



SHM COMMUNICATIONS LTD

Engineering Energy Information

Valley House, 6 Winnall Valley Rd, Winchester SO23 0LD

Tel: +44 (0) 1962 865142

www.shmcomms.co.uk

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Application note: Use of EM24 meter with Day/Night tariff

The EM24 can use up to 4 tariffs. This note covers a 2 rate application.

The Clock is external to the meter – in this case the Muller SC08 is used.

Standard configuration

- Summer / Winter enabled (can be disabled in the clock)
- T1 rate 00:00 to 07:00
- T2 rate 07:00 to 00:00

EM24 Configuration

- The model .IS. EM24-DIN must be used – this has 3 digital inputs. In this case, one used to switch between the tariff, and the other 2 can be used for Gas, or Water inputs.
 - If not using the other 2 inputs, they can not be disabled, but if you configure them to use the **same** parameter, then Digital In 3 is then disabled.
- This option also provides a Modbus serial interface.
- Program the meter as per the manual, and set Dig In 1 to Tar (for tariff).
- Dig 2 should not be set to tariff if you only want 2 rates. If Dig In 2 is also set to Tar, you will have 4 rates.
- 'A T1' indicates rate T1 is Active, 'T1' when it is inactive.

Clock Configuration

These notes are to be read in addition to the manual from the SC08 manufacturer

Use of buttons.

Button	Function
Recycle symbol	Press to move between Menus, see the small bar in the top of the LCD against the legends printed in the top.
OK	OK, and move to next day, hour, minute etc.
Diamond	Change the current parameter – e.g. if showing the time, and 03 is shown, the diamond presses to increase the hours to 04. press OK to then show 04:0, i.e. moves on to next digit.
Left arrow	Go to previous digit or parameter
CL	Clear the program by pressing the Recycle x2 to show ? then press CL x2

To view the settings of the Clock / timer for 2 rate

Recycle x2 to show the ? menu. Use OK to step through the settings. Typical settings are shown in this table.

PL28	Number of programming positions free
00:00	Starting at 00:00
1234567	Every day
A \bar{E}	Automatically Close (energise) relay
07:00	Starting at 07:00
1234567	Every day
A \bar{E}	Automatically Open (de-energise) relay

To change program, use the P menu.

Circuit connections

EM24-DIN		SC08		Notes
Function	Term	Term	Function	
<i>Dig In 1</i>	31	1	<i>NO</i>	<i>When relay closed, T1 is Active, and 0V on this terminal. When relay open, T2 is Active, and 5V on this terminal.</i>
<i>Gnd</i>	43	2	<i>Common</i>	
<i>Live (240V)</i>	57	L	<i>Live</i>	
<i>Neutral</i>	55	N	<i>Neutral</i>	