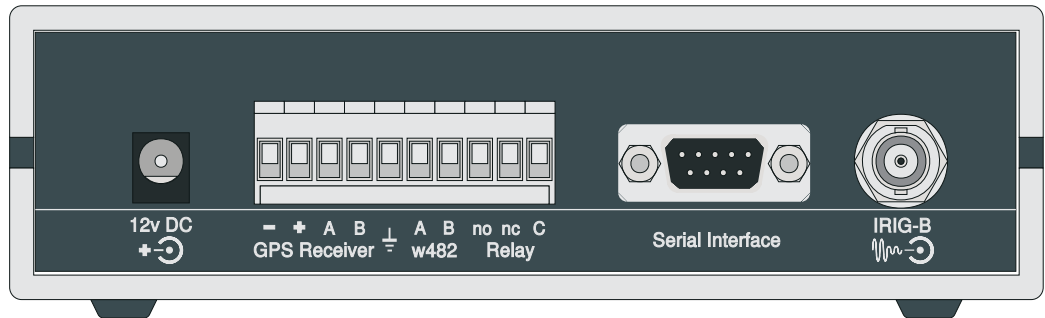




Free Win NT4 (x86) and Win 9x synchronisation software + NTP distribution compatible serial output format

GPS, DCF & MSF synchronisation options



The 4850 Time Source provides a complete precision time synchronisation solution for computer networks, CCTV security, digital clock systems, industrial process control, voice recording and many other applications requiring accurate time synchronisation of equipment.

The following data outputs are provided as standard:-

- RS232 and RS422/RS485 outputs which can transmit one of more than 20 different serial ASCII time and date telegrams at user selected formats and intervals.
- An RS232 precision 1pps 'on-time' signal.
- A programmable changeover relay contact pair providing periodic signals or status information.
- A w482® time code output which can control up to fifty 400A series digital clocks or time zone displays showing time and date in up to 15 different world-wide time zones.

An optional multi standard -IRIGoutput is also available.

The 4850 Time Source may be used in stand-alone mode, deriving its timekeeping from its accurate, high stability, internal crystal oscillator or, for ultimate precision, synchronised via optional receivers to GPS satellite transmitters or DCF and MSF terrestrial radio time code transmitters.



The 4850 Time Source is housed in a small free standing case and is also available as the 4850R model housed in a 1U high case and suitable for 19" rack mounting applications.

The bright red LED display of time or date has adjustable brightness and can be read at distances of up to 7m.

Timebase

The internal, high stability, quartz crystal oscillator typically provides an accuracy of ±0.1 seconds per day @ 20-25°C.

When synchronised with the GPS satellite network via the optional 488BGPS receiver subsystem the RS232 level 1pps 'on-time' pulse is maintained within 50µs of UTC.

When synchronised with DCF or MSF radio time code transmissions, via an optional 484 series time code receiver, the 4850 Time Source output signals are maintained within 30mS of UTC.

The 4850 Time Source has a 256-year internal calendar valid for the range 1999 - 2254 with four-digit year setting.

A unique time zone set-up facility is programmable for any location in the world and automatically calculates the appropriate time offsets to UTC and future seasonal time changes for up to fifteen time zones.

RS232 and RS422/RS485 interface

One of more than 20 different serial ASCII time and date telegram message formats may be selected by the user.

General purpose formats are user configurable for:

- 7 or 8 data bits
- Odd, even or no parity
- 1200, 2400, 4800 or 9600 baud rate
- Message repetition rates of every second, minute, five minutes, hour, day or on request.

The wide range of application specific time and date message formats, with pre-programmed parameters, provide a simple 'set and forget' capability to enable the precision synchronisation of many different types of video recording, computer and communications equipment including items manufactured or supplied by the following companies:-

- AVT Systems
- Coe Ltd
- Dictaphone Corporation (requires optional **-IRIG** interface)
- Grass Valley Inc
- Grundig UK Ltd.
- Mitsubishi Digital Electronics America Inc.
- Meyertech Inc.
- Neal Recording Systems Inc.
- Panasonic UK Ltd.
- Racal Recorders Ltd.
- Scientific Atlanta Inc.
- Silvermines Security Ltd.
- Synectics
- Tecton Ltd.
- Vicon Industries Inc.
- The Vision Factory Ltd.
- The Vision Research Company Ltd
- Vortex Communications Ltd.

Please contact our technical department for application advice on specific equipment and operating configurations or the supply of units with non-standard ASCII message formats.

w482 and **4850** are trademarks and/or service marks in the United Kingdom and other countries. Other brands or products are trademarks of their respective holders.

Relay Contacts

Changeover relay contacts are provided rated at 30v dc @500mA. The relay can be programmed by the user to changeover for one second at various repetition rates:-

- Every 5 seconds
- Every minute
- Every hour
- Once per day at a user programmable time

or to changeover on the occurrence of specific events: -

- On power failure
- While locked to an external time reference
- During an error state

W482 Time Code Output

The w482® time code output is intended for the control and synchronisation of 400A series digital clocks and time

zone displays showing time and date in up to fifteen different time zones.

One 4850 unit can control up to fifty 400A series slave displays located up to 1km from the 4850 unit using a simple, non-critical, single cable pair.

The appropriate UTC offset and all future seasonal time-changes are pre-programmed for almost every global location.

Optional Output Interface

The optional **-IRIG** interface provides a 1KHz amplitude modulated signal via a 60Ω transformer coupled output. The output signal level is internally adjustable 0-7v p-p and is factory preset to 3v p-p. The output signal format may be selected by the user from the following choice:

- IRIG-B (B123)
- IRIG-E (E123)
- Afnor NFS 87-500
- NEMA 911
- IEEE 1344 (please refer to the 4850 manual for further information on the IEEE 1344 extensions implemented)

Environment

Power supply: 12v dc max 5VA via supplied external ac power supply. Specify **UK** (230v), **-EU** (220v), **-US** (110v) or **-AU** (240v).

Unit size: 173mm wide x 178mm deep x 49mm high (6.8" x 7" x 2").

Weight: Main unit: 0.6Kg PSU: 0.5Kg

Operating Temperature: 0-45°C

Relative Humidity: 0% - 90% (non-condensing)

Altitude:- 0 - 3000m MTBF: 50,000 hours

Electromagnetic Compatibility & Safety

The 4850 Time Source, when used in accordance with our recommendations, complies 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

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