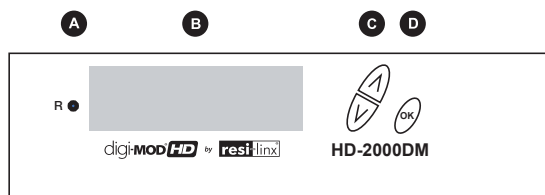


# Single & Dual Input HD Digital DVB-T Modulators

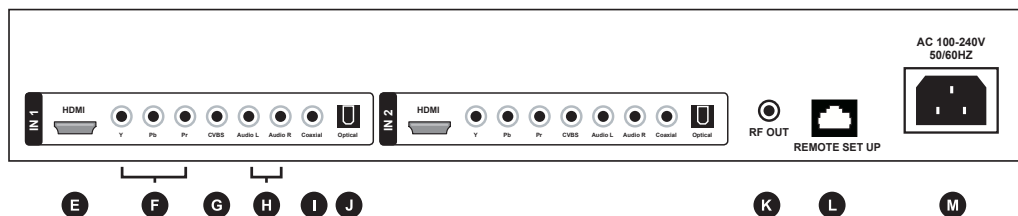
## FRONT DIAGRAM



### Functions

- A** Reset Button
- B** LCD Display
- C** Scroll Up / Down Buttons
- D** Enter Button (OK)

## REAR DIAGRAM



### Functions

- |                                |                                      |                           |
|--------------------------------|--------------------------------------|---------------------------|
| <b>E</b> HDMI Input            | <b>H</b> Analogue Audio L + R Input  | <b>K</b> RF OUT           |
| <b>F</b> Component Video Input | <b>I</b> Digital Audio Coaxial Input | <b>L</b> Remote Set Up    |
| <b>G</b> CVBS Video Input      | <b>J</b> Digital Audio Optical Input | <b>M</b> IEC Power Socket |

### IMPORTANT NOTE:

For remote programming instructions, please go to [www.resi-linx.com/downloads.php](http://www.resi-linx.com/downloads.php)

# Settings Options

Default Settings			
	RL-HD1000DM	RL-HD2000DM	Optional Setting
No Inputs	1	2	-
Channel Output	21	21	6-12 VHF & 21-69 UHF
Attenuator	0	0	0 ~ -20dB
Constellation	64QAM	64QAM	16QAM
Channel Type	STD	STD	HRC, IRC
RF Output	Normal	Normal	Inverted, C.W.
Brightness	128	128	0~255
Contrast	128	128	0~255
Saturation	128	128	0~255
Sharpness	64	64	0~127
Hue	128	128	0~255
Device Address	0	0	Adjustable
Stream ID	1000	1000	Adjustable
Network ID	100	100	Adjustable
ORG Network ID	10	10	Adjustable
Network Name	RL-NETWORK	RL-NETWORK	Adjustable
LCN Mode	APN	APN	EACEM, ITC, NorDig
Video Input	AUTO	AUTO	HDMI, Component, Composite
Program Number	100	100	Adjustable
LCN	101	101 / 102	Adjustable
Channel Name	CHANNEL-1	CHANNEL-1 CHANNEL-2	Adjustable
Aspect Ratio	16:9	16:9	4:3
HDCP	Enable	Enable	Disable
Audio Input	Analogue	Analogue	Coaxial/Optical
Audio Output	MP2	MP2	ACC/AC3

# Hardware Connection

1. Connect the relevant Video Output from the video source (eg: Cable TV, Pay TV, DVD, VCR, Camera) to the relevant Video Input connector **E** - **G** on the rear of the HD-1000DM / HD-2000DM Modulator.
2. Connect the relevant Audio Output cable from the audio source to the relevant Audio Input **H** - **J** (if required) on the rear of the HD-1000DM / HD-2000DM Modulator.
3. Connect the RF Output **K** from the HD-1000DM / HD-2000DM to the Modulator Input on the RF Distribution Module RL-RF380. Alternatively connect the RF Output **K** to an existing distribution system or directly to a television set.
4. Connect the supplied IEC Power Cable to the Power Socket **L**.
5. Repeat steps 1-2 for connection of other sources to AV Input IN2 for HD-2000DM

**NOTE: If using HDMI, there is no need to connect an additional Audio Cable.**

# Initial Startup

1. Power Up the digi-MOD HD
2. Wait until digi-MOD HD displays "Running" then enter the menu by selecting the "OK" button
3. Enter Password "0000" and press "OK"
4. The digi-MOD HD will now display "ADVANCED MENU OUTPUT CHANNEL". Press the "OK" button
5. The digi-MOD HD will now display "OUTPUT CHANNEL 21" with the frequency in MHz. In some TV sets Channel 21 is not available, so it is recommended to change this to appropriate available channel to suit your installation (40, 50, 60 etc.) Once you have selected a channel number, Select "OK" to lock in the change.
6. Once Output Channel has been changed, wait up to 20 seconds for picture to appear.
7. Change any other settings via the "MENU" as required (refer to [Technical Specifications](#))
8. Once finished programming use the "UP" scroll button until the LCD display reads "ADVANCED MENU EXIT", select "OK"
9. The LCD will now read "EXIT, EXIT MENU". Select "OK". The LCD display will now show "Running"
10. Auto Scan for Channels on the TV set with the digi-MOD HD connected and powered.
11. Sources for selected digi-MOD HD Channel selection, (e.g channel 40), are found on TV channels 101 (adjustable - refer to [Programming LCN](#))

**NOTE: If the digi-MOD HD is powered down, there is no need to reconfigure. All settings will remain unless a factory default is done.**

## Programming

**CHANNEL NAME** can be changed by using the Scroll “UP” key until you reach “CHANNEL NAME”. Use the UP/DOWN scroll keys to change each letter. Press “OK” to confirm channel name change.

**LCN** (Logic Channel Number) can be moved from its default position (101, 102) to a different channel number (e.g. 4, 5) by scrolling UP/DOWN in the LCN option for each channel. Once selected, press the “OK” button to lock your channel change.

**NOTE: Repeat this process for each Input of your digi-MOD HD Modulator.**

**Video Output** – digi-MOD HD can distribute either MPEG-2 or AVC (MPEG-4) signals to suit your installation requirement. Via the “VIDEO OUTPUT” option in the menu, simply select the Video Output per input to either MPEG-2 or AVC (MPEG-4) and press OK (allow 10 seconds for change to apply).

**Video Input** – allows you to select which VIDEO INPUT on the HD1000DM / HD2000DM you wish to modulate (HDMI, COMPONENT, COMPOSITE). There is also an “AUTO” (default) option in the setting that will automatically display the highest resolution available.

**Audio Input** – allows you to select which audio input on the HD1000DM / HD2000DM you wish to modulate (OPTICAL, COAXIAL, ANALOGUE).

**Audio Output** - allows you to select which audio format on the HD1000DM / HD2000DM you wish to modulate into your system (AC3, AAC, MP2).

### IMPORTANT NOTE:

- You must re-scan the TV once setting has been changed or the TV may not display the picture and sound correctly.
- Once programming is complete it is recommended that the system be reset by pressing the reset button **A** on the face of the module.

## Installing Multiple digi-MOD HD's in an installation

Please ensure each digi-MOD HD has different settings in the categories below if you are installing 2 or more in an installation.

- OUTPUT CHANNEL
- STREAM ID
- CHANNEL NAME
- LCN
- PROGRAM NUMBER

### IMPORTANT NOTE:

- Failure to change the above settings will result in conflict and will not install all channels correctly.

## Advanced Programming

**FEC – Forward Error Correction** - Using FEC codes enables communications to achieve the same level of transmission reliability, quantified by the BER, at lower output power levels.

**Guard Interval** - Guard intervals are used to ensure that distinct transmissions do not interfere with one another. The purpose of the guard interval is to introduce immunity to propagation delays, echoes and reflections, to which digital data is normally very sensitive. Example: By changing the FEC from  $\frac{3}{4}$  to  $\frac{5}{6}$  you are increasing the bandwidth available within the channel allowing more data available for transmission.

**Constellation** - Countries around the world use different constellations for transmission of digital TV signals. The setting are either 16 QAM or 64 QAM and are pre-set as per region within in the HD1000DM / HD2000DM.


**Bandwidth** - Countries around the world use different bandwidth for transmission of digital TV signals. The setting are either 6, 7 or 8 MHz and are pre-set as region specific within in the HD1000DM / HD2000DM.

**LCN Mode** – Allows change of the LCN mode (EACEM, APN, ITC, NorDIG) for different regions.

**Aspect Ratio** – Allows change of size of the picture being displayed on the TV. Default is set on wide screen 16:9 but can be changed to 4:3 if required.

**RF Output Level** – dB level of output of RL-HD1000DM / 2000DM launched at 87dB and adjustable via “ATTENUATION” mode in the Settings menu.

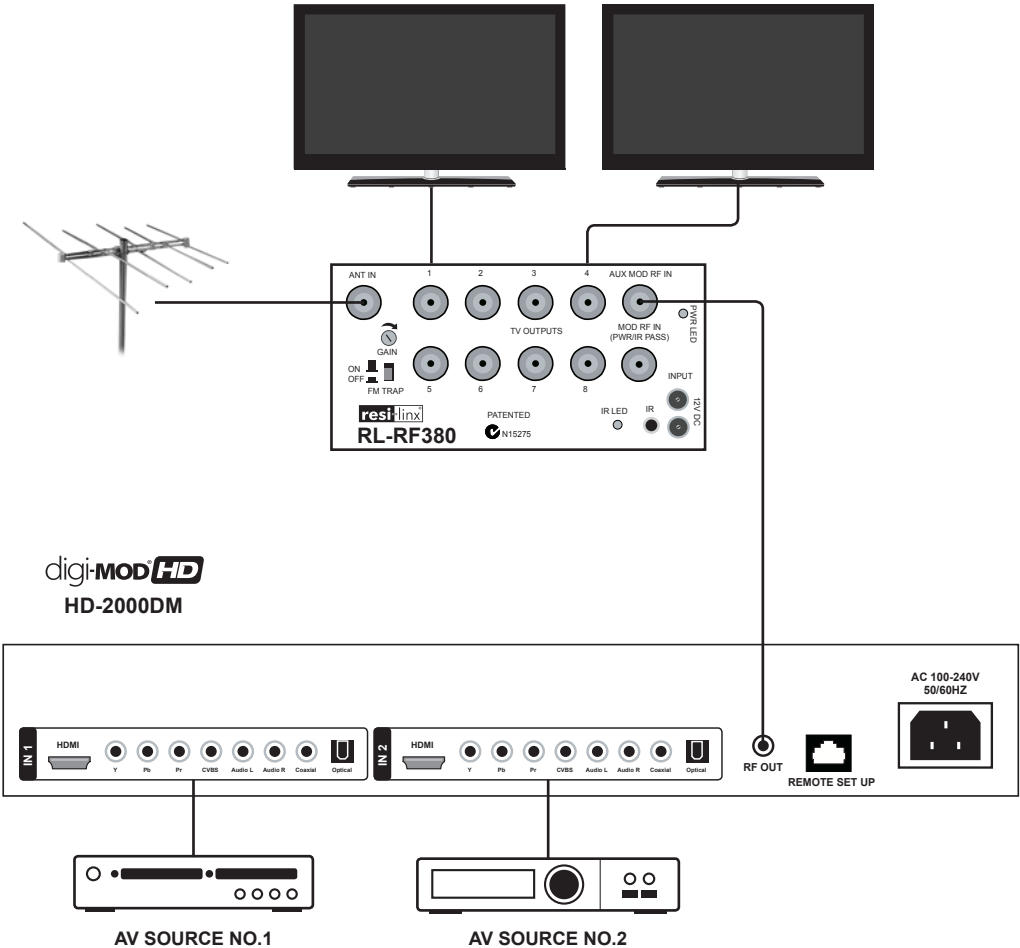
### IMPORTANT NOTE:

- **You must re-scan the TV once setting has been changed or the TV may not display the picture and sound correctly.**
- **Once programming is complete it is recommended that the system be reset by pressing the reset button  on the face of the module.**

## Safety Precautions

- **Do not** apply power to the digi-MOD HD until all components have been installed and all wiring has been properly terminated. Failure to do so may result in damage to the product and void manufacturer's warranty
- **Do not** attempt to terminate, change or un-install any wiring without first disconnecting the power to the digi-MOD HD.
- **Do not** expose any component to moisture. Doing so can create electrical hazards or render the component unusable. Exposure to moisture will also void the warranty on the system.
- **Note:**
  - **Do not** connect the modulator to the power if the power cord is damaged.
  - **Do not** plug the modulator into the mains supply until all cables have been connected correctly.
  - **Do not** cut the cord.
- **Avoid** placing the digi-MOD HD next to central heating components and in areas of high humidity.
- **Do not** cover any digi-MOD HD elements that could obstruct the ventilation slots and cause overheating.
- If the digi-MOD HD has been kept in cold conditions for a long time, keep it in a warm room no less than 2 hours before plugging it into the mains.
- **Do not** place digi-MOD HD on top or underneath a PVR Device, as this could cause overheating.

# Installation Diagram



# Technical Specifications

INPUT	RL-HD1000DM	RL-HD2000DM
Input Connectors	HDMI Input (Video + Audio)	HDMI Input (Video + Audio)
	Y, Pb, Pr Component Input (Video)	Y, Pb, Pr component Input (Video)
	Composite Input (Video)	Composite Input (Video)
	L/R Channel Audio Input (Audio)	L/R Channel Audio Input (Audio)
	Coaxial SPDIF Input (Digital Audio)	Coaxial SPDIF Input (Digital Audio)
	Optical SPDIF Input (Digital Audio)	Optical SPDIF Input (Digital Audio)
Video Input level	0.7 - 1.4V (Peak to Peak)	0.7 - 1.4V (Peak to Peak)
Audio Input	Stereo / Digital	Stereo / Digital
Audio Input Level	0.4 - 4.8V (p-to-p)	0.4 - 4.8V (p-to-p)
Input Impedance	75 ohm	75 ohm
OUTPUT		
Frequency Range	Local country available	Local country available
Output Level	95 dBuV	95 dBuV
Output Impedance	75 ohm	75 ohm
Channel Bandwidth	6, 7, 8 MHz	6, 7, 8 MHz
Channel Level Adjustment	20 dB typ.	20 dB typ.
MER	36 dB typ.	36 dB typ.
MODULATION		
Video Resolution	MPEG2: 1080i / 720p / 576i / 480p / 480i AVC (MPEG4): as above PLUS 1080p	MPEG2: 1080i / 720p / 576i / 480p / 480i AVC (MPEG4): as above PLUS 1080p
Video Compression	H.264 AVC / MPEG2 MP@ML	H.264 AVC / MPEG2 MP @ML
Audio Compression	MPEG1 Layer II / LPCM / AC-3 Pass through	MPEG1 Layer II / LPCM / AC-3 Pass through
LCN	Yes	Yes
Carrier (OFDM Mode)	2K / 8K	2K / 8K
Guard Intervals	1/4, 1/8, 1/16, 1/32	1/4, 1/8, 1/16, 1/32
Code Rate (FEC)	1/2, 2/3, 3/4, 5/6, 7/8	3/4, 5/6, 7/8
Constellations	16 QAM / 64 QAM	16 QAM / 64 QAM
GENERAL		
Power Supply	AC 100 - 240V (50/60Hz)	AC 100 - 240V (50/60Hz)
Consumption	1250 mA	1650 mA
Languages	English	English
Dimentions	482.7mm x 240mm x 44.4mm (19" x 9.45" x 1.75")	482.7mm x 240mm x 44.4mm (19" x 9.45" x 1.75")
Weight	3.55 kg	3.75 kg

digi-MOD<sup>®</sup> **HD** by **resi-linx<sup>®</sup>**

[www.resi-linx.com](http://www.resi-linx.com)

#### WARRANTY

Vcomm Pty Ltd states that the warrant that the customer can rely on is that provided by the manufacturer. In the event of any warranty claim please contact us and we will forward it to the manufacturer. The manufacturer will then determine the extent of their liability. This expressly negates, to the extent possible by Australian law, any warranty reliance on Vcomm Pty Ltd.

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