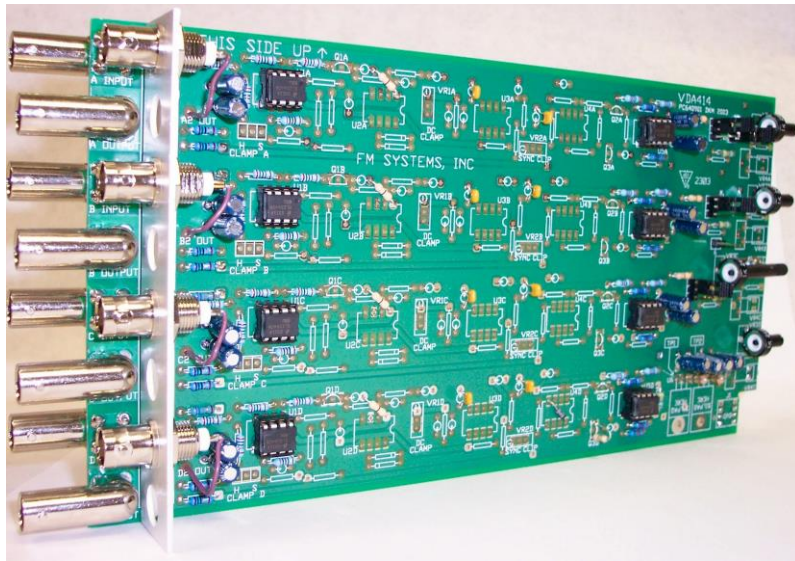


# VDA414/C



## VIDEO DISTRIBUTION AMPLIFIER

INSTRUCTION MANUAL

IB 6409-01

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VDA414/C  
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## **SHIPPING INSPECTION**

Remove from shipping container and inspect for shipping damage. The VDA414/C is a Slide in Card that fits into the RMS-400 Mainframe and Power Supply. The card is supplied with a retaining screw (attached to the PC Board), a Front Label Designator and this instruction book. If an RMS-400 Mainframe and Power Supply have been purchased with Card, the Card will be installed into the Mainframe with labels attached and the retaining screw engaged and locked.

## **HOW AND WHERE TO MOUNT THE UNIT**

Select a position for the RMS-400 that is near the video signal or other equipment that needs video distribution. The placement is not critical. Then install the VDA414/C PC CARD in any unused CARD SLOT that is empty. Follow the instructions for card installation, be sure not to apply excessive force to the card during installation.

## **MODULE CARD INSTALLATION**

1. Select one of the un-used nine positions to be occupied by the new circuit board module.
2. Remove the blank label in that position by peeling it off of the front panel. Peel the label slowly to remove all of the label and adhesive. Any remaining adhesive may be removed by rubbing the surface with your thumb. **WARNING DO NOT USE SOLVENTS TO REMOVE THE LABEL ADHESIVE.** The solvent could damage the equipment cards or cause a fire.
3. Peel the backing off of the new label and apply it to the front panel of the RMS-400 rack in the position of the new card. Align the new label with the screw head in the hole in the lower right hand corner of the label, and then align the center thumbscrew with the clearance hole in the front panel. This should cause the label to be straight and vertical. When the label is in place press firmly the secure the label.
4. Then remove the thumb-screw retainer from the product card, it is located at the front of the card and is removed by rotating the knob counter-clock-wise.
5. Select any and all product options on the specific card.
6. Next slide the card into the card guides at the rear of the RMS-400. Be sure that the notch in the circuit card is facing forward and down. Push the card all the way to the front of the rack until it stops. **DO NOT APPLY EXCESSIVE FORCE TO THE CARD.**

## **MODULE CARD INSTALLATION (cont.)**

7. Insert the thumb-screw that was removed in step 5 while rotating it in a clock-wise direction. When it begins to thread into the card, continue until it is finger tight. CAUTION TIGHT BY HAND ONLY, DO NOT USE TOOLS TO TIGHTEN THE THUMB-SCREW. OVER TIGHTENING WILL DAMAGE THE CIRCUIT CARD.
8. Attach any cables or wires necessary for operation. If it is easier, you can attach the cables before inserting the PC card into the rack.

Most circuit board modules have several adjustments which are carefully factory set with precision instruments for optimum performance. Change only those which must be adjusted, some controls when mis-adjusted produce little change under normal operating conditions, but can seriously reduce the ability of the unit to function correctly under other conditions which may be encountered. Therefore, if you must adjust a control, place a mark on it before moving it, so that it may be returned to its original setting with reasonable accuracy.

## **HOW TO CABLE THE VIDEO AMPLIFIER**

Connect a BNC cable from your source video to the "A-D VIDEO" of the VIDEO AMPLIFIER. The "VIDEO INPUT" is internally terminated by a precision 75 Ohm termination to match standard video cable.

Next connect a BNC cable from the "A-D OUTPUT" connector on the VIDEO AMPLIFIER to the equipment you wish to have video supplied to. The "VIDEO OUTPUTS" of the VIDEO DA have a 75 Ohm output impedance to match standard video cable. Be sure the equipment being driven is properly terminated with a precision 75 Ohm termination to insure correct video level.

## **POWER SUPPLY INSTALLATION**

Power for the VDA414/C is supplied by the RMS-400 Mainframe. It supplies the card with +/- 12 VDC to power the card.

## **SET-UP OF THE VIDEO AMPLIFIER**

The VDA414/C is set to unity gain 1 Volt in and 1 Volt out at the factory. A front panel Video Level control may be adjusted to set the level for optimum performance. See "OPERATION OF CLIPPER OPTION" for optional clipper control operation.

## OPERATION

The VDA414 Video Distribution Amplifier is used to amplify and distribute any B/W or color NTSC, PAL, or CCTV video signal. The unique design allows the user to change the inputs and output to make any of the following amplifier configurations.

### SELECTABLE USER CONFIGURATIONS:

<u>INPUTS</u>	<u>OUTPUTS</u>	<u>VIDEO CHANNELS</u>
1 In	2 Out	4 Separate Channels
1 In	4 Out	2 Separate Channels
1 In	6 Out	1 Channel with an extra 1 In/2 Out
1 In	8 Out	1 Video Channel
2 In	4 Out	2 Separate Channels

The video level for each input channel is adjustable to allow the user to set the proper level for the down stream equipment. This adjustment is useful when feeding signals to a DVR (Digital Video Recorder) or other digital devices. DVR's and digital devices are very sensitive to over and under video level, so the ability to adjust the level prior to the device is sometimes necessary.

## OPERATION OF CLIPPER OPTION

This Video DA is also available in a Clipper Clamper version. The VDA414C has the ability to clamp out low frequency interference and distortion by back-porch clamping the video signal. It also has a front panel adjustment for clipping level that allows the operator to set a hard clip level on the video to prevent over modulation of the down stream equipment. A front panel L.E.D. indicates the point of video clip. The ordering nomenclature for the Clipper Clamper version of this product is VDA414C.

## FRONT PANEL CONTROLS AND INDICATORS

A green "PWR ON" indicator on the front panel shows that the video DA is active. The adjustable control on the front panel set the video level output. Clock-wise rotation increases the video output. The front panel Video Clipper control (on VDA414C version) can be used to clip video levels the exceed 120 I.R.E. units. By adjusting the Clip Control you can set video clipping to prevent fast transient over level signals from disrupting down stream equipment. When video is being clipped a RED L.E.D. will illuminate to indicate the clipping of video.

### HOW TO SET OUTPUT CONFIGURATION JUMPERS

The VDA414/C can be configured by using the table below. Determine the output configuration you desire and set the jumpers as indicated in the table. If a jumper is not selected the Jumper Clip should be hung on one pin to retain the jumper on the card. All output channels are dual output. The unit comes factory set for 4 IN and 2 per channel output.

CONFIGURATION				
# OF INPUTS	# OF OUTPUTS	SET JUMPERS ON	INPUT CHANNELS	OUTPUT CHANNELS
4	2 PER CH.	1-4-7	A-B-C-D	A-B-C-D
2	4 PER CH.	1-3-5-8	A D	A/B C/D
1	6	1-5-6-8	D	B C D
1	8	2-3-5-6-8	D	A B C D

### CARE AND MAINTENANCE OF THE UNIT

Care should be taken not to subject the VDA414/C to extreme moisture or temperatures outside normal operating range. There are no periodic maintenance adjustments to be made on the VDA414/C other than the front panel video level set control and Clipper control if you have the VDA414C option. If the unit does not function properly it should be returned to the factory for repair.