



WFM 90 Series Handheld Waveform/Vector/ Picture/Audio Monitors



WFM 90 with NTSC vector display cut into picture.

The Tektronix WFM 90 Series are handheld, multi-function monitors ideally suited to the monitoring needs of field production, equipment installation or any situation where portability and battery operation is required for analysis of analog composite video systems. The combination of features and monitoring modes provided makes these instruments powerful enough to set

up, time, and troubleshoot complex video and audio systems, combining the power of four separate instruments in the palm of your hand.

The high-resolution, four-inch/102 mm color LCD display provides a clear, unprocessed picture of the incoming video signal. Alternately, the waveform, vector or audio displays may be shown full-screen or any one may be cut into any corner of the display. In addition to the LCD display, a composite video output supplies a monochrome waveform, vector or audio display, either full-screen or cut into a color picture.

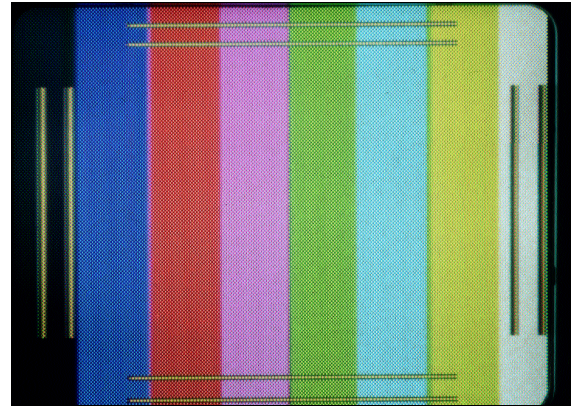
As a waveform monitor, the WFM 90 Series provides all the features expected on a basic, single-channel monitor: external reference; 1H, 2H and 2V sweeps; X1, X5 and variable vertical gain; flat and luminance filters. The external reference input allows users to perform the system timing adjustments critical to sophisticated field productions. In addition to these basic features, an alarm mode, where the waveform's color changes above 100 IRE (WFM 90) or 700 mV (WFM 91), provides quick feedback when video levels exceed accepted standards. All display controls are selected through simple, on-screen menus.

- Battery or AC Powered
- Truly Portable
- Four-inch/102 mm Color LCD Display
- Picture Monitor
- Waveform Monitor
- Vectorscope
- Line Select Display
- Audio Monitor
- Waveform-in-picture Mode
- Video Output for Routing to External Display
- NTSC (WFM 90) or PAL (WFM 91) Models

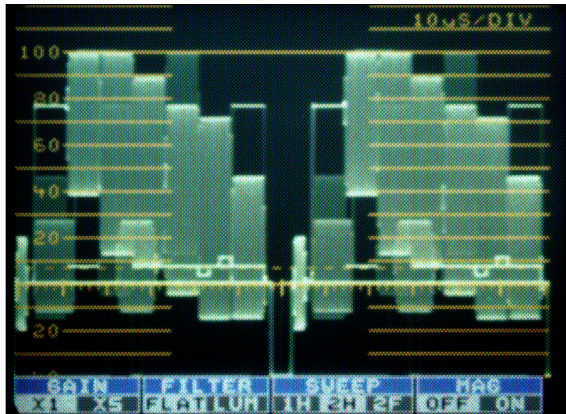
WFM 90 Series



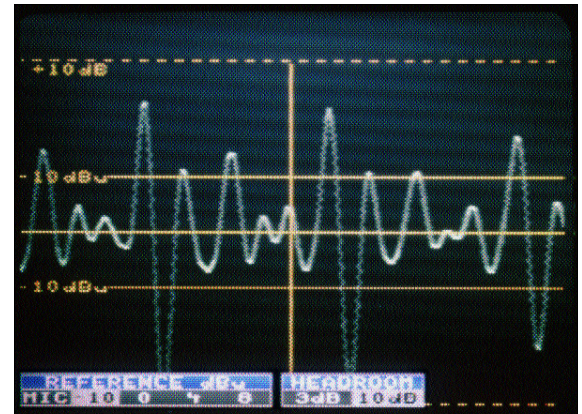
Photo reprinted courtesy of Video System Magazine, Aug. '94.



WFM 90/91 Safe Title/Safe Action markers are provided for production monitoring.



WFM 90 2H waveform display.



WFM 91 audio display.

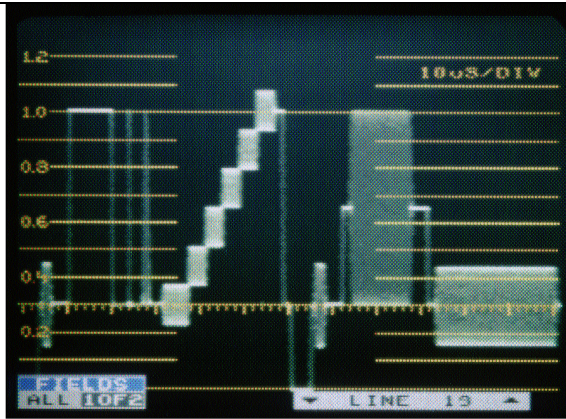
Whether adjusting a camera's black/white balance or adjusting chroma levels and hues on a time base corrector, the WFM 90 Series' vector mode provides the needed display controls. Variable, X1 and X5 gain settings and a 360 degree phase shifter are selectable via on-screen menus, as is 75% or 100% bars for the WFM 90.

The audio mode's voltage vs. time display is useful for setting or checking levels and for detecting certain types of distortions. The audio display is driven via a single XLR connector, and a headphone jack permits listening to the displayed audio.

WFM 90 Series monitors can be powered with a NiCad battery pack, six alkaline C cells or an AC adapter, which also charges the NiCad battery pack. A 12 volt cigarette lighter adapter may also be used as a power source.

A rugged case with a shoulder strap makes transporting WFM 90 Series monitors easy. Several options are available for the WFM 90 Series monitor, including a viewing hood for operating in bright light, and a desk stand that simplifies benchtop use.

WFM 90 Series Characteristics



WFM 91 line select display.



WFM 90 vector display.

OPERATING MODES

- Picture Mode –**
Full-screen, unprocessed representation of incoming video.
- Waveform Mode –**
Sweep Modes: 1H, 2H, 2V.
Vertical Gain: X1, X5, variable.
Filters: Flat, luminance (low pass).
Alarm: Waveform changes color above 100 IRE (WFM 90) or 700mV (WFM 91).
- Vector Mode –**
Gain: X1, X5, variable.
Phase Control: 360 degree rotation.
Bar Amplitude: 75% or 100%.
- Audio Mode –**
Voltage vs. Time Display
Reference Levels: 0, 4, 8, 12dBu.
- Waveform-in-Picture Mode –**
Either Waveform, Vector or Audio displays may be cut into picture and placed in any corner of display.

INPUTS

- Video –**
1 composite analog.
- External Reference –**
1 composite analog.
- Audio –**
1 analog balanced XLR.
- Power –**
12 V DC or internal battery.

OUTPUTS

- Video –**
1 composite video. Picture in color, Waveform, Vector and Audio in monochrome.
- Audio –**
1 stereo headphone jack. The mono input drives both headphone channels.

CERTIFICATIONS

- EMC –**
Certified to the EMC Directive 89/336/EEC.

PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Height	244	9.6
Width		
At display	127	5
At hand grip	89	3.5
Depth		
At display	81	3.2
At hand grip	60	2.4
Weight	kg	lb.
Approximate w/batteries	1.4	3

Ordering Information

WFM 90

Handheld Waveform/Vector/Picture/Audio Monitor (NTSC).

WFM 91

Handheld Waveform/Vector/Picture/Audio Monitor (PAL).

Note: WFM 90 Series monitors are self-contained instruments.

All include: User Manual, Carrying Pouch with Shoulder Strap, AC Adapter.

Opt. 01 – NiCad Battery.

Opt. 33 – Travel line package.

Includes: Carrying Case, NiCad Battery Pack, Desk Stand, and Viewing Hood.

Optional Accessories:

NiCad Battery Pack – Order 146-0107-00.

Desk Stand – Order 386-6787-00.

Large Carrying Bag – Order 016-1344-00.

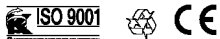
Viewing Hood – Order 011-0167-00.

Service Manual – Order 070-8969-00.

For further information, contact Tektronix:

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