



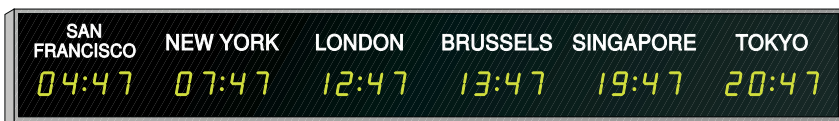
**470A/5.05** - 50mm character height  
 525 x 750 x 58mm  
 available with 2-7 time zones plus calendar

**Radio & GPS  
 Time Code  
 Synchronisation**

Please refer to the  
 484 & 4850GPS data sheets  
 for information on radio  
 and GPS time code  
 synchronisation.



**472A/3.05** - 50mm character height  
 525 x 390 x 58mm  
 available with 2-8 time zones



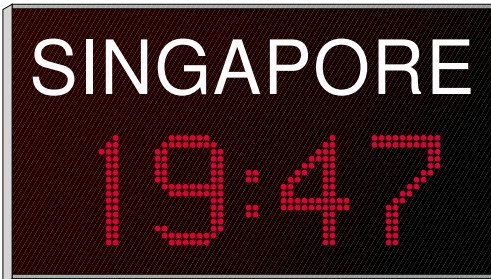
**474A/6.025** - 25mm character height  
 904 x 120 x 58mm  
 available with 2-8 time zones



**474A/5.05** - 50mm character height  
 1594 x 180 x 58mm  
 available with 2-8 time zones



**474A/5.057** - 57mm character height  
 1504 x 180 x 58mm  
 available with 2-8 time zones



**474A/x.12** - 120mm character height  
 600 x 300 x 58mm per zone  
 available with 2-8 time zones



**475A/3.05** - 50mm character height  
 904 x 300 x 58mm  
 available with 3-7 time zones plus calendar

## Applications

470 series time zone display units are designed to meet the requirements of the most demanding, prestigious and reliability critical applications in dealing rooms, command, control and communications facilities, conference and reception areas.

## Case Types and Finishes

470 series time zone display units are manufactured to customer's individual specification with choice of location names and character style.

Cases are finished in high quality brushed black or silver anodising or may be painted, at a small additional cost, to any required standard RAL or BS colour.

470 series time zone display units can be supplied with any of the following case types:

- **.S.** ~ for surface mounting.
- **.FP.** ~ with a flush fitting case suitable for mounting in a control or other panel with rear access.
- **.FB.** ~ with a flush fitting case and mounting box for mounting in a solid wall.
- **.SS.** or **.DS.** ~ as a single or double sided unit with support tubes for ceiling suspension.

## Stand-alone or Synchronised System Operation

470 series time zone displays may be used as stand-alone units with their timekeeping derived from a high quality internal quartz crystal oscillator. Each time zone is pre-programmed for automatic seasonal time changes.

In small systems one time zone display may be used as a master unit and will automatically control up to ten similar units using a simple single cable pair interconnection.

In larger systems, or where centralised control is required, the w482@ time code output of a 482 master clock or a 4850 serial time source may be used to control up to 50 time zone display units.

470A series time zone display units may also be synchronised to DCF or MSF radio time code or GPS satellite time signals when used with a suitable receiver system - please refer to the appropriate data sheet for further information.

## Time Zone Display Ordering Codes

Basic Part Number	Zones	Display Height	Display Colour	Case Style	Case Colour
474A	/ 5	05	R	S	Black
	2-8	.025. = 25mm .05. = 50mm .057. = 57mm .12. = 120mm	.G. = Green .R. = Red .Y. = Yellow (special order only)	refer to 'Case Types and Finishes'	.Black = Black anodised .Silver = Silver anodised .RAL x = Standard RAL paint finish

Designed and manufactured by:

## Wharton Electronics

Unit 15, Thame Park Business Centre  
Wenman Road  
Thame, Oxfordshire  
England. OX9 3XA

## Remote Control Handset

An optional model 408 infrared handset is available to allow time zone display units to be remotely adjusted when used as stand-alone units.

## Simple Installation

All 470A series time zone units are supplied pre-configured for easy installation and only require mechanical fixing and connection to a suitable 100-250v 50/60Hz mains supply using the cable provided. When units are interconnected in systems a non-critical single pair data cable is used.

## Environment

Power supply: 100/250v 50/60Hz ac as standard.

An automatically re-charging internal battery maintains timekeeping in the event of a mains power failure.

Power consumption: <0.4A @ 230v ac  
Operating Temperature: 0-50°C  
Altitude: 0 to 3,000m  
Relative Humidity: 0% to 95% (non-condensing)  
Weight: 474A/6.05 - 9.0kg  
MTBF: >50,000hours  
Accuracy:  
Stand-alone operation: 99.9998% @ 20°C ±3°C  
Locked to MSF or DCF: within 20mS of UTC  
Locked to GPS: within 1mS of UTC

## Electromagnetic Compatibility & Safety

470 series time zone displays, when used in accordance with our recommendations, comply with the European Community Electromagnetic Compatibility Directive 89/336/EEC and Low Voltage Directive 73/23/EEC and conform to the following standards:

- **EN 50081-1** 55022 class B
- **EN 50082-1** IEC 801-2 level 3  
IEC 801-3 level 3  
IEC 801-4 level 3
- **EN 60950**

Please contact us for information on our CSA approved and UL recognised models.

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