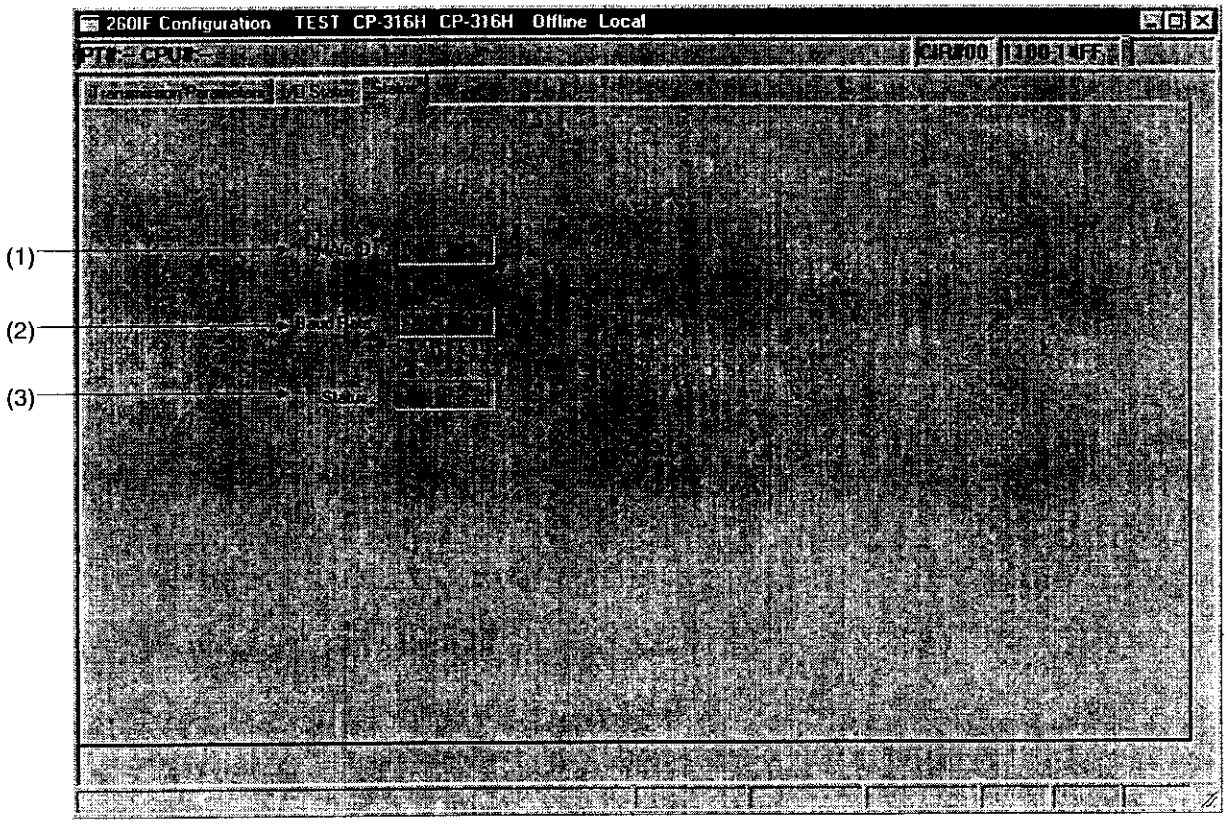
5.3 Status

The status function reports, online, the 260IF Card DeviceNet address, baud rate setting, and communications status.

5.3.1 Using the Status Function

The status is displayed using the following procedure.

1. Display the Module Configuration Window on the CP-717.
2. Double-click the slot to which the 260IF Card is set and open the 260IF Configuration Window.
3. Select ***Status*** in the 260IF Configuration Window to display the Status Window.



(1) MAC ID

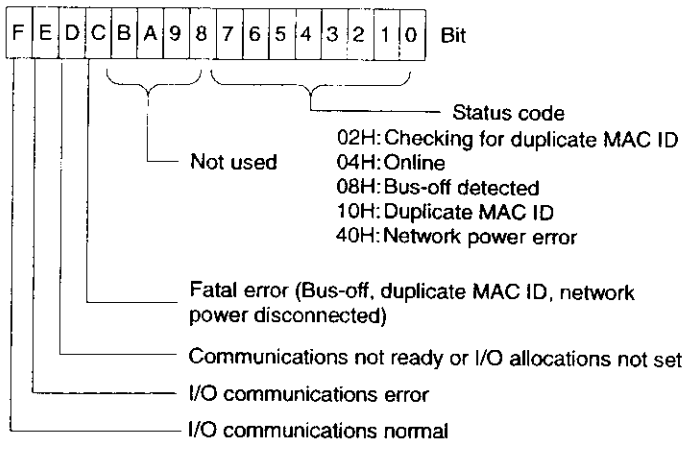
The MAC ID (DeviceNet address) set for the 260IF Card.

(2) Baud Rate

The baud rate set for the 260IF Card.

(3) Status

The 260IF Card status code. The contents of the display are shown in the following diagram.


F E D C B A 9 8 7 6 5 4 3 2 1 0 Bit
Status code
02H: Checking for duplicate MAC ID
04H: Online
08H: Bus-off detected
10H: Duplicate MAC ID
40H: Network power error
Not used
Fatal error (Bus-off, duplicate MAC ID, network power disconnected)
Communications not ready or I/O allocations not set
I/O communications error
I/O communications normal

5.4 Troubleshooting

When the 260IF Card detects an error during DeviceNet communications, it reports the error via the indicators, I/O status function, and status function. The following table gives probable causes and possible solutions.

■ Masters

Troubleshooting the Master (1/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
No DeviceNet communications	MS not lit NS not lit	—	—	No power to the 260IF Card.	Check the rack or system bus cable connection to the 260IF Card.
	MS red lit NS not lit	—	—	Hardware malfunction	Replace the 260IF Card.
	MS red lit NS red lit	—	—	Hardware malfunction	Replace the 260IF Card.
	MS green lit NS red lit	1010	0000	Duplicate MAC ID	① Change the MAC ID address for the 260IF Card and cycle the power. ② Change the MAC ID addresses for other DeviceNet devices and cycle the power to the 260IF Card.
		1008	—	Bus-off	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the power supply voltage and connection for communications power supply. ③ Check the network power supply voltage for each DeviceNet connector on the 260IF Card (11 to 24 V) ④ Check the baud rate for each DeviceNet device in the network. ⑤ Check the terminator (121 Ω) and connection status. Check the length of the network. Replace the 260IF Card. Then either cycle the power for the 260IF Card or disconnect and reinsert the DeviceNet connectors.

Troubleshooting the Master (2/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
No DeviceNet communications	MS green lit NS not lit	1040	—	Network power supply error	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the power supply voltage and connection for communications power supply. ③ Check the network power supply voltage for each DeviceNet connector on the 260IF Card (11 to 24V)
		0002	0000	DeviceNet network error	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the baud rate for each DeviceNet device in the network. ③ Check the terminator (121 Ω) and connection status. ④ Check the operation status of DeviceNet devices on the network. ⑤ Replace the 260IF Card.
	MS green lit NS green flashing	2004	0000	Connection not established with DeviceNet device	Set the I/O allocations.
	MS green lit NS red flashing	4004	404D	DeviceNet I/O sizes different to setting	① Change the I/O sizes for the I/O allocations. ② Change the I/O sizes for the DeviceNet device.
		4004	404E	No response from DeviceNet slave	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the baud rate for each DeviceNet device in the network. ③ Check the operation status of DeviceNet devices on the network.
		4004	4056	DeviceNet device is idle	Remove the cause of the idle status of the DeviceNet device.
Communications are occurring but the maximum communications cycle time exceeds the setting	MS green lit NS green lit	8004	8000	Too much traffic on DeviceNet. The communications cycle time setting is too low for the I/O command send time.	① Set a longer communications cycle time.

Troubleshooting the Master (3/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
Communications are occurring but the receive data refresh is delayed	MS green lit NS green lit	8004	8000	Too much traffic on DeviceNet. The communications cycle time setting is too low for the I/O response receive time. The processing load for data exchange with the PLC is too large.	① Set a longer communications cycle time. ② Reduce the baud rate. ③ Increase the setting of the CPU scan time for the I/O allocation SYNC setting.
MSG-SND function terminated due to error. (during DeviceNet communications)	MS green lit NS green lit	8004	8000	Parameter setting error	① Check that the MSG-SND function parameter settings are correct. • Data address • Data size
	MS green lit NS green flashing	2004	—	EM allocations not made	① Set the EM allocation under *I/O Allocations*.
	MS green lit NS red lit	4004	40XX	I/O communications error	Remove the cause of the I/O error.
MSG-SND function remains BUSY and does not end.	MS green lit NS green lit	8004	8000	MSG-SND function parameter setting error	① Check that the MSG-SND function parameter settings are correct. • Remote station #
				Too much traffic on DeviceNet (Cannot send Explicit request message)	① Set longer communications cycle time. ② For multi-master configuration, increase the communications cycle time for other master.

■ Slaves

Troubleshooting Slaves (1/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
No DeviceNet communications	MS not lit NS lit	—	—	No power supply to 260IF Card	Check the rack or system bus cable connection to the 260IF Card.
	MS red lit NS not lit	—	—	Hardware malfunction	Replace the 260IF Card.
	MS red lit NS red lit	—	—	Hardware malfunction	Replace the 260IF Card.
	MS green lit NS red lit	1010	0000	Duplicate MAC ID	① Change the MAC ID address for the 260IF Card and cycle the power. ② Change the MAC ID addresses for other DeviceNet devices and cycle the power to the 260IF Card.
	MS green lit NS red lit	1008	—	Bus-off	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the power supply voltage and connection for communications power supply. ③ Check the network power supply voltage for each DeviceNet connector ntlp:section on the 260IF Card (11 to 24 V) ④ Check the baud rate for each DeviceNet device in the network. ⑤ Check the terminator (121 Ω) and connection status. ⑥ Check the length of the network. ⑦ Replace the 260IF Card. Then either cycle the power for the 260IF Card or disconnect and re-insert the DeviceNet connectors.
	MS green lit NS not lit	1040	—	Communications power supply error DeviceNet network error	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the power supply voltage and connection for network power supply. ③ Check the communications power supply voltage for each DeviceNet connector on the 260IF Card (11 to 24 V) ④ Check the terminator (121 Ω) and connection status.

Troubleshooting Slaves (2/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
No DeviceNet communications	MS red lit NS not lit	0002	0000	DeviceNet network error	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the baud rate for each device. ③ Check the terminator (121 Ω) and connection status. ④ Check the operation status of the DeviceNet master. ⑤ Replace the 260IF Card.
	MS green lit NS green flashing	2004	0000	Connection not established with DeviceNet device	① Check the DeviceNet master scan list settings. ② Check the wiring and connections for DeviceNet cables and connectors. ③ Check the baud rate for each device. ④ Check the operation status of the DeviceNet master.
	MS green lit NS green flashing	4004	4000	No response from DeviceNet master	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the baud rate for each device. ③ Check the terminator (121 Ω) and connection status. ④ Check the operation status of the DeviceNet master. ⑤ Check the voltage and connection for network power supply. ⑥ Check the communications power supply voltage for each DeviceNet connector on the 260IF Card (11 to 24 V).
				DeviceNet I/O size different to setting	① Change the I/O sizes for the I/O allocations. ② Change the I/O sizes for the DeviceNet device.
	MS green lit NS red flashing	4004	4000	No response from DeviceNet master	① Check the wiring and connections for DeviceNet cables and connectors. ② Check the baud rate for each device. ③ Check the terminator (121 Ω) and connection status. ④ Check the operation status of the DeviceNet master. ⑤ Check the power supply voltage and connection for network power supply. ⑥ Check the communications power supply voltage for each DeviceNet connector on the 260IF Card (11 to 24V).
				DeviceNet I/O size different to setting	① Change the I/O size for the I/O allocations. ② Change the I/O size for the DeviceNet device.

Troubleshooting Slaves (3/3)

Problem	Locations to Check			Probable Cause	Possible Solution
	Indicators	Status	I/O Status		
No DeviceNet communications	MS green lit NS red flashing	0004	0000	The switch MAC ID setting is different to the MAC ID setting under the I/O allocations	① Change the MAC ID setting under the I/O allocations. ② Change the switch MAC ID setting and cycle the power.
	MS green lit NS green lit	0004	0000	The switch MAC ID setting is different to the MAC ID setting under the I/O allocations	① Change the MAC ID setting under the I/O allocations. ② Change the switch MAC ID setting and cycle the power.
Communications are occurring but the receive data is not being refreshed	MS green lit NS green lit	8004	8003	DeviceNet master is in idle status	Remove the cause of the idle status of the DeviceNet master.
Communications are occurring but the receive data refresh is delayed	MS green lit NS green lit	8004	8003	Too much traffic on DeviceNet. The communications cycle time setting is too low for the I/O response receive time. The processing load for data exchange with the PLC is too large.	① Increase communications cycle time for the DeviceNet master. ② Reduce the baud rate. ③ Increase the CPU scan time for the I/O allocation SYNC setting.