



Fig. 1-1. Type 602 Display Unit.

# SECTION 1

## SPECIFICATION

Change information, if any, affecting this section will be found at the rear of this manual.

### Introduction

The Type 602 Display Unit is a special purpose monitor designed for use in applications requiring an X-Y presentation. Differential Inputs are provided in the X and Y Inputs to reject extraneous signals common to interconnecting cables.

The cathode ray tube used in the Type 602 is a rectangular 5 inch ceramic tube with an internal graticule.

This instrument will perform as stated under the "Performance" heading, within an ambient temperature range of 0° C to +50° C (after a one minute warmup) provided that the instrument was calibrated within an ambient temperature range of +20° to +30° C.

The "CHECK" portion of the Calibration Procedure, Section 5, provides a convenient method of checking the performance of this instrument.

The Type 602 may be used with the Tektronix, Inc. Type C-30 Camera.

### VERTICAL AND HORIZONTAL CHANNELS

Characteristics	Performance
Deflection Factor	
Vertical (Y), 8 div full screen	Internally variable from 0.09 V/div to 0.135 V/div
Horizontal (X), 10 div full screen	Internally variable from 0.09 V/div to 0.11 V/div
Polarity	(+) Vertical input moves beam up (+) Horizontal input moves beam to right
Maximum Input Voltage	±10 V, DC + peak AC
Signal Source Impedance Level	1 kΩ or less recommended

### VERTICAL AND HORIZONTAL CHANNELS

Characteristics	Performance
Input R and C	100 kΩ, within 10%, parallel by 30 pF or less
Bandwidth (X and Y Amplifiers)	1 MHz, minimum
Phase Difference	Within 1° between X and Y to 1 MHz
Vertical and Horizontal Position Ranges	Allows setting zero signal position anywhere on screen
Spot Position Stability	0.1 div or less/hour after 20 minute warmup

### Z AMPLIFIER

Characteristics	Performance
Input Signal	Analog input DC to 1 MHz over a 0.0 V to +1 V range. (Linear amplifier modulates writing beam)
Maximum Input Voltage	±10 V, DC + peak AC
Input R and C	100 kΩ, within 10%, paralleled by 70 pF or less.
Source Impedance	1 kΩ or less recommended
Bandwidth	DC to 1 MHz

### DISPLAY

Characteristics	Performance
CRT TYPE	Electrostatic deflection
Phosphor	Standard P31; optional P7
Display Quality Area	8 div by 10 div (1 div equals 1 cm).
Linearity (Low Frequency)	
Vertical Axis	2%, or less, difference in any 2 cm
Horizontal Axis	6%, or less, difference in any 2 cm
Geometry	
Vertical	0.1 div or less deviation from straight line.
Horizontal	0.1 div or less deviation from straight line.
Graticule	Standard, internal 8 x 10 div Optional internal 8 x 10 div outline (no graticule lines).
Trace Width	14 mils at 0.5 μA beam current

### POWER SUPPLY

Characteristics	Performance
Line Voltage Range	
115 V	Low 90 V to 110 V Medium 104 V to 126 V High 112 V to 136 V
230 V	Low 180 V to 220 V Medium 208 V to 252 V High 224 V to 272 V
Maximum Power Consumption at 115 V, 60 Hz	50 W, 0.48 A
Line Frequency	48 Hz to 440 Hz

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**ENVIRONMENTAL**

Characteristics	Performance
Temperature	
Non-operating	−40° C to +65° C
Operating	0° C to 50° C
Altitude	
Non-operating	To 50,000 feet
Operating	To 15,000 feet
Transportation	Qualified under National Safe Transit Committee test procedure 1A.

**PHYSICAL**

Finish		
Cabinet	Blue vinyl painted aluminum	
Front Casting	Aluminum	
CRT mask	DELRIN <sup>1</sup> plastic	
Dimensions	Without cabinet	With cabinet
Height	5¼ inches	6 inches
Width	8½ inches	8½ inches
Length	17½ inches	17½ inches

<sup>1</sup>DELRIN is a registered trademark of E. I. Du pont De Nemours Co., Wilmington, Delaware.

For optional accessories available for use with this instrument, see current Tektronix, Inc., catalog.