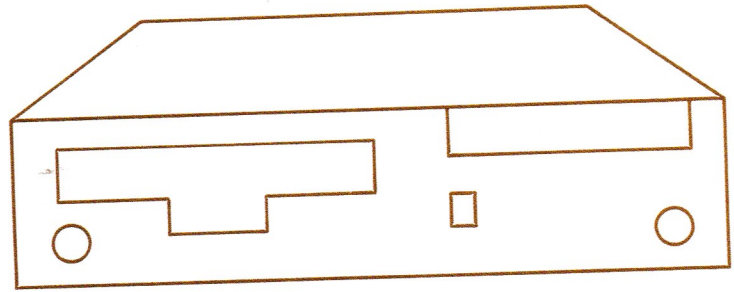
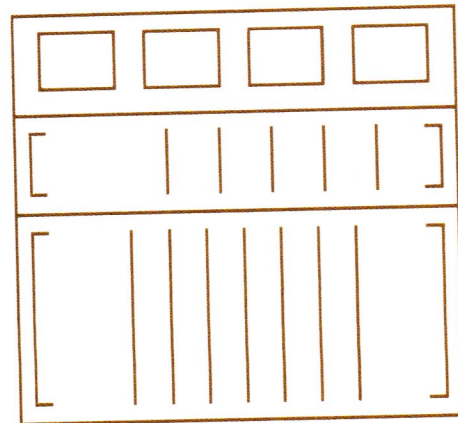
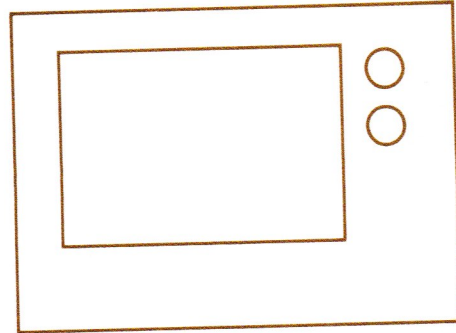


SONY®



Sony Video Communications





DXC-M3

Portable Configuration

DXC-M3 camera shown with DXF-M3 1.5" electronic viewfinder, C-74 shotgun microphone and VCL-914BY zoom lens.



DXC-M3

Studio Configuration

DXC-M3 camera shown with DXF-50 5" electronic viewfinder, VCT-M3 tripod adaptor, VCL-914BY zoom lens, LO-24ZS and LO-24F studio conversion kits.

FEATURES

MF Saticon™ Pickup Tube

Sony developed the $\frac{2}{3}$ " MF Saticon tube to achieve both a significant improvement in resolution and a reduction in geometric distortion. The 3 tube system in the DXC-M3, using the new technology, offers superior picture quality with a high level of operational simplicity.

Superior Resolution

The MF Saticon tube with its reduced beam spot achieves 650 lines of resolution at the center. Corner resolution was also improved due to the flat focus effect realized in the new tube design.

Outstanding Picture Quality

Measurable improvements in picture quality attained with Sony's new MF Saticon tube technology include less geometric distortion, less registration error, anti-highlight sticking, a S/N of 57dB thanks to a low output capacitance type target electrode, exclusive Sony FET and a sensitivity of 2000 lux at F4. A standard 2H vertical image enhancer also helps to create a sharper and crisper picture.

Improved Operating Convenience

New sophistications in chip design enabled Sony to enhance the operation of the DXC-M3 with computer-assisted automatic centering without any special chart consultation, automatic black setting/automatic black balance and automatic white balance. A visual warning system has also been integrated into the viewfinder display so that the cameraman is alerted in the case of low light, incorrect balance or centering and when battery power is too low.

Character Generator and Display

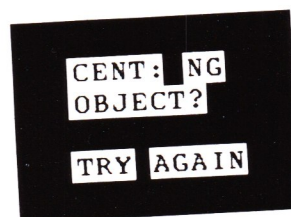
Highly advanced microcomputer type circuitry allows Sony to provide the added convenience of a built-in character generator that will hold 60 characters. Either letters or numbers can be stored, displayed in the viewfinder and recorded as titles, dating or identification coding.

Portability Plus

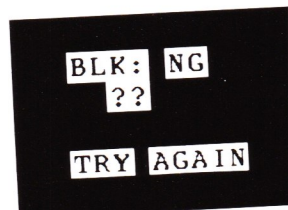
Compact tube design and highly condensed circuitry result in improved portability. Streamlined design makes the camera easier to handle and lighter in weight with both camera and viewfinder totalling just over nine pounds.

A Highly Versatile System

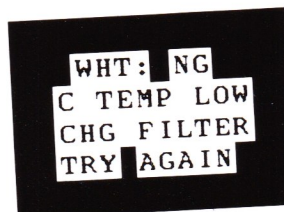
Designed for optimum flexibility and versatility, the DXC-M3 also has a serial data command system that allows full remote control via new, lightweight, low cost 14 pin connecting cables. There's also direct interface with most consumer VTRs with no additional adaptors, lens interchangeability with other Sony 3 tube cameras and the ability to use a variety of different viewfinders.



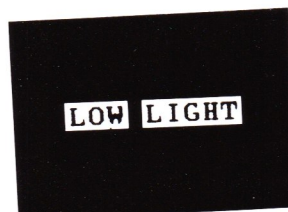
AUTO
CENTERING



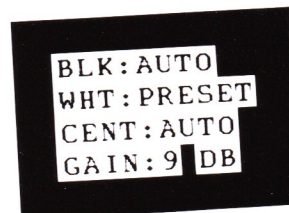
AUTO
BLACK



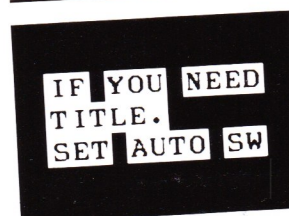
AUTO
WHITE



ALARM
DISPLAY



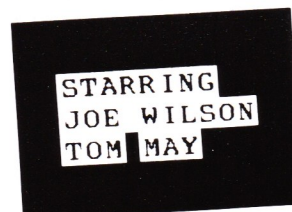
STATUS
DISPLAY



CHARACTER
DISPLAY
FIRST STEP



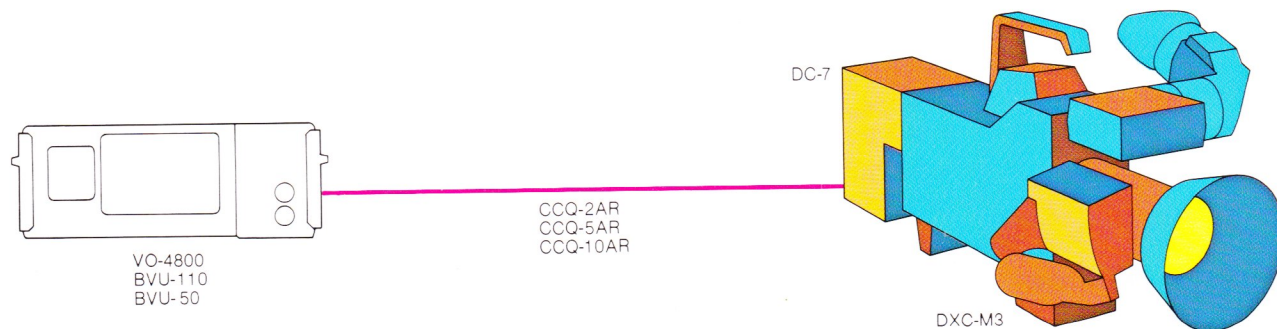
SECOND STEP



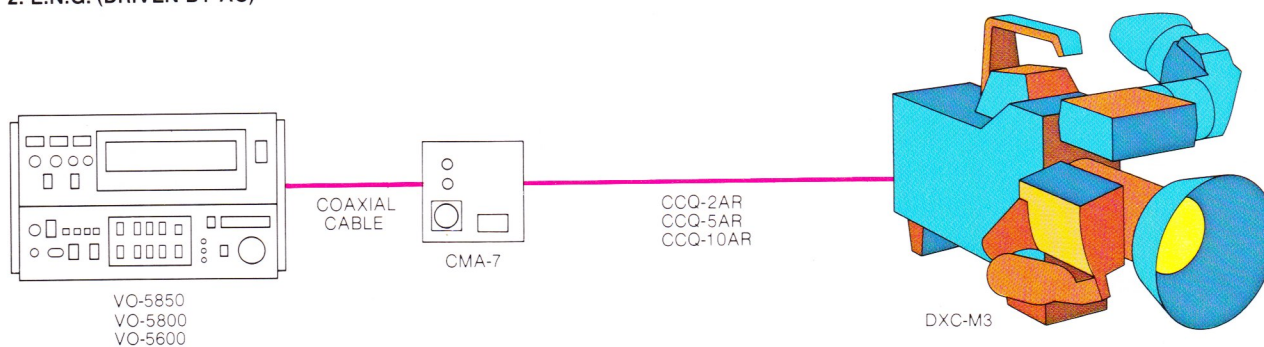
THIRD STEP

SYSTEM APPLICATION

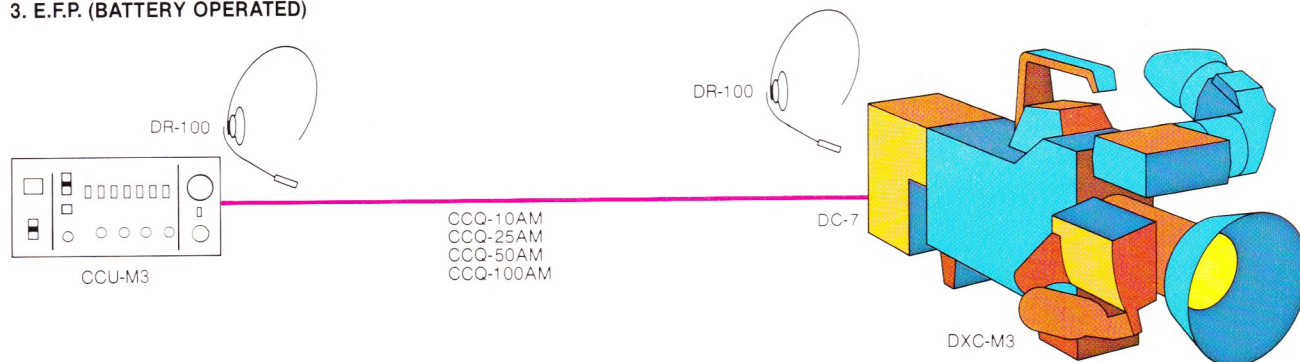
1. PORTABLE (BATTERY OPERATED)



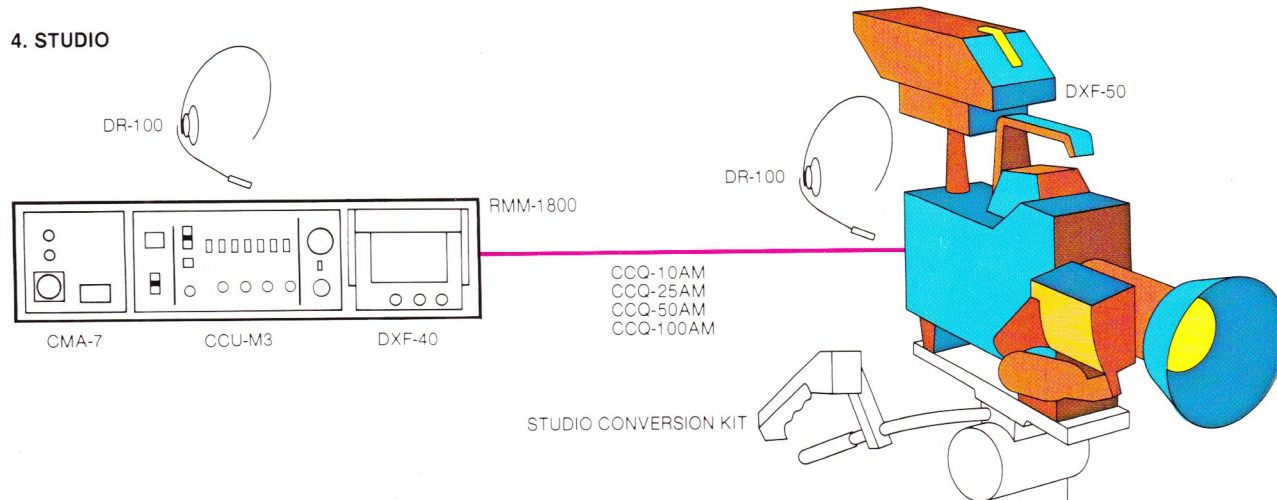
2. E.N.G. (DRIVEN BY AC)



3. E.F.P. (BATTERY OPERATED)



4. STUDIO



SONY MF SATICONS

Sony achieved significant improvements in pickup tube design and performance through innovative and imaginative application of "Mixed-Field" technology.

Sony's MF system involves the ultra-precise deflection and focusing of the electron beam. Deflection of the electrostatic beam is achieved via electrodes deposited directly on the inner wall of the tube. The electrodes are machined to exacting specifications by a newly developed laser process. In this way, Sony has attained a very precise and extremely stable deflection system that will retain its original alignment throughout the life of the tube and can be produced in volume without any appreciable variation in tolerances.

The interaction of the improved deflection system with an accurate but conventional external magnetic focus coil creates further improvements. Beam defocusing is virtually eliminated, especially in the corners, and since the beam impact is perpendicular to the target, spot size "spread" can be avoided. The deflection accuracy is such that geometric distortion is almost an order of magnitude better than conventional systems. And, the power needed for deflection and focusing is less than half that required in a conventional system.

The MF technology is evident in the DXC-M3 tube which is approximately three quarters of the size of a standard Saticon yet has twice the geometric and registration accuracy of a conventional system. The reduction in the size of the tube also yields a three tube $\frac{2}{3}$ " pickup system that is lower in volume than standard $\frac{1}{2}$ " tube systems.



MF SATICON™ TUBE BENEFITS

- **Ultra high resolution**—650 horizontal lines at center, 550 lines at corners
- **Good geometric distortion**—less than 1.5% at all zones
- **Anti-highlight sticking layer**
- **Superior registration error**—0.1% at Zone 1 and 0.2% at Zone 2
- **Improved signal to noise ratio** 57dB thanks to the LOC target
- **Small size**
- **Solid state deflection**
- **Low power consumption**
- **Diode gun**

SPECIFICATIONS

Camera

Optics: F1.4 prism (with bias light)

Lens mount: Bayonet (same mount as DXC-6000 and BVP-300 series)

Optical filter: Close, 3200 K, 5600 K + 1/4 ND, 5600 K

Pickup tubes: 2/3" MF Saticon (magnetic focusing/static deflection), CT-2332

Encoding system: NTSC (I, Q)

Sensitivity: 2000 lux F4 (at 3200 K, 89.9% reflectance)

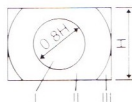
Minimum illumination: 40 lux (3.7fc) at F1.6 + 18dB gain up

Signal to noise ration: 57dB or more

Horizontal resolution: 650 TV lines (DTL OFF, G ch/at center) 550 TV lines (at corners)

Geometric distortion: Less than 1.5%

Registration: I: 0.1% II: 0.2% III: 0.6%



Output/input:

VIDEO OUTPUT: BNC (composite/R/G/B/-G, 1.0V p-p, 75 Ohms, selectable)

VTR/CCU: Sony Q type 14P (automatic detection)

MIC INPUT: XLR (-60dBm, 600 Ohms)

GENLOCK: BNC (composite or black burst 75 Ohms)

Gain switch: 0/9/18dB

Enhancer: 2 H

Power consumption: 18W (with viewfinder)

Operating temperature: 14°F to 113°F (-10°C to 45°C)

Weight: Camera: 8.2 lb (3.7 kg)

Viewfinder: 1.5 lb (0.68 kg)

Dimensions: 11 1/8" x 4 3/8" x 13 1/8" (HWD)
(281.5mm x 112mm x 334.3mm) (HWD)

Camera Control Unit CCU-M3

Video out: VBS: 1.0V p-p, 75 Ohms

VBS/VB: 1.0V p-p VBS/ 0.7V p-p VB selectable, 75 Ohms

RGB out: 0.7V p-p, 75 Ohms, without sync

Sync out: 4.0V p-p negative, 75 Ohms

Connectors:

CAMERA: CCQ 14 pin

EXT DC IN: DIN 4 pin

VF: DIN 8 pin

RETURN VIDEO IN/OUT: BNC x 2

GEN LOCK IN/OUT: BNC x 2

VBS OUT: BNC

VBS/VB OUT: BNC

TALLY/INTERCOM: DIN 4 pin

R.G.B. OUT: BNC x 3

SYNC OUT: BNC

Power requirements: 12V DC or AC operation with optional CMA-7

Power consumption: 5.5W at 12V

Operating temperature: 32° to 104°F (0° to 40°C)

Weight: 8.8 lb (4 kg)

Dimensions: 8 3/8" x 11 1/2" x 4" (HWD)
210mm x 290mm x 100mm (HWD)

PRODUCT CONFIGURATION

DXC-M3

DC-7 Sony battery adaptor

LC-M3 Carrying case

VCT-M3 Tripod adaptor

CCQ-2AR Camera cable for portable VTR interface

DXF-M3 Electronic viewfinder

DXC-M3H

VCT-M3 Tripod adaptor

CCQ-2AR Camera cable

DXC-M3K

DC-7 Sony battery adaptor

LC-M3 Carrying case

VCT-M3 Tripod adaptor

CCQ-2AR Camera cable for portable VTR interface

VCL-914BY 14X zoom lens

DXF-M3 Electronic viewfinder

OPTIONAL ACCESSORIES

Economical Lenses

Model	Aperture	Zoom Ratio	Extender	Studio Conversion Kit
VCL-914BY	f/1.6	14X(9-126mm)	—	LO-24ZS and LO-24F
A10X11BRM	f/1.6	10X(11-110mm)	—	LO-1011
A12X9BERM-88	f/1.7	12X(9-108mm)	—	LO-1011
A14X10BRM	f/1.7	14X(10-140mm)	—	LO-1011
J15X9.5B	f/1.8	15X(9.5-143mm)	—	LO-1309
A12X9BERM-88	f/1.7	12X(9-108mm)	2X	LO-1011

Broadcast Grade Lenses

J13X9BIE2	f/1.6	13X(9-117mm)	2X	LO-1309
A14X9BERM	f/1.7	14X(9-126mm)	2X	RM-S5A and FMM-7
A17X9BERM	f/1.7	17X(9-153mm)	2X	RM-S5A and FMM-4
A3.5X6.5BRM	f/1.7	3.5X(6.5-23mm)	—	LO-1011

Viewfinders

DXF-M3 1.5" electronic viewfinder

DXF-40 4" electronic viewfinder

DXF-50 5" electronic high resolution viewfinder

PVM-4000 4" electronic color viewfinder

Cables

For portable VTR interface

CCQ-2AR 14 pin cable 6'

CCQ-5AR 14 pin cable 16'

CCQ-10AR 14 pin cable 33'

For CCU-M3 interface

CCQ-10AM 14 pin cable 33'

CCQ-25AM 14 pin cable 82'

CCQ-50AM 14 pin cable 165'

CCQ-100AM 14 pin cable 333'



Other Accessories

CCDD-2.5 4 pin tally cable

EC-0.5C2 microphone cable

CMA-7 AC adaptor

C-74 shotgun type microphone

DR-100 lightweight headset for intercom communication

BP-60 battery pack

BC-20 battery charger for 2 BP-60's

BC-1000 battery charger for 6 BP-60's

DC-7 battery adaptor

LC-M3 carrying case

VCT-M3 tripod adaptor

EB-M3 extension board for camera maintenance

RMM-1800 rack mounting bracket for CCU-M3, CMA-7 and DXF-40

LC-2003 carrying case for CCU-M3, CMA-7, DXF-40 and RMM-1800

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