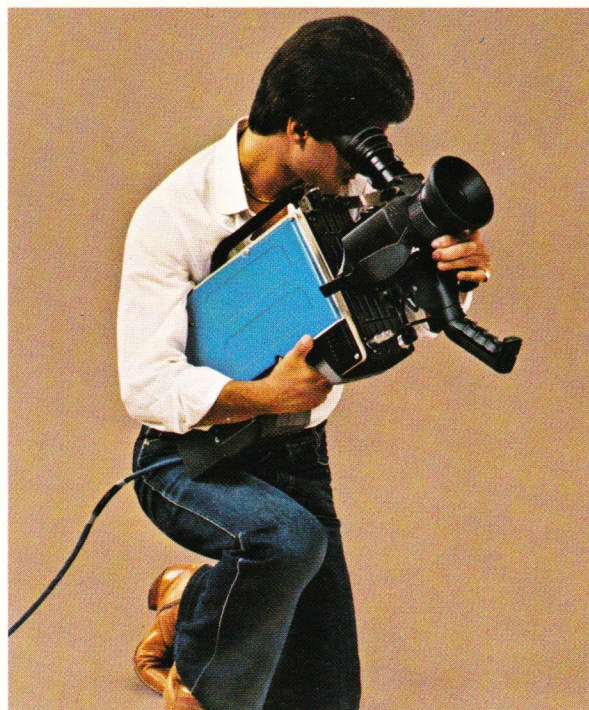
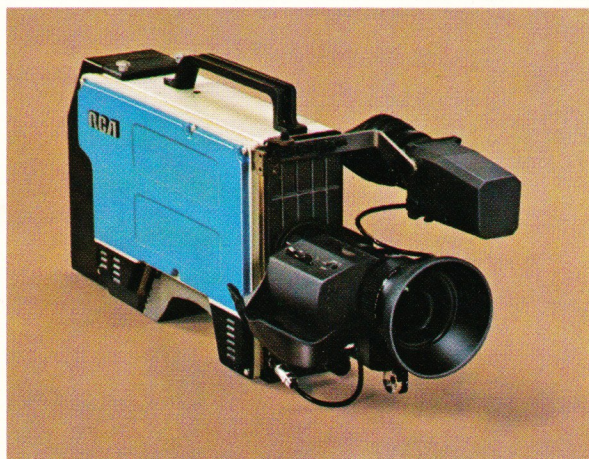
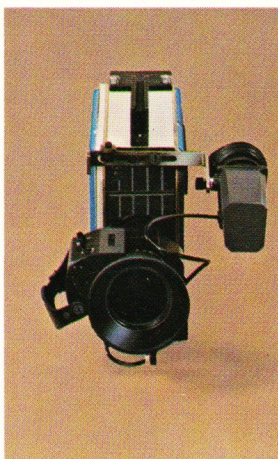


RCA

TKP-47

PORTABLE AUTOMATIC COLOR TELEVISION CAMERA



- Fully compatible with TK-47 cameras for system applications
- Automated, microprocessor-based system
- Uses same Set-Up Terminal, Processor Unit and Remote Control Unit as TK-47
- Multicore and Triax systems available
- Compact; easy to handle
- Top-quality performance
- Automatic Set-Up at the touch of a button
- Total system versatility—for studio or field use
- Multi-Standard Systems—for worldwide application

TKP-47 PORTABLE CAMERA ABOVE AND BEYOND THE BEST . . . AUTOMATICALLY

The new TKP-47 Portable Automatic Camera is a logical extension of the advanced technology TK-47, filling the need for a high quality portable camera which is fully compatible with the TK-47.

The TKP-47 is a premier portable; a top-of-the-line performer.

Whether used in the studio or in the field, it consistently delivers superb quality pictures—far beyond the capabilities of even the best of today's ENG/EFP portables. The picture quality, reliability and stability of the new TKP-47 all measure up to the high performance standards set by the TK-47.

In fact, the award-winning TK-47 and its new portable companion have much in common. The TKP-47, like the TK-47, is an automated, microprocessor-based system. The Set-Up Terminal, Camera Processor Unit and Remote Control Unit for both cameras are identical. Camera set-up is accomplished automatically, in seconds, at the touch of a button. The TK-47/TKP-47 automatics achieve picture-perfect camera matching to satisfy the most critical production demands. With so much in common, it is easy to see why the TKP-47 fits smoothly and cost-effectively into a system of TK-47's, extending operational flexibility with no compromise in quality.

The TKP-47 Camera Head fits directly into the TK-47 system, interfacing with any standard TK-47 CPU. It can be interchanged with a TK-47 Camera Head for occasional use. Or it can operate independently with its own CPU. Quick interchange of camera heads can be facilitated by storing the adjustments for both the



TK-47 and TKP-47 in the CPU memory. Proper set-up for either camera can be achieved instantly at the touch of a button.

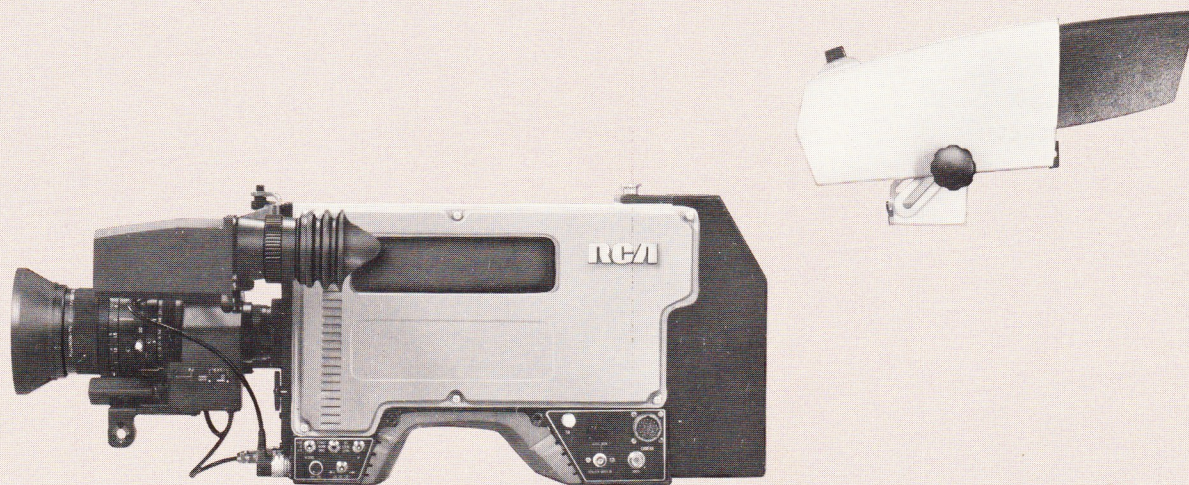
With its fast, easy set-up facility, the TKP-47 can function equally well in the studio or on-location. It can operate conventionally from a tripod, or it can be hand-held:



cradled in the cameraman's arms for the unusual angles or closeups that add creative impact. Or carried aloft on a cherry picker for high angle shots. Or shoulder-mounted for complete mobility.

SYSTEM FEATURES

- Digital solid state memories
- Memory File and Recall capability
- Centralized set-up
- Capability for sharing CPU between Portable and Studio camera heads
- Alpha-numeric function display
- Diagnostic parameter display
- Automatic Monitor Mode Switching
- Video bus for Waveform and Picture Monitors
- Data bus for control signals



"Autocam" Automatic Set-Up

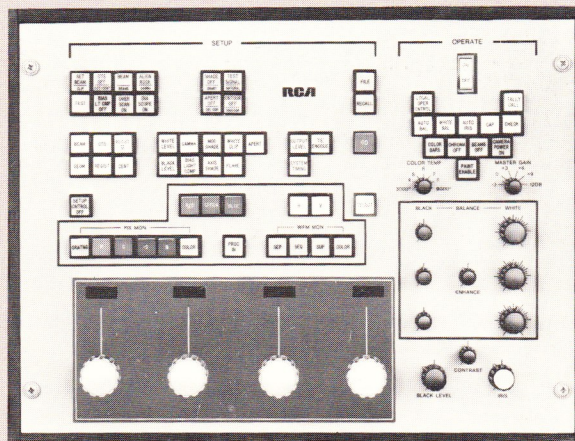
Optimum camera performance is accomplished by this unique microprocessor-controlled system which automatically adjusts over 100 functions. A pre-programmed "brain" monitors, compares and corrects itself from key points in the picture—automatically adjusting:

- Registration
- Shading
- Level Set
- Gamma Tracking
- Electronic Focus
- Beam Alignment

"Check"

"Check" is an invaluable TKP-47 facility that comes with the "Autocam" option. It performs a cycle of routine pre-operational checks to be sure that the camera is set for optimum performance.

The touch of a button activates the "Check" mode and the automatic system rapidly checks more than 60 separate camera functions involving registration, gamma tracking, and shading, using the green channel for reference.



Set-Up Terminal

MORE TKP-47 PORTABLE CAMERA FEATURES

- **Superior picture quality, stability, reliability**
- **Minimum controls; no technical controls at camera head**
- **Full range of automatic functions**
 - Automatic Iris Control**
 - Automatic White Balance**
 - Automatic Black Balance**
 - Automatic Pulse Advance**
 - Automatic Cable Equalization**
- **Scene Contrast Compression**
- **Contours out of Green and Red**
- **Extensive use of LSI circuits**
- **Built-in Sync Generator with Genlock**

Camera Construction

The TKP-47 is packaged in a sturdy magnesium frame and housing, configured for easy handling. The curved bottom of the camera is lined with a contoured pad for operator comfort, and the few operating controls are conveniently clustered. There are no technical controls at the camera head. Even with its big camera features, the TKP-47 weighs a mere 17 pounds (7.65 kg), including viewfinder, less lens.

To reduce size and weight, the TKP-47 employs $\frac{3}{8}$ -inch pickup tubes, with a high quality optical block, prism and filter wheel. The new diode gun lead oxide tubes are especially sensitive, resulting in picture quality and colorimetry compatible with TK-47 camera performance. Yokes, prism and

objective lens are mounted to a single casting, with the optics totally sealed and dust-free. The prism optical system has a bias light that is an integral part of the prism.

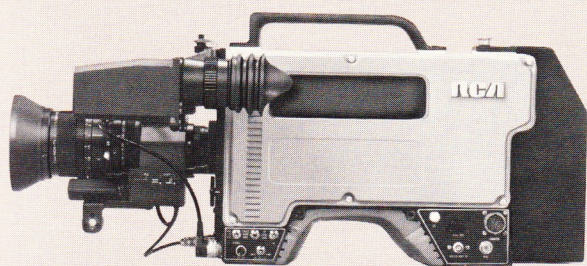
A selection of lenses for the TKP-47 is available, with various zoom ratios and with built-in diascope for automatic camera checks. Camera circuitry and modules have been packaged for the portable configuration, and are readily accessible for servicing.

The viewfinder supplied with the camera is a self-contained high resolution 1.5-inch (38 mm) kinescope. It is fully adjustable in three planes for convenient positioning, and is fitted with a flexible optically focussed eyepiece, which provides correction from -4 to +2 diopter.

For studio applications, an optional 5-inch (127 mm) tiltable viewfinder is available, and can be installed in minutes. Plug-in connections make it easy to switch from one viewfinder to the other, giving the TKP-47 full flexibility to operate from shoulder or tripod at a moment's notice.

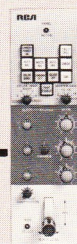
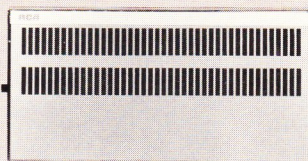
TKP-47 multicore and Triax camera systems are available for NTSC and PAL operating standards.

Simple Operating System



Camera Head

Camera Processing Unit



Remote Control Unit

In common with the TK-47 Automatic Camera, the new TKP-47 Portable is a simple operating system. Just three basic components are involved in normal operation: The Camera Head; the Camera Processing Unit (CPU), and the Remote Control Unit (RCU).

The CPU and RCU are interconnected by twisted pair cabling. Six memories in the CPU are used for storing and recalling various camera settings. The TKP-47 operates equally well with the Full Function RCU or the new "Smart" Extended Function RCU. Since there

are no controls at the Camera Head, the operator has more creative freedom.

The remaining camera system component—the Set-Up Terminal (SUT) is only connected to the camera during set-up and is disconnected during normal camera operation. A single SUT can handle an entire multiple camera system, including any mix of TKP-47 and TK-47 cameras.

NOTE: Following is an abbreviated description of TKP-47 camera system components. For more complete data on the Camera Processing Unit, Set-Up Terminal and Remote Control Units, refer to the TK-47 catalog: CA.1225.

Set-Up Terminal

TKP-47 and TK-47 cameras utilize the same Set-Up Terminal (SUT) which can be console or rack-mounted, located in the technical center or elsewhere to suit user operating preferences. A single Set-Up Terminal can be used for setting up all TKP-47 and TK-47 cameras from a central location.

The SUT is a digital device which functions as the technical control center for the camera system. It is connected to the TKP-47 by a cable with twisted pairs. After set-up has been completed, the SUT may be disconnected from the camera chain, since all set-up data is stored in the CPU memories.

Set-Up Modes

Four modes of camera set-up are available from the Set-Up Terminal:

1. **Manual Function Select.** Individual push-buttons on the SUT are used to check settings and make desired adjustments.
2. **Semi-Automatic.** Sequential step-by-step set-up.
3. **Automatic (Optional).** "Autocam" provides completely automated camera set-up from a single pushbutton
4. **Auto-Select.** Automatic set-up of selected functional groups.

Remote Control Units

The TKP-47 uses the same Remote Control Units as the TK-47 camera. Two types of RCU's are available:

1. Full Function RCU
2. Extended Function "Smart" RCU

Full Function RCU provides total operational control for the TKP-47. A joystick on the panel permits convenient control of Iris and Black Level.

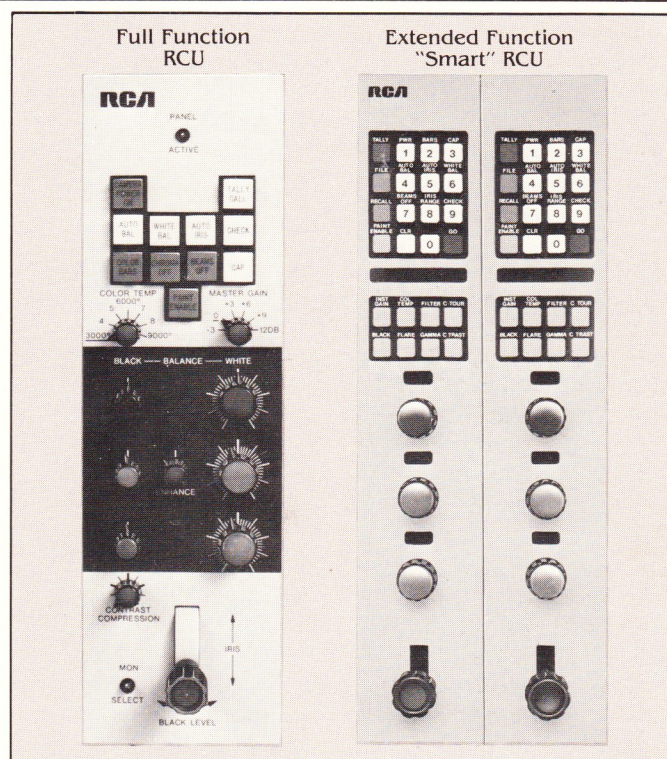
The "Paint Enable" Button allows white and black balance controls to be switched in or out, permitting the operator to revert instantly to the standard balanced conditions.

Automatic operation modes may be selected from the Remote Control unit via pushbutton controls, including:

- Auto Iris
- Auto White Balance
- Auto Black Balance

Other Full Function RCU features:

- Joystick Match Monitor Switch
- Contour enhancement level adjustment
- Scene Contrast Compression level adjustment
- Recall of Camera Set-Up Files



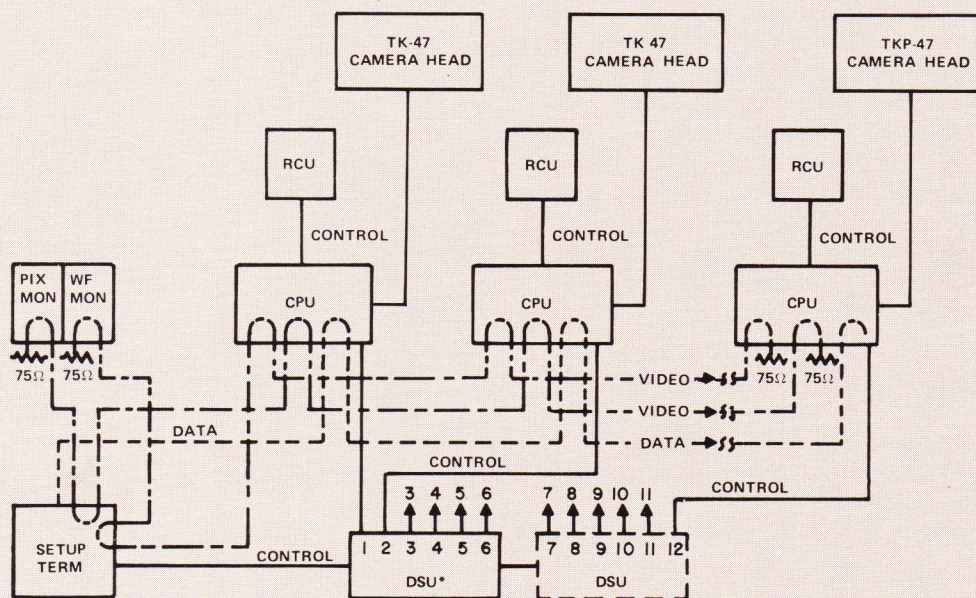
Extended Function "Smart" RCU

The "Smart" RCU is a microprocessor-based system which extends the versatility of the TKP-47, permitting unprecedented functional control of camera operations and adjustments. It provides **all** of the operational controls of the **Full Function RCU**, and includes a memory capability for File and Recall of selected "paint" control settings for up to 32 different scenes.

- Flare Paint
- Gamma Paint
- Lens F-Stop Display
- Paint Parameter Displays
- Filter Wheel Control
- Three Knob Iris
- Self-Test Diagnostic Facility

When the TKP-47 is equipped with the "Autocam" option, routine operational performance checks can be initiated from the RCU via the "Check" pushbutton on the panel.

TKP-47 PORTABLE CAMERA



*Delegate Switching Unit. Assigns any of six cameras in the system to a Set Up Terminal.

The TKP-47 integrates easily into an existing TK-47 system, since the two cameras function with an identical Set-Up Terminal, Processing Units, and Remote Control Units.



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