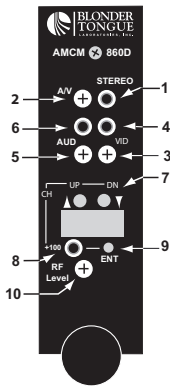


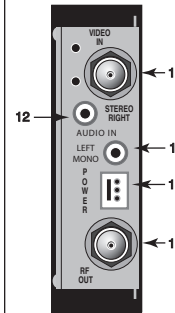
Operating Controls and Indicators

Front Panel



1. **Stereo Indicator** - Lit when video and stereo audio are present.
2. **Audio/Video Ratio Adjustment** - Adjustment of the A/V Ratio is permitted from approximately -19 dB (full clockwise position) to approximately -10 dB (full counterclockwise position) by rotating the potentiometer.
3. **Video Adjustment** - Adjustment of the Video Modulation Level is permitted by rotating the potentiometer.
4. **Video Over Modulation LED Indicator**
5. **Audio Adjustment** - Adjustment of the Audio Modulation Level is permitted by rotating the potentiometer.
6. **Audio Over Modulation LED Indicator**
7. **Up/Down Buttons** - Used to set the desired channel or mode.
8. **+100 Indicator** - Lights when channel settings are 100 -135.
9. **Channel ENT Button** - Enter button used to enter a desired channel or mode.
10. **RF Level Adjustment** - Potentiometer adjustment used to set the output level. Has a range of 15 dB, optimum performance with a 10 dB adjustment.

Rear Panel



11. **Video Input**
"F" Connector
1VP-P for 87.5% depth of mod
12. **Right Stereo Audio In**
RCA Connector
0.5 - 4.0 VP-P
(Constant AGC Range)
13. **Left Stereo Audio or Mono In**
RCA Connector
0.5 - 4.0 VP-P
(Constant AGC Range)
14. **Power Connector**
15. **RF Output**
"F" Connector

CAUTION

It is strongly recommended to use the **Blonder Tongue MIPS-12C** or the **MIRC-4B/MIRC-4C** power supplies with the **AMCM-860**. It is also recommended to use the optional headend fan unit (**QTHF, Stock No. 6235**) when deploying more than 6 **AMCM-860** units in the **MIRC-12V** chassis. A rack space above and below the chassis unit is suggested for heat dissipation and air flow.

Programming the Unit

The AMCM unit comes factory set to operate in the Standard CATV mode.

The unit has 4 valid operating modes: STD CATV, IRC, HRC & Broadcast UHF/VHF. (Skip to the next section for programming the operating mode)

Programming a Channel

1. Navigate to the desired channel number by depressing the CH ▲ UP and ▼ DN buttons.
 - a. Continuous past 99 for channels 100-135, the +100 red LED will illuminate.
2. Press the ENT button when you reach the desired channel setting. This will tune the modulator output to the corresponding channel frequency for this entry.
 - a. The LED display will blink continuously during the channel programming process and will not change the output frequency the unit is programmed until the ENT button is depressed.
 - b. The unit has a special feature that alerts an operator of an inadvertent or desired change to the channel display by flashing the LED readout. The LED display will continue to flash for 30 seconds if the ENT button is not depressed and then will return to the display of the previously programming channel entry setting.

Operating Mode Selection

The unit has 4 valid operating modes: STD CATV, IRC, HRC & Broadcast UHF/VHF. The AMCM unit comes factory set to operate in the Standard CATV mode.

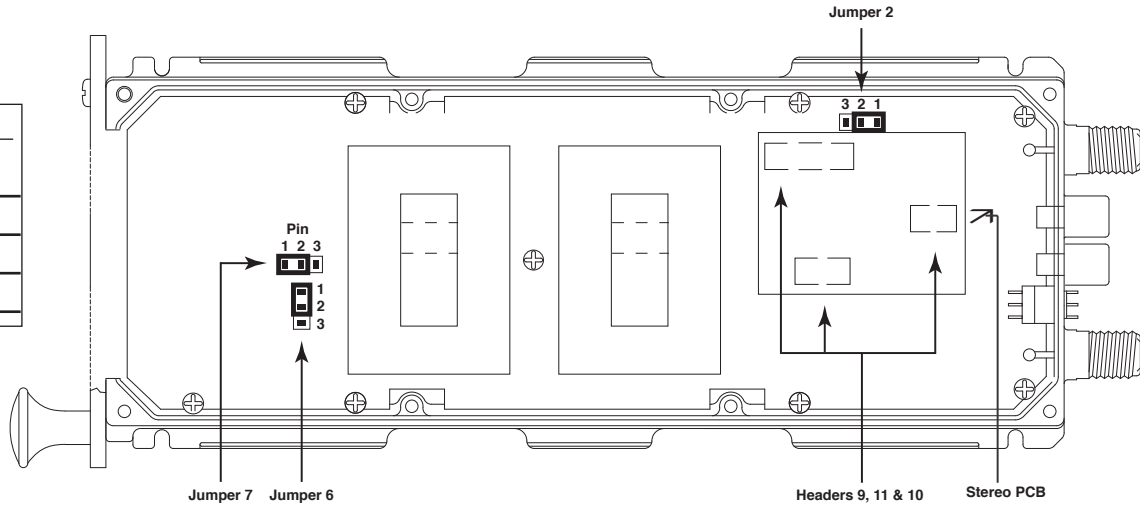
To change the operating mode:

1. Simultaneously depress the CH ▲ UP and ▼ DN buttons for approximately 5 seconds.
2. The Channel LED display will switch to the operating mode selection.
3. Use the CH ▲ UP and ▼ DN buttons to select the desired mode:
 - a. C = STD CATV
 - b. H = HRC
 - c. I = IRC
 - d. U = Broadcast (VHF/UHF)
4. After selecting the desired mode depress the ENT button to set the mode.
5. The unit will return to the channel display mode.
 - a. Programming will reflect the mode chosen – See Appendix A for a detailed frequency plan.
 - b. The programming mode will also flash continuously during the programming process. The LED display will continue to flash for 30 seconds if the ENT button is not depressed and then will return to the display of the previously programming channel & mode entry setting.

ATTENTION!

See Appendix A on the reverse of this sheet for a complete list of available channels and corresponding frequency plan

| JUMPER SETTINGS | |
|-------------------------|----------------------------|
| MONO Stock No. 7766D | STEREO Stock No. 7766DS |
| J2 – PIN 2-3 | J2 – PIN 1-2 |
| J6 – PIN 2-3 | J6 – PIN 1-2 |
| J7 – PIN 2-3 | J7 – PIN 1-2 |



Jumper Settings Shown For Optional Stereo PCB Installation

Troubleshooting

A continuous flashing Channel Display indicates an Error Condition detected by the unit microcontroller. Sample conditions include:

- Channel Selector Entry does not match the channel number on which the modulator is operating, the display will flash for 30 seconds and then revert back to the previous CH entry
- E1 is displayed if the Input & VCO is Not Locked
- E2 is displayed if the Output VCO is Not Locked
- E3 is displayed if both VCO's are Not Locked

Correction Suggestions

The User should perform the following steps to correct an Error Condition:

1. Check that the Channel Display is set to the desired channel & reset as appropriate
2. Check that the unit is set to the appropriate desired operating mode
3. Verify the unit output on a spectrum analyzer
4. Disconnect & reconnect power to the unit

If an error condition continues to be displayed, unit should be replaced and serviced

Appendix A - Unit Operating Frequency Plan

| EIA Chan. | Standard Visual Carrier | Incremental Visual Carrier (IRC) | Harmonic Visual Carrier (HRC) | EIA Chan. | Standard Visual Carrier | Incremental Visual Carrier (IRC) | Harmonic Visual Carrier (HRC) | EIA Chan. | Standard Visual Carrier | Incremental Visual Carrier (IRC) | Harmonic Visual Carrier (HRC) | VHF Broadcast Channels Channel | VHF Broadcast Channels Video (MHz) | UHF Broadcast Channels Channel | UHF Broadcast Channels Video (MHz) | |
|-----------|-------------------------|----------------------------------|--|-----------|-------------------------|----------------------------------|-------------------------------|-----------|-------------------------|----------------------------------|-------------------------------|--------------------------------|------------------------------------|--------------------------------|------------------------------------|--|
| 02 | 55.2500 | 55.2625 | 54 | 42 | 331.2750 | 331.2750 | 330 | 88 | 607.2500 | 607.2625 | 606 | 2 | 55.25 | 35 | 597.25 | |
| 03 | 61.2500 | 61.2625 | 60 | 43 | 337.2625 | 337.2625 | 336 | 89 | 613.2500 | 613.2625 | 612 | 3 | 61.25 | 36 | 603.25 | |
| 04 | 67.2500 | 67.2625 | 66 | 44 | 343.2625 | 343.2625 | 342 | 90 | 619.2500 | 619.2625 | 618 | 4 | 67.25 | 37 | 609.25 | |
| 01 | NA | 73.2625 | 72 | 45 | 349.2625 | 349.2625 | 348 | 91 | 625.2500 | 625.2625 | 624 | 5 | 77.25 | 38 | 615.25 | |
| 05 | 77.2500 | 79.2625 | 78 | 46 | 355.2625 | 355.2625 | 354 | 92 | 631.2500 | 631.2625 | 630 | 6 | 83.25 | 39 | 621.25 | |
| 06 | 83.2500 | 85.2625 | 84 | 47 | 361.2625 | 361.2625 | 360 | 93 | 637.2500 | 637.2625 | 636 | 7 | 175.25 | 40 | 627.25 | |
| 95 | 91.2500 | 91.2625 | 90 | 48 | 367.2625 | 367.2625 | 366 | 94 | 643.2500 | 643.2625 | 642 | 8 | 181.25 | 41 | 633.25 | |
| 96 | 97.2500 | 97.2625 | 96 | 49 | 373.2625 | 373.2625 | 372 | 100 | 649.2500 | 649.2625 | 648 | 9 | 187.25 | 42 | 639.25 | |
| 97 | 103.2500 | 103.2625 | 102 | 50 | 379.2625 | 379.2625 | 378 | 101 | 655.2500 | 655.2625 | 654 | 10 | 193.25 | 43 | 645.25 | |
| 98 | 109.2750 | 109.2750 | Cannot lock to comb ref. refer to FCC regs | 51 | 385.2625 | 385.2625 | 384 | 102 | 661.2500 | 661.2625 | 660 | 11 | 199.25 | 44 | 651.25 | |
| 99 | 115.2750 | 115.2750 | | 52 | 391.2625 | 391.2625 | 390 | 103 | 667.2500 | 667.2625 | 666 | 12 | 205.25 | 45 | 657.25 | |
| 14 | 121.2625 | 121.2625 | 120 | 53 | 397.2625 | 397.2625 | 396 | 104 | 673.2500 | 673.2625 | 672 | 13 | 211.25 | 46 | 663.25 | |
| 15 | 127.2625 | 127.2625 | 126 | 54 | 403.2500 | 403.2625 | 402 | 105 | 679.2500 | 679.2625 | 678 | | | 47 | 669.25 | |
| 16 | 133.2625 | 133.2625 | 132 | 55 | 409.2500 | 409.2625 | 408 | 106 | 685.2500 | 685.2625 | 684 | | | 48 | 675.25 | |
| 17 | 139.2500 | 139.2625 | 138 | 56 | 415.2500 | 415.2625 | 414 | 107 | 691.2500 | 691.2625 | 690 | | | 49 | 681.25 | |
| 18 | 145.2500 | 145.2625 | 144 | 57 | 421.2500 | 421.2625 | 420 | 108 | 697.2500 | 697.2625 | 696 | | | 50 | 687.25 | |
| 19 | 151.2500 | 151.2625 | 150 | 58 | 427.2500 | 427.2625 | 426 | 109 | 703.2500 | 703.2625 | 702 | | | 51 | 693.25 | |
| 20 | 157.2500 | 157.2625 | 156 | 59 | 433.2500 | 433.2625 | 432 | 110 | 709.2500 | 709.2625 | 708 | | | 52 | 699.25 | |
| 21 | 163.2500 | 163.2625 | 162 | 60 | 439.2500 | 439.2625 | 438 | 111 | 715.2500 | 715.2625 | 714 | | | 53 | 705.25 | |
| 22 | 169.2500 | 169.2625 | 168 | 61 | 445.2500 | 445.2625 | 444 | 112 | 721.2500 | 721.2625 | 720 | | | 54 | 711.25 | |
| 07 | 175.2500 | 175.2625 | 174 | 62 | 451.2500 | 451.2625 | 450 | 113 | 727.2500 | 727.2625 | 726 | | | 55 | 717.25 | |
| 08 | 181.2500 | 181.2625 | 180 | 63 | 457.2500 | 457.2625 | 456 | 114 | 733.2500 | 733.2625 | 732 | | | 56 | 723.25 | |
| 09 | 187.2500 | 187.2625 | 186 | 64 | 463.2500 | 463.2625 | 462 | 115 | 739.2500 | 739.2625 | 738 | | | 57 | 729.25 | |
| 10 | 193.2500 | 193.2625 | 192 | 65 | 469.2500 | 469.2625 | 468 | 116 | 745.2500 | 745.2625 | 744 | | | 58 | 735.25 | |
| 11 | 199.2500 | 199.2625 | 198 | 66 | 475.2500 | 475.2625 | 474 | 117 | 751.2500 | 751.2625 | 750 | | | 59 | 741.25 | |
| 12 | 205.2500 | 205.2625 | 204 | 67 | 481.2500 | 481.2625 | 480 | 118 | 757.2500 | 757.2625 | 756 | | | 60 | 747.25 | |
| 13 | 211.2500 | 211.2625 | 210 | 68 | 487.2500 | 487.2625 | 486 | 119 | 763.2500 | 763.2625 | 762 | | | 61 | 753.25 | |
| 23 | 217.2500 | 217.2625 | 216 | 69 | 493.2500 | 493.2625 | 492 | 120 | 769.2500 | 769.2625 | 768 | | | 62 | 759.25 | |
| 24 | 223.2500 | 223.2625 | 222 | 70 | 499.2500 | 499.2625 | 498 | 121 | 775.2500 | 775.2625 | 774 | | | 63 | 765.25 | |
| 25 | 229.2625 | 229.2625 | 228 | 71 | 505.2500 | 505.2625 | 504 | 122 | 781.2500 | 781.2625 | 780 | | | 64 | 771.25 | |
| 26 | 235.2625 | 235.2625 | 234 | 72 | 511.2500 | 511.2625 | 510 | 123 | 787.2500 | 787.2625 | 786 | | | 65 | 777.25 | |
| 27 | 241.2625 | 241.2625 | 240 | 73 | 517.2500 | 517.2625 | 516 | 124 | 793.2500 | 793.2625 | 792 | | | 66 | 783.25 | |
| 28 | 247.2625 | 247.2625 | 246 | 74 | 523.2500 | 523.2625 | 522 | 125 | 799.2500 | 799.2625 | 798 | | | 67 | 789.25 | |
| 29 | 253.2625 | 253.2625 | 252 | 75 | 529.2500 | 529.2625 | 528 | 126 | 805.2500 | 805.2625 | 804 | | | 68 | 795.25 | |
| 30 | 259.2625 | 259.2625 | 258 | 76 | 535.2500 | 535.2625 | 534 | 127 | 811.2500 | 811.2625 | 810 | | | 69 | 801.25 | |
| 31 | 265.2625 | 265.2625 | 264 | 77 | 541.2500 | 541.2625 | 540 | 128 | 817.2500 | 817.2625 | 816 | | | | | |
| 32 | 271.2625 | 271.2625 | 270 | 78 | 547.2500 | 547.2625 | 546 | 129 | 823.2500 | 823.2625 | 822 | | | | | |
| 33 | 277.2625 | 277.2625 | 276 | 79 | 553.2500 | 553.2625 | 552 | 130 | 829.2500 | 829.2625 | 828 | | | | | |
| 34 | 283.2625 | 283.2625 | 282 | 80 | 559.2500 | 559.2625 | 558 | 131 | 835.2500 | 835.2625 | 834 | | | | | |
| 35 | 289.2625 | 289.2625 | 288 | 81 | 565.2500 | 565.2625 | 564 | 132 | 841.2500 | 841.2625 | 840 | | | | | |
| 36 | 295.2625 | 295.2625 | 294 | 82 | 571.2500 | 571.2625 | 570 | 133 | 847.2500 | 847.2625 | 846 | | | | | |
| 37 | 301.2625 | 301.2625 | 300 | 83 | 577.2500 | 577.2625 | 576 | 134 | 853.2500 | 853.2625 | 852 | | | | | |
| 38 | 307.2625 | 307.2625 | 306 | 84 | 583.2500 | 583.2625 | 582 | 135 | 859.2500 | 859.2625 | 858 | | | | | |
| 39 | 313.2625 | 313.2625 | 312 | 85 | 589.2500 | 589.2625 | 588 | | | | | | | | | |
| 40 | 319.2625 | 319.2625 | 318 | 86 | 595.2500 | 595.2625 | 594 | | | | | | | | | |
| 41 | 325.2625 | 325.2625 | 324 | 87 | 601.2500 | 601.2625 | 600 | | | | | | | | | |

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