



GARO GNM1D-RS485 as DLM meter

DLM = Dynamic Loadbalancing Meter

Installation and Programming Manual (EN)



Manual 380247

GARO AB

Box 203, SE-335 25 Gnosjö

info@garo.se

garo.se

GARO[®]

TABLE OF CONTENT

INFORMATION 3

MODBUS CONNECTION 3
Warnings 3



ELECTRICAL CONNECTION POWER CABLES 4

DLM METER SETTINGS 4
Touch area 4
Modbus address information 6
Set the Modbus Address 7
Set/verify the Baudrate setting 8
Set/verify the Parity and stopbit 8
Final step 9

INFORMATION

GARO GNM1DRS485 (GARO art nr 108044)

Warnings

-  Make sure the electrical power is off before start of installation process.
-  All electrical installation must be performed by an authorized electrician.

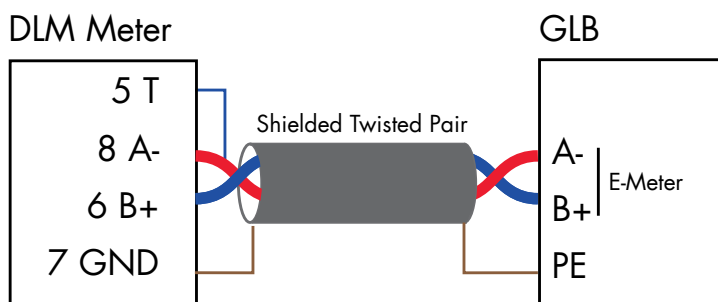
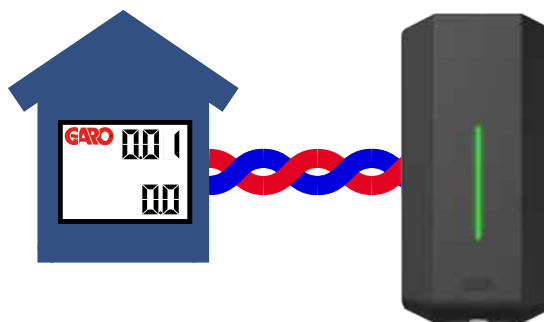
MODBUS CONNECTION

Install the DLM meter in the mains cabinet you want to monitor.

Use shielded twisted pair cable between the DLM meter and the wallbox.

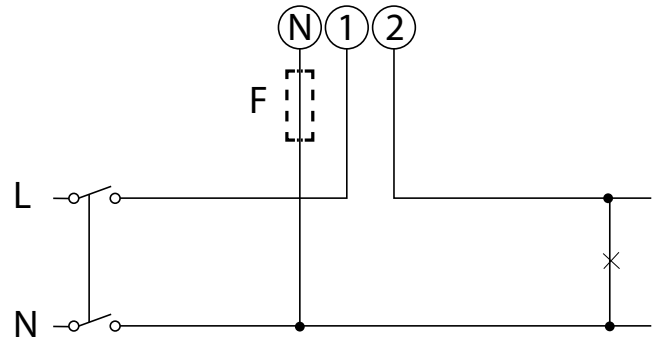
Suitable cables:

CAT5 FTP, CAT5e FTP, CAT6 FTP, ELAKY-S, ELAQBY-S or similar.



NOTE! JUMPER 5-8

ELECTRICAL CONNECTION POWER CABLES

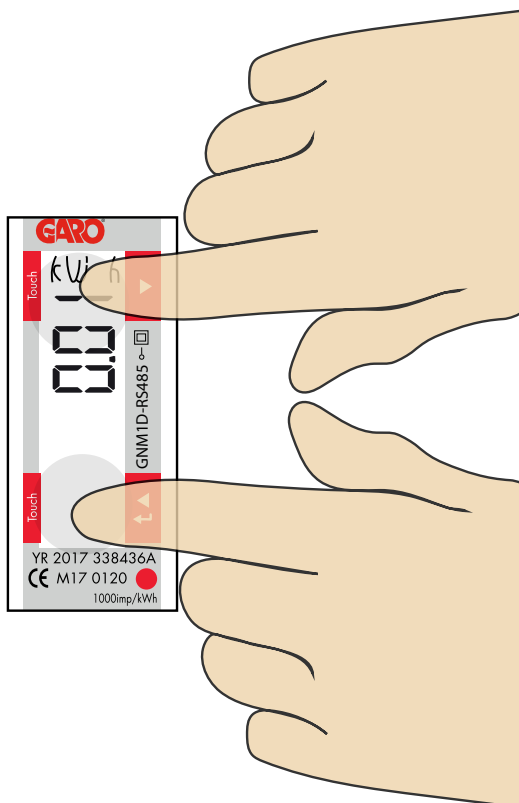


F=Fuse 315mA if required by local regulation

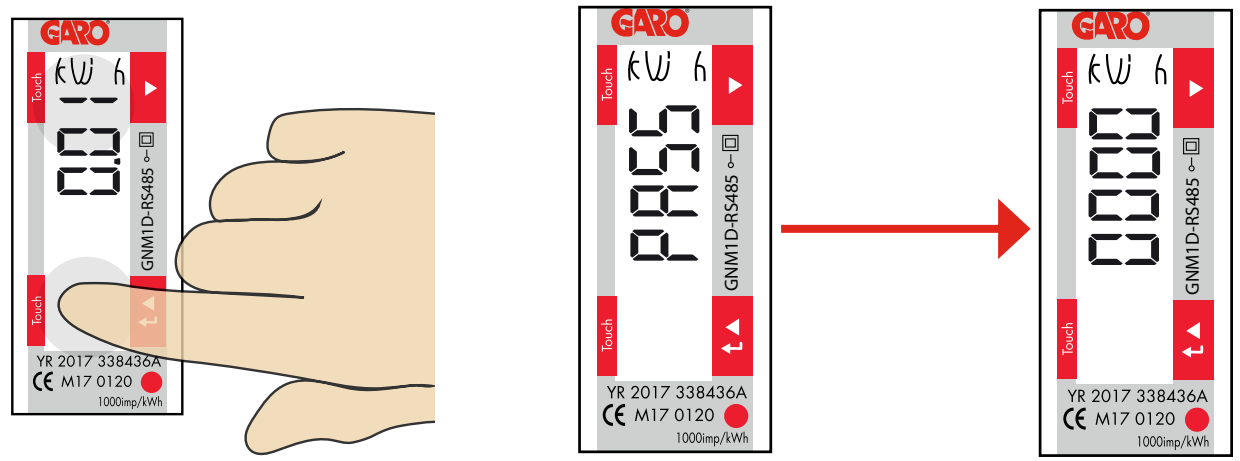
1, 2, N: section 2.5-16 mm², torque 1.1 Nm
3-8: section 1.5 mm², torque 0.4 Nm

DLM METER SETTINGS

Touch area

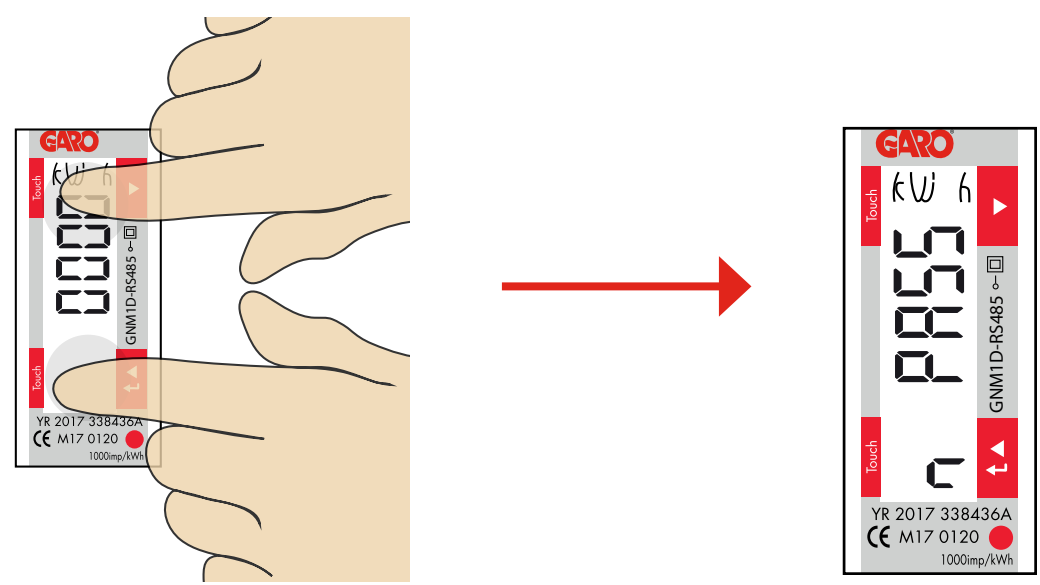


1



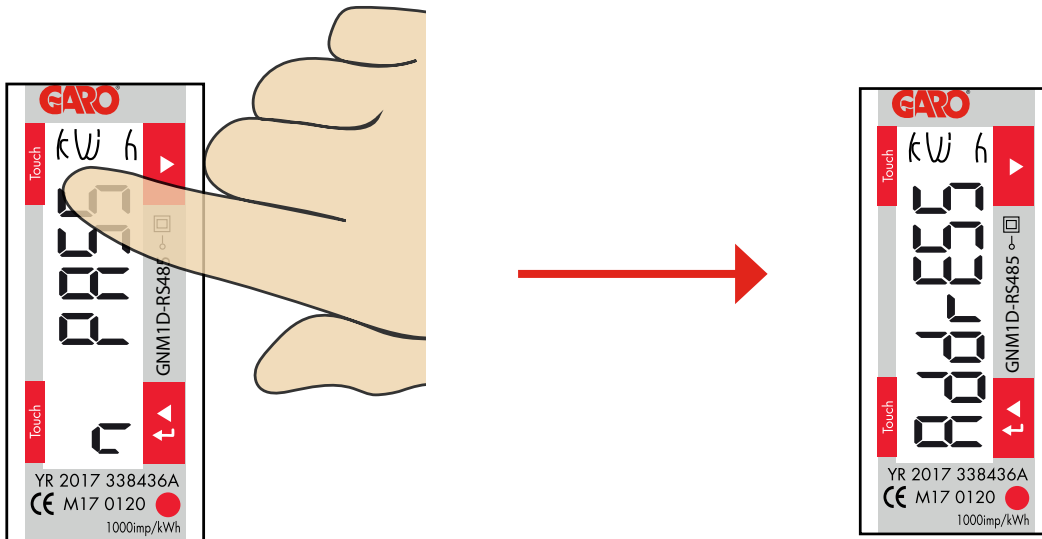
Press lower touch area 3 seconds and "PASS" is visible for 2 seconds before "0000" is visible.

2



Press lower and upper touch area 2 seconds to bypass the password.

3



Click upper touch area until you see "Address"

4

Modbus address information

For a stand alone 1-phase wallbox, recommended address is 002. This mode will pause the charging process if available current in the system is below 6A. 6A is the minimum an EV can charge according to standard.

Note: No need to do any settings in the wallbox webinterface.

Modbus address 002 is the only address that you can use if you don't have any Wifi-module installed in your wallbox

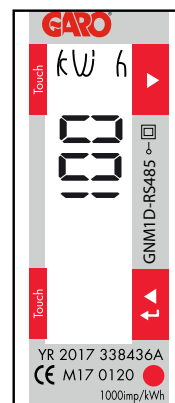
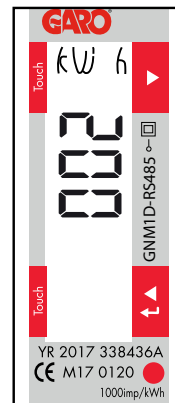
Modbus address 002 is only valid for stand alone wallbox installations.

Option 2, address 100. DIM settings in the webinterface are required. Address 100 requires an installed wifi-module in the Master Wallbox.

Note: When use of Address 100, the wallbox will not pause the charging process if available current is below 6A.

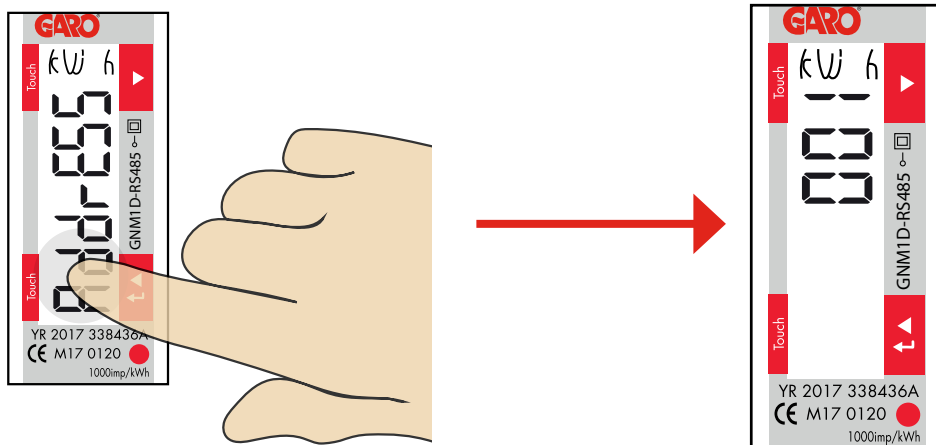
If you want to monitor a 2nd mains cabinet, a 2nd DIM meter can be installed in the 2nd mains cabinet. The modbus address for the 2nd DIM meter should be 101. Both 100 and 101 will not pause the charging process if available current in the system is below 6A.

Note: DIM settings are required in the master wallbox webinterface. Modbus address 100 and 101 require an installed Wifi-module in your master wallbox.

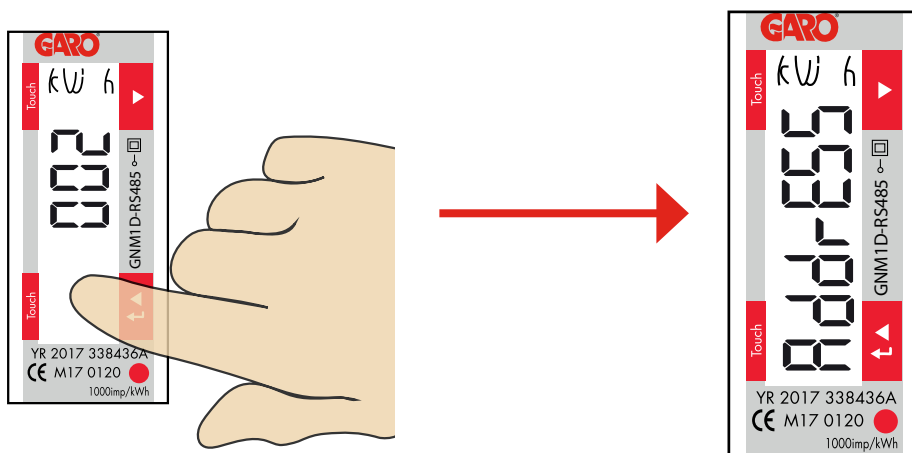


5

Set the Modbus Address



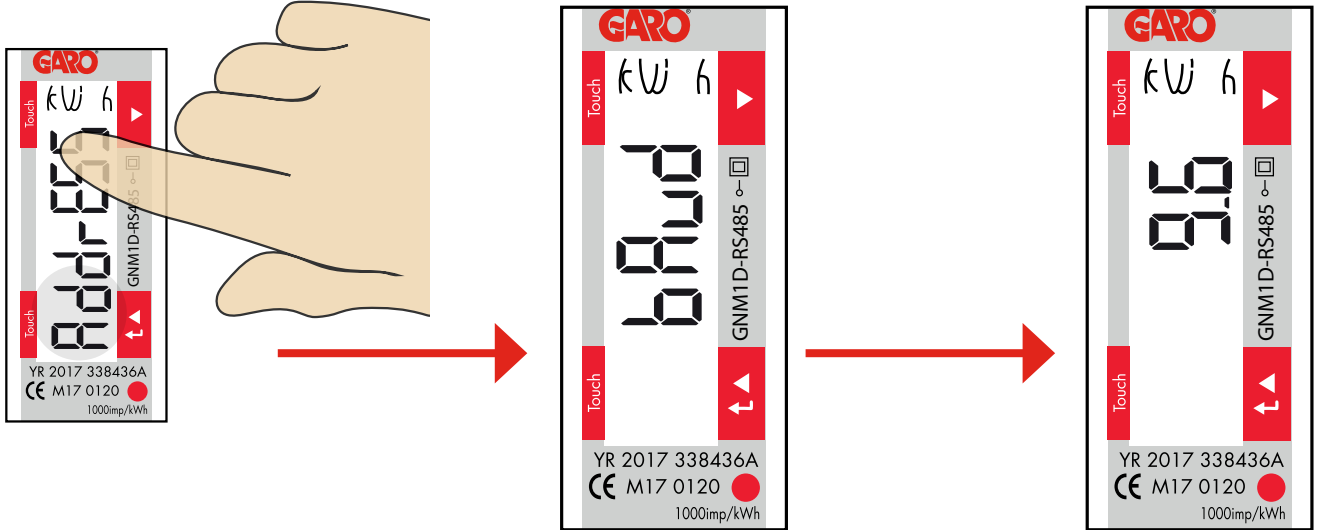
1. Press lower touch area 3 seconds and "current Modbus Address is visible.
2. Click upper or lower touch area to modify the blinking figure.
3. Press lower touch area 2 seconds to change to next figure. Repeat step 2 and 3 until the wanted address is visible.



4. Confirm by press lower touch area 2 seconds.

6

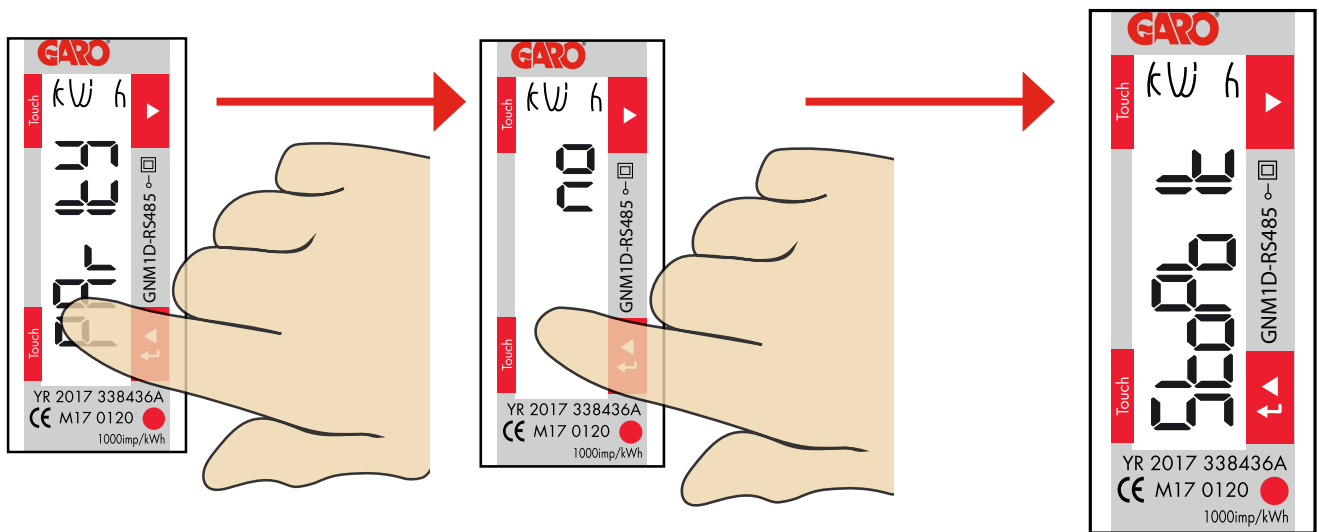
Set/varify the Baudrate setting



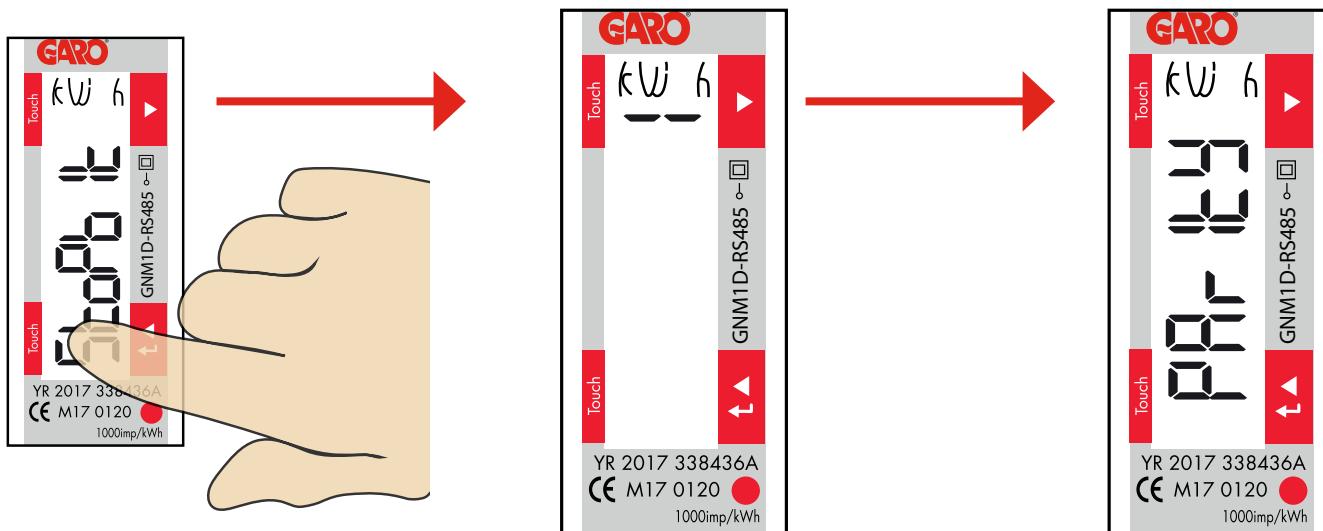
1. Click upper touch area until "bAud" is visible. Default is 9.6 and this is correct.
2. Press lower touch area 2 seconds and current Baudrate is visible.
3. Click upper or lower touch area until 9.6 is visible.
4. Confirm by pressing lower touch area 2 seconds.

7

Set/varify the Parity and stopbit



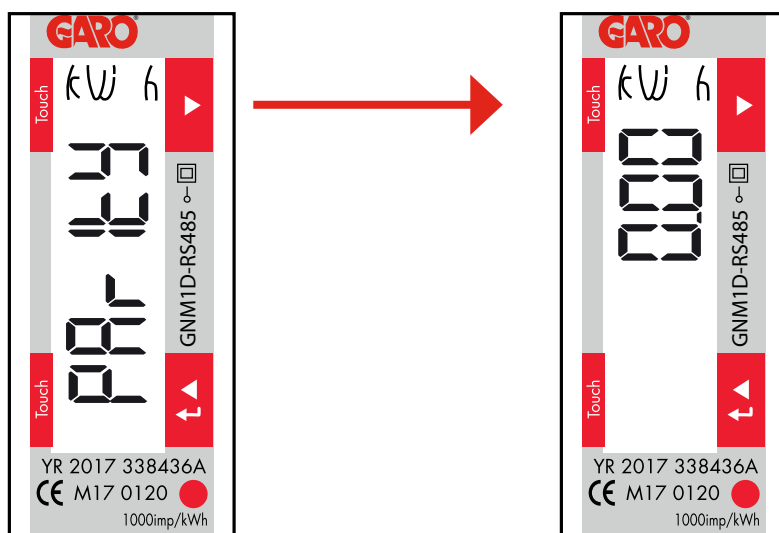
1. Click upper touch area until "PARtY" is visible. Press lower touch area 2 seconds and current setting for parity is visible. Default is "no" and this is correct.
2. Click upper touch area to change to "no" if needed. Press lower touch area 2 seconds to confirm and StoPbit is visible.



- 3. Press lower touch area 2 seconds to confirm and current stopbit setting is visible.
- 4. Press lower touch area 2 seconds and stopbit value is visible. Correct value is "1". Click upper touch area to change the value if needed.
- 5. Confirm by press lower touch area 2 seconds. PARtY is visible.

8

Final step



- 1. Click upper touch area until you see End is visible. Press and hold lower touch area for 3 seconds or wait for 2 min to leave programming mode.