

Specifications for 12245 Blackstar Orion Pattern Generator

The Orion is a compact, bench instrument offering a wide range of patterns and facilities at a truly low cost. In addition to a switchable sound carrier facility which allows use with the majority of PAL TV systems, the Orion provides highly flexible IRGB outputs, ensuring compatibility with most video monitors. More than 50 pattern-combinations can be selected, including those for testing static and dynamic convergence, video amplifier linearity, colour purity, general colour performance focus etc. A separate video input to modulate camera signals; fully variable video output level; trigger output allowing easy triggering of difficult oscilloscope waveforms; external sound modulation input via DIN connector for frequency response testing of TV sound systems; adjustable wide frequency coverage of VHF and UHF TV bands. Just some of the features making the Orion Pattern Generator an indispensable tool in the manufacture test, and servicing of televisions and computer and video monitors.

PAL System	Sound Carrier (MHz)
B	5.5
D	6.5
G	5.5
H	5.5
I	6.0
K	6.5

Specifications

System: PAL B, D, G, H, I and K (as indicated by sound carrier)

Video Test Signals:

- (a) Colour Bars with white reference
- (b) Purity Patterns (IRGB + 3 complementary colours)
- (c) 100% white
- (d) Grey -scale with white reference, (from colour bars)
- (e) Cross -hatch
- (f) Vertical lines
- (g) Horizontal lines
- (h) Dots
- (i) 1MHz Vertical lines

Modulation: AM - VE

Video Input: Front panel BNC connector, 1V p - p, 75R

Video Output: Front panel BNC connector, 1V p - p, 75R with level control

RF Carrier: Approx. tuning range VHF Band III, Channels E5 -E12,
UHF Bands IV and V, Channels 28 - 69

RF Output: Carrier level > 10mV (VHF), > 1mV (UHF)

Sound Carrier: 5.5MHz, 6.0MHz and 6.5MHz selected by rear panel

Modulation: FM

Rear Panel Output: Nominal 1Khz 800mV rms sinewave on connector (DIN)

External Modulation: Nominal signal level for 100% deviation 100mV rms.

Maximum permitted input level \pm 48V. Input via rear socket

Chroma

System: PAL

Carrier: Crystal controlled, 4.433MHz

Burst: Swinging burst, blanked during field blanking period

Burst Amplitude: Nominally 0.3V p - p

Chroma Amplitude: 95% colour bars

Synchronisation

Line Frequency: 15.625Hz, crystal controlled

System: Non- interlaced

Field Rate: 50Hz

Frame: Frame sync contains line syncs.

Front Panel: Line or Frame syncs at 5V from 10KR source impedance

Rear Panel: BNC and "D" outputs
The following sync options provided:
(a) Separate line syncs switchable to 1V or TTL
(b) Separate frame syncs switchable to 1V or TTL
Note: 1V and TTL levels cannot be selected simultaneously.
(c) Mixed line and frame syncs switchable to 1V or TTL
(d) 0.3V syncs on Green signal

General

Power: 220/240Vac, 50/60Hz, 12VA
Weight: 2Kg
Accessories supplied: Mains lead, Instruction book, Spare fuse
Service Manual: Order Code 12245M