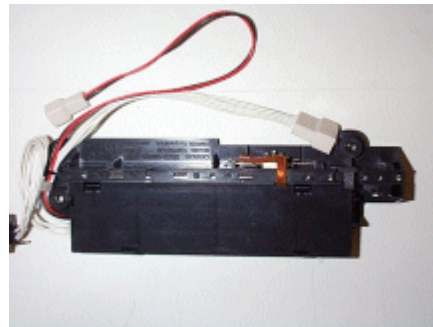


NEXUS / MIWA DOOR CONTROL UNIT for AWH Readers Fault & Installation – Diagnosis

1. Install the short escutcheon, which contains the card reader. Check to ensure the correct reader is installed, as it must be the same type as all the other locks on the system. Miwa supply two different types as follows:

GM9 – (model CR-CHK85)

M10 (No label on back)



2. Apply power to the DCU, no lock should be connected at this stage. On the front panel you will see a Red & Green LED, both LED's should be ON, if not refer to the table below to check for the fault condition.

GREEN	RED	FAULT
ON	ON	Normal working condition
ON	OFF	Connect 12v battery and remove mains power. Unit is functioning correctly.
OFF	OFF	Battery connected and mains removed – Fuse FS4 blown – battery fuse.
OFF	OFF	Fuse FS1 blown – Main input fuse. Check DCU is set to correct voltage. Replace fuse with correct type
OFF	ON	Fuse FS2 blown – No voltage on any DC outputs, check for short circuits
OFF	ON	Fuse FS3 blown – No voltage on 6.3v output. Check power wires going to reader controller for short circuit.

Fuse Types and Ratings.

FS1	125mA, T, 250V or 250 mA @ 115v
FS2	2.5A, T, 250V
FS3	2A, T, 250V
FS4	250 mA, 250v

3. Connect the DTU to reader. After logging on the DTU attempt to connect to the reader. If you receive 'C/L Connection error' there are several possible causes.

- The cables connecting the DCU 6.3v Output to the reader have been crossed over. Action: Reverse the wires in the terminals.
- Fuse FS3 has been blown due to a short circuit – Replace fuse.
- The card lock software on the DTU has become corrupt or has not been installed. Check connection with another lock on the premises, if the same problem occurs reinstall DTU and Card Lock software.
- Hotel data from the computer either has not been set up or 'down loaded' to the DTU. Download hotel data to the DTU.
- Check the DTU can connect to another lock on the premises, if it can connect then the DTU and cable are functioning correctly, if not then replace the DTU to lock cable.
- Wrong type of reader has been installed. Check type GM9 or M10 matches software in the DTU.
 - GM9 = Psion DTU software ver 131.
 - M10 = Psion DTU software ver 129.
 - System 200 GM9 = Dip switch 1 = ON
 - System 200 M10 = Dip switch 1 = OFF

4. Once the reader has been programmed, pass a valid card through the reader and the Green LED will come ON. If you get a Red LED, interrogate the reader to find out the cause (Standard diagnostic process). With a green LED, you should at this stage hear the relay switching poles on the DCU PCB.

5. For this procedure you will require an electrical test meter to test the relays. Proceed as follows:

- Set the meter to continuity test. Place the probes between Common and Normally closed on the PCB panel. The circuit should now be closed. Pass a valid card through the reader, with a Green LED, the relay should now switch to the Open condition and no continuity should be registered. After the unlock time has expired the relay should then close and continuity be re-established. If this does not happen then check the wiring between the reader (6 wire molex connector) and terminals 1 & 2 on the DCU. Swapping wires in terminals 1 & 2 may resolve the problem.
- If not check with the meter between the Common and Normally Open terminals. No continuity should be present, if it is then the relay has failed, contact Miwa technical for further advice.

6. When the relay has been proved, connect the electric strike or magnetic lock. A diode MUST be fitted, a diode and instructions on fitting are included with every panel. Please note, failure to do so will invalidate any warranties. When connecting any device to the DCU, the installer must be aware of the current consumption of the switching device. If the device is to be powered from the on board 12 / 24v power supply, the current in the active state must not exceed 2.5A, failure to observe this will result in damage to the PCB and a blown fuse.

7. The PCB relay can be used to switch an external power source, this must not exceed a current of 8A @ 30vDC. Failure to observe this will result in component failure.

8. When the 'Push to Exit button' is pushed the door remains open for a long period of time. Action: adjust the round switch marked RV1 on the PCB, by turning it anticlockwise the unlock time will decrease.

9. If in any doubt with any type installation with the DCU you must consult a qualified electrical engineer or the Miwa technical department with full details of the equipment involved. Miwa cannot be held responsible for connecting 3rd party devices to our equipment (e.g. Lifts etc), if in doubt then you should consult the manufactures technical department.