

Federal Television



*FTL 107A-108A
Vidicon
Field and Studio
Camera Chains*



Federal Telecommunication Laboratories

A DIVISION OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION



FTL 107A-108A

Vidicon Field and Studio Camera Chains

Features

- LOW COST
- MINIMUM SIZE AND WEIGHT
- HIGH DEFINITION—OVER 600 LINES H. RESOLUTION
- EXCELLENT CONTRAST RANGE—10 GRAY STEPS
- FULL APERTURE CORRECTION
- HIGH SIGNAL-TO-NOISE RATIO

VERSATILE, LOW COST

Federal's Vidicon Camera Chains are designed to meet the requirements of modern TV broadcast studio and field presentations. The lightweight universal units which comprise the chains offer versatility, excellent performance, unusual simplicity and low initial and operating costs.

THE CAMERA

The Vidicon camera uses a modern photo-conductive tube which provides high signal-to-noise ratio, outstanding contrast range and good color definition. Utmost economy is assured by a tube operating cost of less than 25 cents per hour.

The Camera incorporates an electronic viewfinder which provides a clear picture on the 3" viewfinder screen adequate for critical focusing and picture framing. A three-lens turret provides utmost flexibility; an inexpensive zoom-type lens is optionally available. The camera is truly portable, weighing less than 21 pounds, complete with viewfinder.

CONTROL AND MONITOR

This unit is mounted in a handsome carrying case for field use and in an attractive console in the studio. High quality signal control is made possible by a 10-inch picture tube, and a 5-inch waveform tube. The control and monitor incorporates circuits of advanced design with such desirable features as line-to-line clamping, full aperture correction and smooth insertion of video blanking and sync. The portable unit weighs only 62 pounds.

POWER SUPPLY

In the studio, the Power Supply is rack mounted; in the field it is in a convenient carrying case and weighs only 50 pounds. The power supply is completely regulated with an internal impedance of less than one ohm. Industrial type selenium rectifiers are used for extremely long life, low heat dissipation and light weight.

GENERAL

The only additional unit needed for field use is the FTL-Portable Sync Generator. In studio applications, video switching of as many as four camera chains may be accomplished by the FTL-110A Station Control (optional) which is mounted in a matching console.



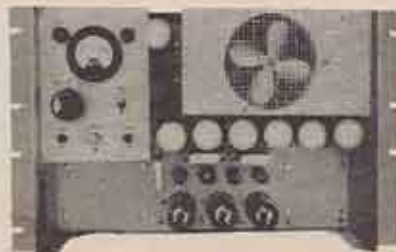
Control Monitor, field.



Low Voltage
Supply, field.

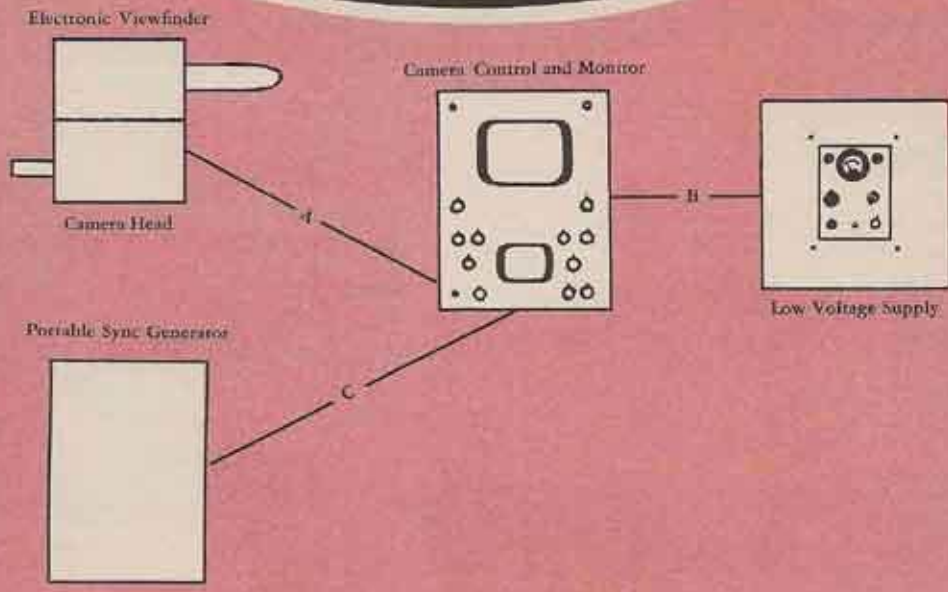


Control and
Monitor, studio.



Low Voltage Supply, studio.

Single Camera Chain Field or Studio



(For Studio - the FTL-65B Sync Generator is used.)

Equipment Complement

	FIELD FTL-107A	STUDIO FTL-108A
FTL-277A Camera Head	1	1
FTL-288A Electronic Viewfinder	1	1
FTL-282A Control and Monitor (Field)	1	
FTL-278A Control and Monitor (Studio)		1
FTL-283A Low Voltage Supply (Field)	1	
FTL-279A Low Voltage Supply (Studio)		1
FTL-284A Portable Sync Generator	1	
LENS 40mm f1.5	1	1
*FTL-280 Camera Cable A	1	1
FTL-293 Cable B	1	
FTL-294 Cable C	1	

*Supplied in 50 ft. lengths. Optionally available in 100, 200, 300, 400 and 500 ft. lengths.
LENSES

- | | |
|-----------|------------------------|
| 25mm f1.5 | 25mm f1.9 |
| 75mm f2.5 | Pan-Cinor 20-60mm f2.8 |

SPECIFICATIONS

PERFORMANCE

H. Resolution	600 lines minimum	Number of Outputs	1 line
Signal-to-noise Ratio	35 db minimum		1 monitor
Contrast Ratio	20 to 1 minimum	Output Level	Video 0 to 1 v. black negative Sync 0 to 0.4 v.
Geometric Distortion	2% maximum	Load Impedance	75 ohms $\pm 10\%$
Aperture Correction	Full correction for high response at 600 lines	Source Impedance	75 ohms $\pm 5\%$
Gradation	10 gray steps		

INPUT SIGNALS FROM RETMA TV SYNC GENERATOR

H. Drive (negative)	3.5 to 5 v. p-p	Blanking (negative)	3.5 to 5 v. p-p
V. Drive (negative)	3.5 to 5 v. p-p	Sync (negative)	3.5 to 5 v. p-p

POWER INPUT

700 watts at 105 to 125 v. 50 to 60 cycles

PHYSICAL CHARACTERISTICS

	<i>Dimensions</i>	<i>Weight</i>	<i>Finish</i>
Camera Head	10 $\frac{1}{4}$ " x 6 $\frac{1}{4}$ " x 4 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	FTL Gray
Electronic View Finder	10 $\frac{3}{4}$ " x 6 $\frac{3}{4}$ " x 4 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	wrinkle
Control and Monitor (Studio)	Supplied in FTL Console Section 13-5/16" wide	60 lbs.	FTL Gray
Low Voltage Supply (Studio)	14" panel height in standard rack cabinet	40 lbs.	FTL Gray
Control and Monitor (field)	21 $\frac{11}{16}$ " x 18 $\frac{1}{4}$ " x 12 $\frac{1}{2}$ "	72 lbs.	FTL Gray
Low Voltage Supply (field)	21 $\frac{7}{8}$ " x 13 $\frac{3}{16}$ " x 12 $\frac{7}{16}$ "	50 lbs.	FTL Gray

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