

Micom Pack Instruction Manual

**Micom Pack for Control Module
for
Flash Microcomputer Programmer
(NET IMPRESS)**

FH808M07

Target Microcomputer: H8S/2612F (HD64F2612)

DTS INSIGHT CORPORATION

HF808M07 (H8S/2612F)

Revision History

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1 Overview

The FH808M07 is the Micom Pack for the control module FH808 supporting the flash microcomputer programmer NET IMPRESS, and contains a parameter file supporting the microcomputer Renesas H8S/2612F.

For a Micom Pack for other microcomputers, contact us or your local distributor.

The control module supported by this Micom Pack is **FH808**.

CAUTION:

The Micom Pack FH808M07 is built for the specific control module FH808. Do not use this Micom Pack with any control modules other than the specified control module.

The handling instructions are described in the Micom Pack Instruction Manual and be sure to read this Instruction Manual carefully before you start operation.

To use the Micom Pack, you also need the remote controller AZ490 that is available for an additional order.

For how to download the Micom Pack to the control module, see Chapter 5 “Downloading Micom Pack” of this Instruction Manual.

Check once again if combination of the Micom Pack and control module is correct. Also, check if you have a correct microcomputer, memory size, power supply, etc. Incorrect parameter values would lead to serious damage to your microcomputer and target system.

For any questions or unclear points, please contact us.

2 Specifications

2.1 Target Microcomputer and Specifications

For any items that are not specifically described here, the standard specifications of the NET IMPRESS are applied.

	Target Microcomputer	FH808M07
Microcomputer	H8S/2134F	H8S/2612F
User Flash Memory Capacity	128Kbyte	
User Flash Memory Address	#000000 to #01FFFF	
Programming Voltage (Vpp)	Not applied.	
Default		
Vccp (Minimum voltage during programming)	—	
Object File Format	Intel HEX Motorola S Binary	
Default	Motorola S	
Target Interface	UART (Asynchronous communication) Interface 2400/4800/9600/19200/31250/38400/62500/76800/10400bps <input type="checkbox"/> MSB first <input checked="" type="checkbox"/> LSB first CSI (Synchronous communication) Interface 62.5Kbps/125Kbps/250Kbps/500Kbps/850Kbps/1.25Mbps <input type="checkbox"/> MSB first <input checked="" type="checkbox"/> LSB first	
Data Transfer Format between Flash Microcomputer Programmer and Target System	Binary	
Memory status when erased	#FF	
MCU Clock during programming	2MHz to 20MHz	4MHz to 20MHz

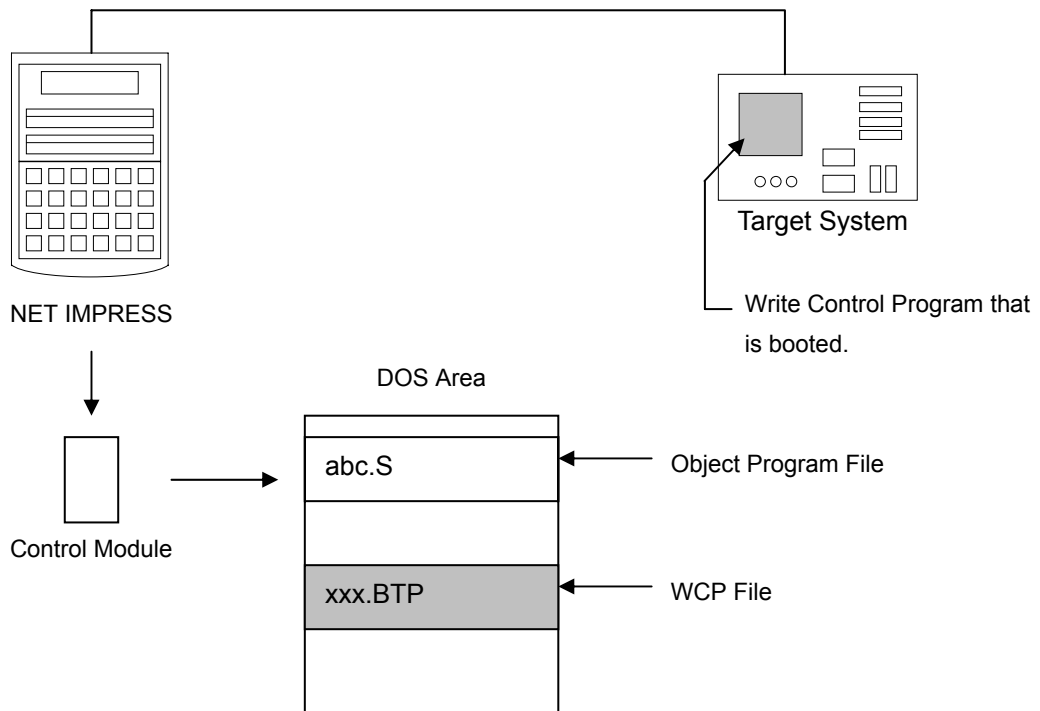
3 Copying Write Control Program into Microcomputer

3.1 Overview

With the control module FH808, the write control program (WCP) is sent to the target microcomputer to run on it before execution of the Device Functions. The microcomputer executes the programming sequence under this write control program.

Copy the write control program into the DOS area of the control module and save it under a file name with extension “.BTP” in advance.

Only one file with extension “.BTP” can be placed in the DOS area of the control module. You cannot place multiple files with extension “.BTP” or use the control module without placing a file with extension “.BTP”.



3.2 Copying the Write Control Program File

From the Utility Assy provided with the control module, select an appropriate write control program that has conditions matching with the target microcomputer.

To save the file with “.BTP” extension in the DOS area of the control module, follow the steps below.

- (1) Set this control module in a personal computer that has a PCMCIA card slot. Make sure that the PC card driver has been properly installed in advance. For how to install the PC card driver, see our Web site at the following URL:

<https://www.dts-insight.co.jp/en/index.html>

See the Q & A page on the flash microcomputer programmer.

- (2) Copy the write control program (xxx. BTP) from the Utility Assy into the DOS area of the FH808 control module.

4 Connecting to the Target System and Connector

4.1 Signal List

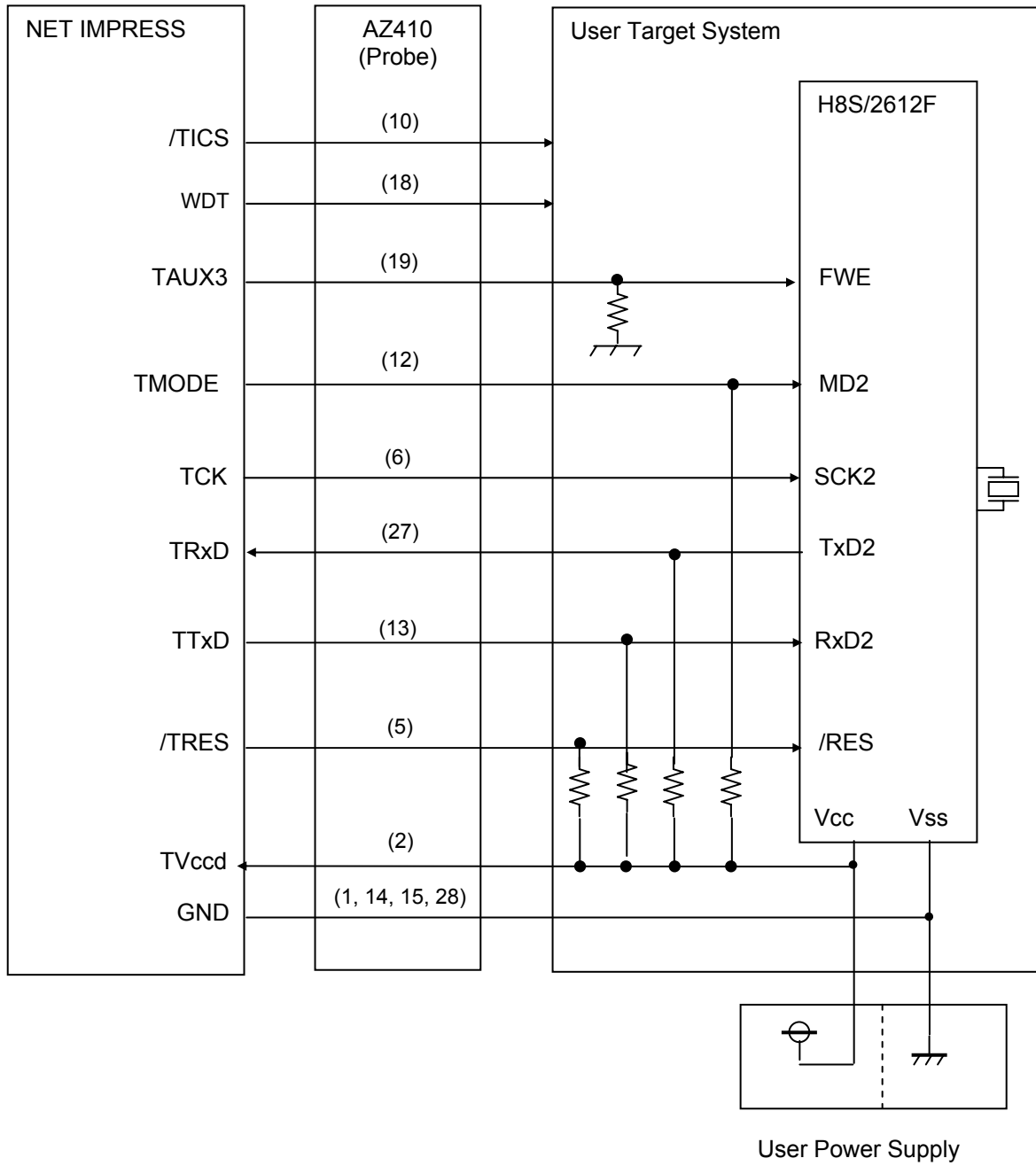
The table below lists signal example at the side of the target probe connector when using the control module FH808.

CPU Signal	NET IMPRESS Standard Signal				CPU Signal
Vss	GND	15	1	GND	GND
	TVpp1	16	2	TVccd	User Vcc
	TVpp2	17	3	Vcc	
	WDT	18	4	TRES	
FEW	TAUX3 TVpp1c	19	5	/TRES	/RES
	TAUX4 TVpp2c	20	6	TCK	SCK2
	Reserved	21	7	Reserved	
	Reserved	22	8	Reserved	
Reserved	TAUX	23	9	TAUX2 (TRW)	
	TBUSY	24	10	/TICS	
	TI0	25	11	TAUX5 (/TOE)	
	TVccs	26	12	TMODE	MD2
TxD2	TRxD	27	13	TTxD	RxD2
Vss	GND	28	14	GND	Vss

Table 4-1: Target Probe Signal List (FH808M07)

- Be sure to connect the signals marked with “○” to the target system.
- The signals in dotted parentheses ○ are also controlled for output. Connect them only when necessary.
- Though the signals listed as “reserved” are not to be used, they are being controlled. Therefore, be sure not to connect them to a circuit of the target system.

4.2 Model Connection to a Target System



The recommended value of pull-up and pull-down resistance is 10K Ω .

(1) For the signals defined as shared terminals, multiplexing circuit of these signals must be provided to the user system.

/TICS signal is asserted only when the NET IMPRESS is performing the Device Functions.

/TICS signal multiplexes the signals connected to these shared terminals.

Multiplexing circuits are not required for a target system where these signals for write control are defined as the control signals for the flash microcomputer.

Inserting the multiplexing circuit into the user system can produce the same conditions with a state where the NET IMPRESS is not connected (i.e., the connector is unplugged) while /TICS signal is being negated (when the Device Functions are not executed).

(2) WDT Signal:

The clock signal defined with the WDT Clock Period [FUNC D 5] is generated from WDT signal terminal by the NET IMPRESS.

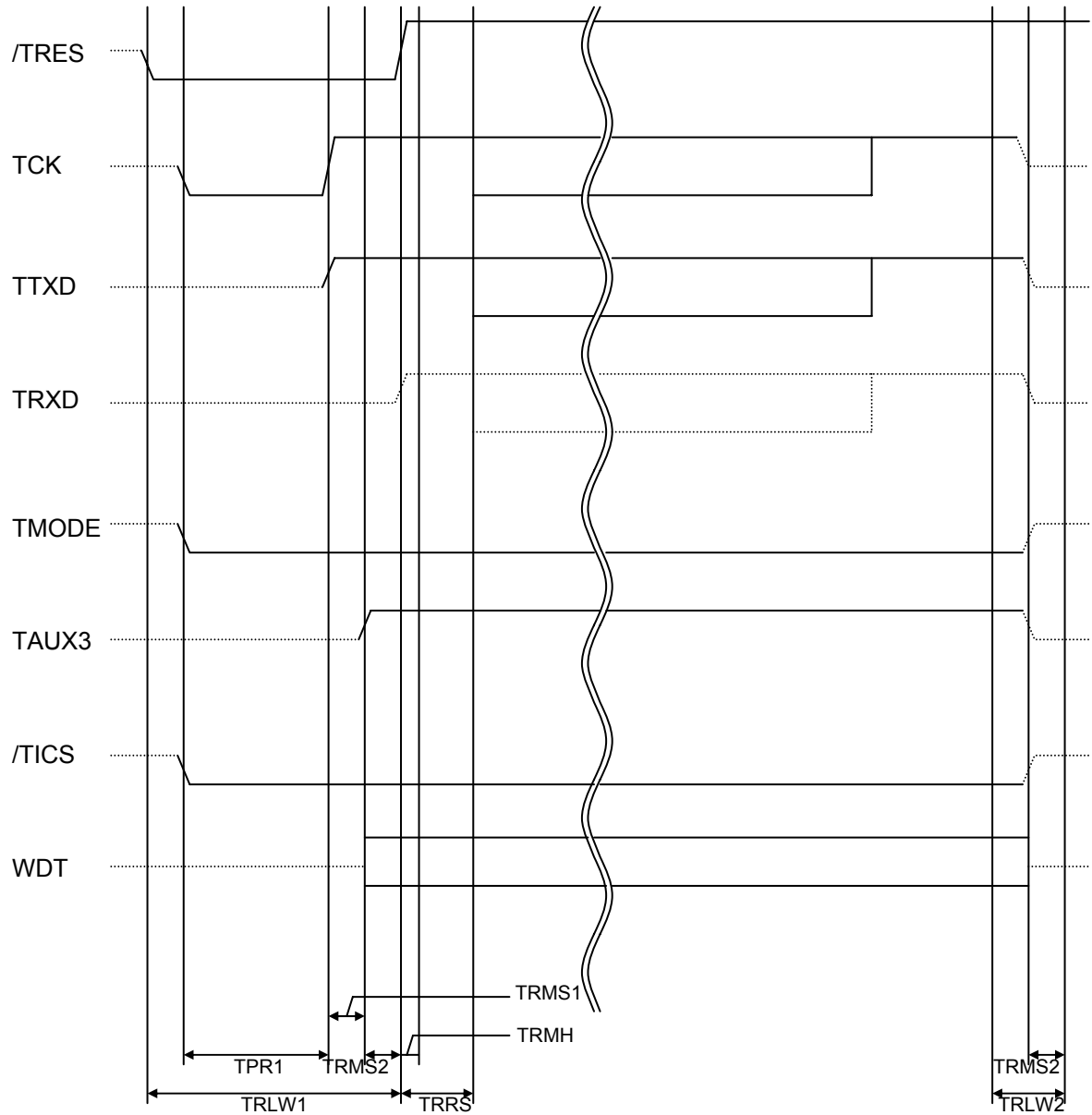
Connect this signal to the user circuit that requires the appropriate clock signal when programming the flash memory.

(3) TRES Signal:

The NET IMPRESS is provided with /TRES signal in the standard probe, which is an open collector type output so that it can make wired-or connection in the target system and be connected to /RESET signal of your microcomputer using the user circuit. /TRES signal can be used when the target system requires a reset signal of positive logic. TRES signal is a totem pole output signal.

4.3 Waveform of Control Signal

Programming Mode



	MCU Specification	NET IMPRESS Specification
TRLW1		300ms (Minimum)
TRLW2		100ms (Minimum)
TPR1		200ms (Minimum)
TRMS1		30ms (Minimum)
TRMS2		50ms (Minimum)
TRMH		5ms (Minimum)
TRRS		100ms (Minimum)

*1: The dotted line “ ” indicates HIZ state.

- (1) Power on the NET IMPRESS first and the target system next.
- (2) /TICS signal is asserted by execution of the program command, and communication channel for programming is connected to the NET IMPRESS on the target system. (Multiplexing with this /TICS signal is not required for a system where communication channel and related signals for programming are exclusively used by the NET IMPRESS, independently from other user circuit.)
- (3) The NET IMPRESS asserts a reset signal to pull the target microcomputer into the programming mode.
- (4) TVpp is raised to the specified voltage.
- (5) The programming mode that is started by negating a reset signal starts communicating with the NET IMPRESS using a specified communication circuit.
Channels specified in the MPU Clock Frequency [FUNC D F] in advance will be selected for communication circuit.
- (6) When programming is finished, applying Vpp automatically ends.
- (7) The NET IMPRESS also negates /TICS signal. While /TRES signal is asserted, WDT signal continues to generate periodic pulse signal (the clock to input to a watchdog timer of the target system).

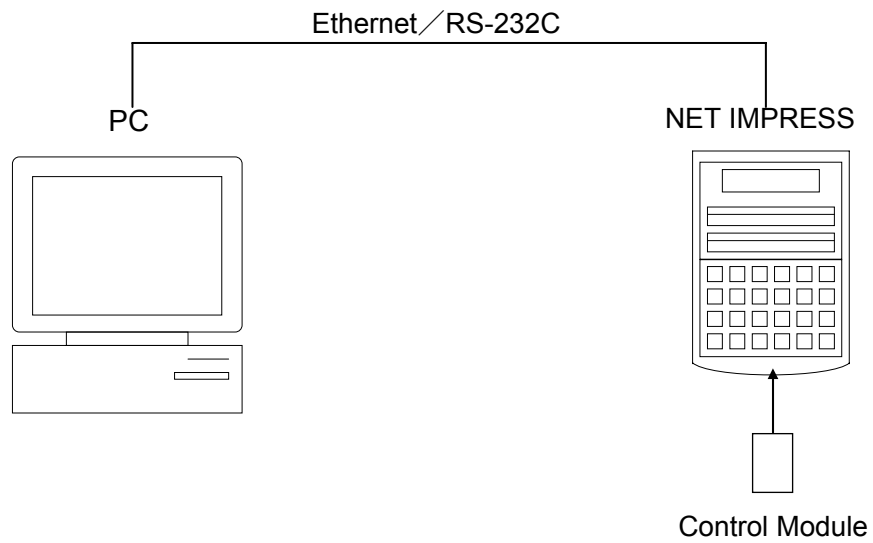
5 Downloading Micom Pack

5.1 Connecting the Remote Controller (AZ490)

The remote controller AZ490 runs on a Windows PC.

Connect a PC and the NET IMPRESS using an Ethernet cable (10BASE-T) or RS-232C cable.

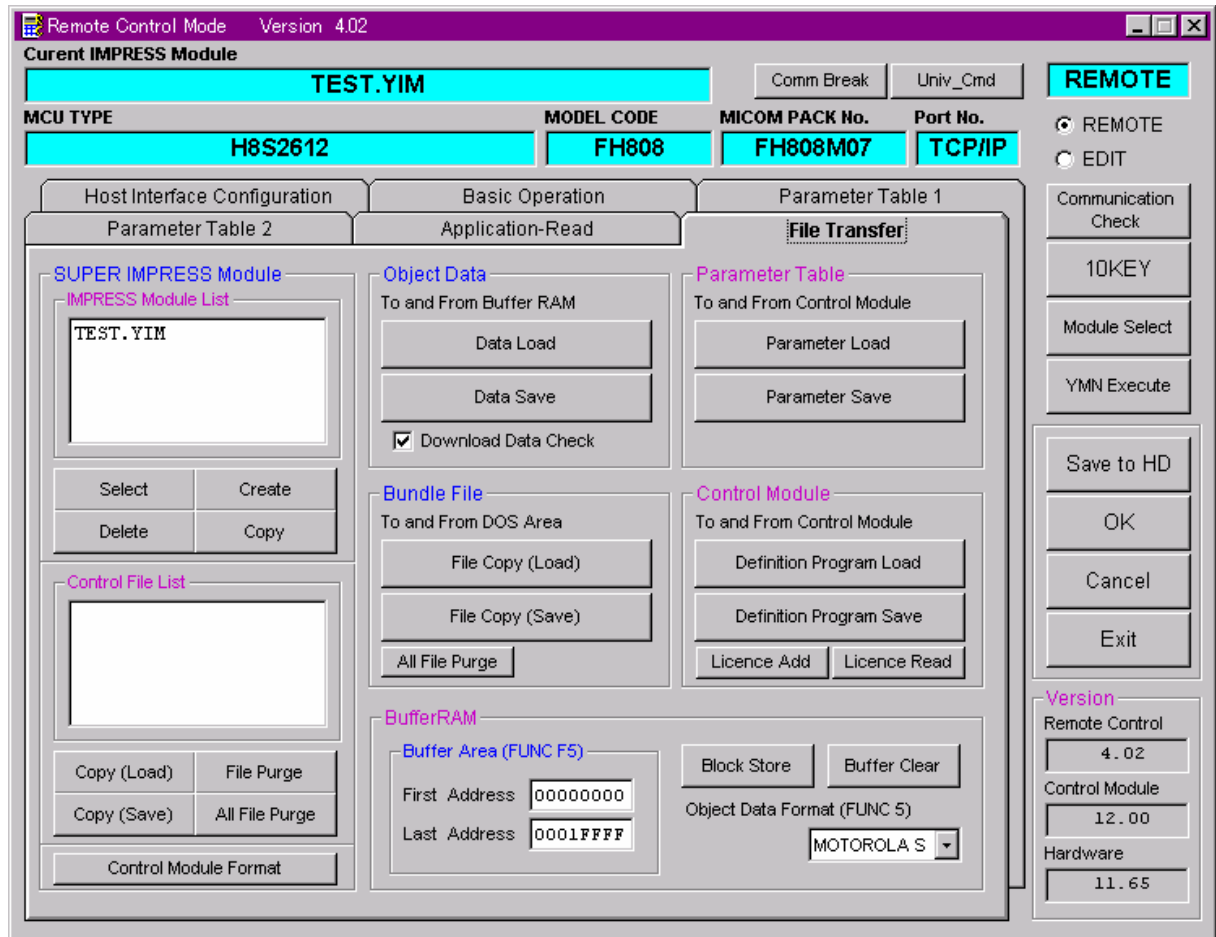
Install the control module, which supports the target microcomputer, in the NET IMPRESS. And, download the Micom Pack to the control module installed in the NET IMPRESS.



5.2 Downloading Micom Pack

You can download the Micom Pack by using the remote controller AZ490, which is available for an additional order. Download the Micom Pack to the control module using the Parameter Load from HD function on the File Transfer tab.

When you choose the Parameter Load from HD function, the window to select a parameter table appears, enabling you to choose an appropriate Micom Pack.



6 Notes and Cautions for Using Control Module

- (1) The control module FH808 is built for the flash microcomputer programmer NET IMPRESS. *DO NOT* use this control module for any flash microcomputer programmers other than the NET IMPRESS series.
- (2) The control module FH808 is built tailored to the specific microcomputer. Do not use this control module for programming microcomputers other than the specified microcomputer. Using this control module for microcomputers other than the specified microcomputer would damage your target system.
- (3) The NET IMPRESS consumes power of several mA from Tvcc terminal to drive the interface IC with the target system (IC inside the NET IMPRESS).
- (4) *Be sure NOT to* initialize (format) the control module (Compact Flash Card). The control module contains the definition program (the control program), besides the DOS area where you can save your files. Initializing the control module results in destroying this control program.
- (5) *DO NOT insert or remove* the control module while the Device Functions or the Function key operations are being executed. Be sure not to insert or remove the control module from the flash microcomputer programmer while accessing it.
- (6) Use the flash microcomputer programmer with the control module inserted into it.