TIMEGUARD®

Timer Modules

MEU11 – 24 Hour Module,
MEU17 – 7 Day Module
(Without Housing)

EMU11 – 24 Hour Module,
EMU17 – 7 Day Module
(With Housing – Giving panel mounting facility)

1. General Information

These instructions should be read carefully
and retained for further reference and maintenance.

2. Safety

- Before installation or maintenance, ensure the
  3V DC supply to the timer module is switched off.
- It is recommended that a qualified electrician is
  consulted or used for the installation of this timer
  module and install in accordance with the current
  IEE wiring and Building Regulations.
- Check that the total load on the circuit before
  attempting to use the time module for your
  OEM application.

3. Technical Specifications

General

- Requires an external diode, resistor and relay
  to switch mains voltage.
- Manual Override – ON/OFF until next programme.
- Operating Temperature – 0°C to +55°C.
- Power Reserve – Non replaceable rechargeable
  factory fitted battery, Metal Hydride, 1000 hours.
- CE Compliant.

MEU11 & EMU11 24 Hour Modules
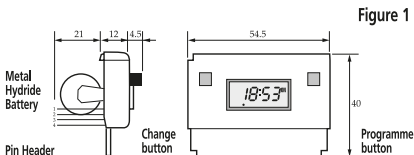
• 24 Hour Time Period – 4 ON/OFF programmes.

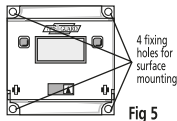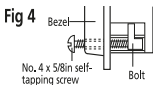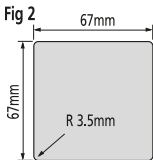### MEU17 & MEU17 7 Day Modules

• 7 Day Time Period – 6 ON/OFF programmes, daily, weekly, weekend or weekday options.

4. Contents

• 1x Timer module.
• 1x Panel mount bezel.
• 1x Tamper proof cover.
• 4x Surface mount stand offs (length 10mm).
• 2x Panel mount bolts.
• 2x Self-tapping screws (No. 4 x 5/8in) for panel mount bolts.
• 2x Self-tapping screws (No. 6 x 3/8in) for attaching bezel to EMU11.

5. Installation

Figure 1

Fig 2

67mm

67mm

R 3.5mm

Fig 3

Use No. 6 x 3/8in self-tapping screws to fully secure bezel to EMU11/17 (fixed from rear)

Fig 4 Bezel

No. 4 x 5/8in self-tapping screw

Bolt

4 fixing holes for surface mounting

Fig 5

Panel Mounting

- For panel mounting (in panels up to 7.0mm thick with the cut-out as shown in figure 2) the EMU11/17 should be snapped into the bezel supplied and secured in place by the use of the 2x No. 6 x 3/8 in self-tapping screws provided (as shown in figure 3).
- When selecting a position for the unit, bear in mind that a clearance behind the front panel surface of 26.0mm is required over the full area of the panel cut-out.
- The unit is designed to be mounted from the front of the panel by the following procedure;
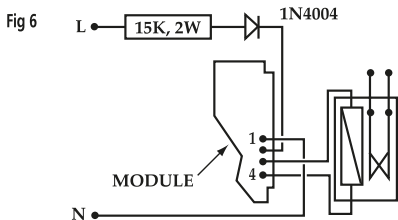
5.1 Insert the 2 bolts provided in the locations as shown in figure 4.

5.2 Then insert the 2x No.4 x 5/8 in self-tapping screws into the bolts and engage thread.

5.3 Make connections to the unit by wires terminated in a Molex 4 way 7720 or similar connector from behind the panel.

5.4 Insert the EMU11/17 complete with bezel into the panel and tighten up the 2x No.4 self-tapping screws. The ears on the bolts will rotate as you tighten to clamp the unit to the panel.
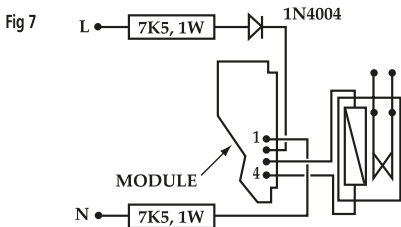
4 Surface Mounting

- The EMU11/17 without bezel can be surface mounted using the 4 securing holes as shown in figure 5.

- The unit can be stood off from the mounting surface by 10mm using the 4 spacers if required.

- Screws are not provided and it must be remembered that if used in this way the EMU11/17 must be installed within a housing or cubicle to prevent access to the mains terminations.

6. Connection (All models)

Single Resistor PSU (MEU11 & MEU17 only)

Fig 6

L — [15K, 2W] ▷|— 1N4004

MODULE

1
4

N

Two Resistor PSU – gives Optimum EMC Performance (MEU11 & MEU17 only)

5

Fig 7

L — [7K5, 1W] ▷|— 1N4004

MODULE

1
4

N — [7K5, 1W]

All Types Connections

Pin 1: Common.

Pin 2: Positive battery charge plus relay current.
Min 0.50 mA (No relay).

Pin 3: Relay connection.

Pin 4: Output & relay connection. NPN open
connector. Max 10 mA, 47 V A Molex 7720
4 way connector or similar is recommended.

MEU11 and MEU17 – Typical Usage

The examples in figs 6, 7 and 8 show the module
driving a Shrack 48V relay with power derived
from the mains. Type RP330048 or RP331048
(Changeover contracts). In these configurations the
relay pulls in at 47V and is held at above 24V with
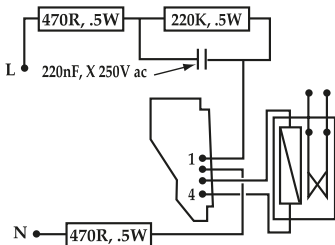mains voltages down to 200V.

EMU11 and EMU17 – Typical Usage

In this case the circuit in fig 6 can be used with a
10K, 3W resistor in place of the 15K, 2W resistor
shown and a 1.3W zener must be connected
between pins 1 and 2 of the module. The circuit
in fig 7 can be used with two 5K1, 1.5W resistors in
place of the 7K5, 1W resistors shown and a 1.3W
zener must be connected between pins 1 and 2

of the module. The circuit in fig 8 can be used with a 330nF, X 250V AC capacitor instead of the 220nf capacitor shown and a 1.3W zener must be connected between pins 1 and 2 of the module. In all cases the zener is 47V and its cathode is connected to module pin 2.
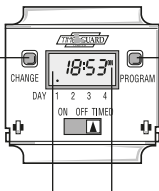
Capacitor PSU (MEU11 & MEU17 only)

Fig 8

7. Programming Instructions
24 Hour Model

Change Button sets Hours and Minute times and self cancelling override

Programme Button used to select the clock time and the 4 ON/OFF programme times and to review them once set

Easy view 24 hour digital clock/timer display

Output Status showing unit either ON or OFF

8

7 Day Model

Change Button sets Hours and Minute times and self cancelling override

Programme Button used to select the clock time and the 6 ON/OFF programme times and to review them once set
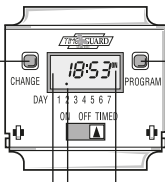
Easy view 24 hour digital clock/timer display

Day indicator
1 = Monday
7 = Sunday

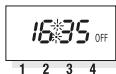**Output Status** showing unit either ON or OFF

7.1 Programming Overview

To enter the programming mode, press and hold the 'Program' button for 2 to 3 seconds and then release the button. Only two setting buttons are required during the programming process. The 'Change' button is used to set the hours and minutes, the 'Program' button is used to move to the next stage of the programming process. Each time the 'Program' button is pressed the display will flash either the hours or the minutes in turn, starting with the clock then the first ON time, first OFF time, second ON time and so on.
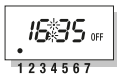
Note: Button pauses greater than 1 minute during programming will result in an automatic return to operating mode.

7.2 Normal Operating Mode

In normal operation the unit will display the correct time with the colon flashing. The output status will be shown by either ON or OFF on the display.

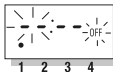**24 Hour Version**

7 Day Version

7.3 Setting Clock & Programming After Reset

- To clear the memory and reset the unit press hold down the 'Change' and 'Program' button until the display goes blank.

- Release both of the buttons. After a few seconds the display will show the clock with the hour digit blinking.

- For the 7 day version there will be a dot flashing over number 1 which is Monday and 7 being Sunday. Press the 'Change' button to select your current day. Once this is complete press the 'Program' button to move to setting the clock. **You are now in the clock setting mode at the beginning of the programme sequence**

- To set the hour for the clock press the 'Change' button to advance the hour setting. For a rapid change of the hour setting hold down the 'Change' button and release when the correct hour value is selected.

- Press the 'Program' button once and the minutes will flash, press the 'Change' button to advance the minutes setting to the correct value required. Again you may hold down the 'Change' button for a rapid change of the minutes if you wish to do so.

- Press the 'Program' button once, the clock is now set and you are ready to enter the first ON time. You will now find the hour digits flashing if you own the 24 hour models and if you own the 7 day models you will see the first five dots flashing which represents Monday to Friday.

7.4 Programme 1 ON time (7 Day Models Only EMU17 & MEU17)
(For EMU11 & MEU11 follow from the next bullet point, programmes will run on a daily Basis)

Press the 'Change' button to select the appropriate group you require your programme to run for; you can also set individual days.

1 2 3 4 5 6 7	
● ● ● ● ●	= 5 days (Weekdays) Mo Tu We Th Fr
● ●	= 2 days (Weekend) Sa Su
● ● ● ● ● ● ●	= 7 days (Everyday) Mo Tu We Th Fr Sa Su
●	= Individual days Starting with Monday through to Sunday

- Press the 'Change' button to select the hour you require for the programme.
- Press the 'Program' button to confirm the hour and advance to the minute setting.

7

- Press the 'Change' button to select the minutes you require for the programme.
- Press the 'Program' button to confirm the minutes for the ON time and move on to setting programme 2 ON.
- Repeat the steps from section 7.4 'Programme 1 ON time' for additional programmes if required. Note: The 24 hour models have 4 programme memory slots, and the 7 day models have 6 programme memory slots.
- If you wish to exit the program mode at anytime, press and hold the 'Program' button until you are back at the current time.
- IMPORTANT: Once programming has been completed, the unit will show an OFF status by default. If you require power output now, press the 'CHANGE' button once. This will override the unit until the next programmed OFF time. If you do not do this, the unit will simply turn ON at the next scheduled ON time (even if this is the following day).

7.5 Program Review
When in operating mode press the 'Program' button for 3 seconds and the clock symbol, hours and minute's symbol on the display will flash, this is

review mode. If any changes are required to the current set programmes press the 'Change' button to start programming mode and then follow steps from 'Programme 1 ON time'.

7.6 Cancelling Programmes

To clear all programmes, press and hold down the 'Change' and 'Program' buttons until the display goes blank. Release both buttons and after a few seconds you will be prompted to set the clock. Once set you can re-enter your programme times.

7.7 Clearing Programmes

Any individual programme can be cancelled by clearing its ON and OFF time. Follow the steps as mentioned in section 7.5 'Program Review' until you reach the program you wish to cancel. Press the 'Change' button until the hour digits show --: and press the program button to clear the programme.

7.8 Self-Cancelling Override

To change the output status from ON to OFF or vice versa during normal operation press the 'Change' button. If the output status is OFF, it will change to ON until the next programmed OFF time. If the output is ON, it will change to OFF until the next programmed ON time.

8. Battery

The modules are supplied with factory fitted with a non-replaceable, re-rechargeable, Metal Hydride battery back-up with 1000 hours reserve.
Note: To preserve battery life, it is not recommended that these modules remain disconnected from a charging source for a period of more than six months.

1 Year Guarantee

If you experience any problems, do not immediately return the unit to store, please telephone our helpline. In the unlikely event of this product becoming faulty due to defective material or manufacture, please return it to your supplier within 1 year along with proof of purchase and it will be replaced free of charge.

Note: a proof of purchase is required in all cases. For all eligible replacements (where agreed by Timeguard) the customer is responsible for all shipping/postage charges outside of the UK. All shipping costs are to be paid in advance before a replacement is sent.

If you experience problems, do not immediately
return the unit to the store.
Telephone the Timeguard Customer Helpline;

HELPLINE
020 8450 0515

or email helpline@timeguard.com

Qualified Customer Support Co-ordinators will be on-line
to assist in resolving your query.

TIMEGUARD®

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www.timeguard.com

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