

Mitsubishi QJ71E71 (Ethernet)

Supported Series ; Mitsubishi Q type, MELSEC-Q series PLC (Q00J, Q00, Q01, Q02, Q02H, Q06H, Q12H, Q25H, Q12PH, Q25PH) QJ71E71-100 Ethernet module.

Website: <http://www.mitsubishi-automation.com>

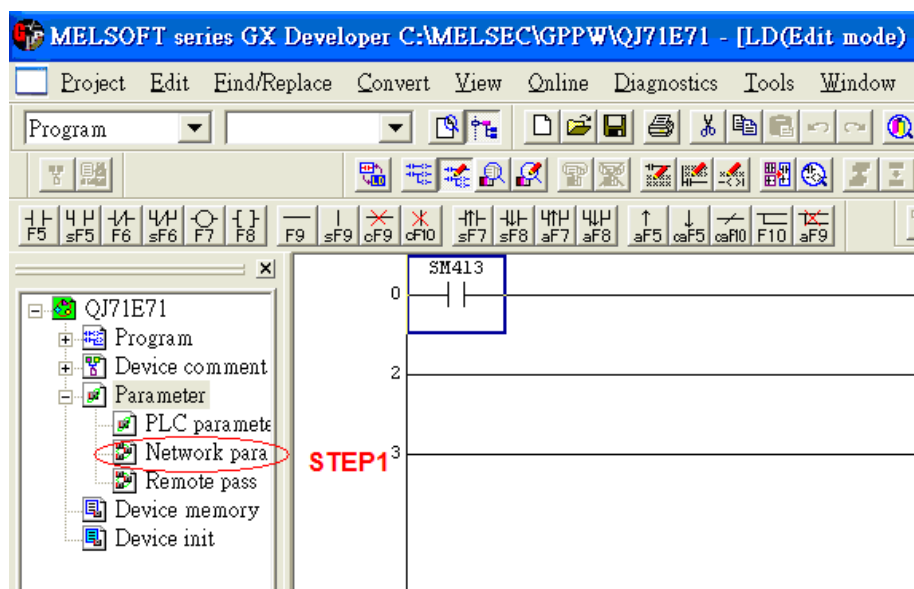
HMI Setting:

| Parameters | Recommended | Options | Notes |
|--------------|-------------------------------|---------|-------|
| PLC type | Mitsubishi QJ71E71 (Ethernet) | | |
| PLC I/F | Ethernet | | |
| Port no. | 5002 | | |
| PLC sta. no. | 2 | 1~99 | |
| Network | 1 | 1~999 | |

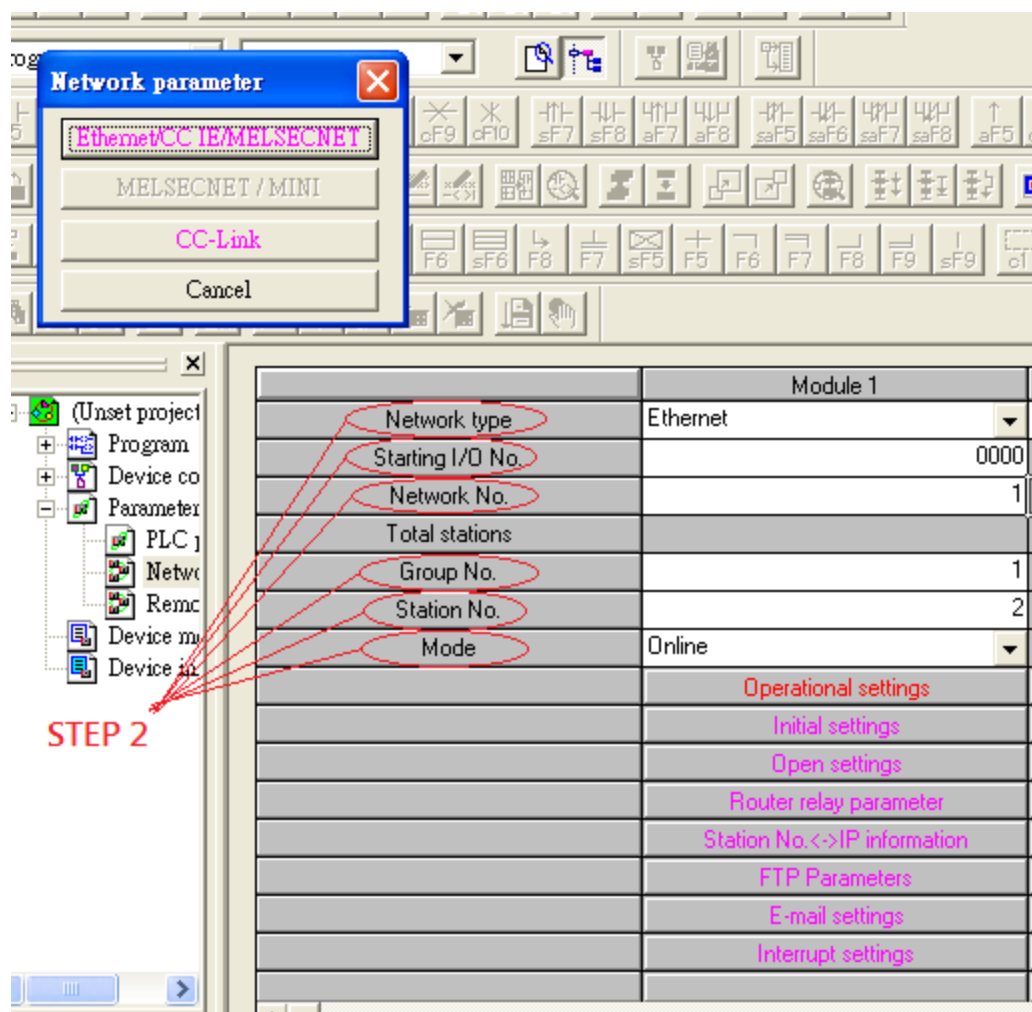
PLC Setting:

QJ71E71-100 Ethernet module settings:

1. Use USB or RS232 of Q-CPU for setting PLC parameters.

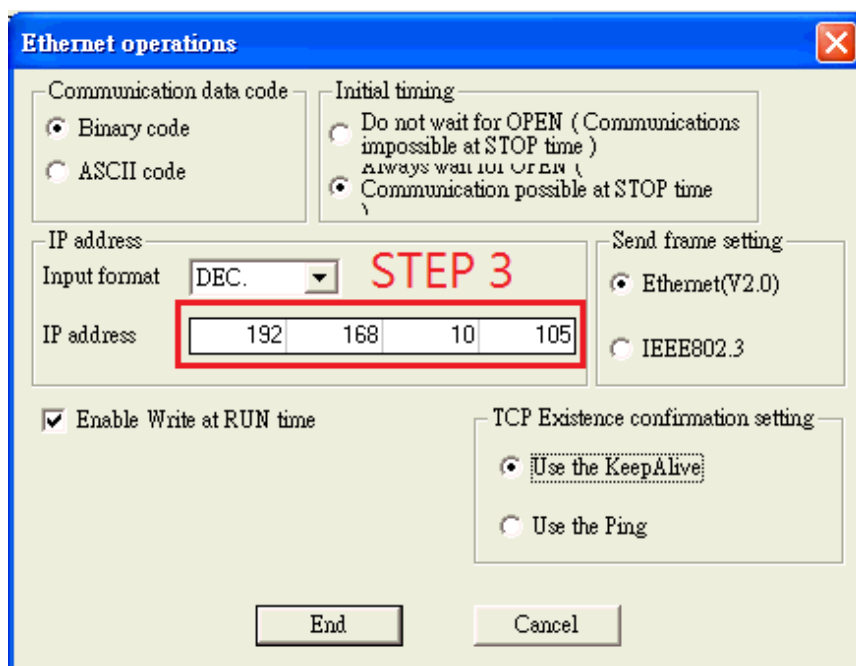


- Click [Operational settings] to set IP information.



| Module 1 | |
|------------------|------------------------------|
| Network type | Ethernet |
| Starting I/O No. | 0000 |
| Network No. | 1 |
| Total stations | |
| Group No. | 1 |
| Station No. | 2 |
| Mode | Online |
| | Operational settings |
| | Initial settings |
| | Open settings |
| | Router relay parameter |
| | Station No.<->IP information |
| | FTP Parameters |
| | E-mail settings |
| | Interrupt settings |

3. Select Ethernet (2.0) for communicating with HMI.



The dialog box titled "Ethernet operations" contains the following settings:

- Communication data code:** Binary code (selected), ASCII code.
- Initial timing:** Do not wait for OPEN (Communications impossible at STOP time) Always wait for OPEN (), Communication possible at STOP time (selected).
- IP address:** Input format: DEC. (dropdown), IP address: 192, 168, 10, 105 (highlighted with a red box and labeled "STEP 3").
- Send frame setting:** Ethernet(V2.0) (selected), IEEE802.3.
- Enable Write at RUN time:** Checked.
- TCP Existence confirmation setting:** Use the KeepAlive (selected), Use the Ping.
- Buttons:** End, Cancel.

4. Click [Open settings] to set the system.

| | Module 1 |
|------------------|------------------------------|
| Network type | Ethernet |
| Starting I/O No. | 0000 |
| Network No. | 1 |
| Total stations | |
| Group No. | 1 |
| Station No. | 2 |
| Mode | Online |
| | Operational settings |
| | Initial settings |
| STEP 4 | Open settings |
| | Router relay parameter |
| | Station No.<->IP information |
| | FTP Parameters |
| | E-mail settings |
| | Interrupt settings |

[TCP Port Settings]

Open System: Unpassive

| | Protocol | Open System | Fixed Buffer | Fixed Buffer Communication | Pairing Open | Existence Confirmation | Host Station Port No. | Destination IP Address | Destination Port No. |
|---|----------|-------------|--------------|----------------------------|--------------|------------------------|-----------------------|------------------------|----------------------|
| 1 | TCP | Unpassive | Send | Procedure Exist | Disable | No Confirm | 5002 | | |
| 2 | TCP | Unpassive | Send | Procedure Exist | Disable | No Confirm | 5003 | | |
| 3 | TCP | Unpassive | Send | Procedure Exist | Disable | No Confirm | 5004 | | |

[UDP Port Settings]

EasyBuilder Pro Version: 6.03.02.493 Build 2020.04.30

Version: 6.04.01.373 Build 2020.04.30 (excluding):

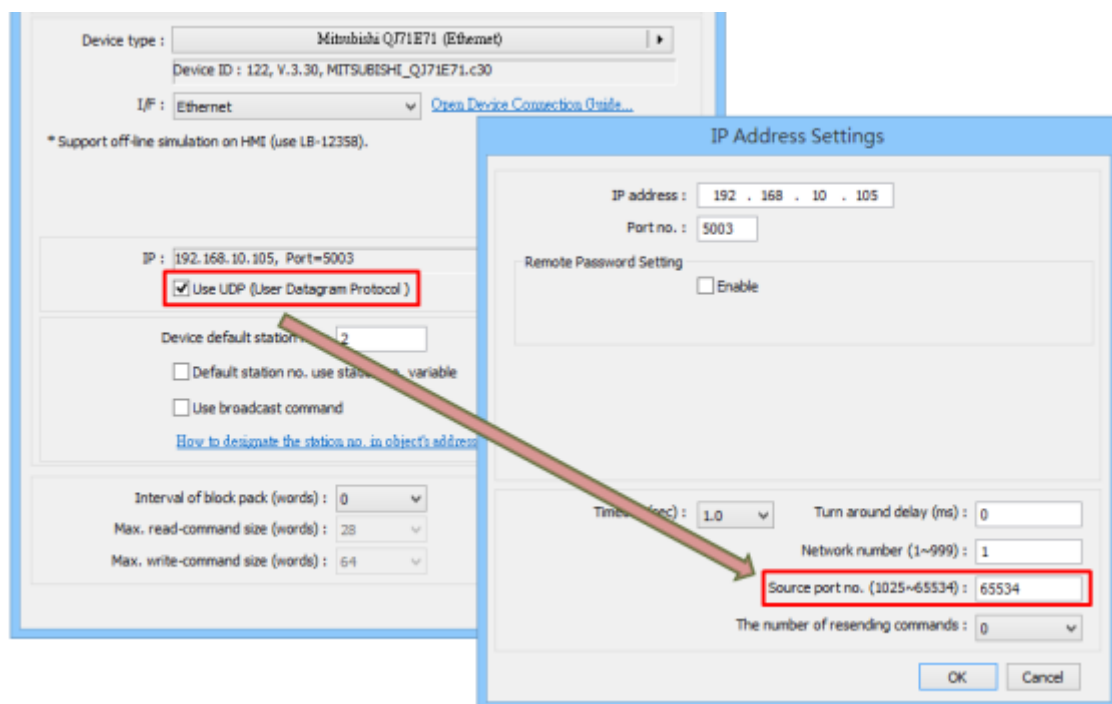
Only communication ports 5000 and 5001 can be used (no configuration required)

EasyBuilder Pro Version: 6.03.02.493 Build 2020.04.30

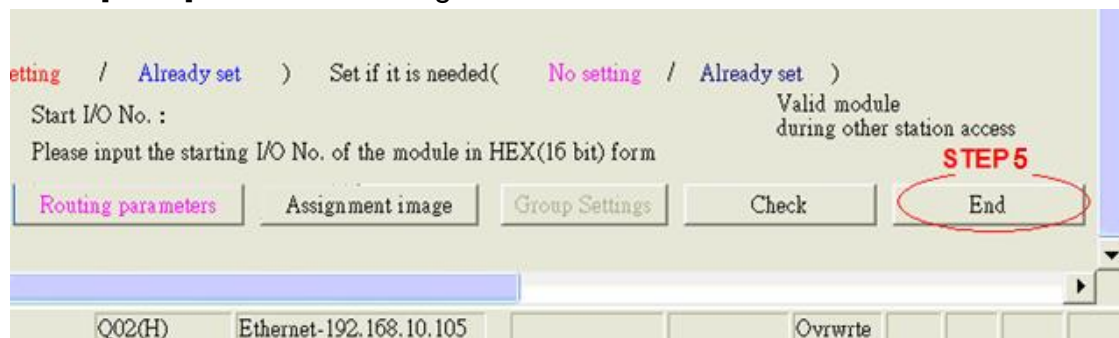
Version: 6.04.01.373 Build 2020.04.30 (inclusive) and later versions:

Support all UDP Port settings in the picture below

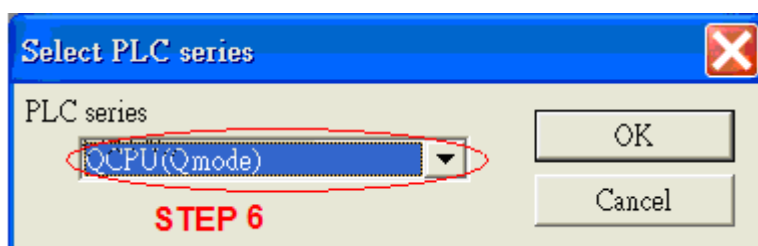
| | Protocol | Open System | Fixed Buffer | Fixed Buffer Communication | Pairing Open | Existence Confirmation | Host Station Port No. | Destination IP Address | Destination Port No. |
|---|----------|-------------|--------------|----------------------------|--------------|------------------------|-----------------------|------------------------|----------------------|
| 1 | UDP | | Send | Procedure Exist | Disable | No Confirm | 5002 | 192.168.1.100 | 1234 |
| 2 | UDP | | Send | Procedure Exist | Disable | No Confirm | 5003 | 192.168.1.100 | 65534 |
| 3 | UDP | | Send | Procedure Exist | Disable | No Confirm | 5004 | 192.168.1.100 | 6000 |



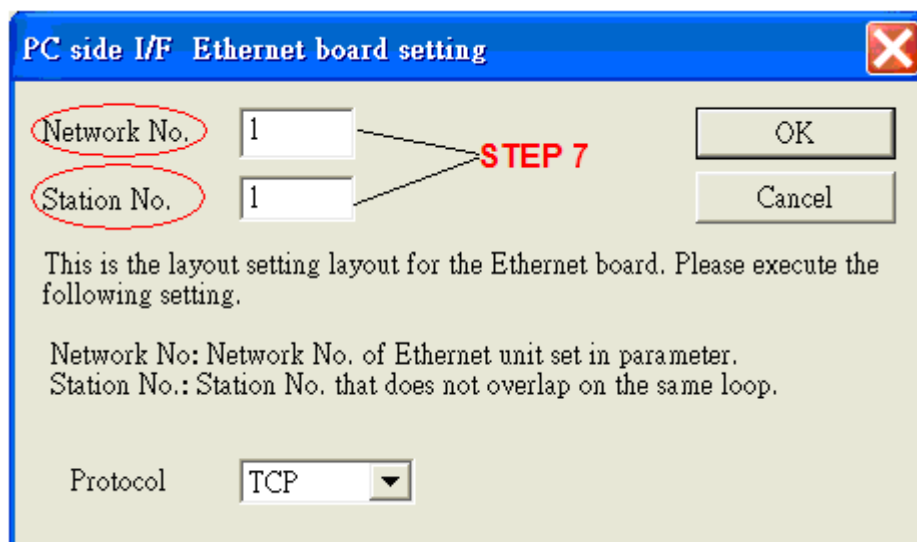
- Press [END] to finish settings.



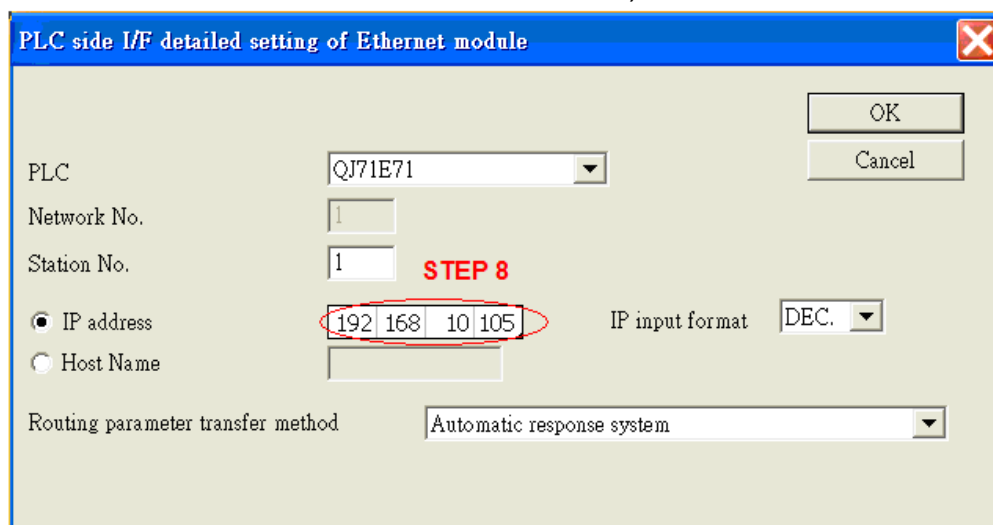
- Restart PLC software and select [READ FROM PLC], select [QCPU(Qmode)] and press [OK].



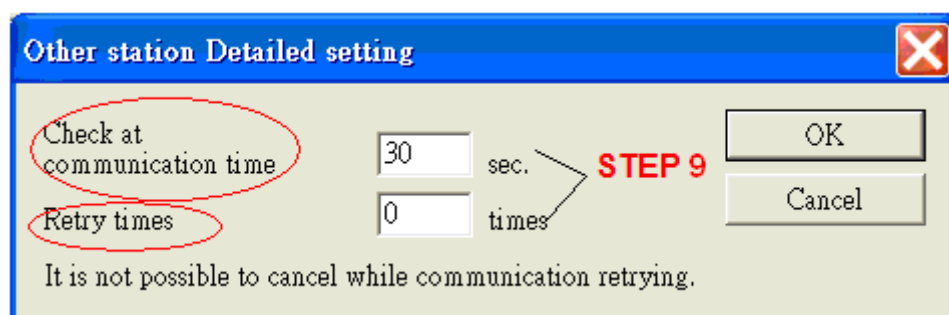
- In [PC side I/F Ethernet board setting] set Network No. and Station No. (Station No.1 is PC Station No. not Ethernet module Station No., ranged from 2~64, the Network No. can not be the same as that of PC)



8. Select "Ethernet module" in PLC Side I/F to set QJ71E71 IP address.(IP address = Network Parameter IP address)



9. For "Other station", click [Other station(Single network)] for setting [Check at communication time] and [Retry times].



10. After finishing the settings above, click [Connection test] for testing the communication and sending the PLC program.

Device Address:

| Bit/Word | Device type | Format | Range | Memo |
|----------|-------------|---------|-------------|----------------|
| B | SM | N.DDDD | 0 ~ 4.2047 | |
| B | X | N.HHHH | 0 ~ 4.1fff | Input Relay |
| B | Y | N.HHHH | 0 ~ 4.1fff | Output Relay |
| B | M | N.DDDDD | 0 ~ 4.61439 | Internal Relay |
| B | L | N.DDDDD | 0 ~ 4.32767 | Latch Relay |
| B | F | N.DDDDD | 0 ~ 4.32767 | Annunciator |
| B | V | N.DDDDD | 0 ~ 4.32767 | Edge Relay |
| B | B | N.HHHH | 0 ~ 4.1fff | Link Relay |
| B | TS | N.DDDD | 0 ~ 4.2047 | Timer Contact |

| Bit/Word | Device type | Format | Range | Memo |
|----------|-----------------|------------|----------------|--|
| B | TC | N.DDDD | 0 ~ 4.2047 | Timer Coil |
| B | SS | N.DDDDD | 0 ~ 4.25471 | Retentive Timer |
| B | SC | N.DDDDD | 0 ~ 4.25471 | Retentive Timer Coil |
| B | CS | N.DDDDD | 0 ~ 4.25471 | Counter Contact |
| B | CC | N.DDDDD | 0 ~ 4.25471 | Counter Coil |
| B | SB | N.HHH | 0 ~ 4.7ff | Special Link Relay |
| B | S | N.DDDD | 0 ~ 4.8191 | Step Relay |
| B | DX | N.HHHH | 0 ~ 4.1fff | Direct Input |
| B | DY | N.HHHH | 0 ~ 4.1fff | Direct Output |
| B | D_Bit | N.DDDDDDDh | 0 ~ 4.4212735f | |
| B | ZR_Bit | N.HHHHHh | 0 ~ 4.fe7fff | |
| B | ZR_Dec_Bit | N.DDDDDDDh | 0 ~ 4.1042431f | |
| W | SD | N.DDDD | 0 ~ 4.2047 | |
| W | D | N.DDDDDDD | 0 ~ 4.4212735 | Data Register |
| W | W | N.HHHH | 0 ~ 4.1fff | Link Register |
| W | TN | N.DDDD | 0 ~ 4.2047 | Timer Current Value |
| W | SN | N.DDDD | 0 ~ 4.2047 | Retentive Timer Current |
| W | CN | N.DDDD | 0 ~ 4.1023 | Counter Current |
| W | SW | N.HHH | 0 ~ 4.7ff | Special Link Register |
| W | Z | N.DD | 0 ~ 4.15 | Index Register |
| W | R | N.FFFDDDDD | 0 ~ 4.3132767 | File Register (FF:File No. 0~31) (DDDDD:0~32767) |
| W | ZR | N.HHHHH | 0 ~ 4.fe7ff | File Register |
| W | ZR_decimal_addr | N.DDDDDDD | 0 ~ 4.1042341 | |

Note: N=CPU Slot no. (0~4)

Wiring Diagram:

Ethernet cable:

