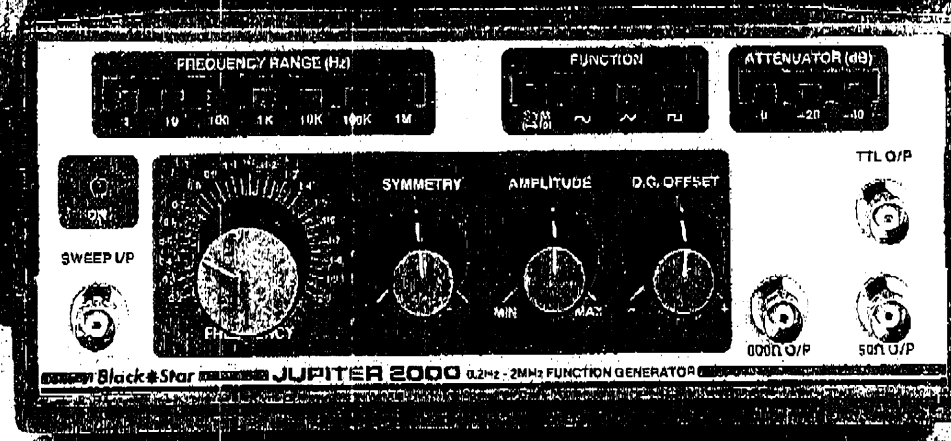
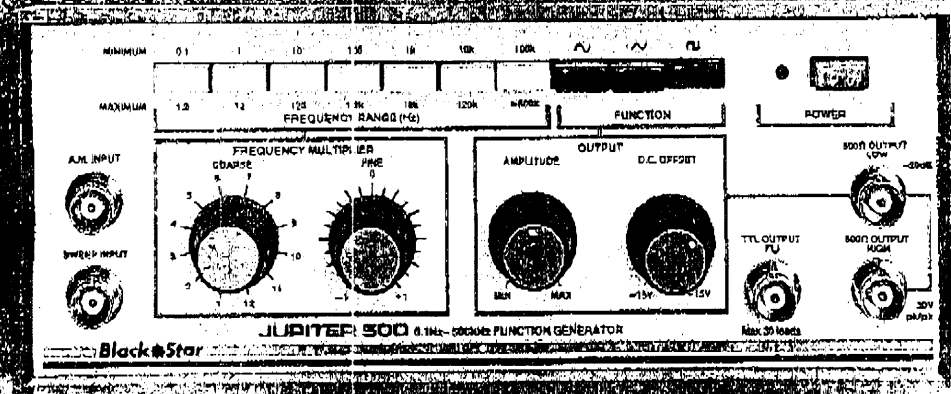
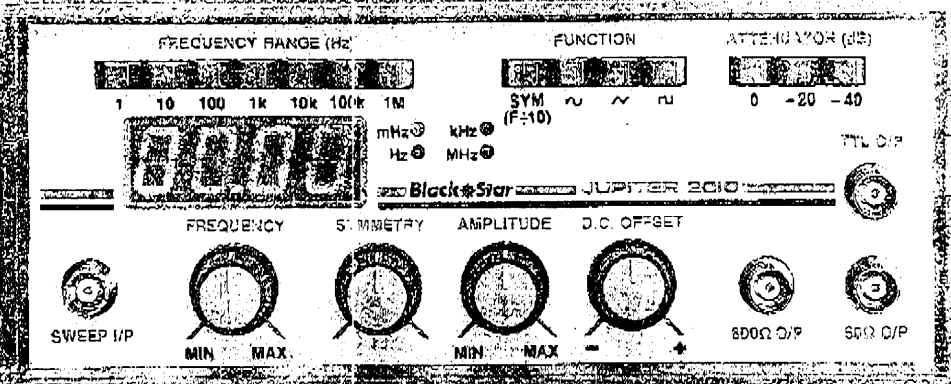


Att Mark2 Blank

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JUPITER 2010                      JUPITER 2000                      JUPITER 300

- 0.2Hz to 2MHz
  - Sine, Square, Triangle, TTL
  - Variable DC Offset
  - 50Ω, 600Ω O/P's
  - 0, -20dB, -40dB Attenuator
  - 20MHz Frequency Counter
  - Microprocessor - controlled reciprocal frequency counter gives 4 digits resolution at all frequencies.
  - At low frequencies display updates every input signal period.
  - High accuracy (0.01%) is maintained at all frequencies.
- 0.2Hz to 2MHz
  - Sine, Square, Triangle, TTL
  - Variable DC Offset
  - 50Ω, 600Ω O/P's
  - 0, -20dB, -40dB Attenuator
- 0.1Hz to 500KHz
  - Sine, Square, Triangle, TTL
  - Variable DC Offset
  - External AM & Sweep facilities
  - ±30V p/p

**Black Star**

Designed and  
manufactured in Britain



|                               | JUPITER 2010  | JUPITER 2000 |
|-------------------------------|---|--------------|
| <b>FUNCTIONS</b>              | Sine, Square, Triangle, TTL   |              |
| Waveforms                     | Sine, Square, Triangle, TTL   |              |
| Sine Distortion               | 0.2Hz to 200kHz <1%; 200kHz to 2MHz. All harmonics >30dB below fundamental  |              |
| Triangle Linearity            | >99% to 200kHz  |              |
| Square Rise Time              | <80ns   |              |
| Square Mark/Space Ratio       | 1:1 ± 1% to 200kHz  |              |
| TTL                           | 20 standard TTL loads   |              |
| Symmetry Range                | Nom. 8:1 on all waveform types  |              |
| <b>FREQUENCY</b>              |   |              |
| Range                         | <0.2Hz to >2MHz in 7 overlapping ranges   |              |
| Accuracy                      | <±0.1% determined by frequency counter  |              |
| <b>OUTPUTS</b>                |   |              |
| 50Ω and 600Ω                  | 0dB, -20dB, -40dB switchable attenuator with >30dB vernier control  |              |
| Output Level (open circuit)   | 0 to 20Vp/p 0dB; 0 to 2Vp/p -20dB; 0 to 0.2Vp/p -40dB   |              |
| Level Flatness                | ± 0.2dB to 200kHz; ± 1dB to 2MHz  |              |
| DC Offset                     | ±10V from both outputs. DC offset plus peak signal limited to ±20Vp/p with open circuit output. Offset level and signal attenuated proportionally in -20dB and -40dB positions  |              |
| TTL                           | Capable of driving 20 standard TTL loads  |              |
| <b>SWEEP INPUT</b>            |   |              |
| Sweep Range                   | >1000:1 1K, 10k, 100k, 1M ranges; >100:1 100Hz range; 20:1 10Hz, 1Hz ranges; >2000:1 with reduced linearity and distortion to 40MHz   |              |
| Input Impedance               | nom. 9kΩ  |              |
| Input Sensitivity             | 10:1 sweep = 17.1Vp/p; 100:1 sweep = 18.8Vp/p; 1000:1 sweep = 19Vp/p; 2000:1 sweep = 19.1Vp/p   |              |
| Sweep Linearity               | <±1%  |              |
| Max. Input Voltage            | ± 50V   |              |
| Max. Input Slew Rate          | 0.1V/μs   |              |
| <b>FREQUENCY COUNTER</b>      |   |              |
| <b>INTERNAL</b>               |   |              |
| Measurement Type              | Reciprocal, single cycle, and multiple period average   |              |
| Gate                          | Automatic, 1s or 1 period, whichever greater  |              |
| Accuracy                      | ±0.01%  |              |
| Stability                     | ±50ppm -10°C to 50°C  |              |
| Resolution                    | 4 digits  |              |
| Annunciators                  | mHz; Hz; kHz; MHz   |              |
| Display                       | 4 digit, 7 segment, 0.56" LED   |              |
| <b>EXTERNAL</b>               |   |              |
| Input Impedance               | 1MΩ, AC coupled, -3dB @ 5Hz   |              |
| Max. Input                    | 100VDC, 250VAC, 50Hz, derating with frequency   |              |
| Sensitivity                   | 25mV <10MHz; 50mV <25MHz, AC RMS Sinewave   |              |
| Max. Frequency                | >20MHz  |              |
| <b>GENERAL</b>                |   |              |
| Power Requirement             | 220/240V, 110V (set internally), 50/60Hz AC   |              |
| Power Consumption             | Typ. 25VA   |              |
| Operating Temp. Range         | 0°C to 40°C (10%) \ to 80% RH non-condensing)   |              |
| Supplied Accessories          | Instruction Manual, Mains Lead, Spare Fuse  |              |
| Optional Accessories          | Service Manual  |              |
| Size                          | 219 x 240 x 98mm (product only) 310 x 330 x 135mm (packed)  |              |
| Weight                        | 2.0kg (product only) 2.3kg (packed) 1.9kg (product only) 2.2kg (packed)   |              |
| <b>JUPITER 500</b>            |   |              |
| Frequency Range               | 0.1Hz to 500kHz (typ. 0.02Hz to >700kHz) in 7 switched decade ranges with fine frequency control  |              |
| Frequency Accuracy            | 3% of range (typically 1%)  |              |
| Output Impedance              | 600Ω (±2%)  |              |
| Output Amplitude              | 0 to 30 Volts p/p min. (low output -20dB)   |              |
| Output DC Offset              | -15 Volts to +15 Volts fully variable   |              |
| Output Waveform Purity        | Sine distortion <2% (typically 0.5%) up to 100kHz; <3% up to 500kHz<br>TRIANGLE linearity typically 1% up to 100kHz<br>SQUARE mark/space ratio 50% ±1%. Rise and fall times 200ns max. Slew rate 170V/μs typ.<br>TTL mark/space ratio 50% ±2%. Rise and fall times 25ns max (120pF /225Ω load, max load 30 standard TTL inputs) |              |
| Frequency Stability           | Typically 1% over operating temperature range   |              |
| Frequency Setability          | Typically better than 0.1%  |              |
| External Amplitude Modulation | Input impedance 6.8k Ω nom. Maximum Frequency Response 200kHz (-3dB)<br>Sensitivity 100% modulation from 6.0V p/p typical Maximum Peak Input Voltage ±35V<br>Linearity typically 2% up to 95% modulation  |              |
| External Frequency Sweep      | Input impedance 18k Ω nom.<br>Sensitivity 0 to 4V for full range sweep up to 120kHz. 0 to 1.7V (typically) for full range sweep on 500kHz range<br>Sweep Linearity typically 8% for 1000:1 or 2% for 10:1 sweep within range 0.1Hz to 100kHz<br>Maximum Peak Input Voltage ±70V   |              |
| Power Requirement             | 240V, 220V, 110V (set internally) ±10% 50/60Hz AC   |              |
| Environmental Operating Range | 0°C to 40°C (10% to 80% RH non-condensing)  |              |
| Supplied Accessories          | Instruction Manual, Mains Lead, Spare Fuse  |              |
| Optional Accessories          | Service Manual  |              |
| Size                          | 219 x 240 x 98mm (product only) 310 x 330 x 135mm (packed)  |              |
| Weight                        | 1.9kg (product only) 2.1kg (packed)   |              |



THURLBY THANDAR INSTRUMENTS LTD.  
Glebe Road, Huntingdon, Cambs.  
PE18 7DX ENGLAND  
TEL: (01480) 412451 FAX: (01480) 450409  
email: sales@ttinst.co.uk  
website: www.ttinst.co.uk



Designed and  
manufactured  
in Britain

Available from:

