EDR Field Config – DD-40

Preceding Steps

1. The module should be installed in the panel and wired, see the EDR Installation guide for DD-40. Note that the main Modbus connection goes from EDR “A” to DD-40 “B”, and EDR “B” to DD-40 “A”.
2. The DD-40 communication settings should be verified.
    a. PROGRAM SERIAL MODE should be set to “485” (**not** “A 485”)
    b. PROGRAM BAUD RATE should be set to 9600
    c. PROGRAM NODE NUMBER should be set to 01

1. Check for existing config

Check the drawing number for the panel against any known configuration folders, and if it has already been made then those files can be used for this unit. In this case, note the file location and skip to step 5.

2. Getting Input Channel List

Write down the shutdown code list from the panel code plate or sheet.

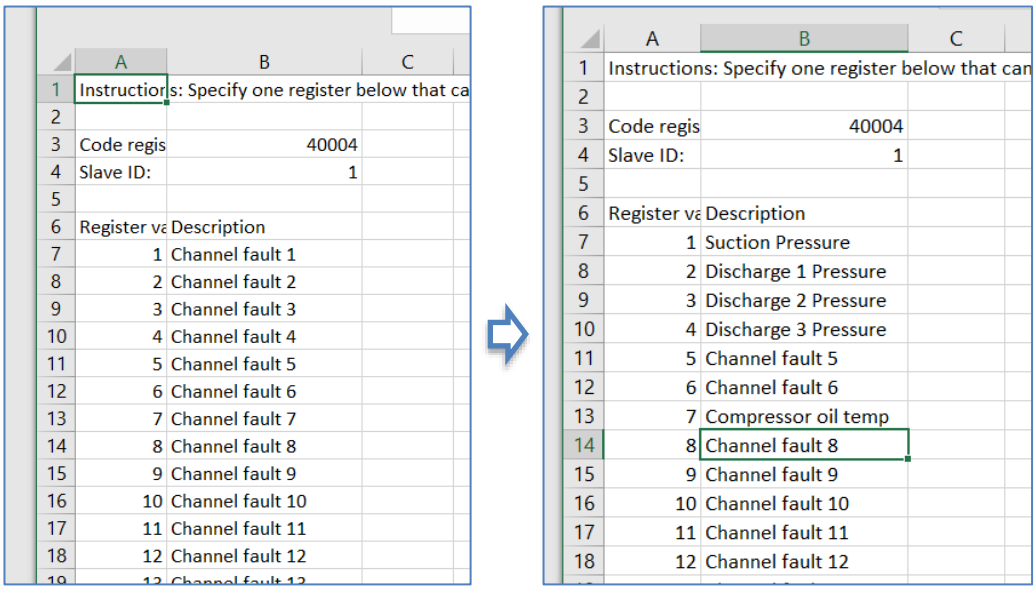
3. Copy default files

On a computer, make a copy of the three files for the blank DD-40 configuration into a new folder for this unit.

4. Update Shutdown Code Table

Opening the new folder for the unit configs, open the EMIT_TEL_ShutdownCodes file.

Each register value refers to a channel. For each channel in the channel list, put its name in the appropriate row that matches the channel number. If a channel is not used, it can be left as “Channel Fault #” since it should not be relevant.



	A	B	C
1	Instructions: Specify one register below that ca		
2			
3	Code regis	40004	
4	Slave ID:	1	
5			
6	Register va	Description	
7	1	Channel fault 1	
8	2	Channel fault 2	
9	3	Channel fault 3	
10	4	Channel fault 4	
11	5	Channel fault 5	
12	6	Channel fault 6	
13	7	Channel fault 7	
14	8	Channel fault 8	
15	9	Channel fault 9	
16	10	Channel fault 10	
17	11	Channel fault 11	
18	12	Channel fault 12	

	A	B	C
1	Instructions: Specify one register below that can		
2			
3	Code regis	40004	
4	Slave ID:	1	
5			
6	Register va	Description	
7	1	Suction Pressure	
8	2	Discharge 1 Pressure	
9	3	Discharge 2 Pressure	
10	4	Discharge 3 Pressure	
11	5	Channel fault 5	
12	6	Channel fault 6	
13	7	Compressor oil temp	
14	8	Channel fault 8	
15	9	Channel fault 9	
16	10	Channel fault 10	
17	11	Channel fault 11	
18	12	Channel fault 12	

The above example shows editing channel 1 to be “Suction Pressure”, Channel 2 to be “Discharge 1 Pressure”, and so on.

Make sure to use “save” (not save as) so that the file stays a “csv” file.

5. (OPTIONAL) Add temperatures from DSM

If desired, the temperatures from the DSM can be added to the modbus master table.

First, copy the default DD40 master table into the folder. Open the modbus master table.

For each tag that refers to a temperature on the DSM, use this config for that row:

- Target ID: 2
- Target Register: 30,000 + the channel number
- Offset: -460
- Scale: 0.18
- Byte format: 0

Example: If channel 3 on the DSM is Discharge cyl 1 temp, then the master table for the Discharge 1 Temp row will use register 30003.

After saving the master table, verify that the DSM is set up to node 2 and baud 9600.

The connection for RS485 will be daisy-chained from the DD40 to the DSM so that all 3 devices (DSM, DD40, EDR) will be sharing the bus.

6. Uploading the Config Files

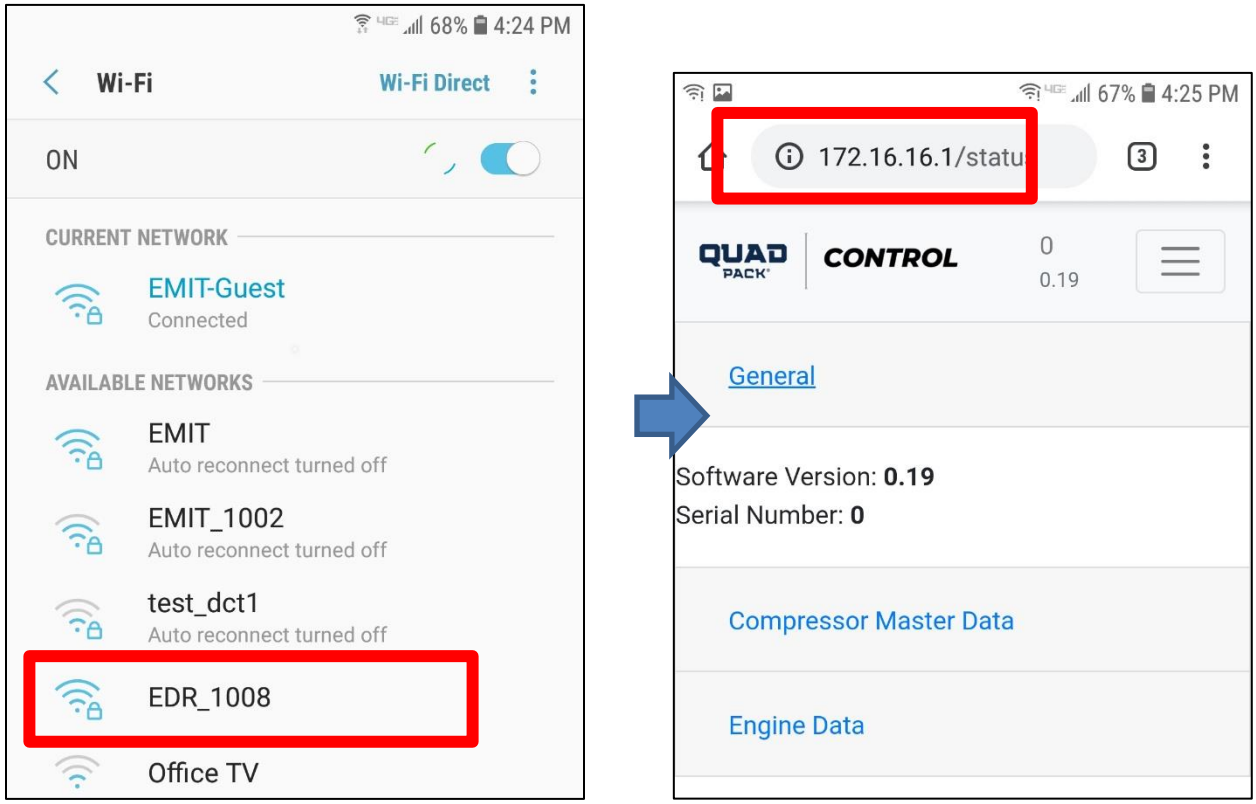
Once the two files are ready (the 3rd file EMIT_TEL_RunStatusTable does not need to be edited) connect your computer to the EDR wifi console using these steps.

Connecting

Check your target device's Wi-Fi settings for a network called "EDR_xxxx", where xxxx is the serial number of the Data Relay. Connect to this network and enter the password 'emitemit'.

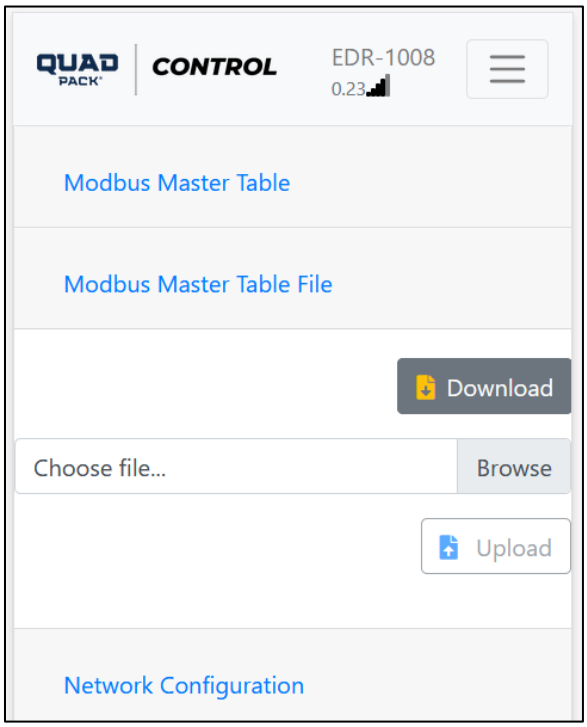
Note: There will be no internet access while you are connected to the network. It is recommended that you turn auto reconnect off.

Once connected, open a web browser and type http://172.16.16.1/ . This will bring up the Data Relay console.



Uploading the Files

On the Modbus Master tab, go to the "Modbus Master Table File" dropdown, browse for the new master table file, and select "Upload".



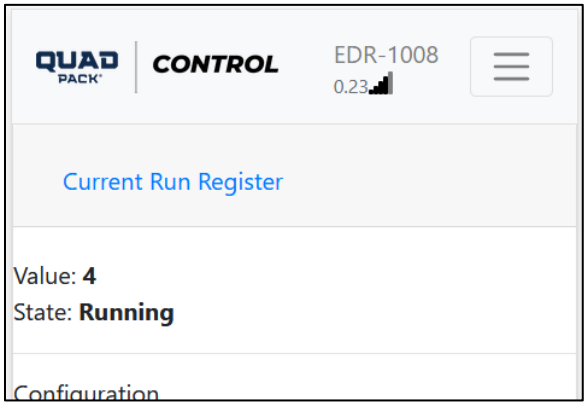
Choose file location

Under the network configuration dropdown set the baud rate to 9600 and make sure “Use Serial” is checked.

On the Alerts Tab, go to the “Table Configuration Files” dropdown and upload the fault code and run status table. (Note that the run status table is the same for all DD-40s so it didn’t have to be changed from the default file).

Checking the Config

On the Alerts tab, open the dropdown for “Current Run Register” and “Current Fault Register”. Both should show some valid state other than TIMEOUT.



If the values are not reading, it is likely because the Modbus A/B are swapped, the baud rate is not correct on the EDR or DD-40, or the DD-40 node ID is not set to 1.