

# AVI473



## AUDIO VIDEO LOSS INDICATOR

INSTALLATION MANUAL

IB 640501

## DESCRIPTION

The **AVI473 AUDIO Video Indicator** provides two independent form C relay contact closures that operate with loss of audio or video service.

A loss of audio program triggers the relay switch after a field programmable time delay. This allows for normal pauses in the audio programming material. The time delay can be set from 1 second to 64 minutes. The relay will switch and the internal alarm will sound when the audio has failed and the count-down time delay has been reached. If the audio is restored before the count-down time delay has been reached, the system will reset the counter and again wait for the audio to fail.

A loss of video triggers a field programmable video alarm delay that can be set to prevent false alarms caused by short duration sync loss, non vertical interval switching, or any other momentary loss of video. The video signal loops through the unit so that signal transmission is not lost if power is removed from the AVI473. This unit uses PLL "Phase-Lock-Loop" technology to prevent false alarms due to high level noise. This is especially useful on satellite feeds and microwave transmission, when loss of video produces high level noise. The AVI473 knows the difference and will continue to operate in high level noise environments.

These contact closures can be used to operate an external program switch or remote maintenance alarm. The unit has an audible alarm sounder that can be separately field programmed for audio loss, stereo inversion, and video loss.

The unit has front panel L.E.D. indicators for Left and Right audio, Stereo Inversion, and Audio Loss.

Audio alarm trigger sensitivity level can be set from the front panel using the "TRIGGER LEVEL" control. You can set the unit to operate on Low level or high level audio signals. The Left and Right Audio indicator L.E.D's are used to set this control. Separate red front panel L.E.D's indicate the loss of audio and video.

Both the audio and video indicators each have an independent front panel switch that allows the operator to set the mode of alarm operation. The "AUTO" position will automatically reset the alarm relay when the audio or video returns. The "Hold" position will hold the alarm on after any loss of audio or video, and the "Reset" position will turn off the alarm functions.

The unit fits into the RMS-400 mainframe and power supply. Up to nine AVI473 units can fit into one RMS-400 mainframe.

## **FEATURES**

The AVI473 is a slide-in card that fits into the RMS400 Power Supply and Mainframe. The card is easy to install from the rear of the RMS400. A locking thumbscrew is used to retain the card in the Power Supply Rack Mount. Power for the AVI473 is provided by the RMS400 Mainframe and Power Supply.

Screw terminal connectors are provided to connect the balanced audio input from the audio source to be monitored. The audio input is balanced high impedance bridging, so that it can be connected to any audio source without loading the circuit.

Standard BNC (female) connectors are used for the video input and output. The video is loop-through to provide power fail bypass, in the event of a power failure the video will continue to pass through the unit un-effected.

Screw terminal connectors are provided for the alarm contact outputs. Both normally open and normally closed contacts are available from the "form C" alarm relay.

## **UNPACKING AND INSPECTION**

Remove the equipment from the packing materials. The following materials should be supplied with each order.

QTY 1	AVI473 PC Board Product Card.
QTY 1	Thumbscrew Mounting Retainer (may be attached to card).
QTY 1	This instruction manual.
QTY 1	Front adhesive product label.

## **MOUNTING THE PC CARD**

Locate an unused space in your RMS400 Power Supply and Mainframe. Remove the blank front label by lifting the corner of the label and peeling it off. Remove the Thumbscrew from the front of the PC card and keep it for later installation. Switch both audio and video mode switches to their center positions before inserting the card into the mainframe.

Then slide the AVI473 card into the mainframe by aligning the top and bottom edges of the PC card with the slide in rails on the RMS400. Next Gently push the card into the mainframe until the rear of the PC card is flush with the back of the Mainframe.

Next install the front panel label by peeling the backing off of the label and attaching it to the front panel by aligning the bottom screw hole and the center screw hole on the label. Push firmly to affix the label in place. Then attach the thumbscrew from the front panel by inserting the screw into the hole in the front label.

## INPUT CONNECTION

Connect the video source signal to by monitored to the input BNC connector labeled (VIDEO INPUT). Then attach a cable from the video load to the BNC connector labeled (VIDEO OUTPUT) or if not looping through attach a 75 Ohm termination.

The 6 position screw terminal audio connector is marked from Top to the Bottom, see the following table for the connections used to connect the Balanced audio input and alarm contacts.

## CONTACT CONNECTION

- LEFT
- AUDIO
- 1. Input Left Tip or +
- 2. Input Left Ring or -
- 3. GND Shield or Ground
- 4. GND Shield or Ground
- 5. Input Right Tip or +
- 6. Input Right Ring or -
- RIGHT
- AUDIO
- SPACE
- AUDIO
- 7. Normally Open Audio Contact
- 8. Common Audio Contact
- 9. Normally Closed Audio Contact
- 10. Normally Open Video Contact
- 11. Common Video Contact
- 12. Normally Closed Video Contact
- VIDEO

## FIELD PROGRAMMING OPTIONS

The AVI473 has many features that can be programmed in the field without any special equipment. See the list of programming options below.

1. Audio Reset Timer (from 1 Second to 64 Minutes).
2. Video Loss Delay (Fast, Medium, and Slow).

### AUDIBLE ALERT PROGRAMING JUMPERS

3. Audio Loss (Sounds on Loss of Audio Left or Right).
4. Video Loss (Sounds on Loss of Video).
5. Stereo Inversion (Sounds on Stereo Inversion).

### **AUDIO LEVEL SET UP**

Input the audio level that you want to alarm on. Then rotate the front control until the green "AUDIO RIGHT and AUDIO LEFT" LED just goes out. Now when the audio level reaches this level the alarm countdown will begin. If the audio goes above this level before the alarm countdown is reached, the timer will be reset for the next loss of audio. During normal audio the green LED will flicker on and off with normal audio.

### **MODE SWITCH SET UP**

Set the Mode switch for audio and video to the "AUTO" position during normal operation. This position will automatically reset the alarm after each occurrence, when the signal returns to normal level. The hold position will allow the unit to hold the alarm condition even after the signal level has returned. This feature is used to discover an unattended failure of audio or video. If an alarm is underway and you wish to shut off the sounder or disable the alarm features you can switch the mode switch to "RESET" and all alarm functions will stop.

### **MAINTENANCE**

There are no adjustments or calibration required with the AVI473.