

LED Clocks & Counter Displays



FEATURES AND FACILITIES

- **CHOICE OF SIZES**
- ask for details and prices
- **FULLY WEATHERPROOFED**
- **INSTALLATION**
- ask for details and prices
- **EASY TO USE SOFTWARE**
- **MULTIPLE INPUT**
- **MAINTENANCE PACKAGES**
- ask for details

Clocks and Counter Displays

Examples

LED displays typically display instantly updateable information and the obvious example would be a clock timer. With this in mind we produce displays that can be adapted to count up or down with reset/pause facilities at any point. Display a date or alternate between temperature and time and you have a fully interactive display for counting down to the launch of a new vehicle or counting up to a significant event. The displays can be used in a variety of environments, indoor or outdoor, promotional or sports, easily installed and programmed they make an ideal solution to a simple need.



Above: 60mm 3 digit counter with duplicate unit for synchronised independent displays.



Above and Below: 7 segment LED Digits



Right: LED Clock within a bespoke casing



Above: 200mm 7 segment countdown timer (Barrow Runners)



Right: 500mm high LED Clock/Temp digits and text (Sunrise Radio)



Clocks and Counter Displays

Clock Formats

MATRIX DISPLAYS

Standard matrix based LED displays offer character sizes from 24mm (indoor) to 600mm (outdoor). In different font formats and layouts your timer or counter is versatile and can include up to 999 days, hours, minutes and seconds. With Real Time accuracy and reset facility their uses are endless whether in an industrial setting or in a sports situation. See examples (below) of some of the possible layouts

Standard font



Narrow font



15/16 Row bold



Showing secs.



7 SEGMENT DISPLAYS

LED Digits

7 segment individual digits range in size from 4inch (100mm) to 24inch (600mm). Primarily suited for scoreboards and sports timers they can be controlled via PC or hand held remote control. Optional extras include break beam sensors for accurate times.



Above: 7 segment individual digits. Each segment and/or decimal points fixed separately.

7 segment LED modules

Mainly used for exchange rate displays they range in size from half inch (12mm) to 2 inch (55mm). Decimal points are included between each digit and come in 4, 6 or 8 digit cells.

Right: 7 segment modules with fixed position decimal points between each digit.



Above: 7 segment PCB digits flashing colons in fixed position

Clocks and Counter Displays

Countdown Displays



Left: 40mm Character height countdown clock (Middlesbrough NHS PCT)

Right: Countdown clock using LED digits on a bespoke free-standing casing Cadburys - Paralympic Games



Above: 55mm character height - YRS: DAYS: HRS: MINS: SECS countdown (British Judo Association)

Right: 55mm character height DAYS:HRS:MINS countdown (Dublin Marathon)



Above: 140mm 12 character Yellow Outdoor LED Countdown display



Left: 55mm HRS:MINS: SECS countdown (Red Funnel Ferries IoW)

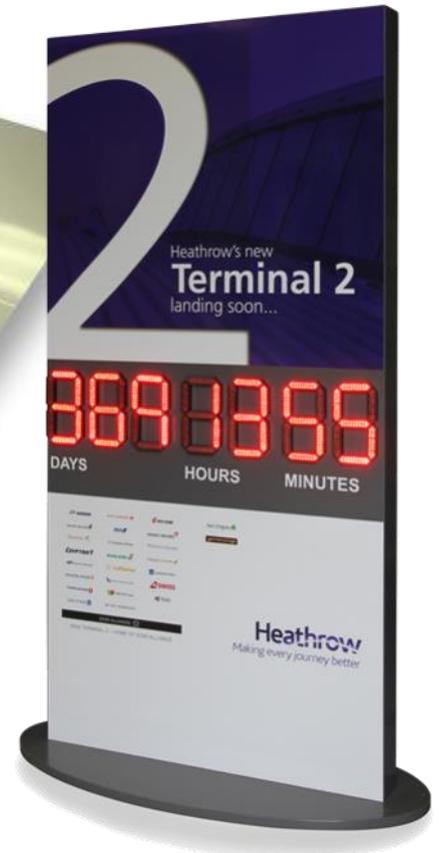


Clocks and Counter Displays

Countdown Displays



Left: 140mm 12 character blue LED Outdoor Countdown display



Above: LED digit Countdown display to opening of new Heathrow terminal

Below: 140mm 12 character blue LED Outdoor Countdown display



400mm Character Height 12 digit ultrabright Blue LED countdown clock with external casing specification. (Opening refurbished St Pancras Railway Station)



Left: 24/60-1L display used as a countdown display White LED's synchronised to other countries.

Clocks and Counter Displays

Counter Displays



Above: 60mm minute counter with reset (Grampian car Club)



Below: 30mm 7 segment minute counter with 'Magnetic Wand' reset



Above: 60mm minute counter (Speed Ferries)



Right: 140mm Ch Height ultrabright Red LED countdown clock with internal casing spec. (City of London Academy)



Clocks and Counter Displays

Counter Displays



Above: 80mm Time display recording information between particular times (Vodafone UK)



Above: Two simple double digit Counter displays, simple casing, top fixings



Right: 20mm Order number priority display (YoYo Foods)
Below: 55mm 3 digit counter line counter based on per minute



Above: Seconds counter using optical break beam trigger system with reset facility (Fabricated Products)

Right: 40mm 10 character Accumulator display for kW electricity generated per hour



Above: 55mm 2 character Averaging counter for number of metres of extrusion produced.

Right: 55mm 2 line display showing estimated times of completion of orders. (Suit Supply Westfield Shopping Centre, London)



Clocks and Counter Displays

Multi Time Zone Clocks & Master Clocks

MULTI TIME ZONE CLOCKS



Above: 40mm 7 segment blue LED Clocks With 30mm Red LED destination displays



Showing different styles and formats



MASTER CLOCKS



Left and above: 300mm character height yellow LED outdoor clock one of a pair using master controller. Mounted on steel tower



Above: 4metre electromechanical clock controlled by master clock controller



Clocks and Counter Displays

System & Standalone Clocks - Examples



Simple digit clocks, various sizes and colour LEDs

Right: 5 Character static display with reset and controller via PC link. 60mm Character Height internal red LED Display. (Longleat Miniature Railway)



Left: Countdown Clock to concert at Hammersmith Apollo



Above: Prayer board with clock



Left: Multi zone Clock with information line to bottom of display

Clocks and Counter Displays

Sports Timer Displays



Above: Sports Timer for Extreme Sailing in Oman



Right: Mansfield Town FC Scoreboard including match timer

Right: 7 segment scoreboard with matchtimer (Soccer City)

Below: 7 segment Rugby scoreboard with time elapsed digits



Above: LED Scoreboard with time played count up display (Broadstreet RFC)



Below: Battery operated Scoreboard



Above: 4 sided Scoreboard with stopwatch timer (Lee Valley Ice Centre)



Right: Two timing displays using 7 segment LED digits, time countdown blocks an option (above right - Gurston Down Time Trials) (right - Model Aircraft Racing)



Clocks and Counter Displays

Operation

LEDsynergy Clock/Timer Displays are easily programmable, with various methods of operation to suit almost any application.

Keyboard Operation

The simplest way to program a Clock Display, is using the standard **LEDsynergy** RMSP-100 Infra-Red Keyboard. The keyboard is simply pointed at the display and the Time altered via the prompts on the display.

PC Operation

LEDsynergy Clock Displays can also be programmed from remote locations using PC's and Windows Compatible Software.

The displays can be connected to PC's in various ways:

- Connected directly to a PC's Serial Communication Port
- Via dial-up modem
- Over Ethernet TCP/IP network

Times or counter start/pause/reset are edited/ composed on PC and then downloaded or sent to the display.

POPULAR COMMUNICATION OPTIONS

Ethernet

Connected directly into a TCP/IP Ethernet network, and assigned its own IP address. Suitable for use where there is an existing network infrastructure.

Modem

Connected directly to a modem that answers an incoming call from the PC operator, and will disconnect after the message has been transmitted. Suitable for use where there is an existing telephone line and other communication options are unsuitable.

RS232 & RS485 (RS422)

RS232 is intended for short distance transmission, using un-balanced lines, between one master and one slave. It is possible at lower data rates, to control several slave units within a small area.

RS485 is intended for use in multi-slave applications using a balanced line. A single master will control up to 32 slaves at distances up to 1000m. The earlier RS422 standard may be regarded as interchangeable with RS485 except for a limit of 10 slaves.

- The remote setting or synchronisation of the clocks by computers using one of three data formats.
- The transmission of a serial ASCII time message, either every second or 'on demand', in one of seven data formats. The 'on demand' mode may be triggered by the receipt by the clock of an ASCII character (RS232 only) or by the closure of an external voltage free switch connected to the clock. Each message may be transmitted or received at 1200, 2400, 4800 or 9600 baud, seven or eight data bits and at odd or even parity.

It is very important that both the clock and the connected computer or other equipment are using the same signal standards, recognise the data format and are set to the correct baud rate, bit length, parity and number of stop bits.

Electromagnetic Compatibility

The Clocks, when used in accordance with our recommendations, comply with the European Community Electromagnetic Compatibility Directive and conform to the following standards:

EN50082-1 EN60950 IEC950

Global Positioning System

GPS is a system transmitting highly accurate, world wide real time and navigation to a suitable GPS receiver. The system allows master clocks/controllers to be automatically synchronised from the GPS satellites. The antenna is a low-profile unit mounted with a clear view of 75% of the sky. If the sky view is restricted the interval between 'switch-on' and system time synchronisation will be considerably increased.

The GPS receiver/decoder module is designed to self initialise without the necessity of operator input. When accurate satellite time information is available synchronising time signals are transmitted every minute from the receiver/decoder module to the master clock.

Synchronisation

Clocks can be synchronised from many different external sources, including radio and satellite time signals, also various time codes and impulse signals.

The principle advantage of using a time code rather than an impulse signal for controlling slave clocks is that the time code enables a self-setting mechanism for the clock on installation, following failures of the mains power supply or in the event of system maintenance. Seasonal time changes normally take place within a few seconds, rather than at the delayed rate typical of an impulse system. The slave clocks will not, normally, show an incorrect time.

about us

As an established leader in the UK for electronic message display signs and with 40 years experience in the business of supplying programmable LED signs and LED displays, you can be sure that we'll give you the right advice and excellent service, these are the values that we hold dear.

We are a British company and we pride ourselves in our commitment to our customers, product performance and our quality of service. In the past 40 years or more we have installed in the region of nearly 20,000 LED screens and displays to a broad spectrum of clients. As a LED display LED screen manufacturer we are able to offer a complete bespoke solution from concept to commissioning offering you the most cost effective solution to your needs.

If you'd like to talk to us about how we can help you just call us. There's no obligation and we don't charge for quotations. We can work together to be sure that the LED sign solution we offer you is absolutely the correct solution for your requirements.

For demonstrations and to view our extensive range of LED displays please contact us to arrange a visit to our showroom at our base in Andover, Hampshire. Just call us on 01264 303030.

accreditations

LED Synergy Electronic Displays have 40 years experience in the manufacture and supply of electronic displays to many companies and individuals worldwide. We have a wealth of experience and expertise and have been accredited with the following certifications:



ISO9001



WASTE ELECTRICAL and ELECTRONIC EQUIPMENT



RESTRICTION of HAZARDOUS SUBSTANCES



EUROPEAN COMFORMITY



UNDERWRITERS LABORATORIES



SAFE CONTRACTOR



We are also an approved Highways England contractor



- **Simple to operate products with bespoke software**
- **Value for money & satisfaction guaranteed**
- **Superb British manufactured products**
- **Excellent support & customer service**

"This huge sign caused great excitement at the start of the new Millennium, with welcoming messages uploaded from around the world it brought the year 2000 in with a bang!". *Reuters*



We accept most major credit and debit cards

"Thank you for all your help in the installation of the Help Desk Control system. The system has been up and running for over a year, and surpassed the trial findings. We were able to achieve a complete system payback within 6 months."

Tony Lawrence (Technical Support Manager) - Lloyds TSB

"You provided a countdown display in record time, next time we will try and give you more notice ! Thank you for your excellent service and support throughout the project."

Dominique Didinal (Marketing Manager) - St Pancras Station

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