

# TECHNICAL BULLETIN

[Issue No.] T09-0009

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[Title] Recommendation of upgrade to QJ71E71-100 model  
from QJ71E71 on a 10BASE-T network

[Date of Issue] May, '02

[Relevant Models] QJ71E71, QJ71E71-100

Thank you for your continued support of Mitsubishi PLC MELSEC-Q Series.

Both Q Series Ethernet interface modules QJ71E71-100 and QJ71E71 are compatible with Ethernet 10BASE-T connection. However considering the performance and functions of the QJ71E71-100 outperforms the QJ71E71 on the 10BASE-T network, and costing the same, we recommend upgrading to the QJ71E71-100.

## 1. Performance/Function Comparison

The following table shows the differences in performance/functions between the QJ71E71-100 and QJ71E71. The functions of both models are equivalent except for the differences listed below.

Specifications		QJ71E71-100	QJ71E71
Communication interface	100BASE-TX	○	×
	10BASE-T	○	○
	10BASE-5	×	○
Auto detection function		○	×
	10BASE-T/100BASE-TX auto detection	○	×
	Full-duplex/Half-duplex auto switching	○	× (half-duplex only)
Applicable cable		Shielded Twisted Pair (STP) or Unshielded Twisted Pair (UTP)	Unshielded Twisted Pair (UTP)
HTTP protocol (Web function) compatibility		○	×
Communication speed		100Mbps/10Mbps	10Mbps

○: Available ×: N/A

## 2. Transition from QJ71E71 to QJ71E71-100, or introduction of QJ71E71-100

This section explains the transition to, or introduction of QJ71E71-100.

### (1) Model compatibility

When replacing the QJ71E71 with the QJ71E71-100 on a 10BASE-T network, there is no need to modify network parameters and similar settings, since the QJ71E71-100 and QJ71E71 are compatible with each other.

### (2) Utilization of programs and parameters

The programs and various parameters for QJ71E71 are compatible with QJ71E71-100, for modules on the 10BASE-T network.

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### (3) Function advantages

This section describes the advantages of QJ71E71-100.

#### (a) Auto detection function

- 10BASE-T/100BASE-TX auto detection

QJ71E71-100 automatically detects the communication speed settings (10Mbps/100Mbps) according to the communication speed defined within the user system.

- Full-duplex/Half-duplex auto switching

Both Full-duplex/Half-duplex communications are supported.

By switching to full-duplex communication, the QJ71E71-100 has an increase in communication performance compared with half-duplex communication due to less data collision occurring. The full-duplex communication is available by configuring the network with 10BASE-T/100BASE-TX-compatible switching hub or similar device.

#### (b) Compatible with Shielded Twisted Pair (STP) cable

The shielded twisted pair (STP) cable has been more improved in noise durability than the unshielded twisted pair (UTP) cable.

It is suitable for configuring a network under the environment where heavy noise occurs.

#### (c) Compatible with HTTP protocol (Web function)

QJ71E71-100 supports HTTP protocol, and can access the PLC CPU via an Internet that uses a general web browser.

### (4) Future outlook

Ethernet devices such as hub and LAN board, that are compatible with the 10BASE-T/100BASE-TX, take first place in this field.

According to this trend, the transition to the network consisting of 100BASE-TX is ongoing.

We recommend QJ71E71-100 for current and future network systems, since it is compatible with the 100BASE-TX.

## 3. Models

Product name	Model
QJ71E71-100 Ethernet Interface Module	QJ71E71-100
QJ71E71 Ethernet Interface Module	QJ71E71