

Biometric Technology Provider

# How to Connect Virdi Terminal with MCP040

ACCESS CONTROL  
TIME ATTENDANCE  
MANAGEMENT  
SOLUTIONS



# How to Connect Virdi Terminal with MCP040



1. MCP040 can support a maximum of eight external Virdi readers connected with RS485 (RDR+/RDR-) connection terminals. Additionally 2.4 external Wiegand readers can be connected with DO and D1 connectors.
- Supported Virdi Readers
    - VSR20D-SC (Viridi Smart Reader SC): Smart Card/ Mifare Card Reader
    - VSR20D-RF (Viridi Smart Reader RF): RF Card Reader (125Khz)
    - AC5000
    - AC2100





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2. All readers require 4 wires for connection. All four wires should be home-run directly to MCP040 controller.

- +12V
- GND
- RS485A+
- RS485B-

3. Each reader connected to 485 bus requires a unique ID to identify itself. All Virdi readers have a software or hardware programmable ID. On VSR20 readers set the dipswitches to the desired ID number 0-7 (Reader 1~8). See VSR20 installation manual.

If you want to connect AC2100 or AC5000 instead of VSR20D via RS485, they should be updated with the firmware for each model and then give RS485 ID differently per each uni.

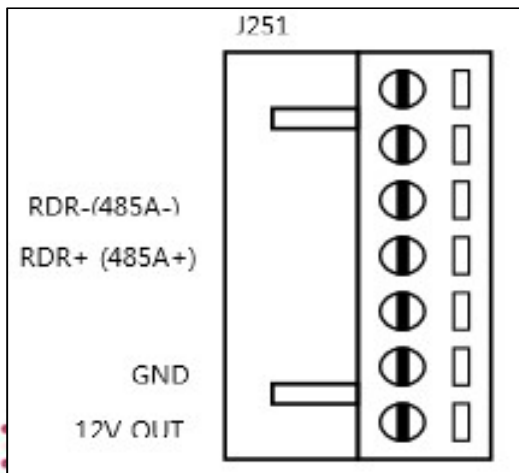
- AC2100: [https://www.dropbox.com/sh/iq541b3jxfqlr5i/AACQpCRfhukYjvOYg0LsE\\_4ja?dl=0](https://www.dropbox.com/sh/iq541b3jxfqlr5i/AACQpCRfhukYjvOYg0LsE_4ja?dl=0)
- AC5000: <https://www.dropbox.com/sh/4m0v24blfnix5h6/AACk7ZeTRq4wr02vCabDhFQpa?dl=0>
- UNIS: [https://www.dropbox.com/s/n5i1ecovjt1le4n/UNIS%20v3.2.8.2\\_Standard\\_20150204.zip?dl=0](https://www.dropbox.com/s/n5i1ecovjt1le4n/UNIS%20v3.2.8.2_Standard_20150204.zip?dl=0)





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4. Once the controller is re-powered, all readers will automatically enroll with the controller. The controller has an auto-enrollment procedure for all readers. This will take approximately one minute for all readers to enroll after power-up.
5. And remember that the assigned users in MCP040 should be assigned to each terminal, too.
6. Follow this procedure to connect readers.
  - ① Power down MCP controller.
  - ② Set the desired ID on the reader. (Modify dipswitches or in UNIS)
  - ③ Connect 4 wires from the reader to MCP040 controller.





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- ④ Connect all readers.
  - ⑤ Power up MCP controller.
  - ⑥ MCP040 will search for all readers connected to RDR+/RDR- inputs for a maximum of 1 minute.
  - ⑦ Scan a card on the reader and the reader should produce an error sound. If there is no communication, the reader will emit one single beep.
  - ⑧ See section UNIS MCP040 Status/Functions for reader status.
  - ⑨ Readers are considered as enrolling when they are connected with power and responded to MCP040 polling. This status will show as OK in UNIS status screen. If a reader is enrolled and disconnected from MCP040, MCP040 will recognize the reader fault after 30 seconds. At this time, this trouble will be reported to UNIS Real-Time event monitoring.
- For more detail, please refer MCP040 Installation & Wiring Guide.

