if frequency tuning was used last), and the sound system (e.g., BG/PAL).

The keys are marked UP (or Up Arrow symbol), DOWN (or Down Arrow symbol), MENU (or Square symbol), and ENTER (or Circle symbol).

**UP** Cycles through the possible choices in a forward or upward direction. Menus with only two choices use the ENTER key to toggle between the two.

**DOWN** Cycles through the possible choices in a reverse or downward direction. Menus with only two choices use the ENTER key to toggle between the two.

**MENU** [SQUARE] Cycles through the possible menu screens (The sequence is shown below.)

**ENTER** [CIRCLE] Accepts the current setting in some menus. *Note: Some choices are active immediately when selected with the UP/DOWN buttons while others (e.g., channels) are activated only by pressing ENTER, in which case a quick confirmation message is displayed on the LCD.*

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## MENU SEQUENCE

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INFO – CHANNEL – FREQ – SOUND – P/S RATIO – NOSOUND – SAVE – LOAD – OEM – TEST  
(The menus do not actually show a title. These names are indicative of the function.)

**INFO** Comes up every time the unit is powered up. It has no possible selections. This screen simply informs of the current settings of the TVPLL without allowing changes to any of the settings. Press ENTER for a copyright message. In brief, this screen shows in the upper part the Output Used: V for Video In, T for Test, the P/S ratio: 12 or 16, the channel name (use the channel menu to see the actual frequency), and on the lower line the Sound System used.

**CHANNEL** Allows selection of a channel from the list starting from the currently active channel. Each channel is displayed on the upper LCD line using its given name. The lower LCD line shows the actual frequency corresponding to that channel. Once a new channel is selected you must press the ENTER button to accept your selection. If you decide not to change channels, simply continue to another menu item. The selection of channels available depends on your region or the version you order.

**FREQUENCY** Allows selection of a frequency independently of channel, using a 250KHz step from 45MHz to 890MHz. Once a new frequency is selected you must press the ENTER button to accept your selection. If you decide not to change frequency, simply continue to another menu item.

**SOUND** Allows selection of the sound system. You can choose from BG, DK, L, MN, and I. *Note: L is AM while all others are FM.* Use UP/DOWN to change selection or MENU to leave this menu. You do not need to press ENTER because your selection is effective immediately.

**P/S RATIO** Toggles between the two possible choices of 12dB and 16dB. Press ENTER to toggle or MENU to leave this menu.

**NOSOUND** Toggles between normal broadcast and just picture/no sound. Press ENTER to toggle or MENU to leave this menu. (Available beginning with v1.04)

**SAVE** Allows saving the current settings to the internal Flash memory. These will be the settings used when the TVPLL is powered next time. Press ENTER to save the settings or MENU to leave this menu.

**LOAD** Allows loading the settings saved in the internal Flash memory. It is the same as cycling power to your unit to load the saved settings. Press ENTER to load the settings or MENU to leave this menu.

**OEM** Sets all options to factory defaults and selects a default channel (usually Ch 36). Press ENTER to load the OEM defaults or MENU to leave this menu. Useful only if you're not sure what you're doing and have messed up the settings.

**TEST** Allows toggling the output between Video input and internal TEST mode. Video input is for sending the actual audio and video you have connected at the RCA jacks. Test mode outputs a black screen with two vertical white bars and a 1KHz sound. This mode can be used to either locate the channel on a TV set

which has no direct channel selection but uses frequency swiping or other method, or for general testing purposes. Use the ENTER key to toggle between the two selections or MENU to leave this menu.

All buttons will auto-repeat if held pressed. This is mostly useful mainly for the UP and DOWN buttons so that you can quickly locate the channel of operation. While selecting from a list in a menu, if you keep the button continuously pressed, the speed will increase from normal to fast to faster. This is helpful especially in the channel selection where there may be too many channels to select from in the normal speed. If while searching in faster speed you happen to go beyond the selection you want, you can use the opposite direction (UP/DOWN) button from the one you were using to go back, either continuously or one at a time.

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### AUDIO LEVEL ADJUST

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Although the unit is factory trimmed, the trimmer next to the Audio RCA jack can be used to adjust the audio level. The recommended setting is for your sound level to be about the same as the TEST mode's 1KHz level (see the TEST menu description). Turn clockwise to increase the audio level.

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### MISCELLANEOUS NOTES

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*Not applicable to the boxed version:* The push-buttons on the PCB can be paralleled with external push-buttons with minimum effort. Each push-button on the PCB has an empty pin hole in the middle. This is for you to add one side of an external switch (in parallel to the PCB one). The four pin holes close together above the UP and DWN buttons are there for connecting the other side of each of the four external switches.

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Thank you for purchasing the UTV-100TX by ASPiSYS Ltd.

### **VERY IMPORTANT NOTE, READ CAREFULLY**

***This device is a low power modulator for cable distribution of audio-video signals. Use of this device for other purposes (e.g., wirelessly) may be in violation of local laws/regulations, depending on your area. If unsure, please check with your local telecommunications authorities. Under no circumstances should it be used in violation of any such laws/regulations. The responsibility for legal/proper usage rests solely on you!***

For technical support write to: support@aspisys.com or  
ASPiSYS Ltd., POB 14386, Athens 115 10, Greece (EU)  
Or call: (+30) 210 771-9544 FAX: (+30) 210 771-4983. We are in the GMT+2 time zone.