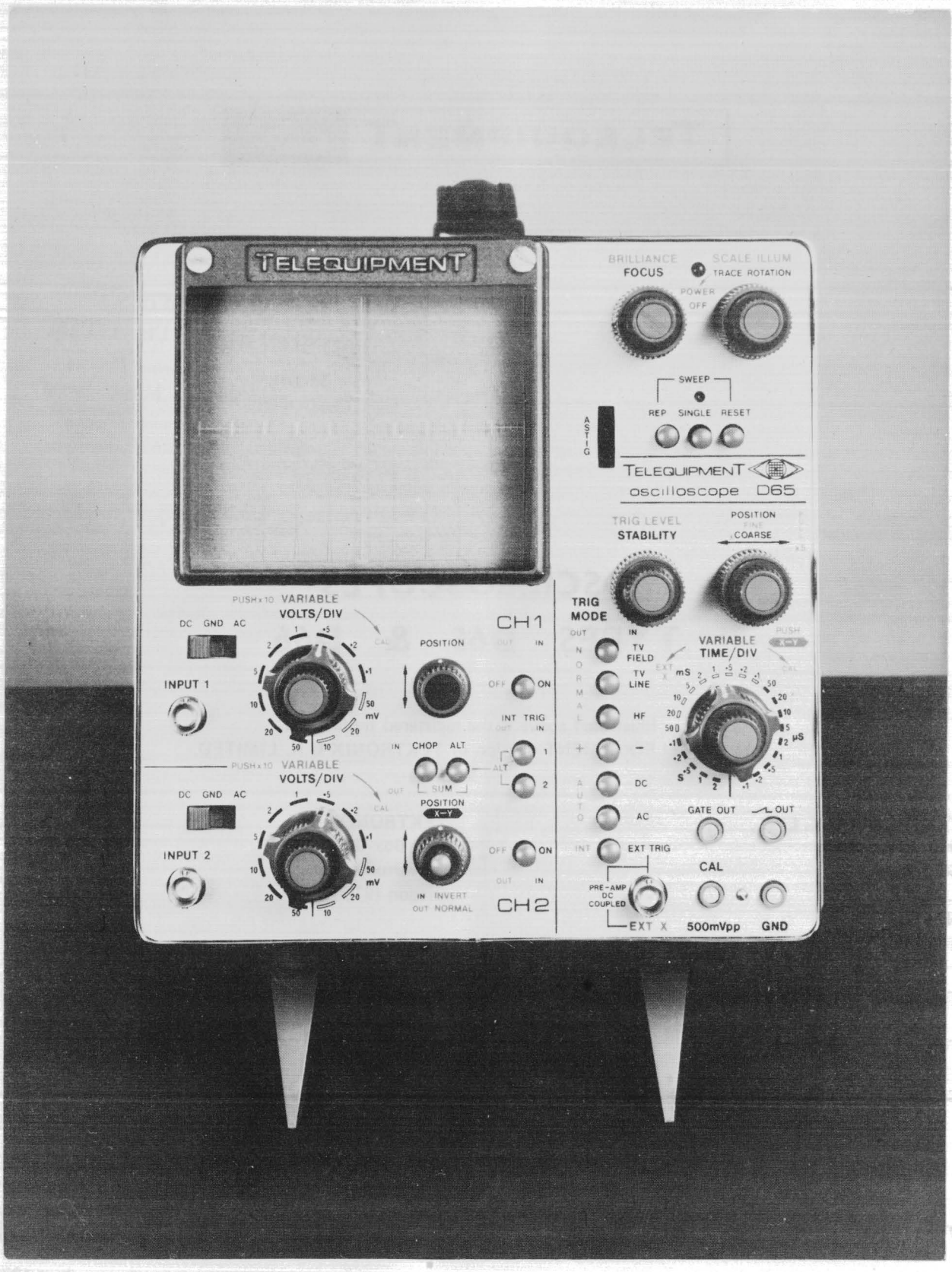
TELEQUIPMENT
BRILLIANCE
FOCUS
SCALE ILLUM
TRACE ROTATION
POWER
OFF
SWEEP
REP
SINGLE
RESET
ASTIG
TELEQUIPMENT
oscilloscope D65
TRIG LEVEL
STABILITY
POSITION
FINE
COARSE
PUSH x10 VARIABLE
VOLTS/DIV
DC GND AC
INPUT 1
POSITION
CH1
OUT IN
OFF ON
INT TRIG
OUT IN
1
2
IN CHOP ALT
ALT
SUM
PUSH x10 VARIABLE
VOLTS/DIV
DC GND AC
INPUT 2
POSITION
X-Y
IN INVERT
OUT NORMAL
CH2
OFF ON
OUT IN
TRIG MODE
OUT
IN
NORMAL
TV FIELD
TV LINE
HF
–
+
AUTO
DC
AC
INT
EXT TRIG
PRE-AMP DC COUPLED
EXT X
VARIABLE TIME/DIV
PUSH x10
CAL
mS
µS
GATE OUT
OUT
CAL
500mVpp
GND

CHAPTER 1

SPECIFICATION

1.1 VERTICAL SYSTEM

Operating modes	Channel 1 Channel 2 (normal or inverted) Channels 1 & 2 Alternate Chopped (at 150 kHz approx.) Summed X – Y

3 dB bandwidth	*D65*	D66
D.C. Coupled	*D.C. – 15 MHz*	D.C. – 25 MHz
A.C. Coupled	*2 Hz – 15 MHz*	2 Hz – 25 MHz
Risetime X1	*23 ns nominal*	14 ns nominal
X10 A.C. or D.C. Coupled	*10 MHz approx.*	15 MHz approx.
Max. amplitude	*4 div at 15 MHz*	7 div at 25 MHz

X – Y	Via CH1 with CH2 input selected via timebase switch as horizontal amplifier.
Bandwidth (–3dB)	D.C. – 1 MHz
Phase error	Less than 1° at 25 kHz
Deflection factors	
Calibrated – accuracy ± 5%	10 mV – 50 V/div (12 ranges 1-2-5 steps)
Gain X10	1 mV – 5 V/div
Uncalibrated – with variable	Complete cover between steps and to 125 V/div
Signal Delay	200 ns
Input impedance	1 M Ω and 47 pF approx.
Maximum input – D.C., A.C. peak & Sum of	400 V peak

1.2 HORIZONTAL SYSTEM

Sweep generator	
Sweep rates	
Calibrated (23 ranges 1-2-5 steps)	2 s – 100 ns/div ± 5% without expansion; with X5 expansion ± 7%. Fastest calibrated sweep increases to *40 ns/div D65*, 20 ns/div D66.
Uncalibrated (with variable)	Complete cover between steps and to 5 s/div
Single Shot	With lock-out
External horizontal amplifier	
3 dB bandwidth	D.C. – 1 MHz
Risetime	350 ns nominal
Deflection factors	1 V/div approx. 200 mV/div approx. (with X5 expansion)
Input impedance	100 kΩ and 30 pF approx.
Maximum input	400 V peak

1.3 TRIGGER

Coupling	A.C. or D.C.
Source	CH1, CH2, alternate, and external
Internal	
Amplitude — Automatic	0.25 div (0.5 div at x10 gain) 40 Hz to 1 MHz } Alternate
Trigger level	0.25 div (0.5 div at x10 gain) D.C. to 1 MHz } 1.0 div rising to 0.5 div at 5 MHz
HF	1 div from 1 MHz to > 25 MHz
External	
Amplitude	250 mV to ± 15 V at above frequencies
Impedance	100 kΩ and 30 pF

1.4 CATHODE RAY TUBE (CRT)

Type	
D65	*Single-gun with PDA*
D66	Single-gun with mesh PDA
Display area	8 x 10 cm
Phosphor	
Standard	P31
Special order	P7 or P11
Overall accelerating potential	
D65	*4 kV approx.*
D66	10 kV approx.
External intensity modulation	
Coupling	A.C. to Grid
Amplitude, peak to peak	50 V maximum
	15 V for perceptible modulation at average brilliance
Time constant	10 ns

1.5 OUTPUTS, FRONT PANEL

Calibrator, peak to peak	500 mV square wave at supply frequency
Accuracy	2%
Sweep sawtooth	
Coupling	D.C.
Amplitude peak	10 V approx.
Minimum load	47 kΩ
Gate out	
Coupling	D.C.
Amplitude, peak	500 mV approx.

1.6 POWER REQUIREMENTS

Voltage	100 – 125 V in 5 V steps 200 – 250 V in 10 V steps
Frequency	48 – 400 Hz
Consumption	50 VA approx.

1.7 SIZE

Height	24 cm
Width	21 cm
Depth	37 cm

1.8 WEIGHT

11.5 kg

1.9 COOLING

Convection

1.10 TEMPERATURE LIMITS, ambient

Operating	−15 to +40°C approx.
Non-operating	−25 to +70°C approx.