

# VFR-28



VIDEO FORMAT READER

INSTRUCTION MANUAL

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VFR-28  
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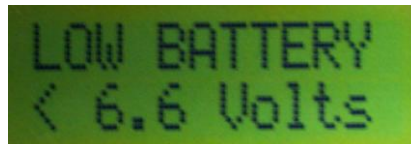
## DESCRIPTION:

The VFR-28 meter will identify the video format and number of lines of definition of any TVI, CVI, CVBS, and PAL analog video signal. When connected to a video signal it identifies the format and number of Lines of definition of the video signal and displays that information on the LCD display. The ability to measure the video format and lines of definition can help you identify and verify any unfamiliar camera you come across in your work. When installing new cameras, determining the compatibility of video sources will save you time and money. With the multi-format cameras and DVRs available today it is easy to identify the output they are set to, which could save you a lot of time troubleshooting miss-matched video formats on the job. It will measure the format of 28 different video signals like HD-TVI, HD-CVI, AHD, CVBS, YPbPr, RGB, PAL, and any composite analog video signal.

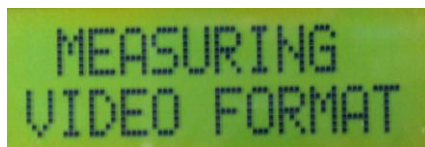
The VFR-28 has a comfort grip hand-held case made of flame retardant ABS plastic with a flame rating of 94-5VA. A battery compartment door allows easy access to the 9-Volt battery that powers the device. The meter comes with an impact resistant rubber boot to protect it during daily use. This meter uses a "battery check" system to monitor the battery condition and the LCD display lets you know when it is time to change the battery. The LCD has a backlight feature so you can use the meter in total darkness if needed. Just push and hold the power ON button and the unit will start measuring, the display will backlight for easy reading in the dark.

## METER OPERATION:

When the meter is powered up it first checks the condition of the battery and if the battery is below 6.6 Volts (Affectively used up) in will give you a display indicating "REPLACE BATTERY" and you need to change out the battery for a good one. If the battery is usable it will go on to the measurement.



If the battery is useable the unit will begin measuring the video format and display "MEASURING VIDEO FORMAT" for about 2 seconds, then it will display the video format. If there is no video input to the meter, then the display will continue to read "MEASURING VIDEO FORMAT" until there is a video input.



When a video camera is connected to the unit it will test for the Video Format and display one of the following displays indicating the video format being input.

## **INPUT SIGNALS AND CONNECTORS:**

This meter is equipped with three video connectors, one BNC female input connector, one RCA female input connector, and one S type female video connector so you can use any type of analog video cable to connect the meter.



This Format Meter will measure camera signals from all types of analog cameras and is most useful when used on the HD type analog cameras like HD-TVI, HD-CVI, and AHD cameras. The BNC type connectors are used to input the HD, PAL, and CVBS (base-band composite) video signals. It can also be used to input YPbPr, and RGB signals by connecting to the "Y" or "G" channel that has the sync signal on it. Only sources that have a sync signal should be connected for proper operation. The RGB signal format is measured using one of the three channels, the Chroma/Sync channel normally the "G" or Green with Sync or any channel can be read as long as it has the sync Pulse signal on it.

## **DISPLAY FORMAT:**

**VIDEO TYPES:** CVBS, NTSC, PAL, AHD, CVI, and TVI

**VIDEO FRAMES:** 12.5 fps, 20 fps, 25 fps, 30 fps, 50 fps, and 59.94 fps.

**VIDEO LINES:** 262.5 I, 720P, 1080P, 3MP, 4MP, 5MP, 1080PsF

This combination of video parameters total 28 different format types.

\* 1080PsF is a Progressive Segmented Frame video signal and reads as 1080i. See the note on last page.

## **CARE AND MAINTENANCE:**

No routine maintenance or test procedures are required other than battery replacement. Attempts at field repair or adjustment will void the warranty. The VFR-28 is a precision measuring instrument and should be treated accordingly. While it can withstand ordinary every day indoor use, it should not be left outside in the rain or otherwise mistreated. It is not waterproof. The battery should be removed if it is placed into storage to prevent leakage of corrosive fluids from batteries as they discharge and age.

Replace batteries at least once a year even if ordinary use does not discharge the battery because old batteries may leak and cause corrosion damage. If the VFR-28 fails to operate even after battery replacement, or does not read a known video signal correctly, call the factory for a Return Authorization Number and return it to the factory for repair. Note: This meter may not completely read video formats not listed above.

## **BATTERIES:**

A battery compartment door allows easy access to the 9 Volt battery that powers the device. One alkaline 9 Volt "transistor" battery is used. If the unit will not power up the battery must be replaced by a fresh 9 Volt battery.

The battery is located in the case with access provided by a sliding plastic cover plate that has an arrow printed on it. Slide in the direction of the arrow to open. When replacing the cover, place it flat into the grooves so that both ends engage when closing.



## **ENCLOSURE:**

The comfort grip hand-held case is made of flame retardant ABS plastic with a flame rating of 94-5VA. The meter comes with an impact resistant rubber boot to protect it during daily use.

## **NOTES:**

\* 1080PsF is a high definition video format that has 1080 lines of vertical resolution using a Progressive Segmented Frame. The frame is sub-divided into two fields. One field is for the odd numbered lines and the other is for the even numbered lines. This format appears like an interlaced 1080i signal and this meter reads it as 1080i.