

Manual SR250-D/M32 for ringing three bells

Introduction

Thank you for buying this product. To avoid disappointment or damage please read these instructions carefully. They are important!

Semiconductors are highly vulnerable to static electricity. When touching the printed circuit board or connectors wear cotton (not woollen) clothing and always touch something earthed such as a metal tap, water or gas pipe immediately before handling the unit.

Power must never be connected when installing, connecting or making a change into the unit. Reconnect the power afterwards.

The SR250-D32, with DCF receiver, indicates the Central European Time. The SR250-M32, with MSF receiver, indicates the time for Britain or Ireland.

Altering optional settings (SW1)

The dip switches allow you to select the following settings for bell ringing:

S1, S2, S3, S4 (instead of “on”, “open” (=off) can be mentioned on SW1

- | | |
|-----------------------|---|
| 1- off, off, off, off | - hour met b2 |
| 2- off, off, off, on | - half hour with b2 and hour with b2 |
| 3- off, off, on, off | - half hour with b1 and hour with b2 |
| 4- off, off, on, on | - half hour with b1 and b2 (bim/bam) and hour with b2 |
| 5- off, on, off, off | - quarter of an hour with b1 and hour with b2 |
| 6- off, on, off, on | - quarter of an hour with b1 and b2 (bim/bam) and hour with b2 |
| 7- off, on, on, off | - quarter of an hour with b1 and b2 (bim/bam) and hour with b3 |
| 8- off, on, on, on | - Wienerschlag with b1 and b2, quarter of an hour with b1, followed by hour with b2 |
| 9- on, off, off, off | - Italienischschlag with b1 and b2, quarter of an hour with b1, followed by hour with b2 (no fourth quarter of an hour and hours 1 up to 6) |

b1 = bell 1 – highest tone, b2 = bell 2 - middle tone, b3 = bell3 – lowest tone

Push button (SW2)

Functions:

Repeating bell ringing: After pushing, every next minute the latest bell ringing inclusive the hour ringing will be repeated.

Reset: by pushing SW2 for approx. 5 seconds until the led lights.

DCF/MSF receiver

The SR250-D/M32 only works with a DCF (Germany) or MSF (Britain) receiver. The ringing is always on time and correction between summer and winter time is made automatically. A time correction will not take place immediately. The SR250 checks its internal clock timing with the received time once every minute. If an identical difference is detected four times in succession, the SR250 will initiate a correction.

Connector J4, if supplied, is for connecting all the EM2S receivers. Connect J4-1 to LP1, J4-2 to LP2, J4-3 to LP3 and J4-4 to LP4. The top view of the receiver print is directed to the middle of the SR250 print.

Connector J1, if supplied, is for connecting a DCF receiver with screwconnector. J1-1 (-), J1-2 (+) and J1-4 (DCF). The receiver can be placed on the pins of connector J1. The top view of the receiver print is directed to the middle of the SR250 print. Pins J1: J1-1 (-), J1-2 (+6V) and J1-4 (DCF).

Keep the unit well clear of metal objects, transformers and telephone or power wiring. The red led on the main unit lights briefly once every second except the 59th, which is the moment of synchronisation. If the received signal is weak interference may disrupt the receiver when the SR250 is sending pulses to the bells. The led will blink irregularly under these conditions and a better location should be found for the unit or use a relay and a separate power-supply to drive the bells. When the distance between the SR250 and the receiver is more than 25cm, use shielded wire.

Power supply

With the standard mains DC power supply provided with the SR250 the *white* (+) wire must be connected to terminal 10 (~) and the *pink* one (-) to terminal 11 (~). When the printed circuit board is supplied with rectifier G1, in which case a transformer with an output of 18 to 22VAC/1A should be connected to terminals 10 (~) and 11 (~).

Important: After rectification the voltage must be **no** more than 34V maximum and not lower than 18V. A small transformer rated, for example, at 24V/100mA gives significantly higher voltage when not fully loaded. The rectified voltage can easily exceed 34V.

Bells

The common + for the 3 bells or relays is terminal 7 of connector J2. Bell 1, 2 and 3 are connected respectively to terminal 2, 5 and 6.

For 24V= output the jumper JP1 must be slid over both pins. For 12V= over just one pin.

For bells with a coil voltage lower than 12V= a series resistor is necessary.

Example a coil of 10 ohms / 1,5V (150mA) needs at 12V (13V) a resistor of 82 ohms/2Watt.

The surplus in ohms is to limit the current and to avoid blowing the fuse on the SR250.

Never place a wire resistor close to the receiver.

Maximum current for each bell is 250mA.

Opening the case

By gently squeezing in the 4 slots (and lifting the cover at the same place) in sequence clockwise.