
TV PLL SENDER KIT

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Before you use for the 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, please contact us before making any wishful attempts to see if it will work.

- **It's highly recommended that you place the kit inside a metal enclosure for proper grounding and shielding.** Mount all the connectors to the metal enclosure. The grounding provided by the spacers is more than adequate.
 - ***IMPORTANT:*** *If you install optional metal spacers to the board's holes, make sure you don't fasten the spacers so that they might touch any part of the circuit. Doing so will cause a short-circuit and will blow the fuse. It might also do other damage to related parts of the circuit. So, be extra careful when installing spacers.*
 - To operate the unit you must first connect power. You can connect either AC from 10V - 14V or DC from 14V-18V (polarity is not important) to the power supply pins (the pins next to the on/off push-button switch, opposite from the 500mA slow-blow fuse).
 - 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.
 - To use the Sender wirelessly, you'll need to connect an antenna to the RF Out (SK4). To avoid damage, always operate the unit with the RF Out connected to an antenna, or a dummy load. You can use a standard BNC type jack to easily connect or disconnect the antenna from the board.
- 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 pins. Audio is marked SK1 and video is marked SK2. SK1 is the one nearer to the backup battery (if one is installed). You will see the marks for both SK1 and SK2 on the silk-screen of the PCB. The positive pins are the ones farther away from the board edge (the ones closest to the trimmer).

CHANNEL SELECTION

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 a local station, if possible not even one with a weak signal (e.g. with 'snowy' picture). Selecting a 'clean' channel will give you both a better picture and avoid unwanted possible interference with your neighbor's TV.

OPERATION

While pressing any of the push buttons, the two-digit LED display shows the currently selected channel (using the same numbering as that found on your TV set). When a key hasn't been pressed for a few seconds, the display blanks out to minimize power consumption. If you want to check the current channel selection while the display is off without altering the channel, you can press the TEST button rather than one of the channel selection buttons.

Older units: A 3V lithium battery (coin-like component) type CR2032, protects from accidental resets to the first available channel if power supply is momentarily lost. Please note that the battery will not last if the unit is left off (disconnected from power) for long periods of time (about a month). It's intended for situations when we want to avoid channel resets of a constantly powered unit during temporary blackouts. Otherwise, setting the channel on each power-on is expected. With a working battery installed, the power-on channel is saved automatically to the last selected channel.

Newer units: Battery removed. Your unit is equipped with an add-on board with EEPROM that eliminates the need for battery (ignore any references to a battery). The EEPROM allows for 'permanent' storage of the power-on channel that won't be forgotten even if power is lost for any length of time. The last used channel is not saved automatically, however. Instead, to save the power-on channel, you must select it, then enter and exit TEST MODE (the two-vertical-bar display). The channel is saved on exit to NORMAL MODE. The firmware that comes with this version of the board also turns off the display after about 5 seconds of pressing any button (or after power-on). This helps lower consumption and also minimizes possible interference by the display.

There are three push buttons next to the LED's. We'll number them 1, 2, 3 starting from the one closest to the LED's that will be button number 1. The middle button is number 2.

BUTTON 1: (UP) When you press this button the channel is advanced to the next available channel. If you're on the last available channel, the first available channel is displayed. In other words, it wraps around from last to first.

BUTTON 2: (DOWN) When you press this button the channel changes to the previous available channel. If you're on the first available channel, the last available channel is displayed. In other words, it wraps around from first to last.

NOTE: When pressing either the UP or DOWN buttons going through the list of available channels, your display may also light a little dot (depending on the model you own – VHF band only). This dot indicates a cable channel is selected.

BUTTON 3: (TEST/NORMAL TOGGLE) When you press this button and both digit dots light up on the display you are in TEST MODE. This causes a two vertical bar black-and-white display to show instead of your actual color video input. The audio is unaffected by the TEST button and will always pass through what is connected to the

audio pins (SK1). The TEST MODE is useful for checking if the unit operates normally, and for quickly locating the channel on TV sets that don't have a direct channel selection but use frequency swiping or other methods.

All three buttons will auto-repeat if held pressed. This is useful mainly for the UP and DOWN buttons so that you can quickly locate the channel of operation.

Thank you for purchasing the TV PLL Sender 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 country. Please check with your local telecommunications authorities if you are unsure. 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
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