

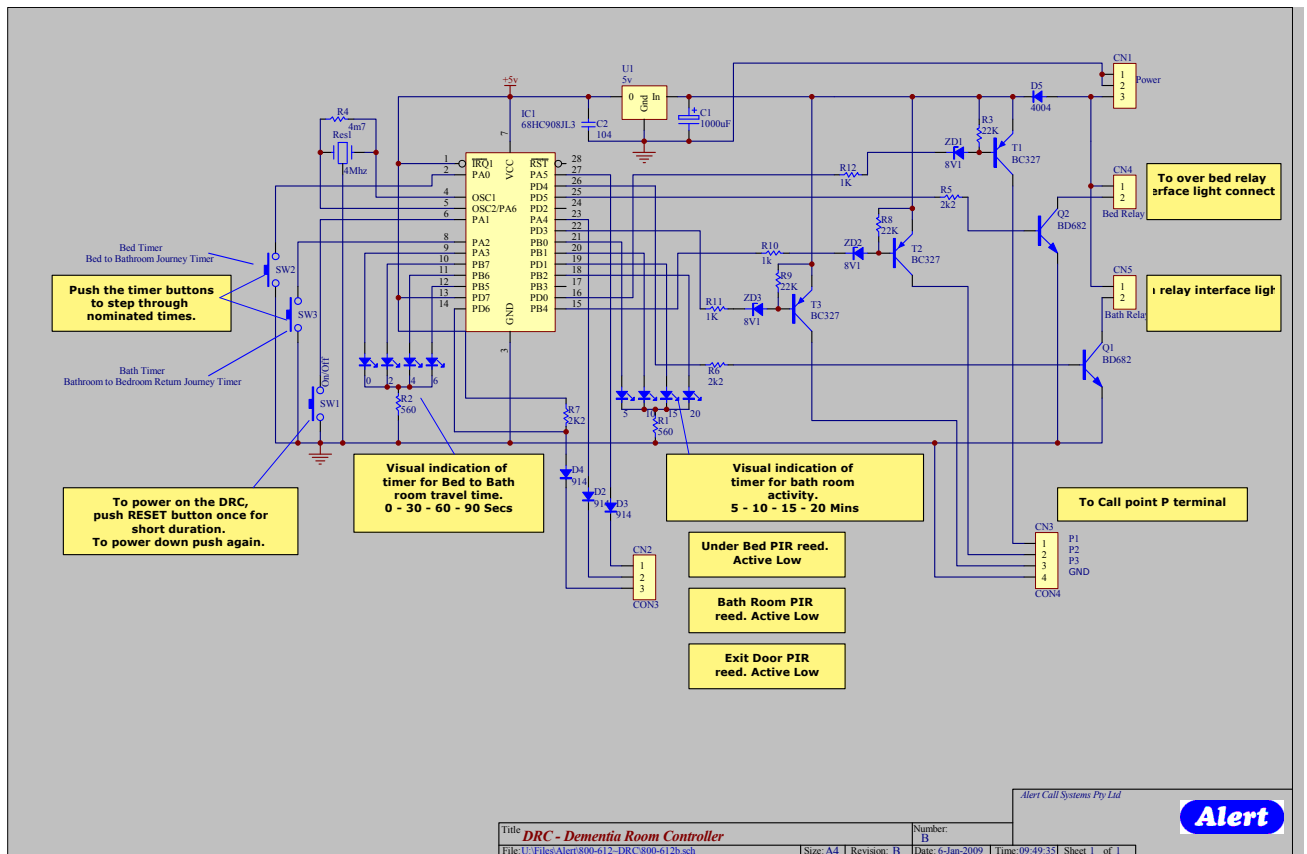
DRC – Dementia Room Controller

Overview

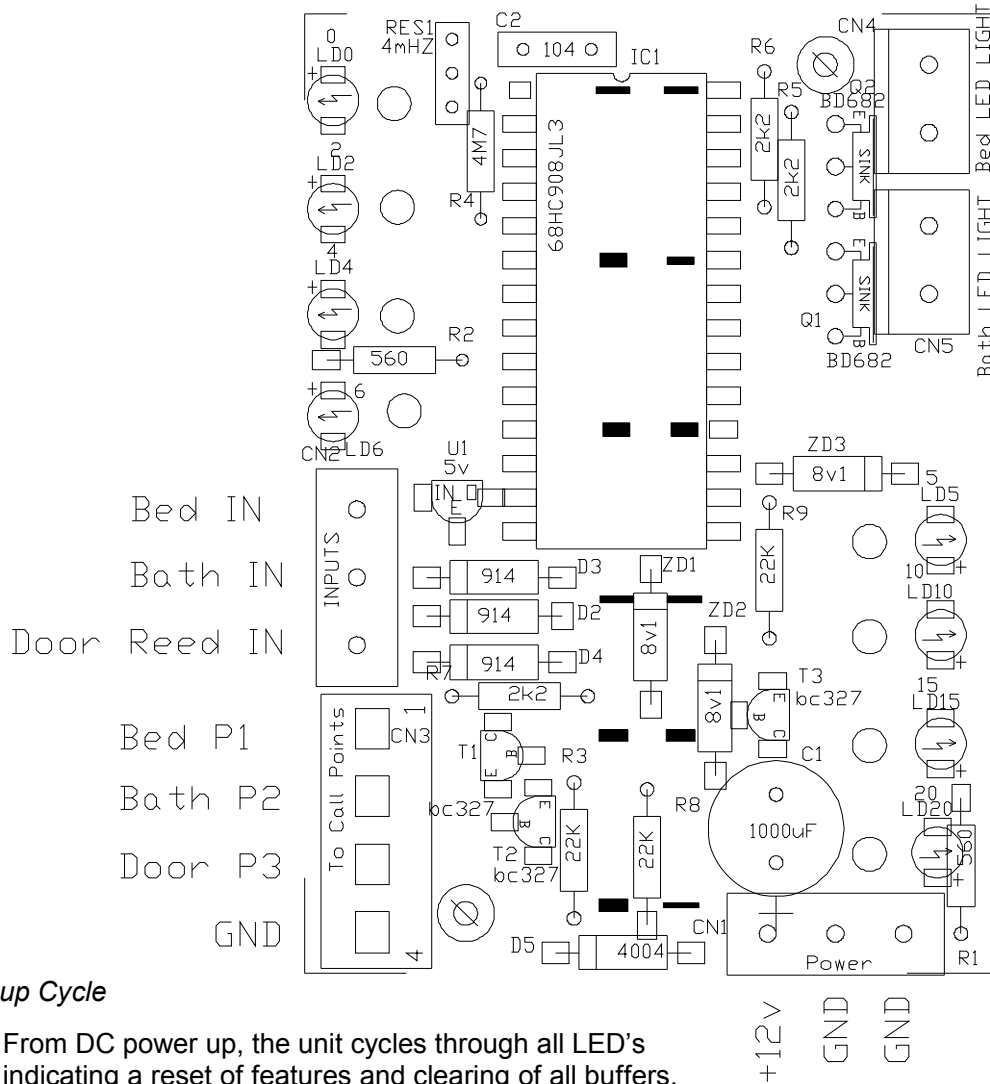
This unit is used as an aid in assisting staff to monitor the night movements of Dementia patients. It is based on timed intervals of activity when journeying from the bed to the bathroom during the night.

A SUBD (Slave Under Bed Detector) is used to detect out of bed activity. Once the patient is detected out of bed, the patient’s movements are then timed as they move to the bathroom and return to bed. Lights are controlled and calls made to nursing staff as required.

Dementia Room Controller 800-612b Circuit Diagram



Description



Power up Cycle

- From DC power up, the unit cycles through all LED's indicating a reset of features and clearing of all buffers.
- An initial preset is loaded into the unit as a default condition. This is 30 seconds for the bed to bathroom journey, and 5 minutes duration for bathroom activity.
- The unit can be deactivated by momentarily pushing the RESET button. All visual indication will go out, and the door will be free to open without alarm. Pushing the RESET button once again will toggle the DRC back on. The SUBD and door condition switch will now be monitored.
- To change the bed duration timer, momentarily push the BED switch and notice the LED moves between 0, 30, 60, 90 seconds. Do the same with BATH stay timer. It will alter between 5, 10, 15, 20 minutes.

Unit is Now Active

- The door condition switch, if activated at this time will initiate the call point attached to the P3 terminal. The front panel LED's will alternate between the bed and bath setting LED's indicating the unit has been triggered. By operating the RESET push button once, the unit can be deactivated and the call point may be reset. If the attending staff wish to visit the patient without raising the call point, the unit will need to be deactivated before entering the room.
- To reactivate the unit, momentarily push RESET again.
- This toggles the active state of the room controller, remembering the preset times that were previously set.

Bed to Bath

- If the SUBD (Slave Under Bed Detector) is activated, the series of bed time indicators will flash at a one second rate indicating the unit has been triggered and is counting down. The bed and bathroom lights will also come on
- If the unit receives a response from the bathroom detector, the bed duration timer will cease, and counting will now commence on the bath stay timer indicated by the flashing bath stay LED's on the front panel.
- If there is no response from the bathroom detector, it will be assumed the patient has been interrupted on the journey to the bathroom and should be checked. A call will be placed to the P1 terminal and the lights will remain on. The front indicator panel will alternate the flash between the bed and bath stay timer indicators (timer interrupt condition).
- If the door reed is activated, the bed & bath lights remain on and a call to the call point connected to P3 is initiated. Counting now stops and the timer interrupt condition will be indicated on the front panel.

Bath to Bed

- While the bath counter is ticking (all bath stay indicator LED's flash at a one second rate), the room controller is now looking for a response from the SUBD, being a return to bed from the bathroom. If the bath stay timer expires, all lights remain on and a call is initiated to the room call point attached to the P2 terminal. The indicator panel will show the timer interrupt condition as there has been an overstay.
- If however there was a response from the SUBD, we assume the patient is on their way back to bed.
- The bath light will remain on for half the duration set on the bed timer. Once half the time has passed, the bathroom light will expire and the bed light will stay on. It is hoped that this encourages a direction back to the bed. The patient then has the remaining time to go back to bed before the bed light expires.
- If on the return to bed a "door open condition" was detected, a call to the room call point attached to terminal P3 will be made, and lights will remain on. The panel will indicate a timer interrupt condition
- If the patient did not make the journey back to bed, and continues to move around in the bedroom, a call will be made to terminal P1 after the bed timer expires.