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The Toner TAMD is a professional video demodulator designed to fit most of the industries popular 2RU chassis that hold up to 12 modules such as Modulators, Demodulators, and Agile Modulators. Some of the chassis that are compatible are: Blonder Tongue MIRC, Drake RMM12, and Pico MPC-12 all available from Toner.

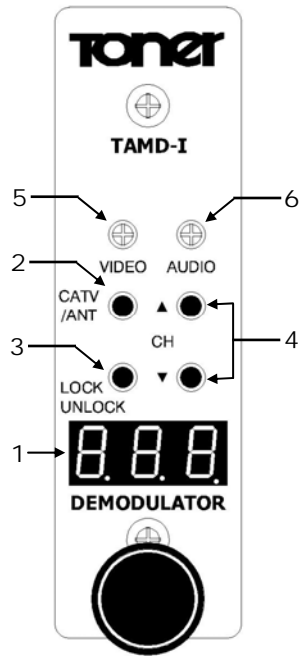
The TAMD-I is a professional video demodulator for PAL-I Television Systems. The unit allows front panel channel selection of standard off air broadcast and cable television channels up to 862 MHz by use of push button synthesized tuning.

The phase lock loop (PLL) synthesized frequency control provides rock solid frequency stability.

The demodulator is designed to accept any standard PAL-I RF input and provide a video and audio at 1.0 Vp-p level. All controls are located on the front panel for ease of operation. The demodulator has a 3 digit LCD channel display with a lock – unlock function to prevent unintentional channel changes.

The Cable Television / Off-Air Band is selected with a front panel Cable / Antenna switch, which can only be used when the unit is unlocked

FRONT PANEL CONTROLS and INDICATORS



1 – CHANNEL Number Display

Displays off-air broadcast channels (ANTENNA mode) with a "Dot" followed by a channel number. In cable mode, a three-digit channel number is displayed.

2 – ANTENNA / CABLE Switch

Press to toggle between ANTENNA and CABLE channel tuning. When the ANTENNA mode is selected, a "Dot" will be displayed in the far left position of the channel display. See 1. The ANTENNA/CABLE selection can be made only if the unit is unlocked. See 3.

3 – LOCK/UNLOCK Switch

Press to lock or unlock the channel selection and ANTENNA/CABLE functions. The unit is locked when a decimal point is displayed on the third digit of the display.

4 – CHANNEL ▲/▼ Select Switch

These buttons are used to increment or decrement the selected channel. The channel can only be changed when the unit is unlocked. See 3.

5 – VIDEO Adjustment

Adjustment of the video modulation level is permitted by rotating the potentiometer.

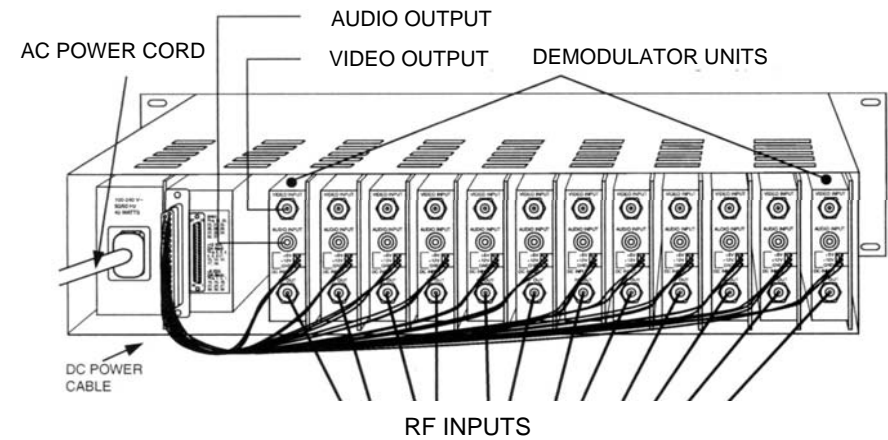
6 – AUDIO Adjustment

Adjustment of the audio modulation level is permitted by rotating the potentiometer.

SPECIFICATIONS

| | | |
|----------------|--|---|
| RF | Frequency Range Cable Channels Broadcast Channels Input Level Impedance Noise Figure Image Rejection VHF UHF | 47-862 MHz 1-100 21-69 60 to 75 dBuV 75 Ω 10 dB 60 dB 50 dB |
| VIDEO | Output Level (adjustable) Output Impedance Differential Gain Differential Phase Video S/N | 1V p-p 3% typical 3° typical 60 dB typical 56 minimum |
| AUDIO | Output Level Output Impedance | 1 V p-p 600 Ω |
| GENERAL | Operating Temperature DC Power 12V Weight Size | 0 to 50°C 270 mA 368G (13 oz) 26W x 88H x 195L (1.0 x 3.5 x 7.6 inches) |

INSTALLATION



CONNECTIONS AND CONTROLS

All connections to and from each modulator are made through the rear panel.

INSTALLATION NOTES

Level adjustment provides optimum performance.

RACK MOUNTING

Adequate ventilation is very important in multi-channel installations. Units should be spaced apart by at least one panel height wherever possible, and some air movement is mandatory in enclosed rack cabinets. Excessive heat will shorten component life and modulator performance will be degraded without proper cooling.

PAL-I CATV CHANNEL FREQUENCY TABLE

| CH | Fp (MHz) | CH | Fp (MHz) | CH | Fp (MHz) | CH | Fp (MHz) |
|----|----------|----|----------|----|----------|-----|----------|
| 01 | 56.00 | 26 | 256.00 | 51 | 456.00 | 76 | 656.00 |
| 02 | 64.00 | 27 | 264.00 | 52 | 464.00 | 77 | 664.00 |
| 03 | 72.00 | 28 | 272.00 | 53 | 472.00 | 78 | 672.00 |
| 04 | 80.00 | 29 | 280.00 | 54 | 480.00 | 79 | 680.00 |
| 05 | 88.00 | 30 | 288.00 | 55 | 488.00 | 80 | 688.00 |
| 06 | 96.00 | 31 | 296.00 | 56 | 496.00 | 81 | 696.00 |
| 07 | 104.00 | 32 | 304.00 | 57 | 504.00 | 82 | 704.00 |
| 08 | 112.00 | 33 | 312.00 | 58 | 512.00 | 83 | 712.00 |
| 09 | 120.00 | 34 | 320.00 | 59 | 520.00 | 84 | 720.00 |
| 10 | 128.00 | 35 | 328.00 | 60 | 528.00 | 85 | 728.00 |
| 11 | 136.00 | 36 | 336.00 | 61 | 536.00 | 86 | 736.00 |
| 12 | 144.00 | 37 | 344.0 | 62 | 544.00 | 87 | 744.00 |
| 13 | 152.00 | 38 | 352.00 | 63 | 552.00 | 88 | 752.00 |
| 14 | 160.00 | 39 | 360.00 | 64 | 560.00 | 89 | 760.00 |
| 15 | 168.00 | 40 | 368.00 | 65 | 568.00 | 90 | 768.00 |
| 16 | 176.00 | 41 | 376.00 | 66 | 576.00 | 91 | 776.00 |
| 17 | 184.00 | 42 | 384.00 | 67 | 584.00 | 92 | 784.00 |
| 18 | 192.00 | 43 | 392.00 | 68 | 592.00 | 93 | 792.00 |
| 19 | 200.00 | 44 | 400.00 | 69 | 600.00 | 94 | 800.00 |
| 20 | 208.00 | 45 | 408.00 | 70 | 608.00 | 95 | 808.00 |
| 21 | 216.00 | 46 | 416.00 | 71 | 616.00 | 96 | 816.00 |
| 22 | 224.00 | 47 | 424.00 | 72 | 624.00 | 97 | 824.00 |
| 23 | 232.00 | 48 | 432.00 | 73 | 632.00 | 98 | 832.00 |
| 24 | 240.00 | 49 | 440.00 | 74 | 640.00 | 99 | 840.00 |
| 25 | 248.00 | 50 | 448.00 | 75 | 648.00 | 100 | 848.00 |

PAL-I OFF AIR CHANNEL FREQUENCY TABLE

| CH | Fp (MHz) | CH | Fp (MHz) | CH | Fp (MHz) | CH | Fp (MHz) |
|----|----------|----|----------|----|----------|----|----------|
| 21 | 471.25 | 46 | 671.25 | | | | |
| 22 | 479.25 | 47 | 679.25 | | | | |
| 23 | 487.25 | 48 | 687.25 | | | | |
| 24 | 495.25 | 49 | 695.25 | | | | |
| 25 | 503.25 | 50 | 703.25 | | | | |
| 26 | 511.25 | 51 | 711.25 | | | | |
| 27 | 519.25 | 52 | 719.25 | | | | |
| 28 | 527.25 | 53 | 727.25 | | | | |
| 29 | 535.25 | 54 | 735.25 | | | | |
| 30 | 543.25 | 55 | 743.25 | | | | |
| 31 | 551.25 | 56 | 751.25 | | | | |
| 32 | 559.25 | 57 | 759.25 | | | | |
| 33 | 567.25 | 58 | 767.25 | | | | |
| 34 | 575.25 | 59 | 775.25 | | | | |
| 35 | 583.25 | 60 | 783.25 | | | | |
| 36 | 591.25 | 61 | 791.25 | | | | |
| 37 | 599.25 | 62 | 799.25 | | | | |
| 38 | 607.25 | 63 | 807.25 | | | | |
| 39 | 615.25 | 64 | 815.25 | | | | |
| 40 | 623.25 | 65 | 823.25 | | | | |
| 41 | 631.25 | 66 | 831.25 | | | | |
| 42 | 639.25 | 67 | 839.25 | | | | |
| 43 | 647.25 | 68 | 847.25 | | | | |
| 44 | 655.25 | 69 | 855.25 | | | | |
| 45 | 663.25 | | | | | | |