

JVC

PROFESSIONAL

5-INCH LCCS VIDEO MONITOR

TM-L500PN

Clear, dot-free images at any ambient light level, immune to external magnetic fields



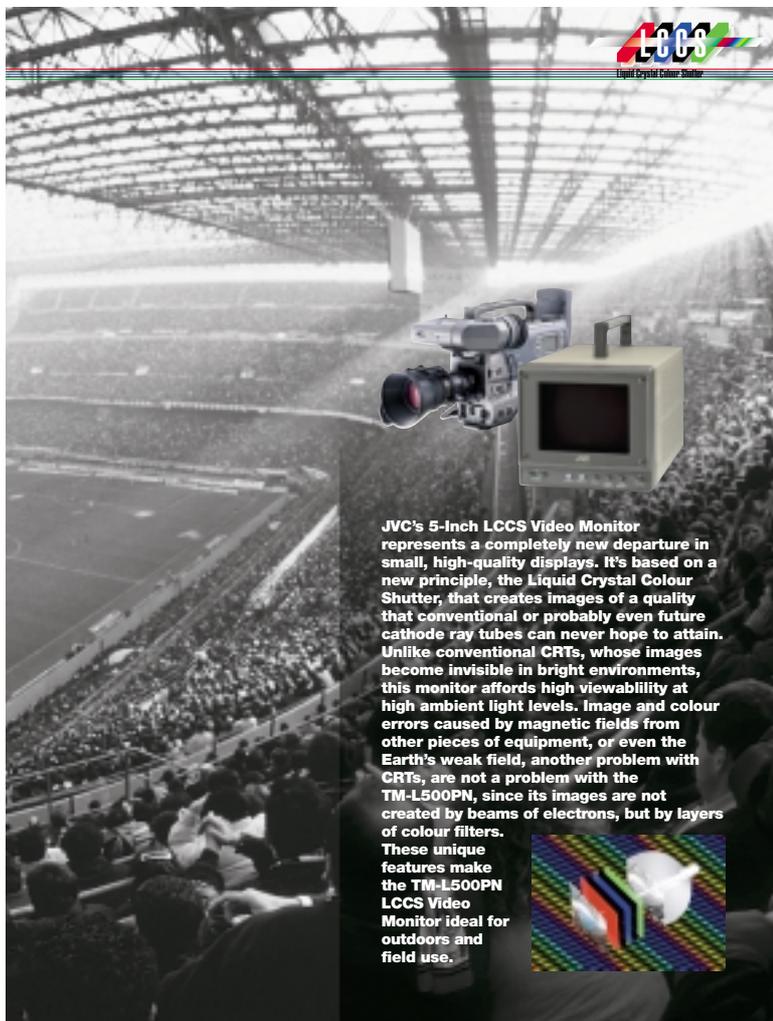
- **Viewable Even in Bright Environments**
- **Vivid Colour Reproduction**
- **Clear Dot-Free Image**
- **No Convergence Errors or Moiré Effects**
- **High Resolution of More Than 400 TV Lines**
- **Triple EIA Rack Mountable (3U height)**

New Generation High Resolution LCCS Video Monitor

Strong Resistance to Outer Light
High Resolution
No Dot Structure
No Moiré
Free from Magnetic Field
Free from Misconversions
Easy to Change Picture Size



Simulated picture



JVC's 5-Inch LCCS Video Monitor represents a completely new departure in small, high-quality displays. It's based on a new principle, the **Liquid Crystal Colour Shutter**, that creates images of a quality that conventional or probably even future cathode ray tubes can never hope to attain. Unlike conventional CRTs, whose images become invisible in bright environments, this monitor affords high viewability at high ambient light levels. Image and colour errors caused by magnetic fields from other pieces of equipment, or even the Earth's weak field, another problem with CRTs, are not a problem with the TM-L500PN, since its images are not created by beams of electrons, but by layers of colour filters.

These unique features make the **TM-L500PN LCCS Video Monitor** ideal for outdoors and field use.



Powerful Features for Super Quality Images



■ Vivid, high definition pictures

The TM-L500PN provides a sharp, high contrast image of 400 TV lines. Its liquid crystal shutters, unlike the dots that form a conventional CRT image, create a superlative picture quality that has to be seen to be believed.

■ No convergence errors or moiré effects

Since the picture is created by a matrix of liquid crystals sandwiched between colour filters and illuminated from behind, it shows no convergence or colour errors even when exposed to strong magnetic fields.

■ Image contrast unaffected by ambient light levels, even sunlight

Unlike a conventional CRT screen, where the picture is written on the back of a light-absorbing layer, the TM-L500PN features a bright backlit screen seen through crystal-clear filters. Even if ambient light shines on the screen, the picture loses none on its contrast or clarity.

■ PAL and NTSC compatible; wide range of other features

The TM-L500PN will accept both PAL and NTSC signals, and can be configured to 16:9 aspect, and has two additional input channels: BNC (video) with through-out and RCA (audio). Features Size Select, Blue Check, Colour Off and Ext-Remote.

■ Multi-power source operation

Designed for both the studio and the field, external power is sourced from either the automatic universal mains input (100-240V AC, 50/60Hz) or 12V DC. Accepts BP-90 type, or standard NP-1 type x 2 battery packs with optional battery adapter, Anton Bauer and PAG.

■ 3U height & triple rack mountable

Three TM-L500PN units can be mounted side by side in an EIA 19" (48cm) rack with an optional rack mount adapter.



■ Two video inputs

Specifications include two composite video inputs.

■ Size select

Press the Size Select switch, conveniently located on the front panel, to view the entire active picture area.

■ Built-in speaker

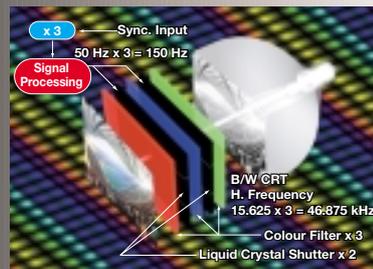
A compact, built-in 5cm diameter speaker offers audio monitoring. An earphone jack is also provided.

■ Heavy duty metal cabinet

The TM-L500PN's sturdily engineered metal cabinet assures the rugged durability needed for field applications.

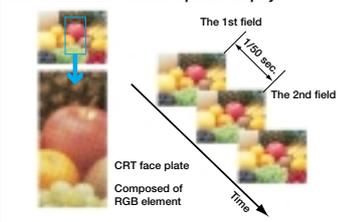


JVC LCCS Technology

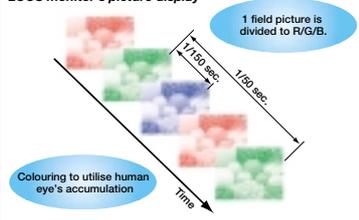


The TM-L500PN's dotless construction puts it far ahead of conventional CRTs. To improve the image definition of a conventional CRT, it is necessary for the shadow mask to be made with progressively finer holes. This makes it increasingly prone to image distortion caused by expansion and contraction of the mask, thus requiring it to be made of materials with ever smaller coefficient of expansion. Similarly, the electron gun needs to be controlled to an extremely high degree of precision. CRTs are now reaching the final barriers to further improvements in image definition: their dot size cannot practically be made smaller than 0.2 mm. The image definition of the TM-L500PN, since it does not rely on outdated CRT technology, is not limited in this way. Additionally, since the definition of the LCCS monitor image is not dependent on the flight path of electrons, it is unaffected by external magnetic fields. The result is a clear, undistorted image under all conditions.

Conventional CRT monitor's picture display



LCCS monitor's picture display



In conventional CRTs, the phosphor is coated with an inorganic dye, which itself also absorbs ambient light. Since the light emitted by the phosphor is limited by its chemical characteristics, no further improvements in brightness are expected. However, the LCCS system directs light from a bright monochrome screen to the viewer's eye through crystal-clear filters and rapidly switched liquid crystal elements. Since these coloured filters and liquid crystal cells do not themselves absorb any light, they are unaffected by ambient light. The image they produce remains intense and vivid, even in bright sunshine.

There are relatively few small displays on the market, so in response to the clear customer need for a better small display device, JVC has developed a new and unique type of monitor that bypasses the problems commonly found in conventional CRTs. The special characteristics of the TM-L500PN make it ideal for outdoor use, including fieldwork, outside broadcasts, live news feed monitoring, and sports event monitoring. It is also suitable as a replacement for the TM-600 model and for all small, high-definition monitor needs.

Thus, LCCS has a high level of originality that is not found in a CRT, but please understand that there are differences in terms of system characteristics between CRT and LCCS. Please refer to the last page for details.

Specifications

Type	LCCS video monitor
Colour System	PAL/NTSC
Picture Tube	12.7 cm measured diagonally, black and white
Effective Screen Size	Width: 94.2mm Height: 70.7mm Diagonal: 114.3mm
Video Inputs	2 line inputs, composite video, BNC connector x 4, 1 V(p-p), 75 ohms Bridge connection possible, 75 ohms (auto termination)
Audio Inputs	2 line inputs, monaural, RCA-pin connector x 2, 0.5 V (rms), high-impedance
REMOTE IN Input	1 line input, minijack connector
Built-in Speaker	5 cm round x 1
Environmental Conditions	Operating temperature: 0°C — 40°C Operating humidity: 20% — 80% non-condensing
Power Requirements	100 V AC — 240 V AC, 50 Hz/60 Hz or 12 V DC
Power Consumption	2 A (DC 19 V) (using an AC adapter) 3.8 A (DC 12 V) (using a battery)
Weight	3.5 kg (including AC adapter) 3.2 kg (not including AC adapter)
Dimensions (W x H x D)	146 x 181.3 x 291.8 mm including AC adapter, carrying handle, feet and stand (stored) (power cord not included)
Provided Accessories	AC power cord [United Kingdom-type (1.8 m)] x 1 AC power cord [European-type (1.8 m)] x 1 AC adapter [attached to monitor] x 1

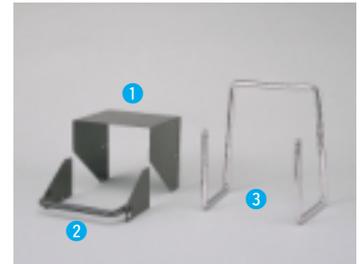
Options



RK-503E
3U Rack Mount Adapter



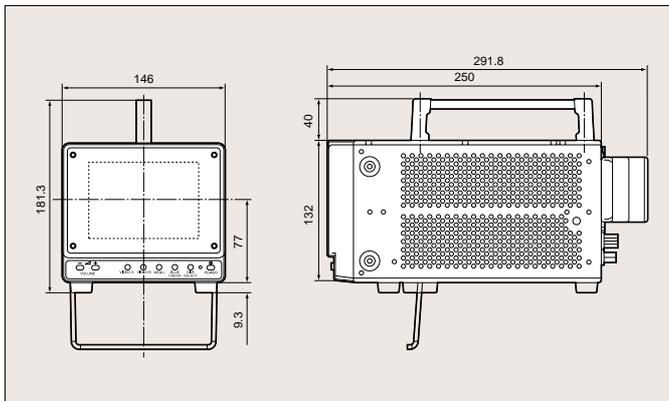
BH-C901E
Battery Adapter



TS-C500FKE
Field Kit
① Hood
② Guard Bar
③ Terminal Guard

Dimensions

Unit: mm



With the Field Kit Attached



The following are not malfunctions:

- Picture hue changes depending on the angle from which the monitor is viewed. This is due to normal characteristics of the liquid crystal colour shutter.
- Two horizontal stripes are displayed on the upper and lower side of the picture. This is due to the structure of the liquid crystal colour shutter.
- Simple colour image is displayed for instant. This is due to normal characteristics of the LCCS video monitor.
- Patterns such as spots are displayed when the monitor is turned ON or OFF. This is due to normal characteristics of the liquid crystal colour shutter.
- The colour of characters or images seem to be shifted. This is due to normal characteristics of LCCS video monitor. When images combined with a Macrovision copy protection signal or jittery images from a VCR, etc. are displayed on the monitor, their colour may appear to be shifted.

Design and specifications subject to change without notice.

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