

School Bell Power Supply with Timer



Timer Operating Instructions/Connection Diagrams

1.0 Timer Overview

The timer module on the front panel of the School Bell Power Supply is used to set up to 20 different times for the school bells to pulse. The bell pulse length can be 3, 5, or 9 seconds in duration. Pulse length is set by jumpers on the main PCB inside the cabinet. See Section 4.

For each of the 20 times that can be selected, one or more days of the week (Monday to Sunday) can be allocated; an output operation (ON or OFF) can be set for each. Setting the transition from OFF to ON and from ON to OFF of the timer module output will cause the school bells to operate for each chosen duration.

For example, the following times, days, and timer module output operations may be programmed as shown below:

Class Change Table

Time	Days	Timer Output	Bell Output
7.50 am	Monday – Friday	ON	Bells operate for 3, 5 or 9 seconds as preset
8.00 am	Monday – Friday	OFF	As above
8.50 am	Monday – Friday	ON	As above
9.50 am	Monday – Friday	OFF	As above
10.10 am	Monday – Friday	ON	As above
11.00 am	Monday – Friday	OFF	As above
12.00 am	Monday – Friday	ON	As above
12.01 am	Monday – Friday	OFF*	Dummy entry - Bells do not operate

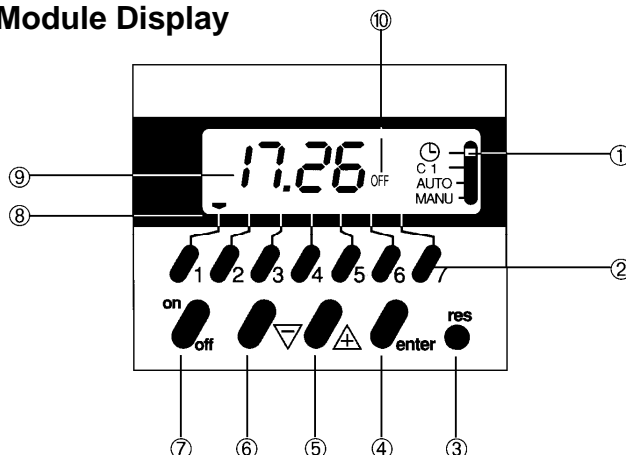
* If the first entry is ON, the last entry must be OFF. In this example, a dummy entry is added to achieve this.

The programme shown has a 10-minute warning bell followed by 50-minute class times, with 10 minutes between classes, and a 20-minute morning break. Because the first entry for the day has a timer output of ON, the last entry (from the day before) must be OFF. This will occur for an even number of entries; for an odd number of entries, a 'dummy' no-action entry can be inserted 1 minute from the last entry to reverse the timer output without the bells operating.

To disable timer operation, the timer module is put into "manual mode" by means of the small switch on the timer module.

To manually ring the bells at times not programmed in the timer module, use the BELL TEST key switch on the front panel.

2.0 Timer Module Display





3.0 Programming the Timer Module

Refer to the timer module display.

3.1 Resetting the timer module

Before programming the timer module, reset the unit by pushing the reset (RES) button on the timer display with a pen. Do not use a sharp pointed object. This will erase any existing programmed times.

3.2 Actual time of day setting

Move the red mode switch to the top (clock) position. Use the + and – push buttons to increase or decrease the time displayed. The clock has a 24-hour display.

3.3 Setting Class Change times

It is recommended that a table similar to that shown in Section 1 be made before programming the timer module.

Move the red mode switch to the **C1** position (second from top). Use the + and – keys to display the time to pulse the bells. Using the table from Section 1, the display would show **8.00^{ON}**. The days in the week are now selected by pressing the corresponding keys labeled **1** (Monday) to **7** (Sunday). A marker at the bottom of the LCD display turns on to indicate which days of the week are selected. Pressing the day of the week key again turns off the marker for that day.

For the example, Monday to Friday are selected, so markers corresponding to keys **1** to **5** are turned on.

Press **enter** on the timer module to accept the time just programmed. The next time and days can now be entered.

This process is repeated to a maximum of 20 different time entries. If more than 20 entries are attempted, the display shows 'End'.

An even number of bell pulse entries must be made in the programme table. (The first timer output entry should start with ON, and the last entry should be OFF). Use a dummy entry if necessary.

Return the red mode switch to **AUTO** for timer module and school bell operation.

3.4 Normal Operation

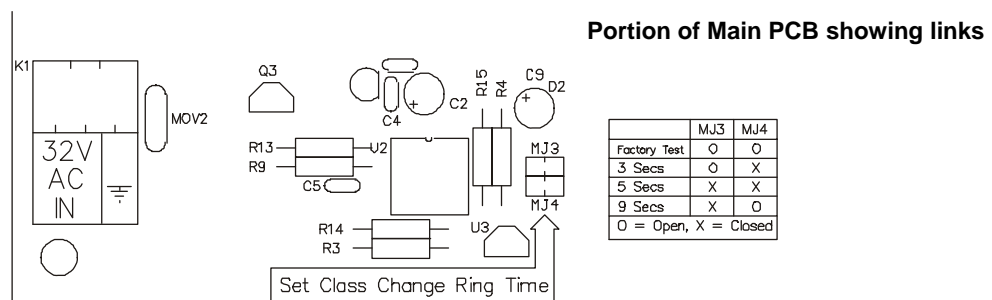
After setting the time of the day and the bell pulse times and days into the timer module, return the red mode switch to AUTO for timer module and school bell operation.

The programme may be checked by placing the red mode switch to **C1** and pressing **enter** to scroll through the class change times and selected days. Return the red mode switch back to **AUTO**.

4.0 Setting Bell ON (Pulse) Period

Three different pulse lengths may be selected: 3, 5, or 9 seconds. Jumpers are provided on the main printed circuit board inside the School Bell Power Supply cabinet to select the pulse width required. At the lower left hand side of the printed circuit board, the words **Set Class Change Ring Time** indicate the position of the links. The small table printed adjacent to the links shows which jumpers are to be inserted for particular bell pulse times.

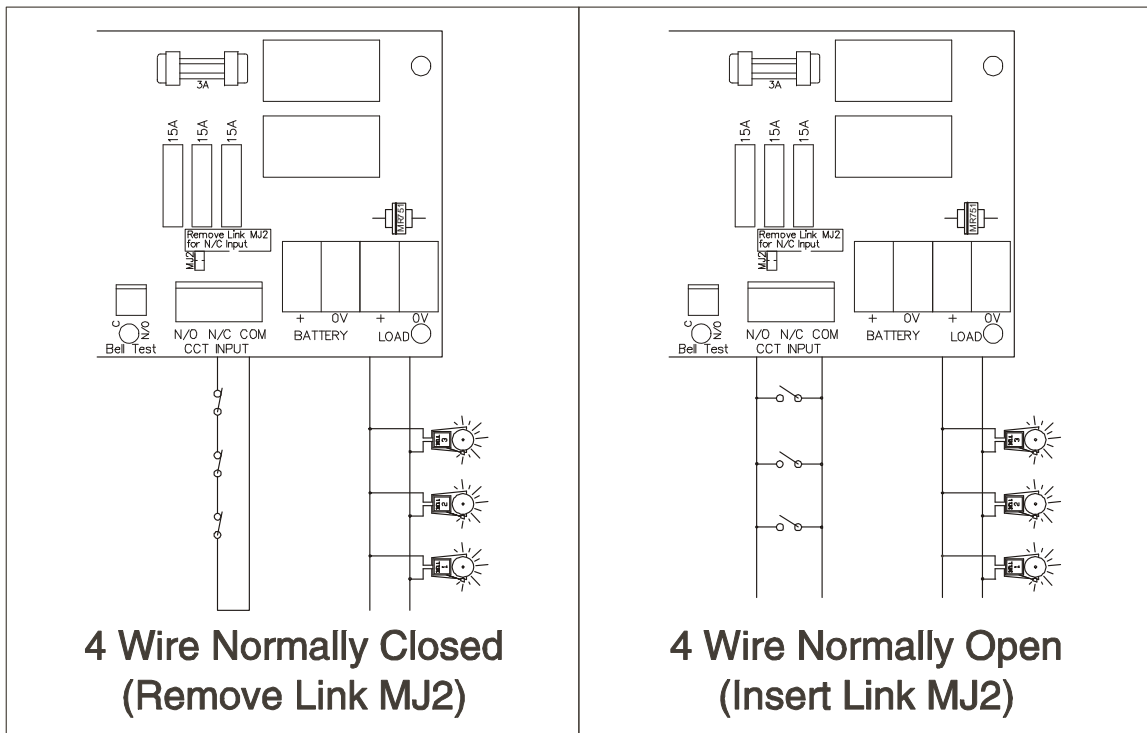
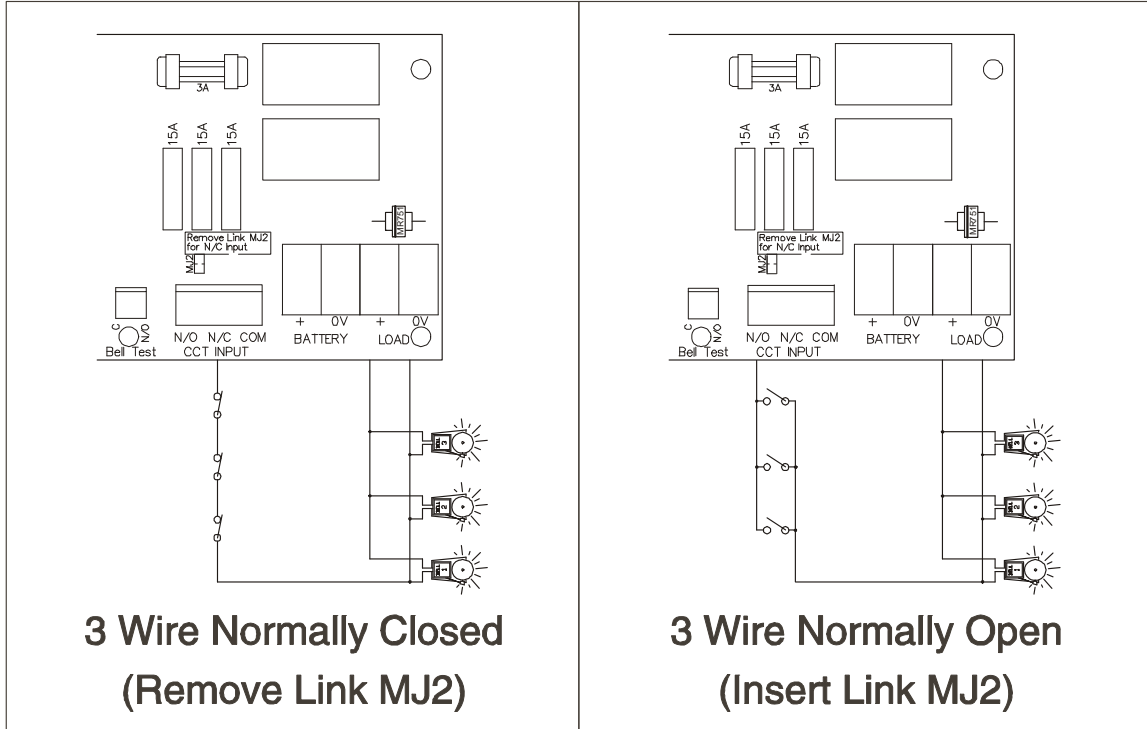
For example, if both links are inserted, the bells will ring for 5 seconds at each class change.



3.0 Connection Diagrams

3.1 For School Bell Power Supply pcb version 2.xx

NOTE: DO NOT USE WITHOUT BATTERIES



3.2 For Obsolete Wiring Systems

