COLOR TELEVISION CAMERA

SK-70



HITACHI
Hitachi Denshi, Ltd.

THE THIRD GENERATION COLOR TELEVISION CAMERA

SK-70

Featuring Hitachi's newly developed 2/3-inch SATICON tube and new modular construction concept of this camera, the SK-70 offers highly satisfactory broadcast quality and unusual versatility for all-around application – at low cost.

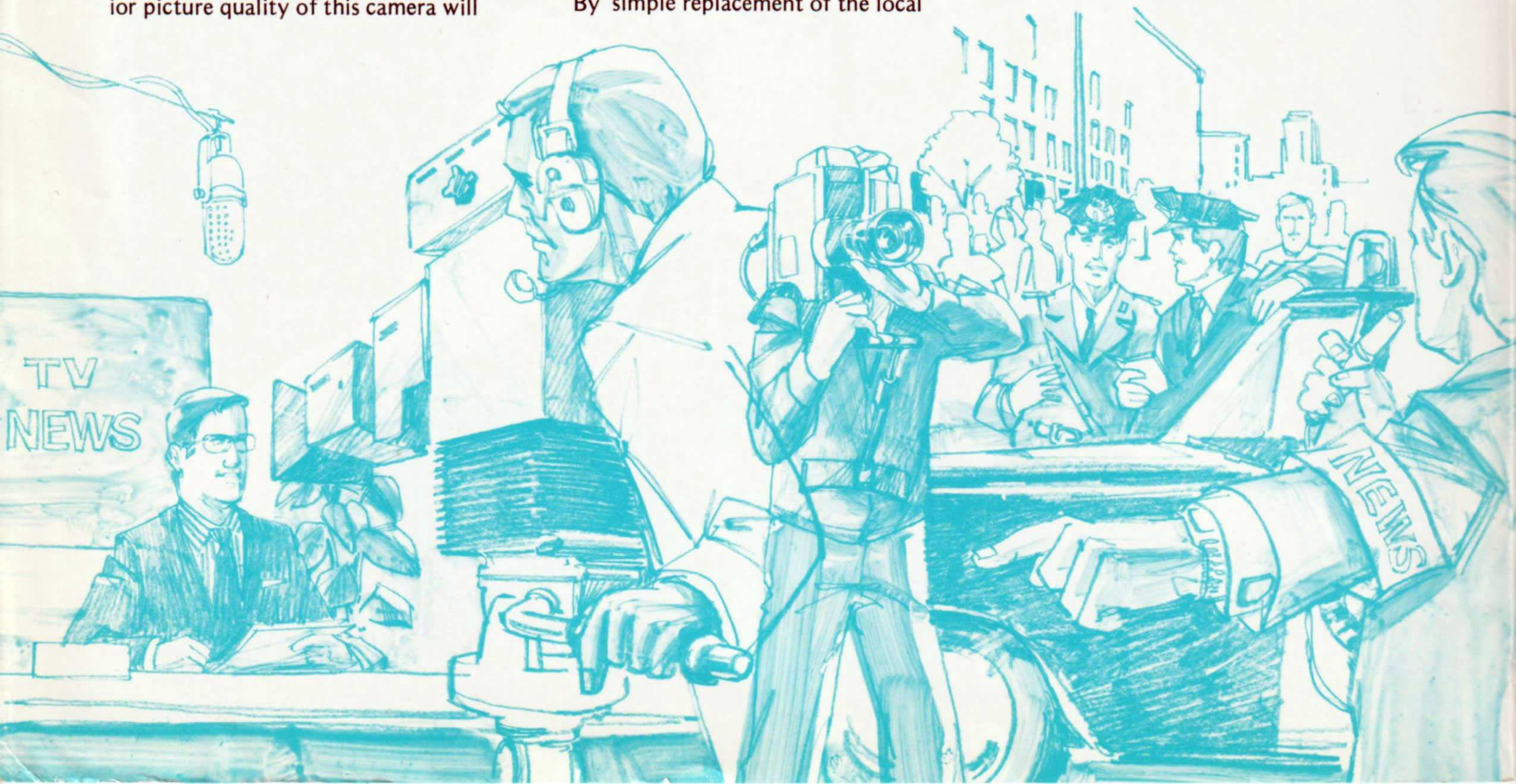
If one considers the studio camera as the first generation and the portable camera as the second generation, then one must surely consider the SK-70 "The Third Generation Camera" for the television industry. Versatility should be the key word.

FEATURES:

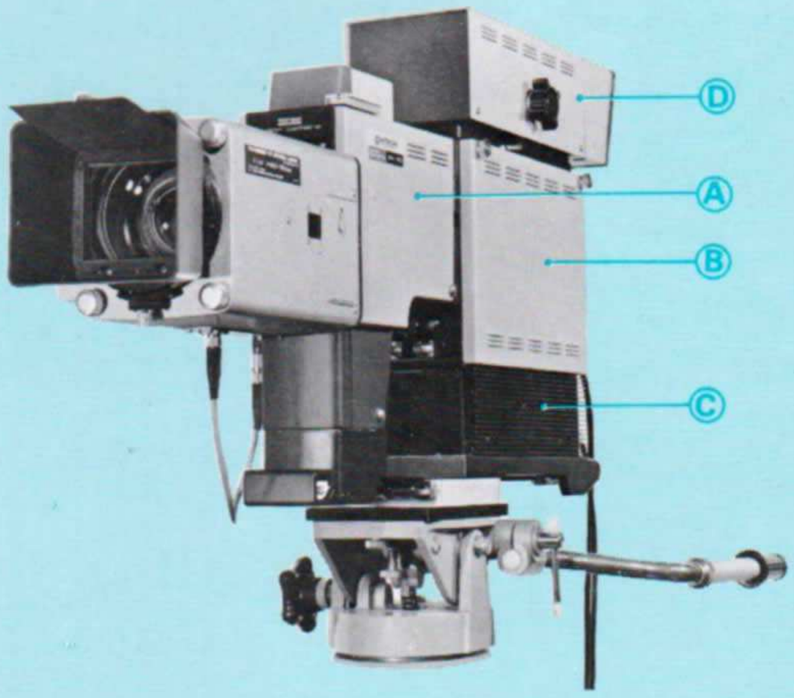
- Three 2/3-inch SATICON tubes with excellent picture quality.
- Versatile operation . . . Hand-held camera with back pack, self-contained camera for remote and small studio applications, and standard studio camera with full remote control . . . any of the above configurations can be achieved simply by changing the combination of modules, adaptors, and accessories, and time involved is just minutes.
- Small-size, light-weight, simplified operation, and improved performance.
- High sensitivity and excellent signal-to-noise ratio.
- Highly efficient beam-splitting prism with built-in bias light.
- Light-weight zoom lens for hand-held operation and high-quality zoom lens for studio use.
- Built-in linear matrix masking amplifier, and horizontal and vertical contour corrector.
- Digital command remote control.
- Low power consumption.

EXAMPLES OF OPERATION:

- **Hand-held operation with back pack**
  The camera head can be carried on one's shoulder and the process pack with DC or AC pack can be carried on the back pack. It is also possible to carry only the camera head to a distance of 300 feet from the back pack with the optional light-weight, multi-conductor camera cable.
  In this configuration the SK-70 will display its convenience on electronic news gathering and reporting sports events where fast-action portability is in demand. The high sensitivity and superior picture quality of this camera will combine to make it a powerful tool in the hands of the broadcaster and production user.
- **Self-contained operation**
  Remounting the head pack, process pack, and AC pack in one single configuration by using the mount adaptor creates an extremely efficient, self-contained camera. This compact color camera is suitable not only for remote pick up, but also for production studios, CATV stations and broadcasters.
- **Standard studio operation with digital command unit**
  By simple replacement of the local control panel on the process pack with a multiplexer unit, full remote control operation with coaxial cable of up to 3,000 feet by means of a digital command control is possible.
  This configuration lends itself for standard studio operation with its high quality zoom lens.
- **Special applications**
  Due to the compact, light-weight head pack, the SK-70 adopts well as an underwater camera in a compact housing as well as for video microscopy with a proper miscroscope interface.



Self-contained camera

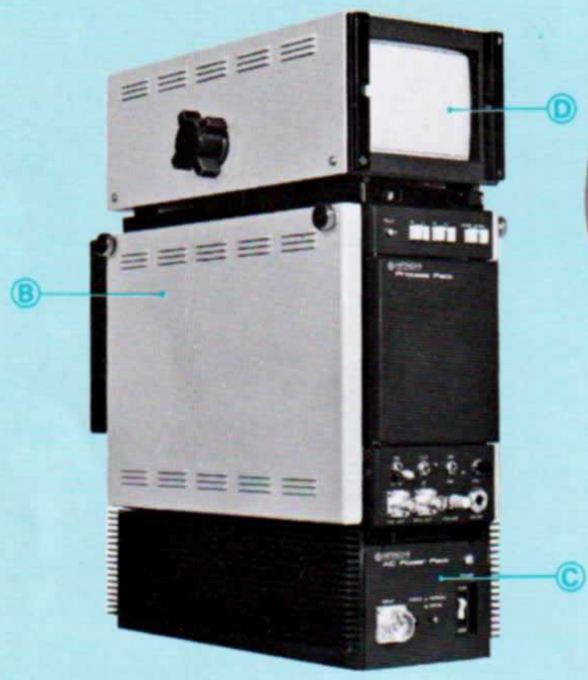


Ⓐ Head pack
Ⓑ Process pack
Ⓒ AC pack
Ⓓ Viewfinder (5-inch)
Ⓔ Viewfinder (1.5-inch)
Ⓕ DC pack
Ⓖ Multi-conductor cable

Digital command unit



Alternate
hand-held version







Hand-held camera with back pack

COMPOSITION

○Standard Composition ●Option
1. Hand-held 2. Self-contained 3. Studio 4. Ensemble

	Item	1	2	3	4
1	Head Pack w/SATICON Tubes	○	○	○	○
2	Process Pack	○	○	○	○
3	AC Pack	●	○	○	○
4	5" Electronic Viewfinder		○	○	○
5	Mount Adaptor		○	○	○
6	Studio Zoom Lens (F1.4, 10.5 – 105 mm)		○	○	○
7	Hand-held Zoom Lens (F1.4, 9 – 63 mm)	○			○
8	Cable-Adaptor	○			○
9	1.5" Electronic Viewfinder	○			○
10	DC Pack	○			○
11	Battery Charger w/battery	○			○
12	Shoulder Mount	○			○
13	Back Pack Harness	○			○
14	Digital Command Unit	●	●		○
15	Remote Operation Unit	●	●	○	

		Item	1	2	3	4
16		Camera Cable 10 ft.	○			○
17		Accessory Case	○			○
18		Camera Carrying Case	○	○	○	○
19		Maintenance Kit	○	○	○	○
20		Service Manual	○	○	○	○
ACCESSORIES	1	Camera Cable 50 ft.	●	●	●	●
	2	Camera Cable 100 ft.	●	●	●	●
	3	Camera Cable 300 ft.	●	●	●	●
	4	Spare SATICON Tube	●	●	●	●
	5	Tripod, Dolly		●	●	●
	6	Tripod for Head Pack	●			●
	7	Spare Battery	●			●
	8	Hand-held Zoom Lens (F1.8, 8.5–85 mm)	●			●
	9	Field Zoom Lens (F1.6, 12.5–275 mm)		●	●	●

Specifications

1. Color standard : NTSC
2. Pick-up tube : Three 2/3-inch SATICON tubes, H8397 for R.G.B.
3. Gen-lock signal : Black Burst 1.0 Vp-p to Process Pack, Composite or Black Burst 1.0 Vp-p to Digital Command Unit
4. Output signal : NTSC signal, Composite 1.0 Vp-p from Process Pack, one output; NTSC signal, Composite 1.0 Vp-p from Digital Command Unit, three outputs
5. Electronic viewfinder : 1.5-inch CRT for hand-held use, 5-inch CRT for studio and self-contained use
6. Cable length : Multi-conductor cable, max. 300 feet (Head Pack to Process Pack), or single coaxial cable, max. 3,000 feet (Process Pack to Digital Command Unit)
7. Power requirement
   - Battery operation : ±14 V, 6 AH battery (full 2-hour operation for hand-held use)
   - AC operation : 117 V AC ±10%, 50/60 Hz, continuous for studio and self-contained use
8. Environmental condition
   - Ambient temperature : 0°C to 45°C (32°F to 113°F)
   - Relative humidity : Up to 80%
9. Lens : F1.4, 9 to 63 mm, MOD 1 ft. or F 1.8, 8.5 to 85 mm, MOD 1.5 ft., motorized zoom for hand-held use; F1.4, 10.5 to 105 mm for studio use; F 1.6, 12.5 to 275 mm for field use.
10. Sensitivity : F4,200 foot-candles
11. Signal-to-noise ratio : When amplifying the G-channel signal current of 200 nA to the nominal output level of 0.7 V, the peak signal to RMS noise ratio will be a minimum of 50 dB in the output luminance signal.
12. Horizontal resolution : 500 lines at center
    400 lines at corners
    (Luminance signal, without contour corrector)
13. Registration accuracy : (1) Less than 0.05% of picture height within center circle of diameter equal to 80% picture height
    (2) Less than 0.2% of picture height within center circle of diameter equal to picture height
    (3) Less than 0.4% of picture height elsewhere
14. Geometric distortion : Within 1% over entire screen
15. Physical dimensions :

	Height		Width		Depth		Weight	
	in.	mm	in.	mm	in.	mm	lbs.	kg
Head Pack	12-5/8	320	4-3/8	110	8-7/8	225	13-1/4	6.0
Process Pack	9-1/16	230	5-1/2	140	12-1/4	310	17-5/8	8.0
DC Pack	4-3/4	120	6-5/8	170	11-7/8	301	18-3/4	8.5
AC Pack	3-3/4	95	5-1/2	140	11-7/8	301	10-5/8	4.8
1.5-inch Viewfinder	7-1/2	190	2-3/8	60	3-1/8	80	1-1/2	0.7
5-inch Viewfinder	4-3/8	110	5-1/2	140	11-7/8	301	7-3/4	3.5
Digital Command Unit	5-7/8	149	18-7/8	480	14-9/16	370	38-1/2	17.5

Specifications subject to change without notice.

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