AZ490

Remote Controller

for

NETIMPRESS Series

Instruction Manual

DTS INSIGHT CORPORATION

Instruction Manual for Remote Controller AZ490
No. M2328AC-05

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Printed in Japan

Publication History

Edition	Date of Issue	Description
First Edition	April 7, 2003	Initial publication
Second Edition	April 12, 2004	Errata are corrected.
Third Edition	August 31, 2004	Screenshots are changed due to upgrading.
Fourth Edition	October 18, 2006	Folder/File List window is added. Error messages are added. Screenshots are changed.
Fifth Edition	May 16, 2008	System Requirements are added.

Contents

1 OVERVIEW 1

2 WINDOW IMAGES 2

2.1 COMPONENTS ON MAIN WINDOW OF REMOTE CONTROLLER 2
2.2 HOST INTERFACE CONFIGURATION TAB 4
2.3 PARAMETER TABLE 2 TAB 6
2.4 BASIC OPERATION TAB 7
2.5 APPLICATION READ TAB 9
2.6 PARAMETER TABLE 1 TAB 10
2.7 FILE TRANSFER TAB 12
2.8 FOLDER/FILE LIST WINDOW 15

3 BEFORE USING AZ490 16

3.1 SYSTEM CONFIGURATION REQUIRED TO USE REMOTE CONTROLLER AZ490 16
3.2 CONNECTING 17
3.3 STARTING UP AZ490 17
3.3.1 WHEN USING AZ490 IN THE REMOTE MODE 17
3.3.2 WHEN USING AZ490 IN THE EDIT MODE 18
3.3.3 SETTING COMMUNICATION CONDITIONS 20

4 USING REMOTE CONTROLLER AZ490 AS A TOOL TO MODIFY PARAMETERS 23

4.1 SETTING WITH PARAMETER TABLE 1 TAB 24
4.2 SETTING WITH BASIC OPERATION TAB 27
4.3 SETTING WITH PARAMETER TABLE 2 29
4.4 SETTING WITH APPLICATION READ TAB 30
4.5 CREATING AND LOADING A PARAMETER FILE 31
4.6 EDITING A PARAMETER FILE IN THE EDIT MODE 32

5 USING AZ490 FOR REMOTE CONTROL 34

5.1 BASIC OPERATION TAB 34
5.1.1 FILE OPERATION 34

5.1.2 EXECUTING THE DEVICE FUNCTIONS....35
5.1.3 MODIFYING DATA IN BUFFER RAM....35
5.1.4 SEARCHING FOR MODIFIED DATA....35
5.1.5 CLEAR BUFFER, STORE BLOCK....35
5.1.6 VIEWING A SUM VALUE OF BUFFER RAM....35
5.2 FILE TRANSFER TAB....36
5.2.1 LOADING AND SAVING AN OBJECT FILE (LOAD DATA FUNCTION 4 1)....36
5.2.2 LOADING AND SAVING A PARAMETER FIILE....36
5.2.3 COPYING AND DELETING A FILE TO A CURRENT IMPRESS MODULE FOLDER....37
5.2.4 LOADING AND SAVING A DEFINITION PROGRAM FILE....38
5.2.5 SELECTING, CREATING, DELETING AND COPYING AN IMPRESS MODULE FOLDER....38
5.2.6 COPYING AND DELETING A CONTROL FILE....39
5.2.7 FORMATTING CONTROL MODULE....40
5.3 TIME-OUT....40
5.4 10-KEY NUMERIC KEYPAD....41
5.5 FOLDER/FILE LIST WINDOW....42
5.5.1 NODE OPERATION....42
5.5.2 SEARCHING FOR FOLDERS AND FILES — FIND BUTTON....43
5.5.3 SEARCHING ALL FOLDERS AND FILES — ALL VIEW BUTTON....44

6 INSTALLING & STARTING REMOTE CONTROLLER AZ490....45

6.1 INSTALLING REMOTE CONTROLLER AZ490....45
6.2 STARTING REMOTE CONTROLLER AZ490....47

7 APPENDIX — ERROR MESSAGES....49

1 Overview

With Remote Controller AZ490, you can remotely control Flash Programmer NETIMPRESS series (“NETIMPRESS”) from a Windows personal computer (“PC”) or modify the parameter table of Control Module (Remote mode).

With AZ490, you can also edit and save a parameter file (*.prm), which can be downloaded to Control Module, without connecting with NETIMPRESS (Edit mode). As to a parameter file which you have edited and saved, you can use it by downloading with [Load Parameter] after connecting AZ490 with NETIMRPESS in the Remote mode.

System Requirements

IBM PC/AT or its compatible computer satisfying the following performance

CPU:	Pentium 1GHz or higher
RAM capacity:	512 Mbytes or more
Monitor resolution:	800 x 600 or more
OS:	Japanese version or English version of;
	Windows NT 4.0, Windows 2000,
	Windows XP (Professional Edition),
	Windows Vista*1

*1: Note: With Windows Vista, when executing the following functions files can not be saved to a root of a drive.

Save Data

Copy File (Save)

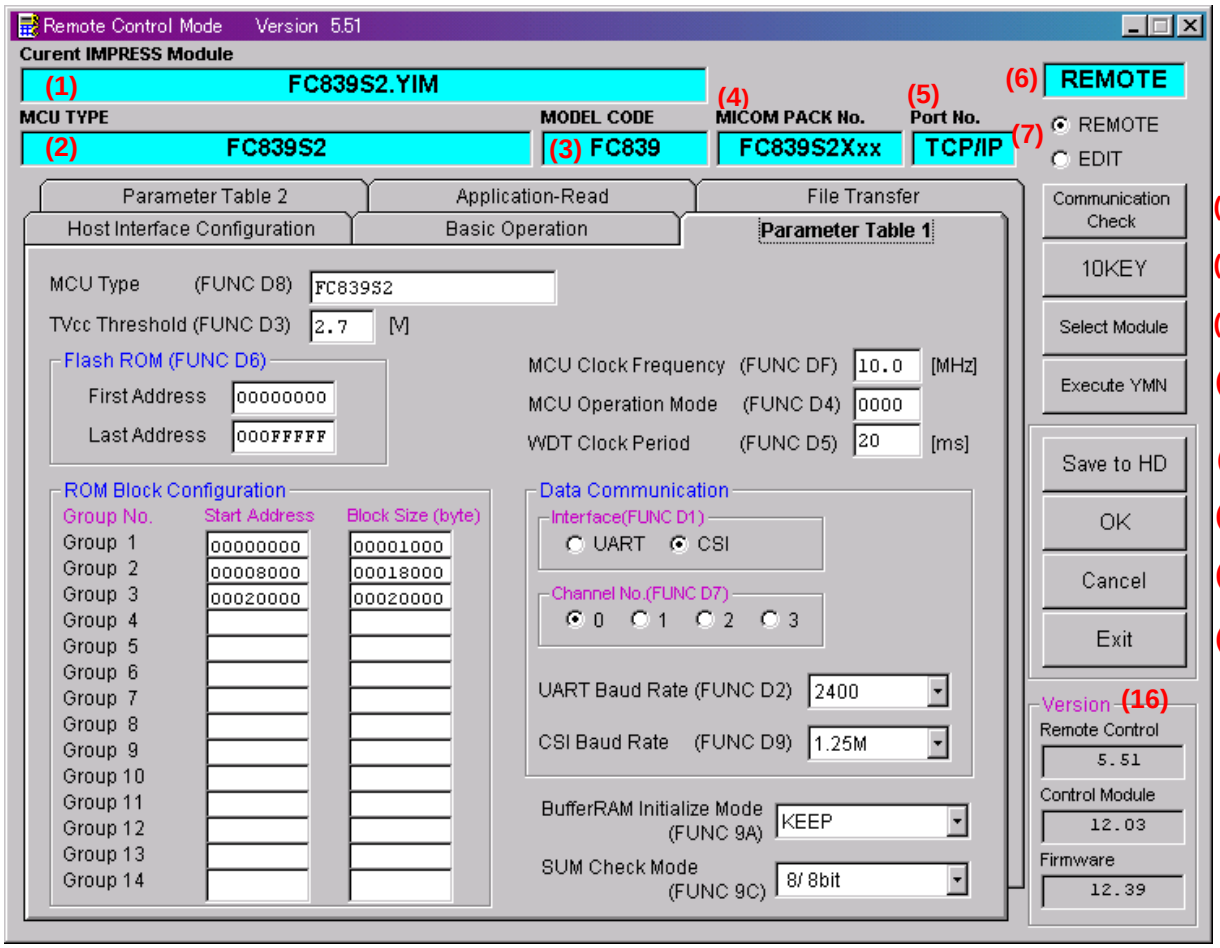
Save Parameter

Save Definition Program

2 Window Images

This chapter explains about the window components and tabs of Remote Controller AZ490.

2.1 Components on Main Window of Remote Controller



(1) Current IMPRESS Module

Displays a folder name of an IMPRESS Module currently selected, which displayed only using Compact Module.)

(2) MCU TYPE

Displays a model name of a target microcomputer to program.

(3) MODEL CODE

Displays a name of Control Module currently used.

(4) MICOM PACK No.

Displays a name of Micom Pack currently used.

(5) PORT No.

Displays “TCP/IP” when making Ethernet connection, while a port number when making RS232C connection.

(6) Mode

Displays a mode in which AZ490 is used, that is, REMOTE when it is used in the Remote mode, while EDIT when it is used in the Edit mode.

(7) Mode check boxes (Remote/Edit)

Use to switch the mode between Remote and Edit.

(8) Communication Check

Use this Communication Check button to connect with NETIMPRESS.

(9) 10KEY

Pressing this 10KEY button opens the 10 Key window.

(10) Select Module

Use this Select Module button to select a current IMPRESS Module.

(11) Execute YMN

Pressing this Execute YMN button executes the YMN function.

(12) Save to HD

Pressing this Save to HD button saves parameters as a file in a PC.

(13) OK

Pressing this OK button reflects the parameter settings you have modified on Remote Controller to NETIMPRESS.

(14) Cancel button

Pressing this Cancel button cancels the parameter settings you have modified on Remote Controller without reflecting to NETIMPRESS.

(15) Exit button

Pressing this Exit button exits Remote Controller.

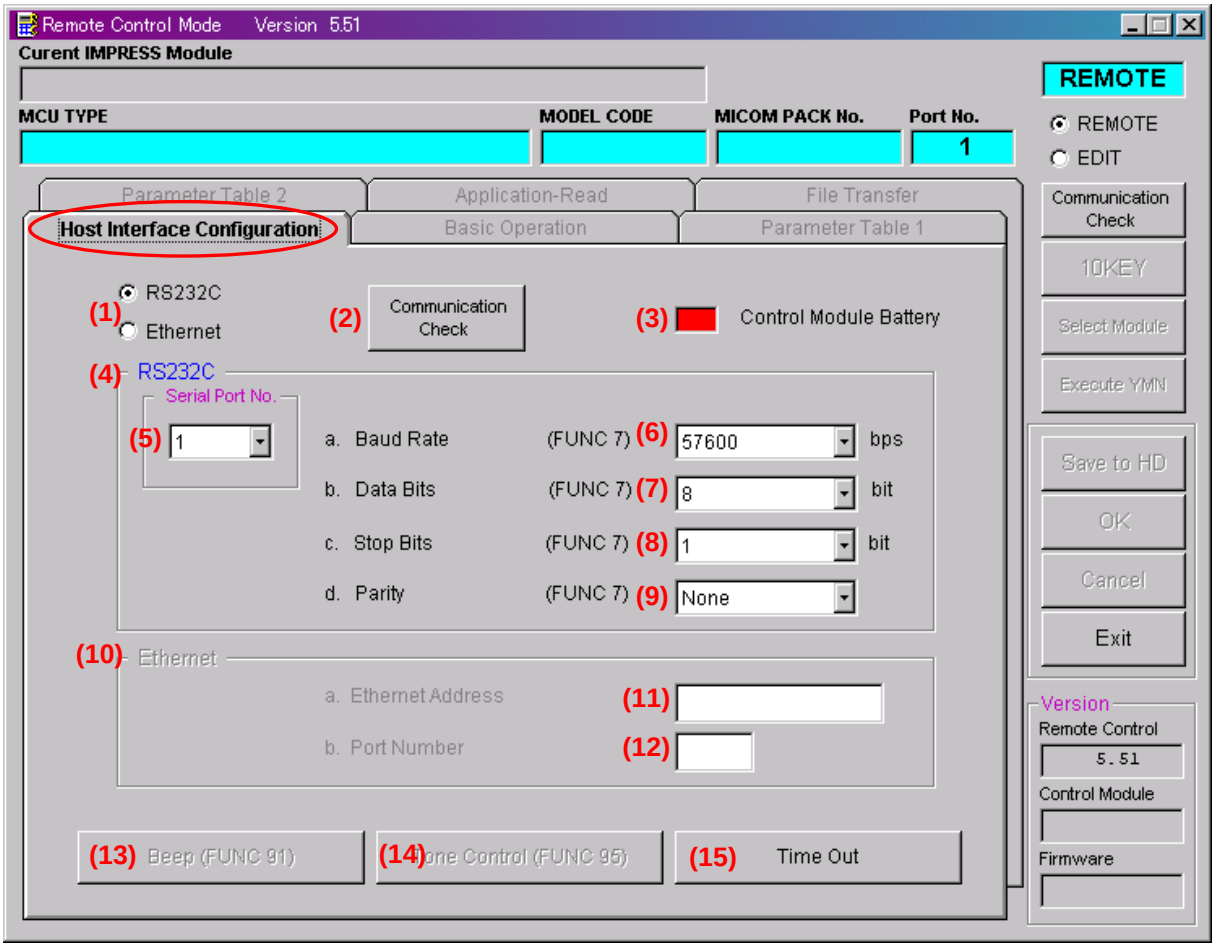
(16) Version

Displays the following version information:

- Remote Control: Version of Remote Controller
- Control Module: Version of Control Module being used
- Firmware: Firmware version of NETIMPRESS

2.2 Host Interface Configuration tab

This section explains about the components of Host Interface Configuration tab.



(1) RS232C/Ethernet check boxes

Select a communication channel between RS232C and Ethernet.

(2) Communication Check button

Pressing this button connects with NETIMPRESS.

(3) Control Module Battery

This appears active only when using IMPRESS Module and shows remaining battery level of Control Module. It is in green when battery charge is high, while in red when battery level is low.

(4) RS232C area

With this RS232C area, you can set up various communication conditions when selecting RS232C for communication channel.

(5) Serial Port No. list box

Select a port number to use with RS232C.

(6) Baud Rate list box

Select a communication baud rate of RS232C. Choices are 2400 bps, 4800 bps, 9600 bps, 19200 bps, 57600 bps, 76800 bps and 115200 bps.

(7) Data Bits list box

Select a data length of RS232C. You can choose either 7 bit or 8 bit.

(8) Stop Bits list box

Select stop bit either from 1 bit or 2 bits.

(9) Parity list box

Select parity bit for RS232C. Choices are None, Odd and Even.

(10) Ethernet area

With this Ethernet area, you can set up communication conditions when selecting Ethernet for communication channel.

(11) Ethernet Address box

Enter IP address of NETIMPRESS.

(12) Port Number box

Enter a port number of NETIMPRESS.

(13) Beep button

Pressing this Beep button changes when to make a beep sound and also sets up not to make a beep sound.

(14) Tone Control button

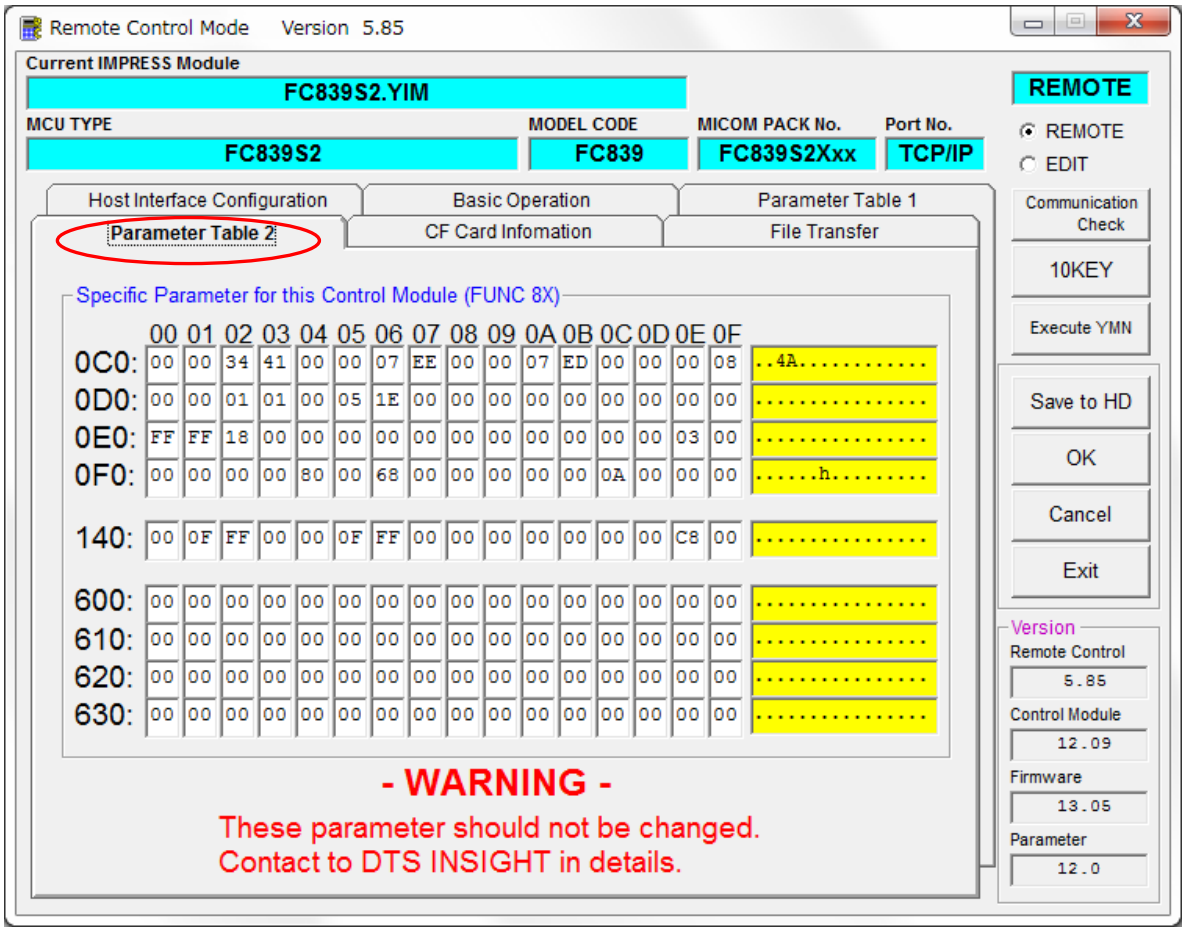
Pressing this Tone Control button adjusts the tone of a beep sound.

(15) Time Out button

Pressing this button opens the Time Out dialog box, with which you can change a time-out value for execution of the Device Functions and Functions.

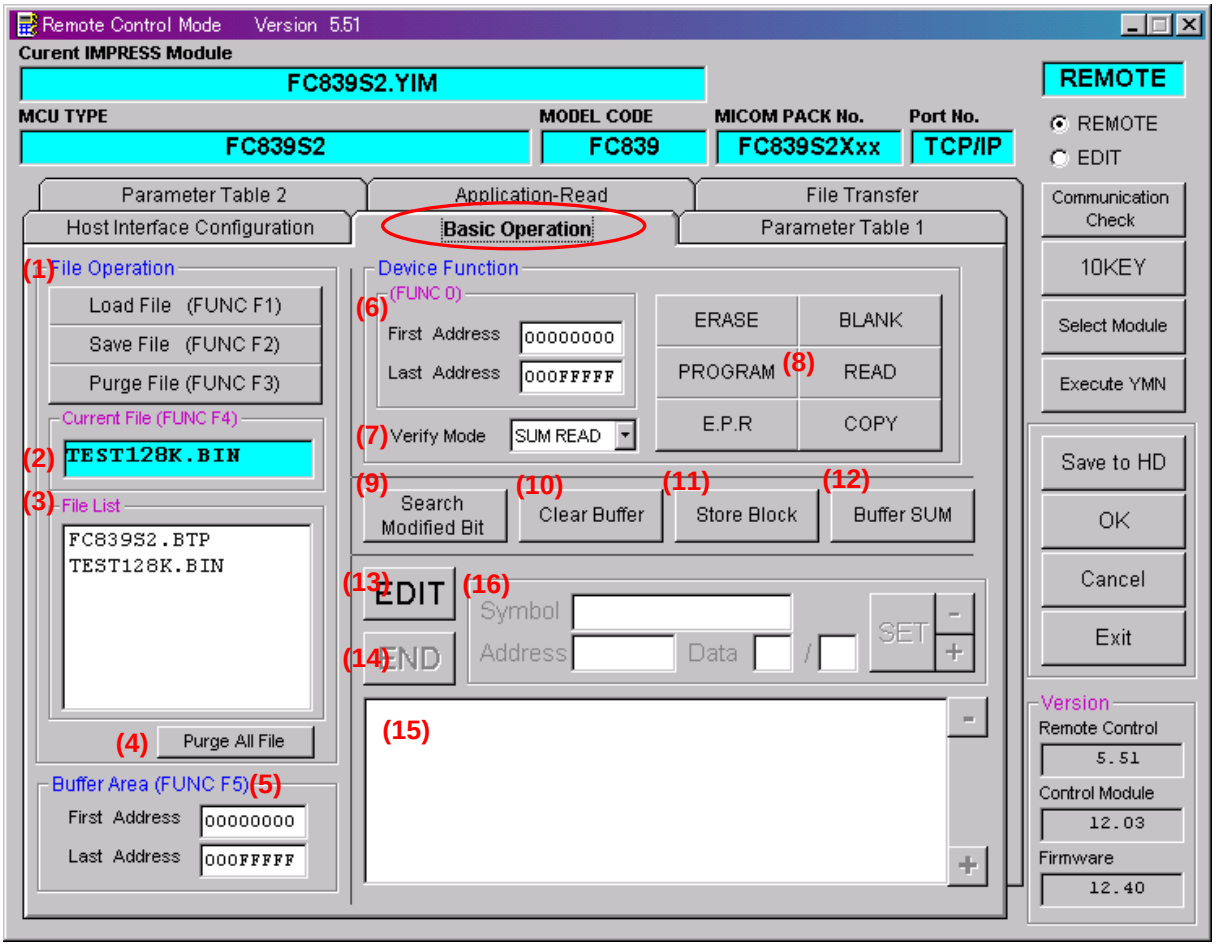
2.3 Parameter Table 2 tab

The below is the screenshot of Parameter Table 2 tab. For details, please contact Support Center by emailing to info-impress@dts-insight.co.jp.



2.4 Basic Operation tab

This section explains about Basic Operation tab.



(1) File Operation command buttons (Load File/Save File/Purge File)

Pressing the Load File button loads a file in a current IMPRESS Module folder to buffer RAM.

Pressing the Save File button saves contents of buffer RAM to a current IMPRESS Module folder.

Pressing the Purge File deletes a file in a current IMPRESS Module folder.

(2) Current File box

Displays a name of a file downloaded to buffer RAM.

When multiple files are downloaded in buffer RAM, a name of a file downloaded last is displayed.

The file name displayed here will be cleared when buffer is cleared or the Device Function Copy is executed.

(3) File List field

Lists file name(s) that exists in a current IMPRESS Module folder.

(4) Purge All File button

Pressing this button deletes all files in a current IMPRESS Module folder.

(5) Buffer Area

Set up a first address and last address to transfer between a PC and buffer RAM.

(6) Buffer Area — First Address/Last Address boxes

Enter a first address and last address to execute the Device Functions.

(7) Verify Mode list box

Select a verify mode from either SUM READ or FULL READ.

(8) Device Function command buttons

Use these Device Function command buttons to execute their respective features.

(9) Search Modified Bit button

Pressing this button executes searching for modified bit.

(10) Clear Buffer button

Pressing this button clears buffer.

(11) Store Block button

Pressing this button executes storing a block, that is, loading a data block to buffer RAM.

(12) Buffer SUM button

Pressing this button calculates and displays a sum value of an area where the Device Functions are executed and a file transfer area.

(13) EDIT button

Pressing this EDIT button displays contents of buffer RAM in the buffer RAM field.

(14) END button

Pressing this END button clears data displayed in the buffer RAM field.

(15) Buffer RAM field

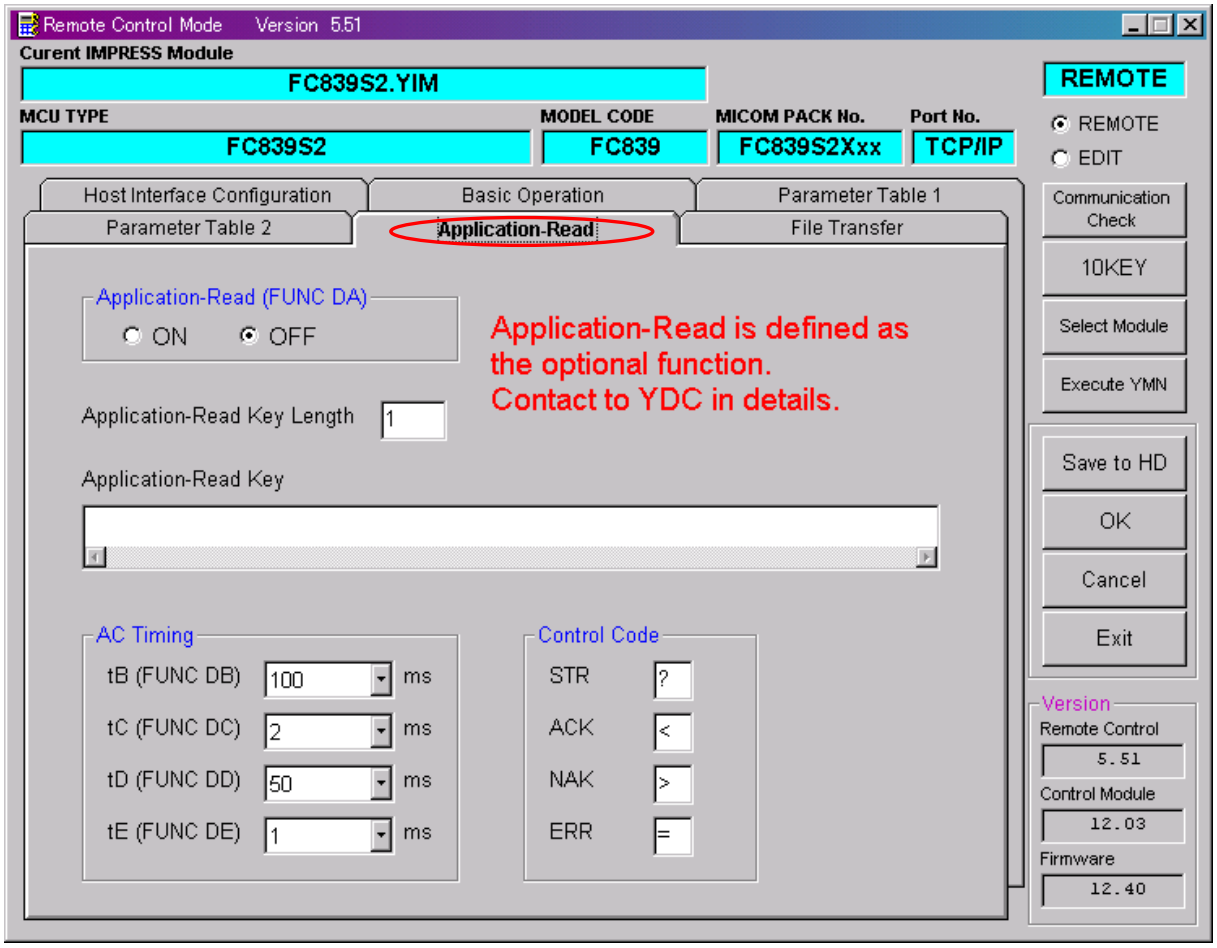
Contents of buffer RAM will be displayed in this field when the EDIT button is pressed.

(16) Buffer RAM area

With this area, you can change contents of buffer RAM.

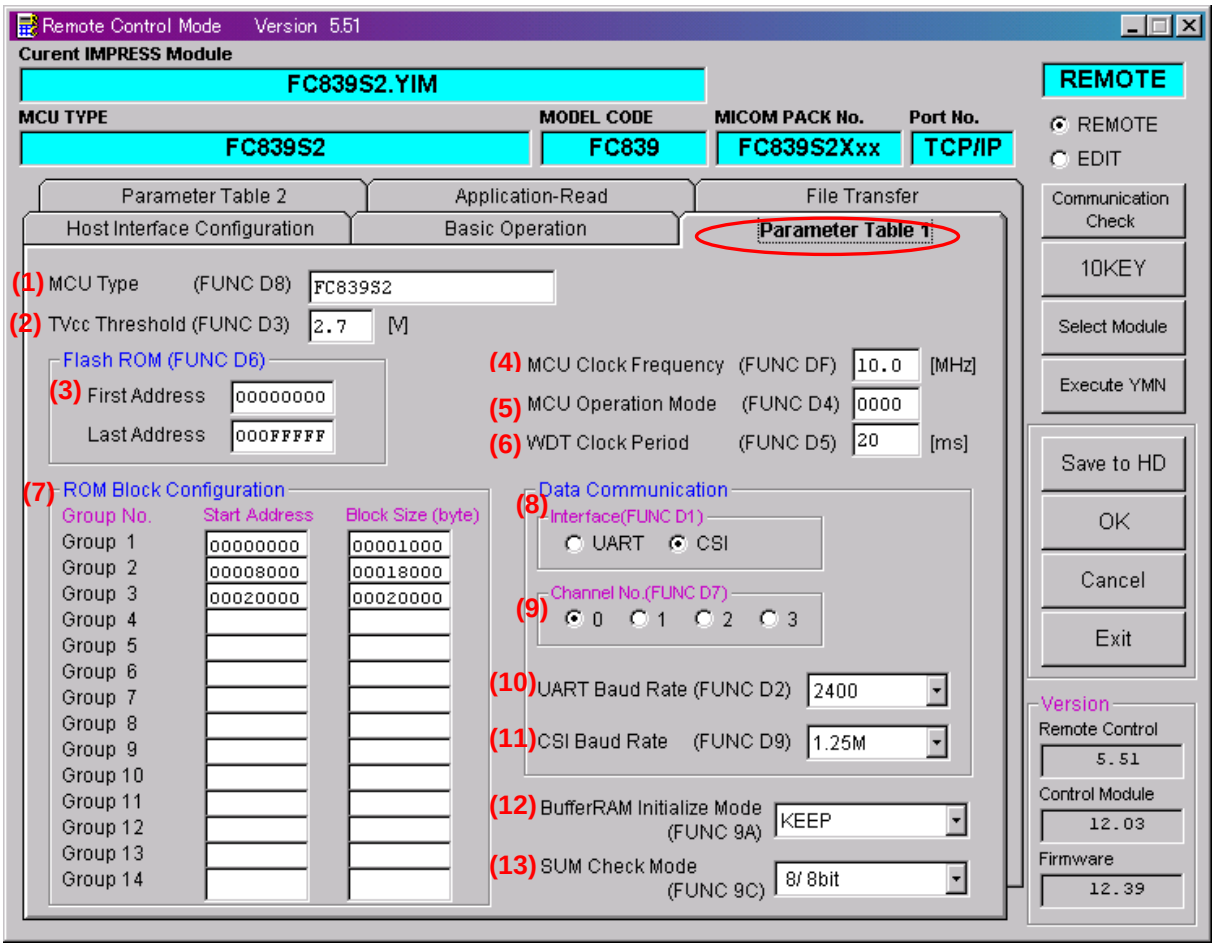
2.5 Application Read tab

The below is the screenshot of Application Read tab. For details, please contact Support Center by emailing to info-impress@dts-insight.co.jp.



2.6 Parameter Table 1 tab

This section explains about Parameter Table 1 tab.



(1) MCU Type

Enter a target MCU name to program. An MCU name set up here will be displayed on the LCD of NETIMPRESS.

(2) TVCC Threshold

Enter a threshold value of TVCC.

(3) Flash ROM — First Address, Last Address

Set up a first address and last address of flash ROM.

(4) MCU Clock Frequency

Set up operating clock frequency of an MCU.

(5) MCU Operation Mode

Set up an operation mode of an MCU.

(6) WDT Clock Period

Set up a cycle of watch dog timer.

(7) ROM Block Configuration setup area

Set up block configuration of flash ROM.

(8) Interface (UART/CSI)

Select communication interface between NETIMPRESS and a target. Choices are UART or CSI.

(9) Channel No.

Select a communication channel number.

(10) UART Baud Rate

Select a UART baud rate from the dropdown list.

(11) CSI Baud Rate

Select a CSI baud rate from the dropdown list.

(12) Buffer RAM Initialize Mode

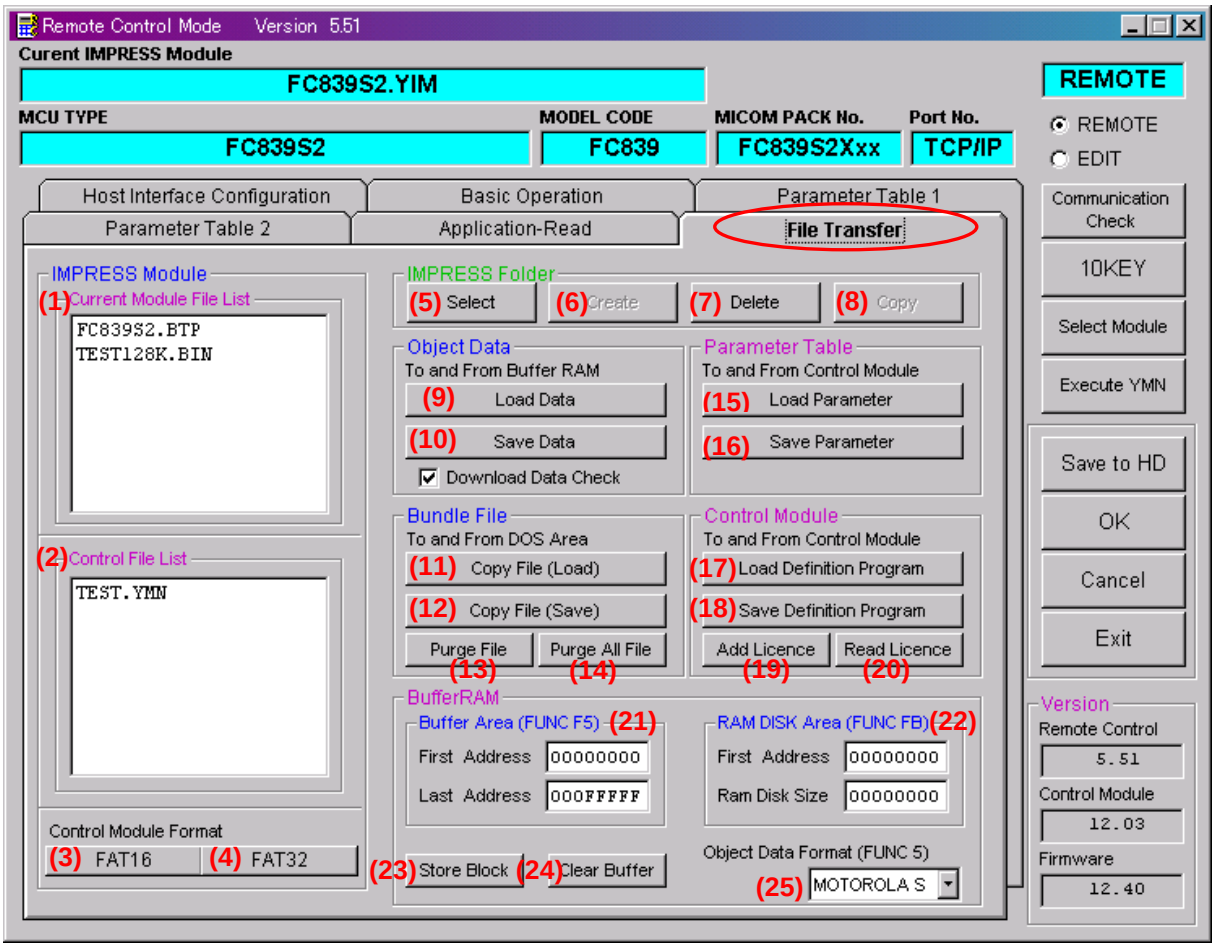
Select either to initialize buffer RAM or not at startup of NETIMPRESS. Choices are either CLEAR or KEEP.

(13) SUM Check Mode

Select a mode to calculate a SUM value.

2.7 File Transfer tab

This section explains about File Transfer tab.



(1) Current Module File List field

Files contained in a current IMPRESS Module folder are listed in this field.

(2) Control File List field

Files under the route area are listed in this field.

(3) FAT16 button

Pressing this FAT16 button formats Compact Flash card with FAT16. (Only supported for Compact Module)

(4) FAT32 button

Pressing this FAT32 button formats Compact Flash card with FAT32. (Only supported for Compact Module)

(5) Select button

Use this button to select a current IMPRESS Module folder. (Only supported for Compact Module)

(6) Create button

Use this button to create an IMPRESS Module folder. (Only supported for Compact Module)

(7) Delete button

Use this button to delete an IMPRESS Module folder. (Only supported for Compact Module)

(8) Copy button

Use this button to copy an IMPRESS Module folder and create a new IMPRESS Module folder. (Only supported for Compact Module)

(9) Load Data button

Pressing this button downloads an object file from a PC to buffer RAM.

(10) Save Data button

Pressing this button saves contents of buffer RAM in a PC.

(11) Copy File (Load) button

Pressing this button loads a file from a PC to a current IMPRESS Module folder or route area of Compact Flash card. (Loading a file to a route area is only supported with Compact Module.)

(12) Copy File (Save) button

Pressing this button saves a file in a current IMPRESS Module folder or a file in the route directory to a PC. (Saving a file in the route area is only supported with Compact Module.)

(13) Purge File button

Pressing this button deletes a file in a current IMPRESS Module folder or in the route area.

(14) Purge All File button

Pressing this button deletes all files in a current IMPRESS Module folder or in the route area.

(15) Load Parameter button

Pressing this button loads parameters on a PC to NETIMPRESS.

(16) Save Parameter button

Pressing this button saves parameters of NETIMPRESS to a PC.

(17) Load Definition Program button

Pressing this button downloads a definition program on a PC to NETIMPRESS.

(18) Save Definition Program button

Pressing this button saves a definition program in NETIMPRESS to a PC.

(19) Add License button

Pressing this button registers a license with Control Module. (This license registration function is only supported with Compact Module.)

(20) Read License button

Pressing this button reads a license(s) registered with Control Module. (This license reference function is only supported with Compact Module.)

(21) Buffer Area — First Address, Last Address

Set up a first and a last address as a buffer memory range to load and save an object file.

(22) RAM DISK Area

Set up a RAM DISK area.

(23) Store Block button

Pressing this button executes the block store function.

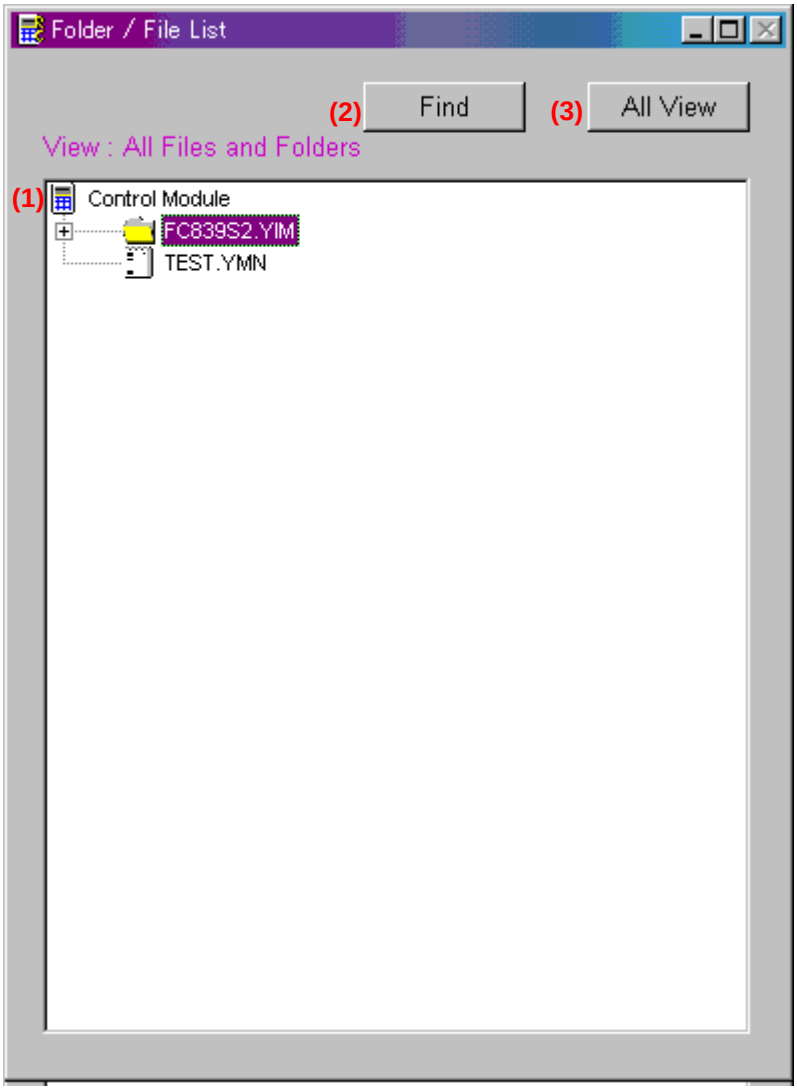
(24) Clear Buffer button

Pressing this button clears buffer.

(25) Object Data Format

Select a file format to save buffer RAM of NETIMPRESS to a PC.

2.8 Folder/File List Window



(1) View: All Files and Folders field

IMPRESS Module folder and files that exist in Compact Flash card are displayed in tree structure. Files in IMPRESS Module(s) other than a current IMPRESS Module are not displayed.

(2) Find button

Use this Find button to search for folders and files listed on the View: All Files and Folders field.

(3) All View button

Use this All View button to display all IMPRESS Module folders and files in Compact Flash card and display all after searching folders and files.

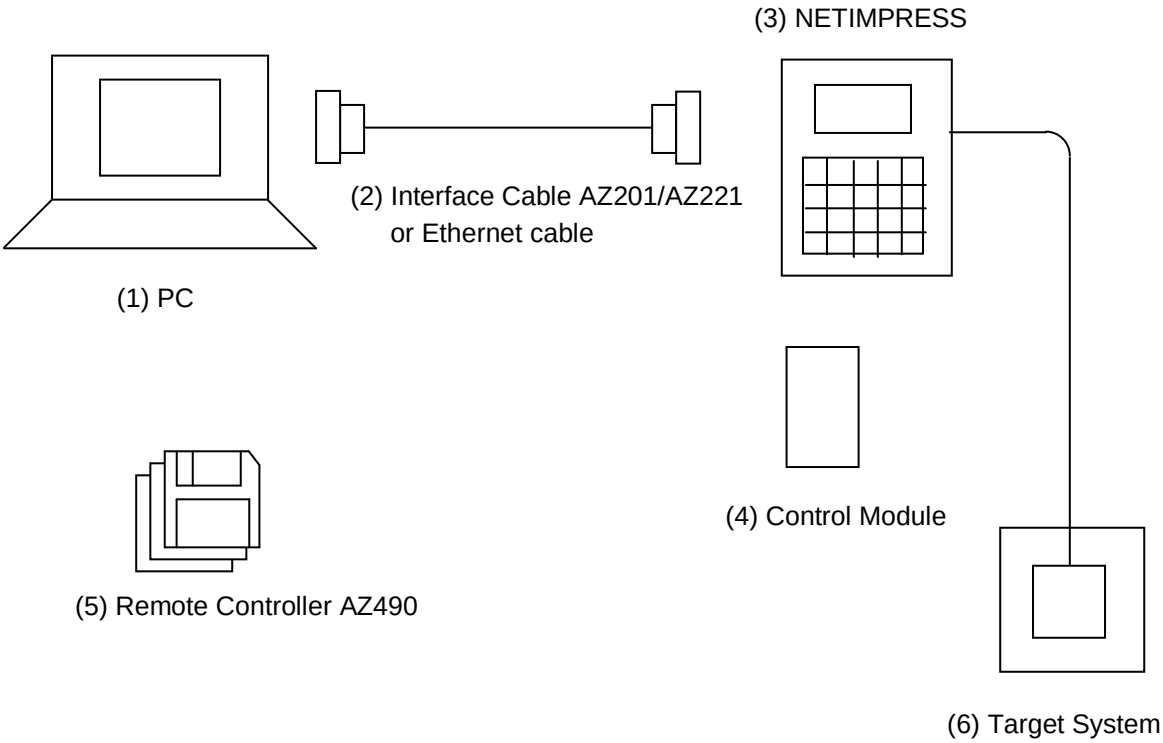
However, note that files in an IMPRESS Module folder other than a current IMPRESS Module are not displayed.

3 Before Using AZ490

This chapter describes the information required before you start using Remote Controller AZ490. Be sure to read this chapter before you start using AZ490.

3.1 System Configuration required to use Remote Controller AZ490

The figure below illustrates the system configuration required to use AZ490 and how to connec them.



(1) Personal computer (PC)

Windows NT 4.0 or later

Monitor Resolution: 800 x 600 or higher

(2) Host Interface Cable

Cable to connect NETIMPRESS with a PC.

(3) Flash Programmer NETIMPRESS series

This is not necessarily required when using AZ490 in the Edit mode.

(4) Control Module

Be sure to use an appropriate Control Module that has the same programming algorithm and protocol with a flash microcomputer on a target system inserting it into the PC card slot of NETIMPRESS.

An object file on a PC or an object file placed in the DOS area of Control Module can be downloaded to buffer RAM and its contents can be programmed into a target microcomputer. **This is not necessarily required when using AZ490 in the Edit mode.**

(5) Remote Controller AZ490

With AZ490, you can make the operation equivalent to those on NETIMPRESS (local operation). Also, you can modify and check various parameters, which will be required when changing a target microcomputer.

(6) Target system

A target system will be required when you want to program and read an actual microcomputer using AZ490.

However, it is not necessarily required to connect NETIMPRESS with a target system when using AZ490 in the Edit mode.

3.2 Connecting

When you make the connection, make sure that the power of all components is turned off.

Also, be sure to follow the correct step to turn on and off the power.

- Step to turn on the power:

  PC ⇒ NETIMPRESS ⇒Target System

- Step to turn off the power:

  Target system ⇒ NETIMPRESS ⇒ PC

3.3 Starting up AZ490

This section describes the process to start up AZ490 step by step.

3.3.1 When using AZ490 in the Remote mode

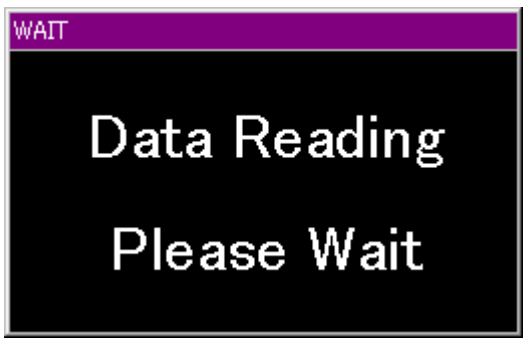
Start up AZ490 following the steps below when using AZ490 in the Remote mode.

(1) Turn on the power in the following order:

PC with AZ490 installed ⇒ NETIMPRESS ⇒ a target system.

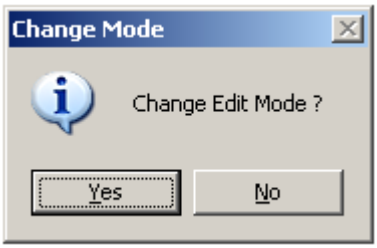
(2) Start up AZ490 on a PC.

When AZ490 is successfully started, the message as shown below appears and connection with NETIMPRESS will be started.



If you have exited AZ490 in the Edit mode at a previous session, the message as shown below appears enabling you to select a mode at a startup. If you have exited AZ490 in the Remote mode at a previous session, this message does not appear.

(3) When you want to use AZ490 in the Remote mode, select No.



AZ490 is started successfully and the Basic Operation tab appears.

In case a connection error occurs between NETIMPRESS and a PC such as communication conditions not matching, the message as shown below appears.

(4) If you click OK, the Host Interface Configuration window appears.

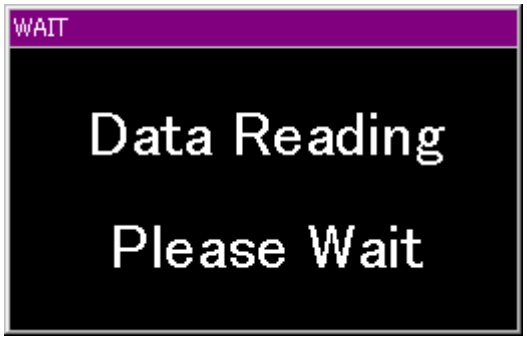
Make the initial communication settings referring to Section 3.3.3 “Setting communication conditions”.

3.3.2 When using AZ490 in the Edit mode

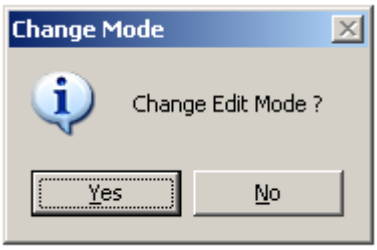
Start up AZ490 following the steps below when using AZ490 in the Edit mode.

(1) Start up AZ490 on a PC.

When AZ490 is successfully started, the message as shown below appears and connection with NETIMPRESS will be started.



If you have exited AZ490 in the Edit mode at a previous session, the message as shown below appears enabling you to select a mode at a startup.

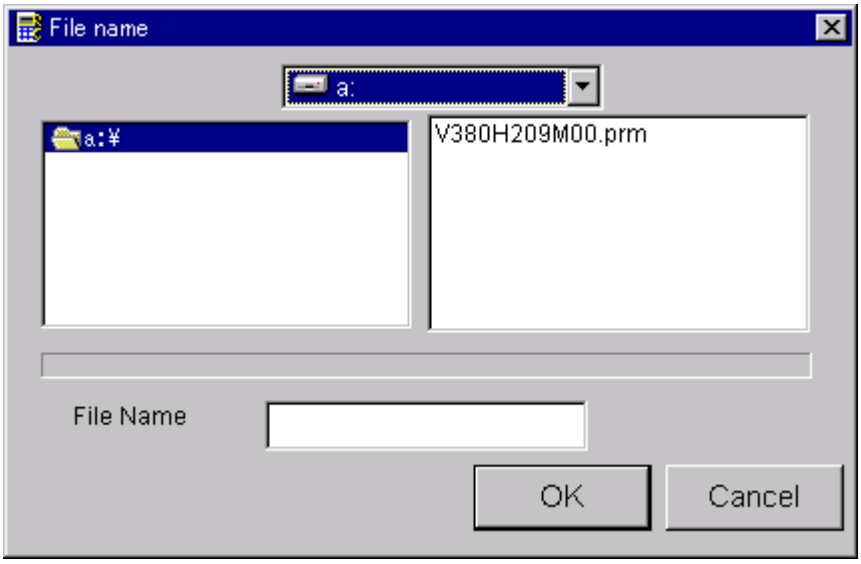


In case you have exited AZ490 in the Remote mode at a previous session, the startup will be made in the Remote mode and you need to change a mode after a startup.

(2) If you want to use AZ490 in the Edit mode, select Yes.

(3) Select a parameter file to load and click OK.

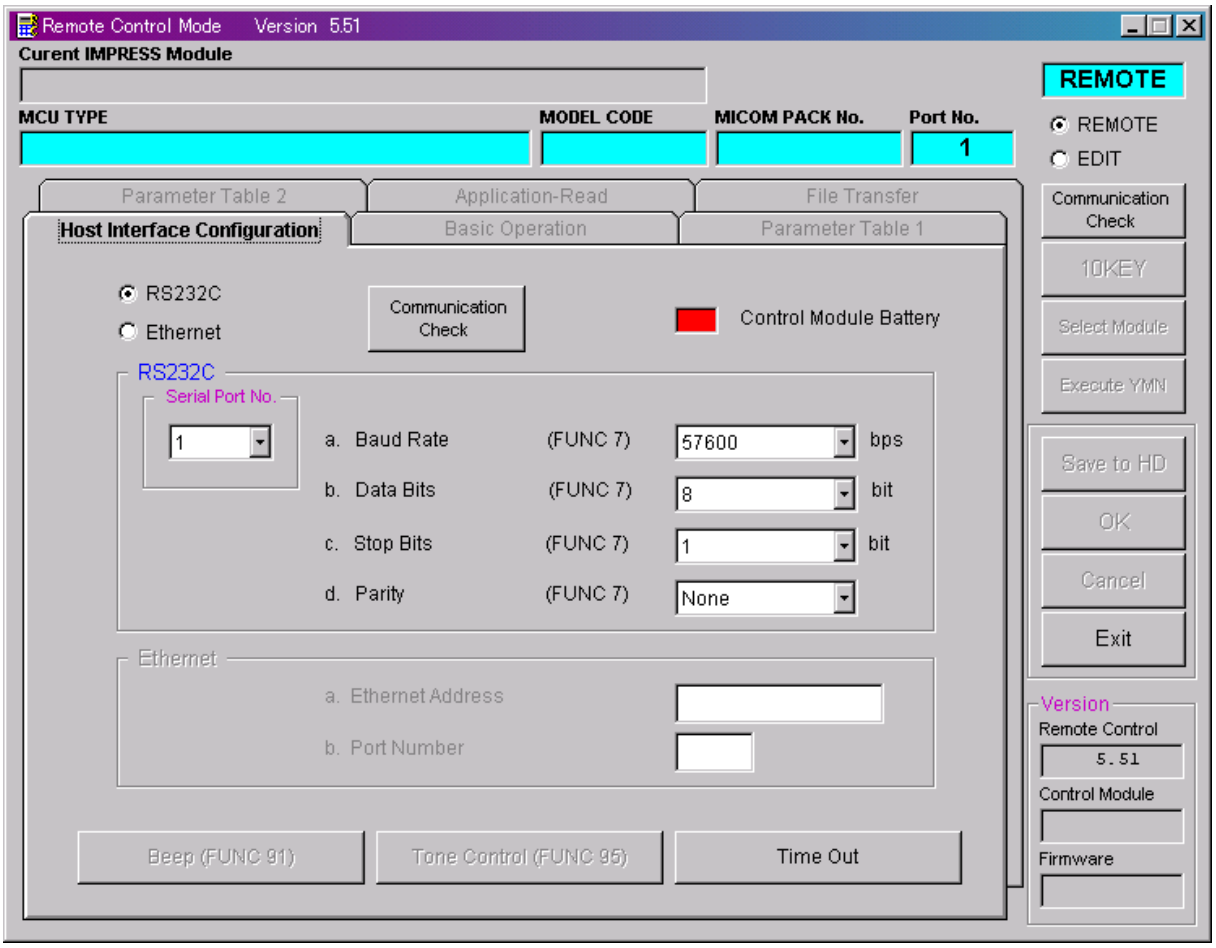
(4) If you click Cancel, AZ490 will be started in the Remote mode.



When AZ490 is started successfully, the Main Window appears with the Basic Operation tab opened.

3.3.3 Setting communication conditions

Set up communication conditions with the Host Interface Configuration tab as shown below.



(1) Set up communication channel with NETIMPRESS selecting either RS232C or Ethernet.

(2) Set up communication conditions with NETIMPRESS.

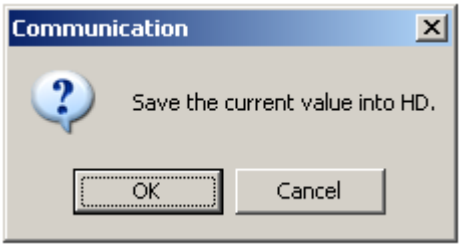
- In case you have selected RS232C in the previous step (1), set up baud rate, data bits, stop bits and parity to be same as those set up with NETIMPRESS main unit. For details, see NETIMPRESS Instruction Manual, Section 5. 4. 12 “RS232C Setting (FUNCTION 7)”.
- In case you have selected Ethernet in the previous step (1), set up Ethernet Address (IP address or a host name) and Port Number.

(3) Click the Communication Check button

. Then, communication with NETIMPRESS will be started.

(4) When communication is successfully established, the message as shown below appears. Click OK.

(5) The message asking if you want to save communication conditions you have just set up as internal initial conditions of AZ490. If you want to save them, click OK. If not, click Cancel.



The Basic Operation tab is opened, and connection between NETIMPRESS and AZ490 is established.

Important: When you initially connect AZ490 with NETIMPRESS, be sure to set up communication conditions with the Host Interface Configuration tab, which have to be matching with those set up with [FUNCTION E 2] or [FUNCTION 7] at the side of NETIMPRESS.

Actions to take in case communication cannot be established

In case communication cannot be established, check the following.

(1) When using RS232C

- Is RS232C set up with NETIMPRESS too?

  You can check the communication channel setting of NETIMPRESS by pressing [FUNCTION E1]. Also, communication channel currently selected is displayed on the LCD of NETIMPRESS when it is started.

- Are communication conditions matching with those set up for NETIMPRESS?

  You can check communication conditions of RS232C with [FUNCTION 7]. For details about [FUNCTION 7], see NETIMPRESS Instruction Manual, Section 5. 4. 12. “RS232C Setting (FUNCTION 7)”

(2) When using Ethernet

- Is Ethernet set up for communication channel with NETIMPRESS?

  You can check the communication channel setting of NETIMPRESS by pressing [FUNCTION E1]. Also, communication channel currently selected is displayed on the LCD of NETIMPRESS when it is started.

- Are IP address and port number you have set up matching with those set up for NETIMPRESS?

  You can check IP address and port number set up at the side of NETIMPRESS by pressing [FUNCTION E2]. Also, IP address is displayed on the LCD of NETIMPRESS when it is started.

- Are the cables connected correctly?

  When you connect a PC and NETIMPRESS in one-to-one connection, Ethernet cable has to be the cross cable.

- Is IP address set up with a PC?

  If IP address on a PC is not set up, you need to set it.

  In case [Obtain an IP address automatically] is selected, clear it and set up IP address.

- Is IP address set up correctly as specified in the setup rule?

  There is the range to set up IP address. Check if IP address is set up within such range.

- Are IP address set up in a PC and network address of IP address set up with NETIMPRESS matching?

  When IP address of a PC and network address of IP address of NETIMPRESS are not matching, you need to have a network device such as a router in between them.

- Aren't there network devices that have same IP address on a same network?

  In case you have multiple network devices that have one same IP address, connection cannot be made successfully.

Note: To check that NETIMPRESS and a PC are connected via network, execute the ping command.

4 Using Remote Controller AZ490 as a tool to modify parameters

This chapter describes how you can modify parameters using Remote Controller AZ490. Be sure to read this chapter even when you use AZ490 for remote control.

To make it easy to use Control Module for multiple microcomputers that have same protocol and algorithm with a target microcomputer, some of the parameters are made available as user-definable parameters.

When using AZ490 as illustrated in the figure in Section 3.1 “System Configuration required to use Remote Controller AZ490” of this Instruction Manual, you can use it in the Remote mode as a tool to modify the parameters of Control Module set in NETIMPRESS. Also, you can use it in the Edit mode as a tool to modify a parameter file (*.prm) on a PC.

You can modify parameters with the relevant tabs using AZ490 in the Remote mode, and when you finish the settings with each tab, press the OK button in each tab so that the settings will be transferred to Control Module set in NETIMPRESS.

When you modify parameters in the Edit mode and finish the settings, press the Save to HD button to save a modified parameter file in a PC. And, you can use a saved parameter file by downloading it to Control Module set in NETIMPRESS.

Note: To modify the parameter table, you do not need to connect NETIMPRESS with a target system (microcomputer). However, when you use AZ490 for any purposes other than modifying the parameter table, be sure to connect NETIMPRESS with a target system.

(1) Parameter Table 1 tab

With this Parameter Table 1 tab, you can make the settings for data transfer and control between NETIMPRESS and a target microcomputer. You need to make the settings with this tab when you change a target microcomputer to program.

(2) Basic Operation tab

With this Basic Operation tab, you can make the settings for an area to execute the Device Functions (FUNCTION 0) and buffer RAM area (FUNCTION F5).

(3) Parameter Table 2 tab

With this Parameter Table 2 tab, you can set up parameters specific to a microcomputer.

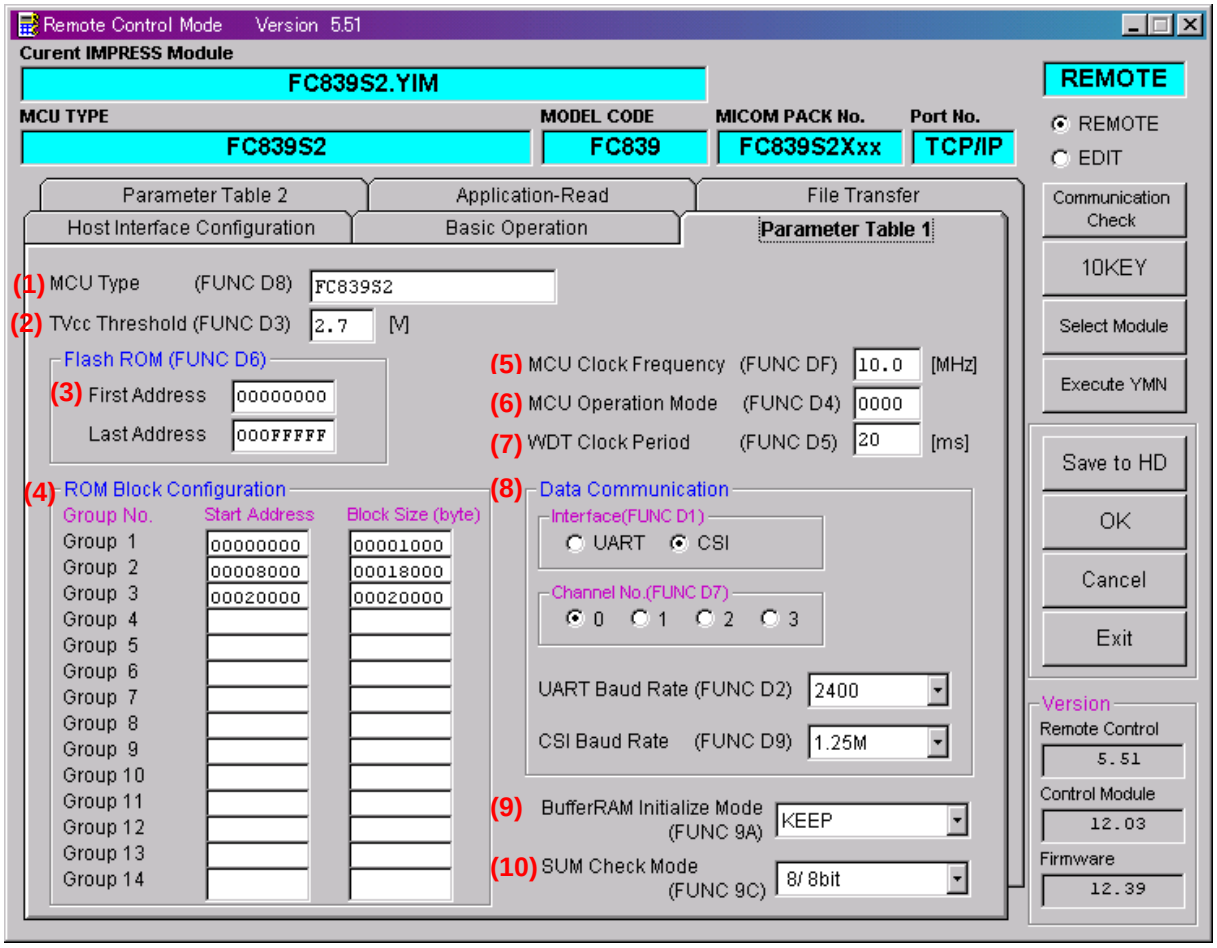
Make the settings specific to Control Module (FUNCTION 8X) referring to the Instruction Manual of Control Module you use. Note that you may not need to make the settings depending on a type of Control Module you use. Do not change the settings when your Control Module does not require the settings specific to it.

(4) Application-Read tab

This tab has the setup items required to use the Application Read function. If you do not use the Application Read function, do not change the settings on this tab.

4.1 Setting with Parameter Table 1 Tab

To work with the Parameter Table 1, it is recommended to refer to NETIMPRESS Instruction Manual and MegaNETIMPRESS/ C”arNETIMPRESS Instruction Manual as well.



(1) MCU Type (FUNCTION D8)

You can change a model name displayed on the LCD of NETIMPRESS by setting an microcomputer name in this MCU Type box. You can enter any characters up to 20 characters as a unique key word to represent system characteristics such as a target microcomputer’s model name, device name or power voltage whatever you think suitable to set up. However, the number of characters displayed on the LCD of NETIMPRESS is 7 characters.

(2) TVcc Threshold (FUNCTION D3)

Set up a value about 10% lower than the minimum operating voltage required for a target microcomputer. NETIMPRESS monitors and senses the operating voltage (TVcc) of a target microcomputer and does not execute the Device Functions until the TVcc reaches a value specified here.

(3) Flash ROM (First Address, Last Address) (FUNCTION D6)

Set up a start and last address of the internal flash memory of a target microcomputer in hexadecimal number.

Be sure to make the setting to include the entire internal flash memory area.

(4) ROM Block Configuration

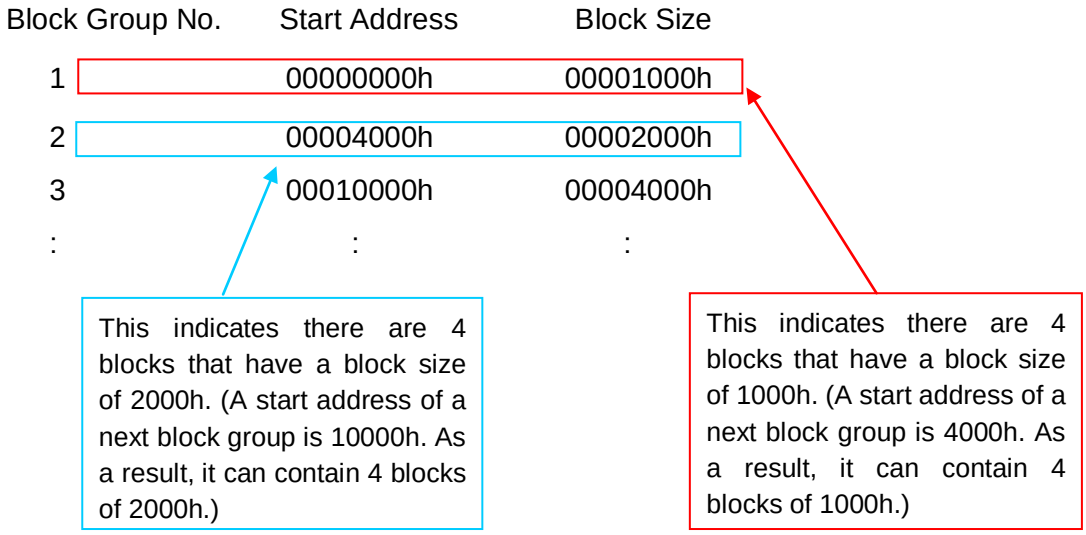
Set up block configuration of the internal flash memory.

Be sure to set up block configuration to match with those of flash memory in a target microcomputer.

One block group consists of 4-byte start address + 4-byte block size, and up to 14 block groups can be set up.

For blank box(es), do not leave them blank and set up 0000000 for both start address and block size.

Setup Example:



(5) MCU Clock Frequency (FUNCTION DF)

You may need to set up an operating frequency depending on a type of a target microcomputer to program. Enter an operating frequency of a target microcomputer.

(6) MCU Operation Mode (FUNCTION D4)

You need to make this setting when Control Module has multiple programming modes. About whether Control Module in use requires this setting, check with Instruction Manual of Control Module you are using.

(7) WDT Clock Period (FUNCTION D5)

METIMPRESS has the feature to output periodic pulse during on-board programming. When you want to use this periodic pulse, you need to set up WDT Clock Period. For details, see NETIMPRESS Instruction Manual, Section 5.4.7 “Watchdog Timer Setting (FUNCTION D5)” and MegNETIMPRESS/ C”arNETIMPRESS Instruction Manual, Section 5.5.7 “Set Watchdog Timer (FUNCTION D5)”.

(8) Data Communication

Set up interface conditions to communicate between NETIMPRESS and a target microcomputer.

(a) When using UART for communication interface, make the settings as follows:

- Interface (FUNCTION D1): Select UART.
- Channel No. (FUNCTION D7): Select a communication port number.
- UART Baud Rate (FUNCTION D2): Select baud rate of UART communication.

  Set up the accelerated high speed baud rate if a target microcomputer changes baud rate for high speed communication in the midst of execution process after it is started at a specified baud rate.

(b) When using CSI (Clock Synchronized Serial Interface), make the settings as follows:

- Interface (FUNCTION D1): Select CSI.
- Channel No. (FUNCTION D7): Select the channel number of the serial port.
- CSI Baud Rate (FUNCTION D9): Select the baud rate for CSI communication.

(9) Buffer RAM Initialize Mode (FUNCTION 9A)

Set up whether to initialize the data in buffer RAM or not when starting NETIMPRESS.

- KEEP: Does not initialize data in buffer RAM when NETIMPRESS is started.
  (Data in buffer RAM saved at a previous session will be kept.)
- CLEAR: Initializes data in buffer RAM when NETIMPRESS is started.

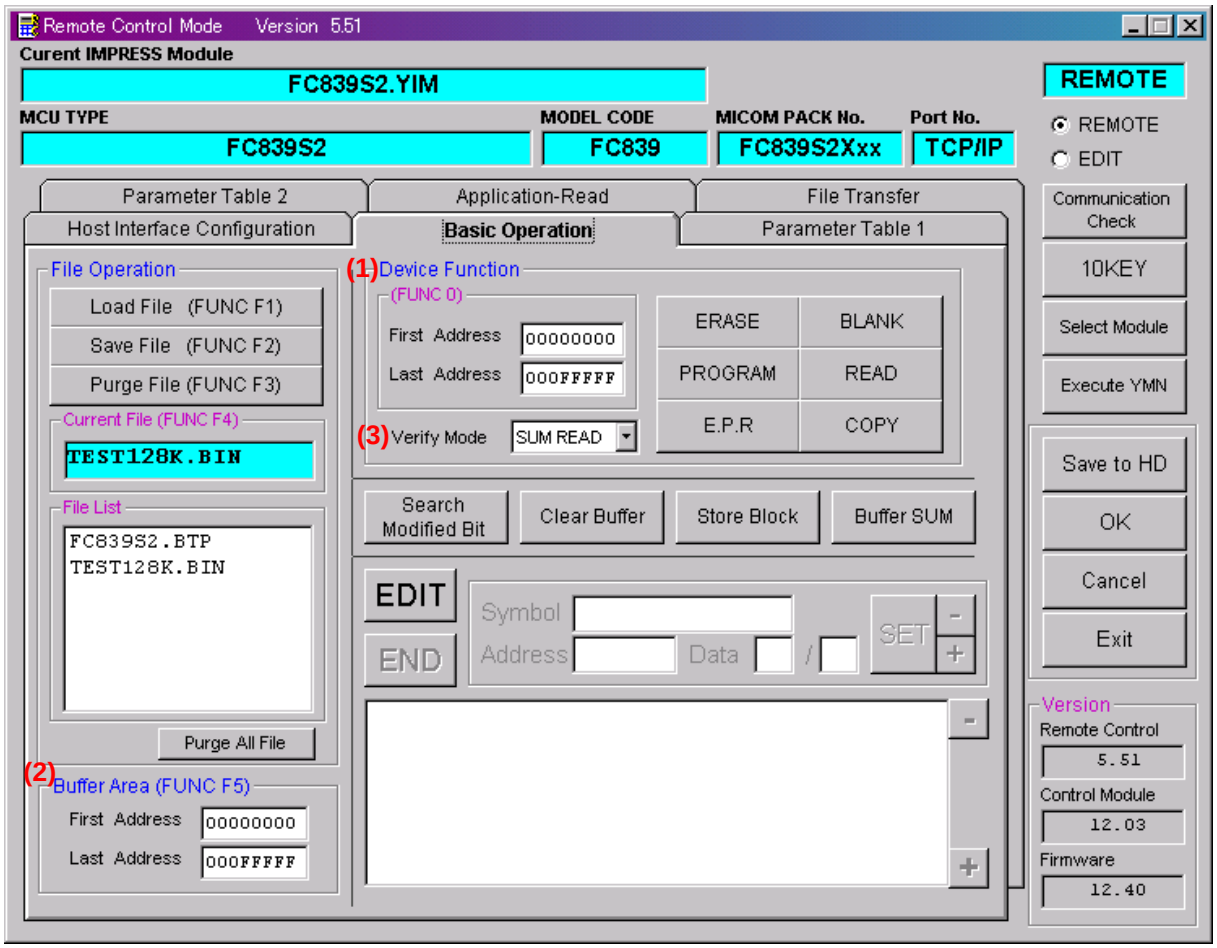
(10) SUM Check Mode (FUNCTION 9C)

Set up how to calculate a sum value that is computed by NETIMPRESS. You have 3 options.

- 8/8 bit: Calculates a sum value by adding 8-bit and displays in 8-bit.
- 16/16 bit: Calculates a sum value by adding 16-bit and displays in 16-bit.
- 8/16 bit: Calculates a sum value by adding 8-bit and displays in 16-bit.

Note: Overflow is ignored when calculating a sum value.

4.2 Setting with Basic Operation tab



(1) Device Function (FUNCTION 0)

Set up a target range to execute the Device Functions.

For details, see NETIMPRESS Instruction Manual, Section 5.4.1. “Execution Address Setting (FUNCTION 0)” and MegNETIMPRESS/ C”arNETIMPRESS Instruction Manual, Section 5.5.1 “Setting Execution Address (FUNCTION 0)”.

Normally, make the same settings with those set up for internal flash memory area as described in Section 2.6 “Parameter Table 1 tab”, (3) Flash ROM.

First Address: Enter a first address of the internal flash memory area.

Last Address: Enter a last address of the internal flash memory area.

(2) Buffer Area (FUNCTION F5)

Set up an address range to transfer an object file between buffer RAM (of NETIMPRESS) and a file in a PC or the Control Module. This setting is important for transfer of binary data that do not have address information in an object file. For details, see NETIMPRESS Instruction Manual, Section 5.2.5 “Transfer Address Setting”.

Normally, make the same settings with those set up for internal flash memory area as described in Section 2.6 “Parameter Table 1 tab”, (3) Flash ROM.

First Address: Input the first address set up for execution of the Device Functions

Last Address: Input the last address set up for execution of the Device Functions.

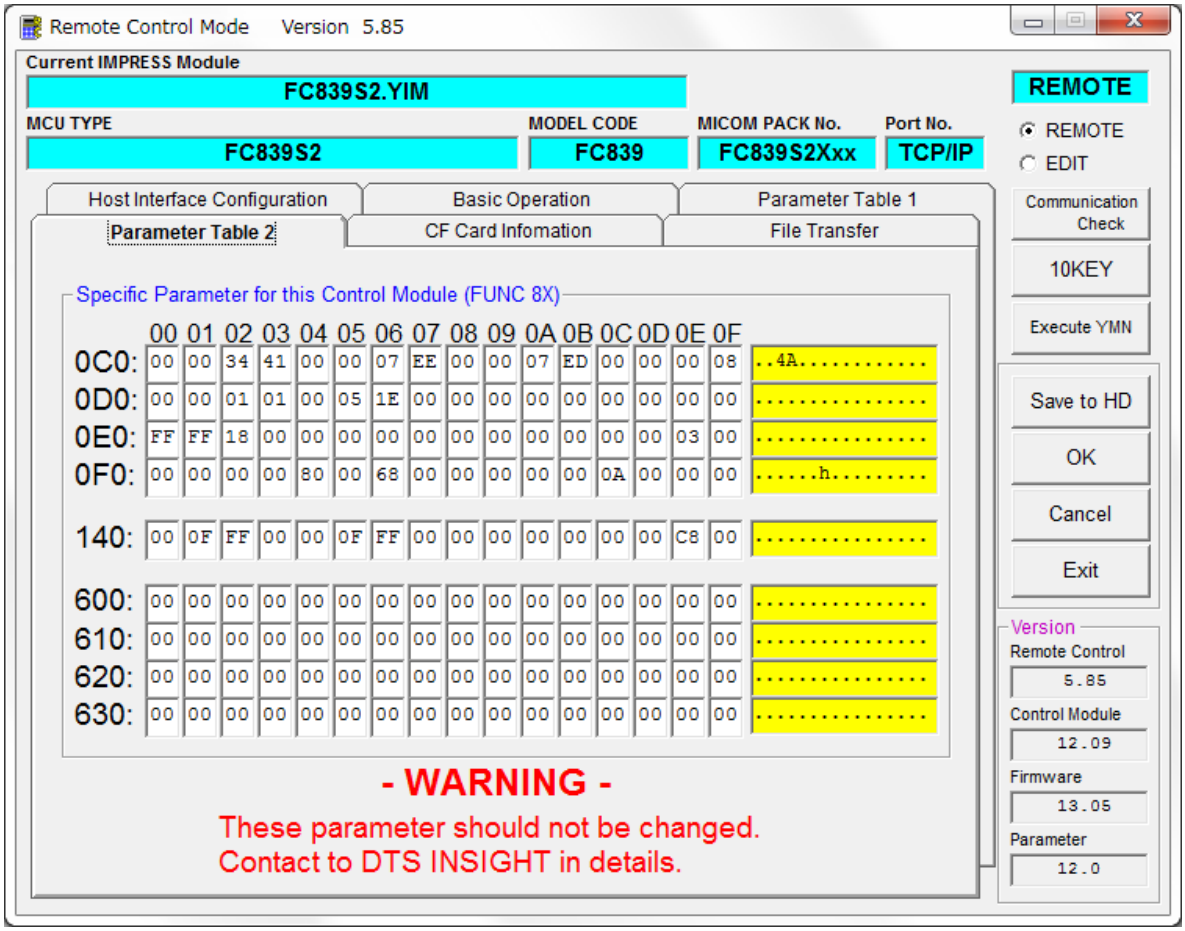
(3) Verify Mode (FUNCTION 9 9)

Select the Verify mode for executing the Device Functions PROGRAM and E. P. R.

SUM READ: Read Verify is executed with SUM READ.

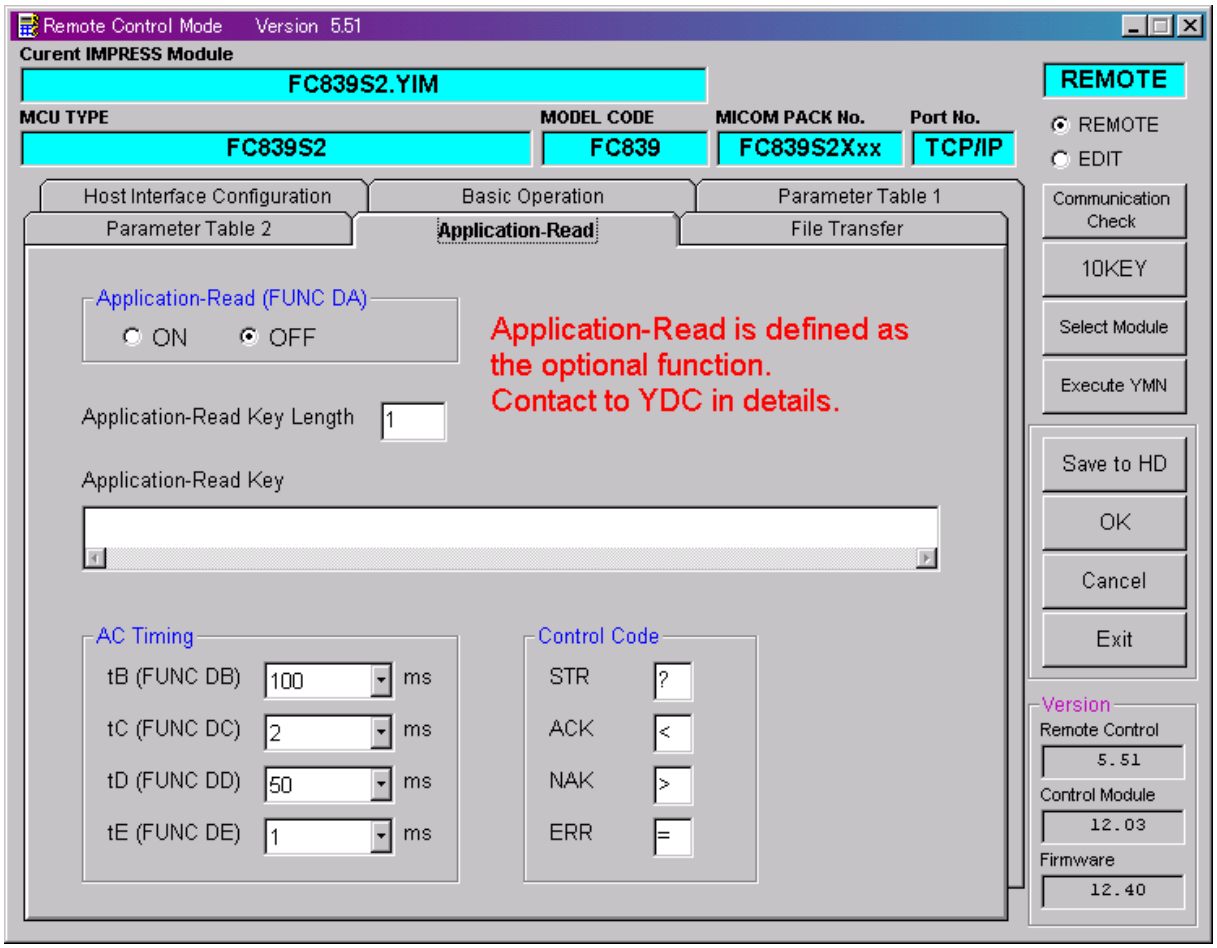
FULL READ: Read Verify is executed with FULL READ.

4.3 Setting with Parameter Table 2



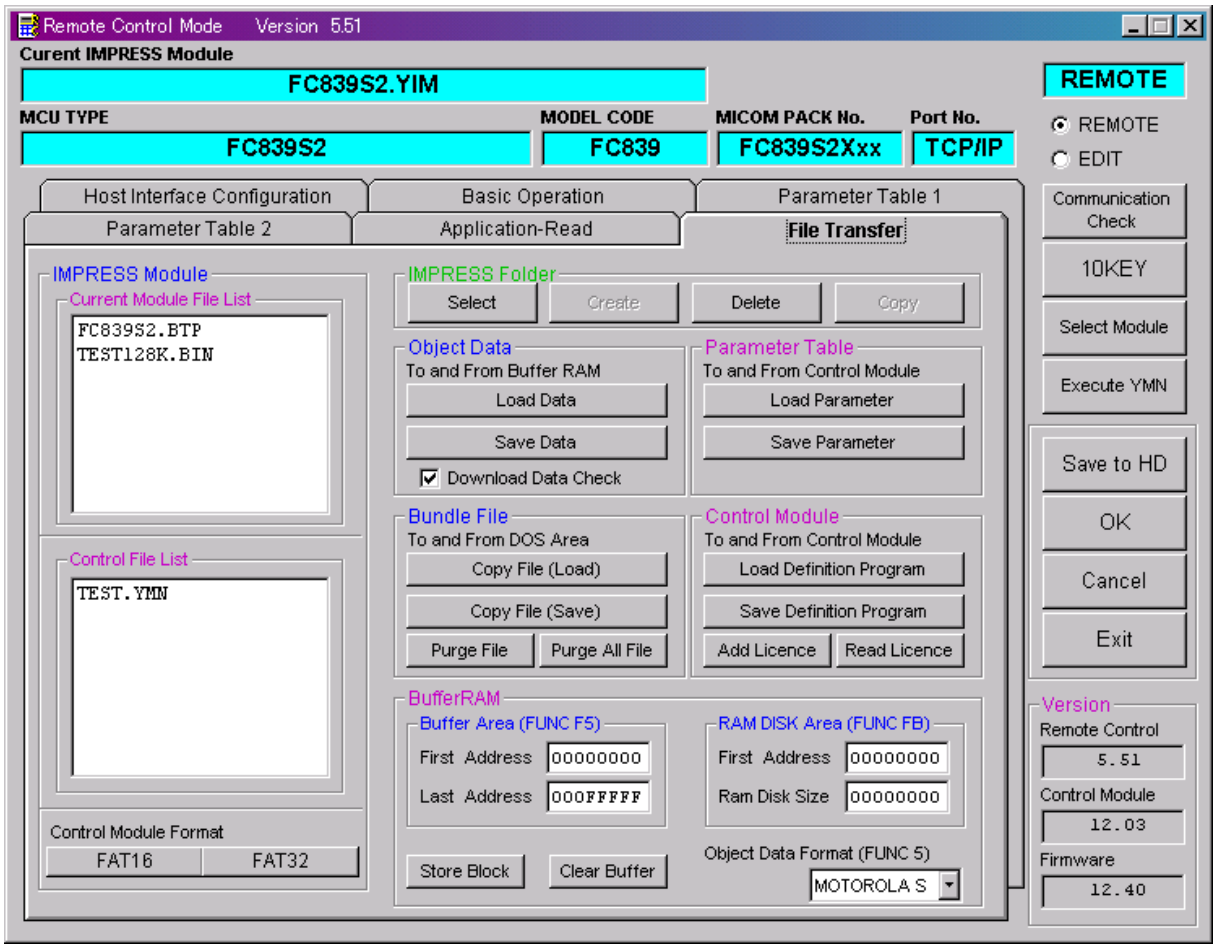
For details about the Parameter Table 2 tab, please contact Support Center by emailing to info-impress@dts-insight.co.jp.

4.4 Setting with Application Read tab



For details about the Application Read tab, please contact Support Center by emailing to info-impress@dts-insight.co.jp.

4.5 Creating and loading a parameter file



The parameters you have set up so far following the instructions described in the previous sections can be saved as a parameter file in the hard disk of a PC and reloaded into NETIMPRESS. Open the File Transfer tab and press the Save Parameter button to save, and press the Load Parameter button to reload.

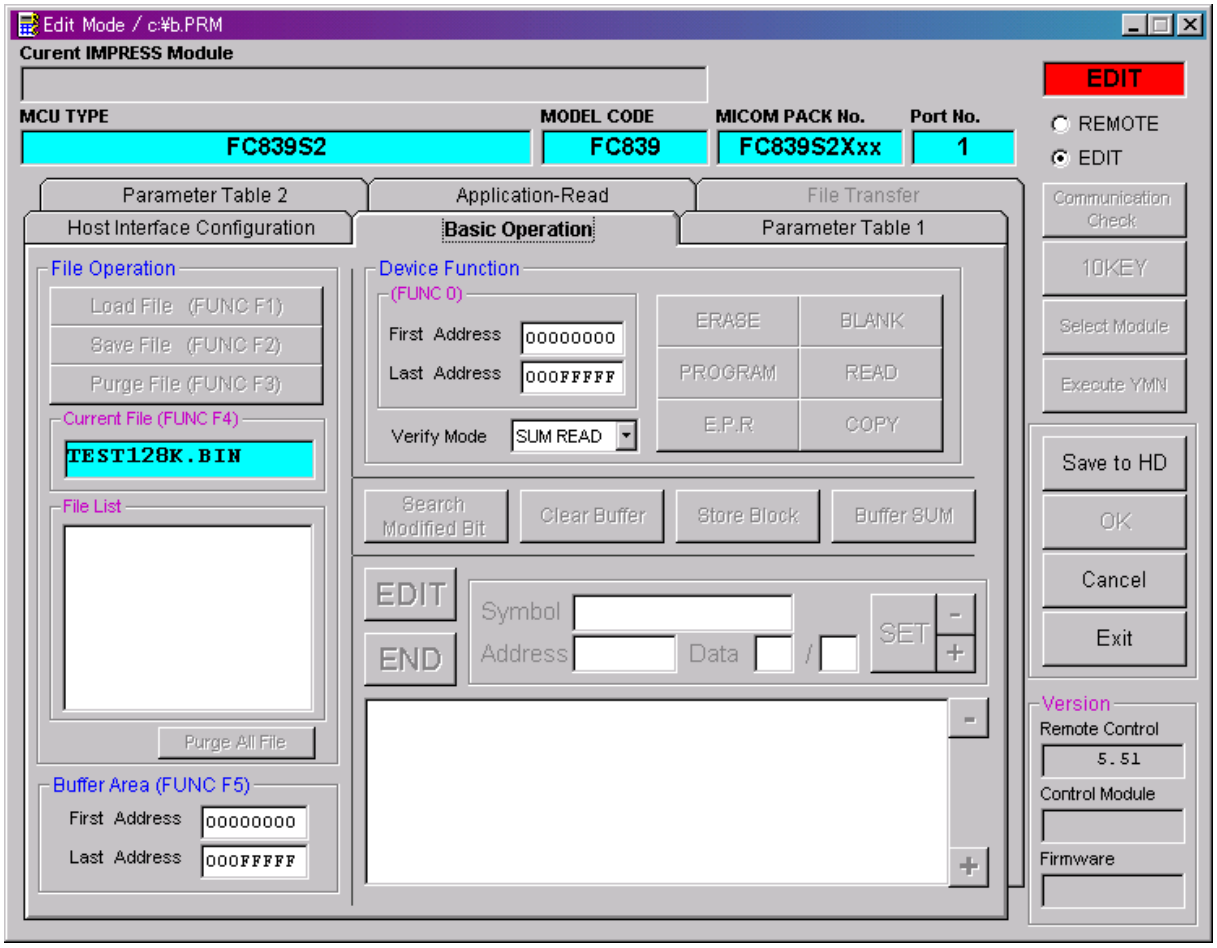
With these two functions, you can easily change parameters as you change a target microcomputer to program.

Also, the Micom Pack for Control Module containing parameter files for major microcomputers is available from our Web site at the following address:

https://www.dts-insight.co.jp/en/support/support_netimpress/top/index.php?m=Search

4.6 Editing a parameter file in the Edit mode

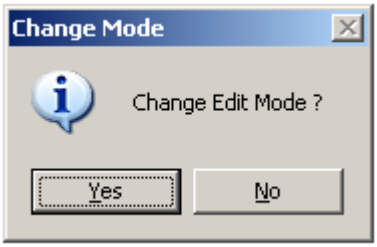
You can edit and save a parameter file (*.prm) on a PC without connecting with NETIMPRESS.



You can edit a parameter file in the Edit mode.

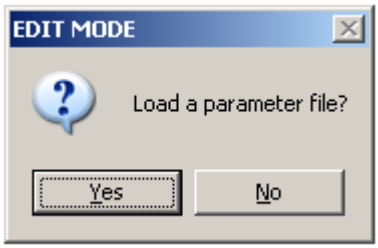
To switch to the Edit mode, select the EDIT button at the upper right corner of the window.

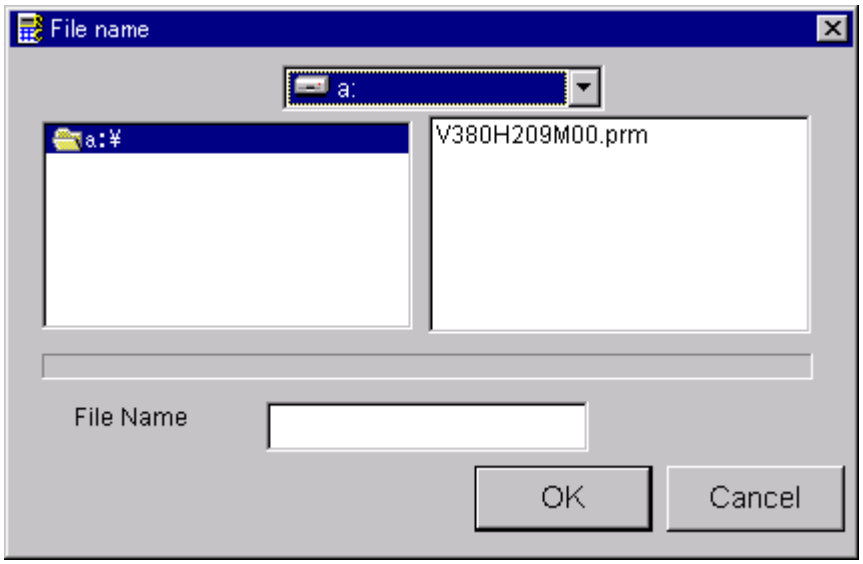
When EDIT is selected, the message as shown below appears asking if you want to change the mode. If you want to change to the Edit mode, select Yes.



With the Edit mode, you can load a parameter file from a PC and edit a parameter table besides a parameter table already loaded with AZ490.

To load a parameter file, click Yes. Then, the dialog box listing parameter file(s) appears. Select a parameter file to load.





(1) For a parameter table you have edited and a parameter file you have created, you can save them as a file in the hard disk of a PC by pressing the Save to HD button at the right hand of the window. When you finish editing parameters, you can save them as a file by pressing the Save to HD button.

(2) Insert Control Module to download a parameter file to NETIMPRESS and connect with NETIMPRESS in the Remote mode.

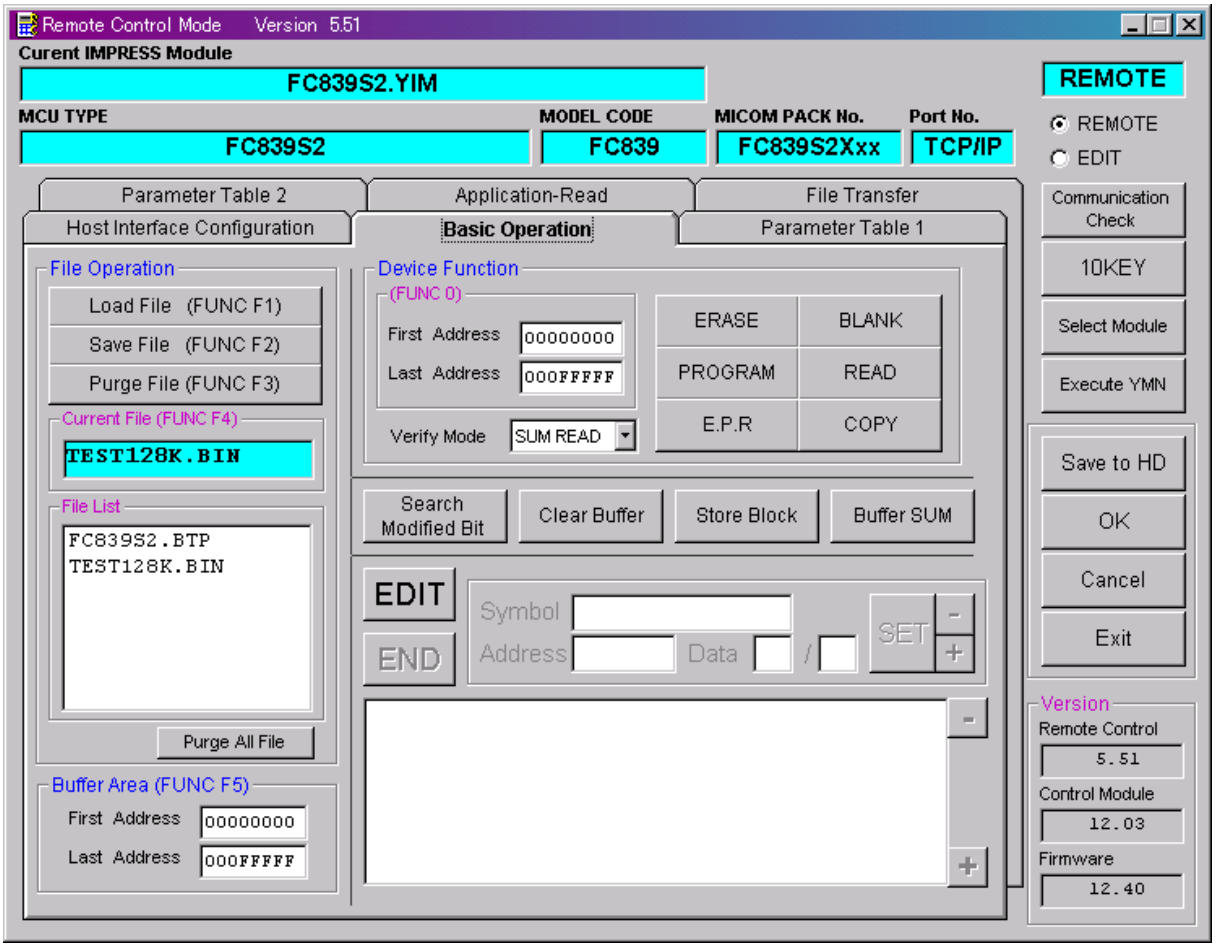
(3) Press the Load Parameter button (FUNCTION 61). Then, a parameter file will be downloaded to Control Module.

5 Using AZ490 for Remote Control

Even in case you use AZ490 to remotely control NETIMPRESS from a PC, be sure to perform the initial settings referring to Chapter 4 “Using Remote Controller AZ490 as a tool to modify parameters” of this Instruction Manual. After you complete the initial settings, open the Basic Operation tab.

5.1 Basic Operation Tab

You can make all basic operations of NETIMPRESS with this Basic Operation tab.



5.1.1 File Operation

You can make file operation by using the Load File (FUNCTION F1), Save File (FUNCTION F2), Purge File (FUNCTION F3) and Purge All File (FUNCTION F7) buttons respectively.

Note: The Purge All File button is an enhanced function, and cannot be used with AF200 and Basic Module.

The File List box displays the files in a current IMPRESS Module folder of Control Module set in NETIMPRESS. You can select a file from those listed in the File List box. The Current File box displays a file name of the object program currently loaded in buffer memory of Control Module.

5.1.2 Executing the Device Functions

By clicking the Device Functions E.P.R., COPY, ERASE, READ, BLANK and PROGRAM buttons, you can execute each device function such as programming or loading to a target microcomputer.

For details about each Device Function, see NETIMPRESS Instruction Manual, Section 5.6 “List of Device Functions”, MegaNETIMPRESS/C”arNETIMPRESS Instruction Manual, Section 5.8 “Device Functions” and Instruction Manual of Control Module you are using.

5.1.3 Modifying data in buffer RAM

Clicking the EDIT button displays the 256 byte buffer RAM data of a specified address range in the Buffer RAM box. You can also change data at address listed in the Address box. Place the cursor in the Data box and enter the data you want to change to and then press the SET button or the Enter key of the keyboard.

5.1.4 Searching for Modified Data

By clicking the Search Modified Bit (FUNCTION 3) button, you can search for modified data in buffer RAM in high speed.

5.1.5 Clear Buffer, Store Block

With the Store Block (FUNCTION 1) button, you can save data in the area you have specified, while with the Clear Buffer (FUNCTION 2) button, you can clear the buffer RAM data.

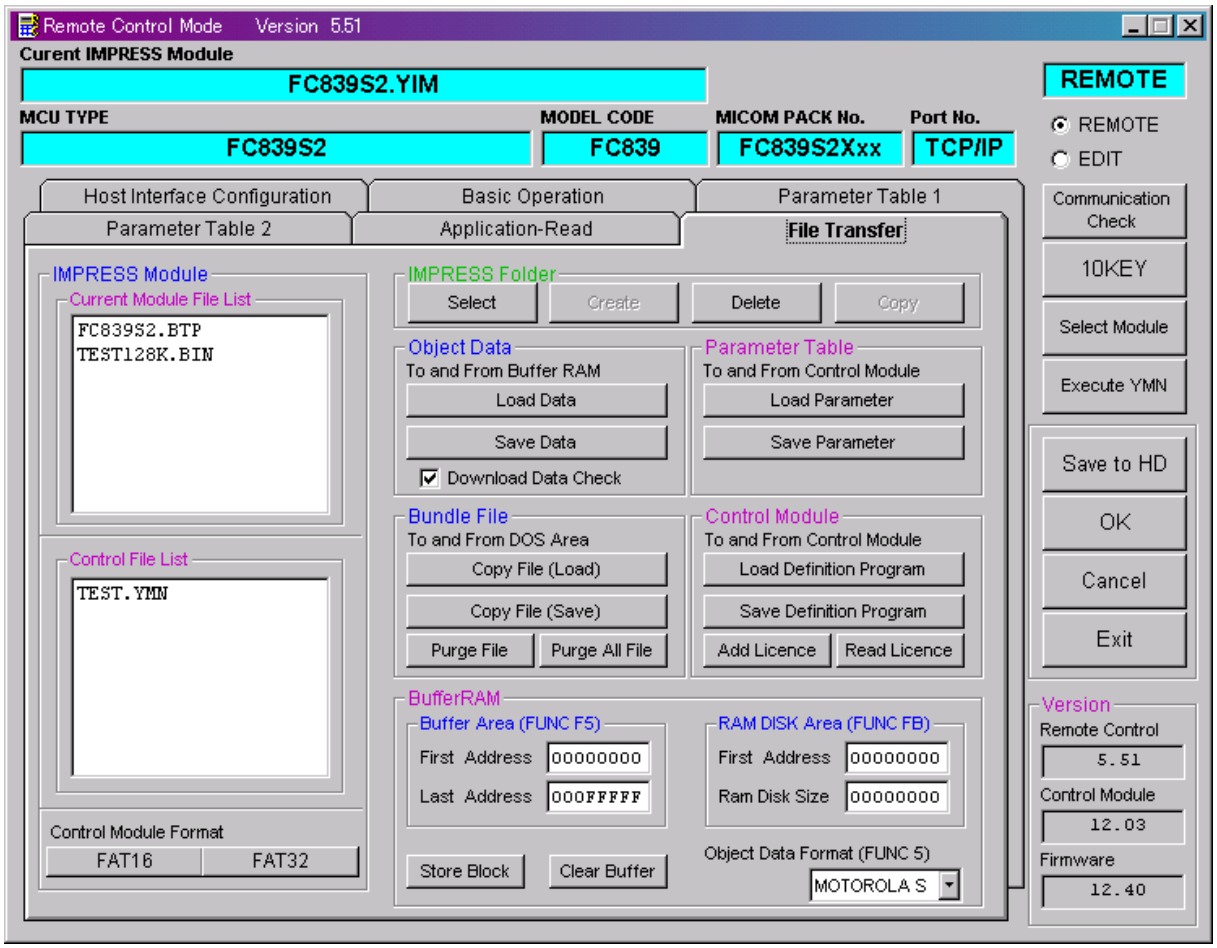
5.1.6 Viewing a sum value of buffer RAM

Clicking the Buffer SUM button calculates and displays a sum value of the buffer RAM data of the Device Functions area (FUNCTION 0) and buffer area (FUNCTION F 5).

Note: The Buffer SUM button is an enhanced function, and cannot be used with AF200 and Basic Module.

5.2 File Transfer Tab

With the File Transfer tab, you can load and save parameters of buffer RAM on NETIMRPESS and the parameters in Control Module to the hard disk in a PC through a serial communication line.



Note: Some of the functions may not be available depending on a version of Control Module.

5.2.1 Loading and saving an object file (Load Data FUNCTION 41)

- Clicking the Load Data button loads the Intel HEX or Motorola S file to buffer RAM on NETIMPRESS.

Notes:

- *If you are making Ethernet connection, you can load a binary file to buffer RAM too.*
- *In case you are using Basic Module, a current file name is not set up and saved.*

- Clicking the Save Data (FUNCTION 41) button saves buffer RAM data of an address range specified in the Object File Format (FUNCTION F5) box in a file on the hard disk.

5.2.2 Loading and saving a parameter fiile

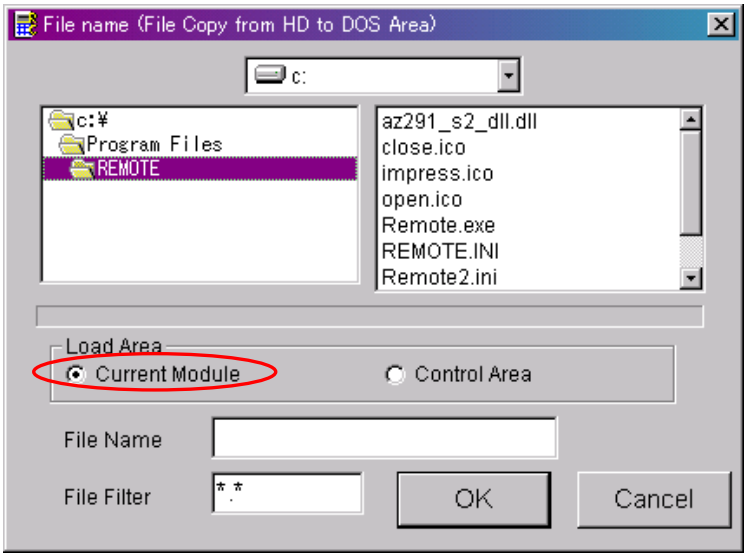
- Clicking the Load Parameter (FUNCTION 61) button downloads a parameter file in the hard disk to Control Module set in NETIMPRESS.

- Clicking the Save Parameter (FUNCTION 62) button saves a parameter table of Control Module set in NETIMPRESS in a file on the hard disk of a PC.

5.2.3 Copying and deleting a file to a current IMPRESS Module folder

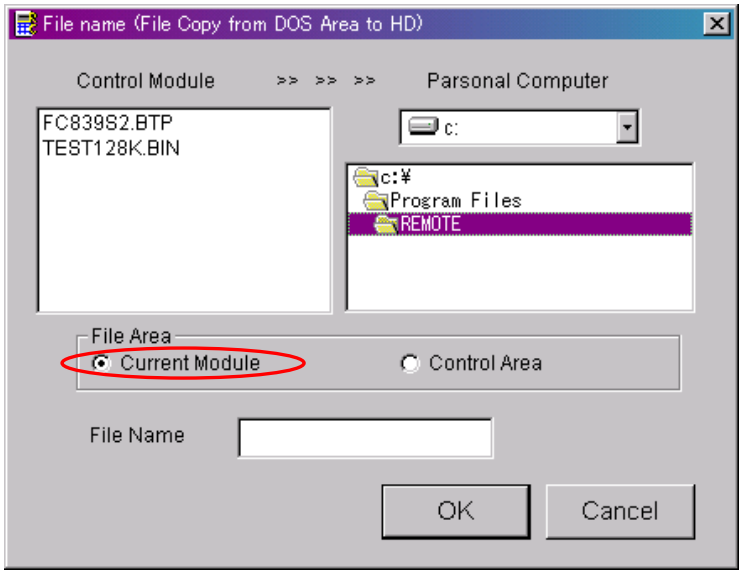
- Clicking the Copy File (Load) (FUNCTION 43) button transfers a file on the hard disk to a current IMPRESS Module folder of Control Module set in NETIMPRESS. However, if you are using Compact Module, you need to select Current Module in the Load Area field on the dialog box as shown below.

Note: This feature is an enhanced function, and not available with AF200 and Basic Module.



- Clicking the Copy File (Save) (FUNCTION 44) button saves a file in a current IMPRESS Module folder of Control Module set in NETIMPRESS to the hard disk of a PC. However, if you are using Compact Module, you need to select Current Module in the File Area field on the dialog box as shown below.

Note: This feature is an enhanced function, and not available with AF200 and Basic Module.



- Clicking the Purge File (FUNCTION F8) button deletes a file in a current IMPRESS Module folder of Control Module. To use this feature, however, a current IMPRESS Module node or a file node in a current IMPRESS Module folder has to be selected in the Folder/File List window.
- Clicking the Purge All File (FUNCTION F8) button deletes all files in a current IMPRESS Module folder of Control Module. To use this feature, however, a current IMPRESS Module folder has to be selected in the Folder/File List window.

5.2.4 Loading and saving a Definition Program file

- Clicking the Load Definition Program (FUNCTION 45) button sends a licensed Control Module from a PC to NETIMPRESS to change a Definition Program.

  Note: This feature is an enhanced function, and not available with AF200 and Basic Module.

- Clicking the Save Definition Program (FUNCTION 48) button saves a Definition Program placed in Control Module to the hard disk of a PC.

  Notes:
  This feature is an enhanced function, and not available with AF200 and Basic Module.
  This feature may not be available depending on a version of IMPRESS Module.

- Clicking the Read License (FUNCTION 9B) button allows you to view a license registered with Control Module.

  Notes:
  This feature is an enhanced function, and not available with AF200 and Basic Module.
  This feature may not be available depending on a version of IMPRESS Module.

5.2.5 Selecting, creating, deleting and copying an IMPRESS Module folder

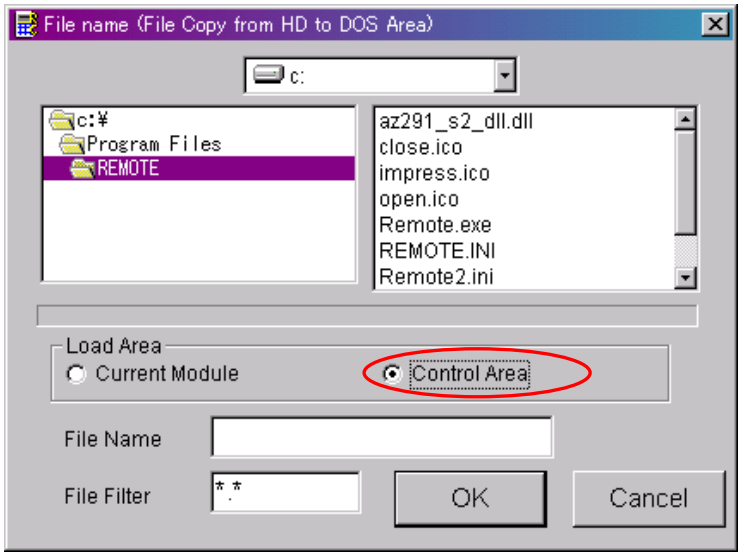
- With the Select (FUNCTION B0) button, you can select a current IMPRESS Module folder.
- With the Create (FUNCTION B1) button, you can create a current IMPRESS Module folder.
- With the Delete (FUNCTION B2) button, you can delete a current IMPRESS Module folder.
- With the Copy (FUNCTION B3) button, you can copy a current IMPRESS Module folder.

Note: These are an enhanced function and only available when using Compact Module of /D type.

5.2.6 Copying and deleting a control file

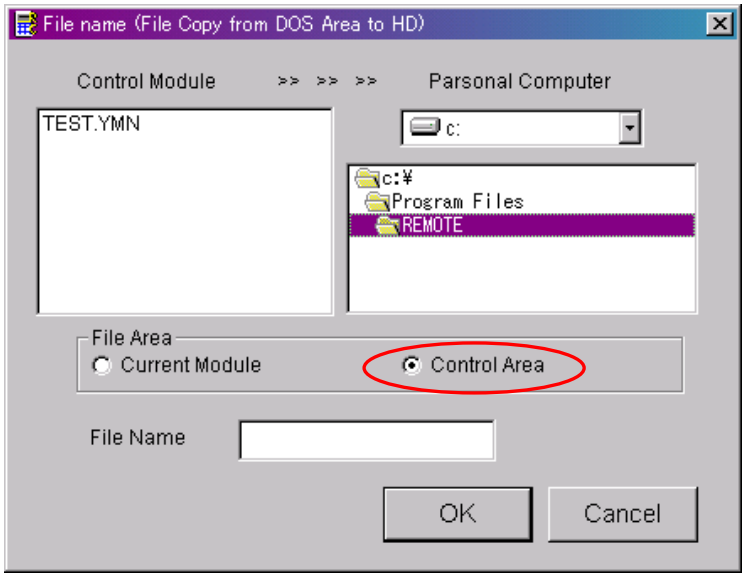
- Clicking the Copy File (Load) (FUNCTION 4D3) button copies a file on the hard disk to the route area of Control Module. To use this function, however, [Control Area] has to be selected for Load Area on the dialog box as shown below.

  Note: This feature is only available when using Compact Module of /D type.



- Clicking the Copy File (Save) (FUNCTION 4D4) button copies a file in the route area of Control Module to the hard disk of a PC. To use this function, however, [Control Area] has to be selected for File Area on the dialog box as shown below.

  Note: This feature is only available with MegaNET Module and C"arNET Module of /D type.



- Clicking the Purge File (FUNCTION F8) button deletes a file in the route area of Control Module. To use this function, however, a route node or control file node has to be selected in the Folder/File List window

  Note: This feature is only available when using Compact Module of /D type.

- Clicking the Purge All File (FUNCTION F9) button deletes all files in the route area of Control Module. To use this function, however, a route node has to be selected in the Folder/File List window.

  Note: This feature is only available when using Compact Module of /D type.

5.2.7 Formatting Control Module

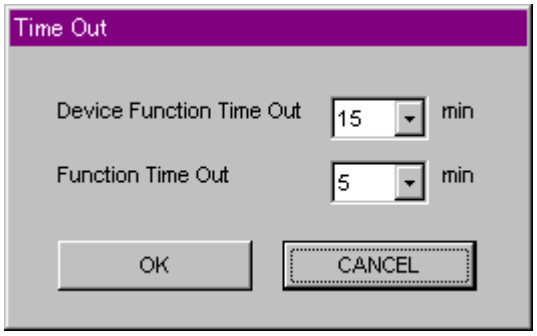
You can format Control Module either in FAT16 or FAT32 file system by clicking the FAT16 or FAT32 button on Control Module Format field. However, formatting in FAT32 may not be available depending on a version of NETIMPRESS.

Note: This feature is only available when using Compact Module of /D type.

5.3 Time-out

Clicking the Time Out button on the Host Interface Configuration tab opens the Time Out dialog box as shown below.

With this dialog box, you can set up a length of time to elapse before time-out when executing the Device Functions in unit of minute in the range 1 to 30 minutes.

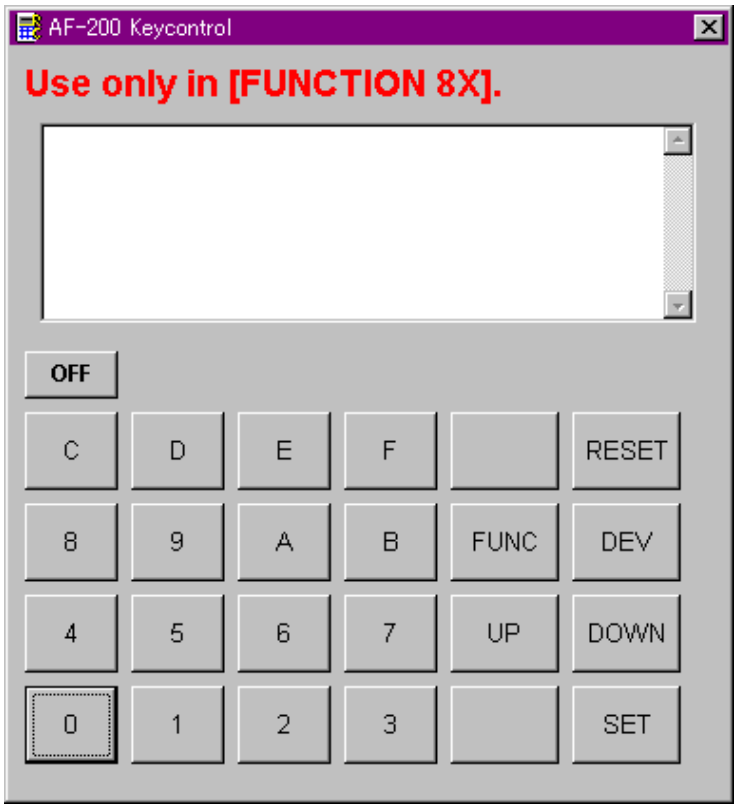


In case a time-out occurs, the message “111: AF200 Time Out 01” appears.

5.4 10-Key Numeric keypad

Important: *The 10-key numeric keypad feature (FUNCTION 8X) is for exclusive use of the microcomputer-specific commands. Do not use the numeric keypad to execute any other commands.*

Clicking the 10 Key button on the Main window of Remote Controller AZ490 opens the Key Control window as shown below. This Key Control window represents a virtual keyboard, that is, software keyboard. With this window, you can remotely control NETIMRPESS just as you are pressing the keys of NETIMPRESS.



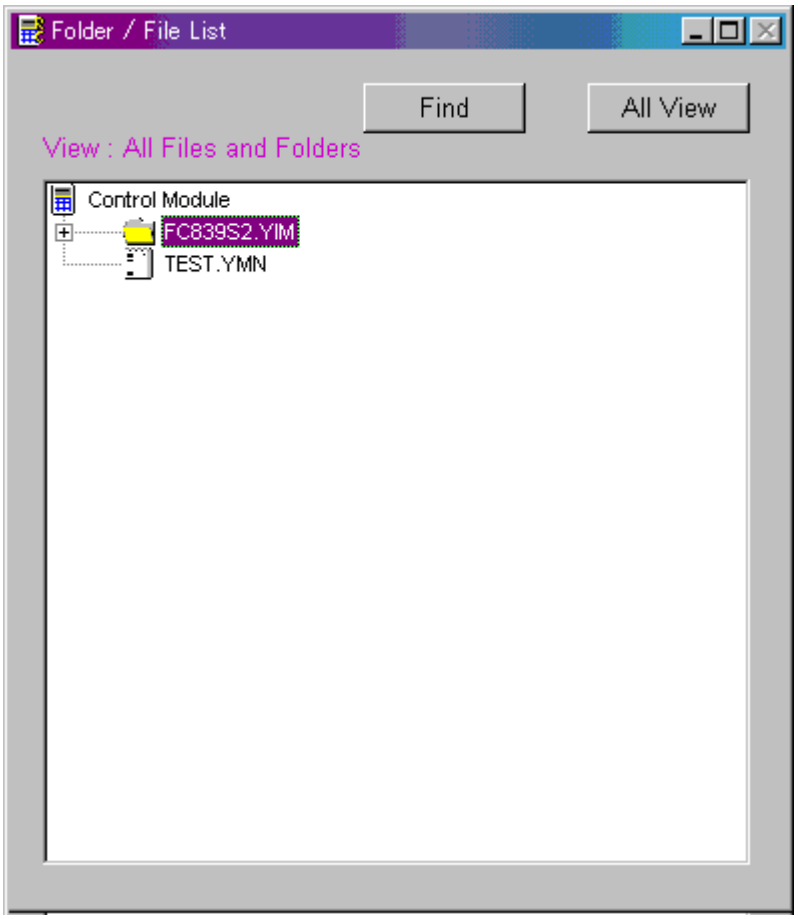
The table below lists the key functions on the Key Control window and their corresponding keys assigned to the keyboard of a PC.

Keys on the AF200 Key Control window	Keys assigned to Keyboard
0 to F	0 to F
FUNC	F1
DEV	F2
SET	Space
UP	Page Up
DOWN	Page Down

5.5 Folder/File List Window

The Folder/File List window lists the files in the IMPRESS Module folder in Compact Flash card, the route area and a current IMPRESS Module folder.

When using the Search feature, folder(s) and file(s) that filled search conditions are listed in this Folder/File List window. However, files in a current IMPRESS Module folder and a current IMPRESS Module are always displayed irrespective of search results.



5.5.1 Node operation

You can make various folder and file operations such as loading a file or selecting a folder by working with nodes in the File/List window.

- Right-clicking the Control Module node when using Basic Module opens the Copy File (Load) menu.

  By selecting the menu, you can execute copying (loading) a file to the DOS area.

- Right-clicking the Control Module node when using Compact Module opens the Create, Copy and Copy File (Load) menus.

  By selecting the menu, you can execute creating and copying an IMPRESS Module folder and copying (loading) a file in the route area.

- Right-clicking file node(s) in the route area when using Compact Module opens the Purge menu and Copy File (Save) menu.

By selecting the menu, you can execute deleting and saving a file in the route area.

- Right-clicking the IMPRESS Module folder node other than a current one when using Compact Module opens the Select, Create and Delete menus.

  By selecting the menu, you can execute selecting, creating and deleting an IMPRESS Module folder.

- Right-clicking a current IMPRESS Module folder node when using Compact Module opens the Select, Create, Delete, Copy and Copy File (Load) menus.

  By selecting the menu, you can execute selecting, creating, deleting and copying an IMPRESS Module folder and loading a file in the IMPRESS Module folder.

- Right-clicking a file node in a current IMPRESS Module folder opens the Purge and Copy File (Save) menus.

  By selecting the menu, you can execute deleting and saving a file in a current IMPRESS Module folder.

- Double-clicking the IMPRESS Module folder node when using Compact Module executes selecting an IMPRESS Module folder.

  A selected IMPRESS Module folder becomes a current IMPRESS Module folder.

- Pressing the Enter key while selecting the IMPRESS Module folder node when using Compact Module executes selecting an IMPRESS Module folder.

  A selected IMPRESS Module folder becomes a current IMPRESS Module folder.

- Pressing the Delete key while selecting the IMPRESS Module folder node and when using Compact Module executes deleting a selected IMPRESS Module folder.

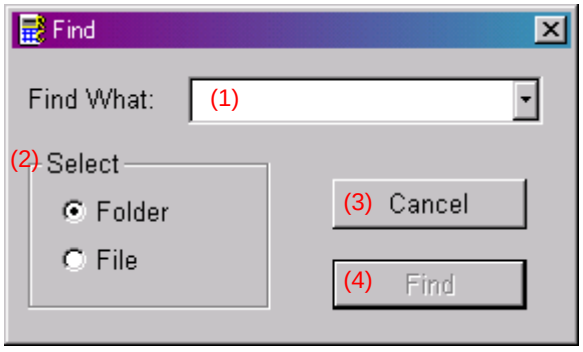
- Pressing the Delete key while selecting a file node in a current IMPRESS Module folder executes deleting a file in a selected current IMPRESS Module folder.

- Pressing the Delete key while selecting a file node in the route area when using Compact Module executes deleting a selected file.

5.5.2 Searching for folders and files — Find button

Folder(s) and file(s) that filled search conditions will be listed in this Folder/File List window. However, a current IMPRESS Module folder and files in a current IMPRESS Module folder are always displayed irrespective of search results.

To execute searching, click the Find button. Then, the Find dialog box as shown below appears.



(1) Find What box

Enter a text to search for in this box.

Also, you can enter the wild cards listed in the table below :

?	Any one character
*	Any character string
[charlist]	Any character among those specified for charlist
[!charlist]	Any character other than those specified for charlist

Also, last 10 search texts are saved in the Combo box, and you can select from them too.

(2) Select Folder/File button

Select either you want to search for IMPRESS Module folder or a file in the route area.

(3) Cancel button

Clicking this Cancel button aborts searching. You can also abort searching by pressing the Esc key.

(4) Find button

Clicking this Find button executes searching.

5.5.3 Searching all folders and files — All View button

You can view all folders and files by pressing the All View button.

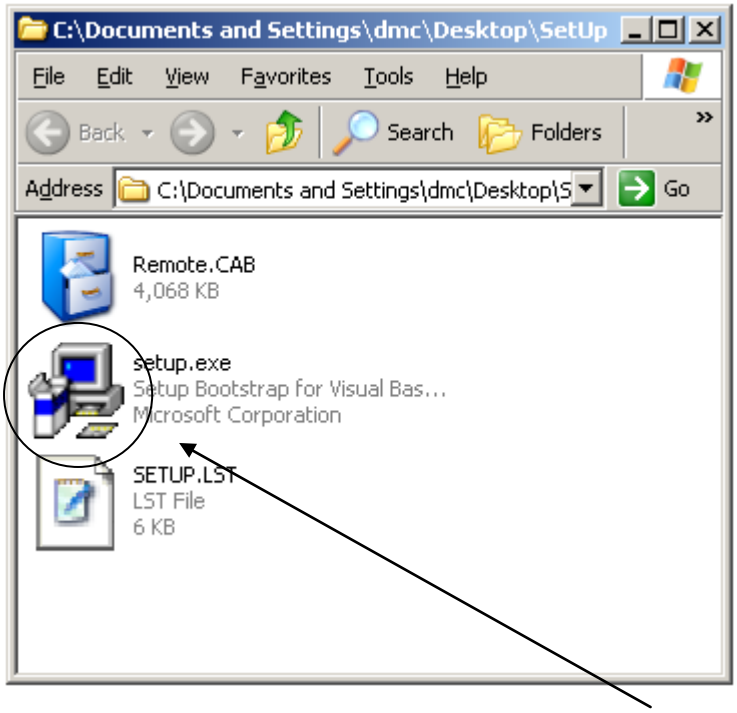
However, files in the IMPRESS Module folder other than a current IMPRESS Module folder are not displayed.

6 Installing & Starting Remote Controller AZ490

6.1 Installing Remote Controller AZ490

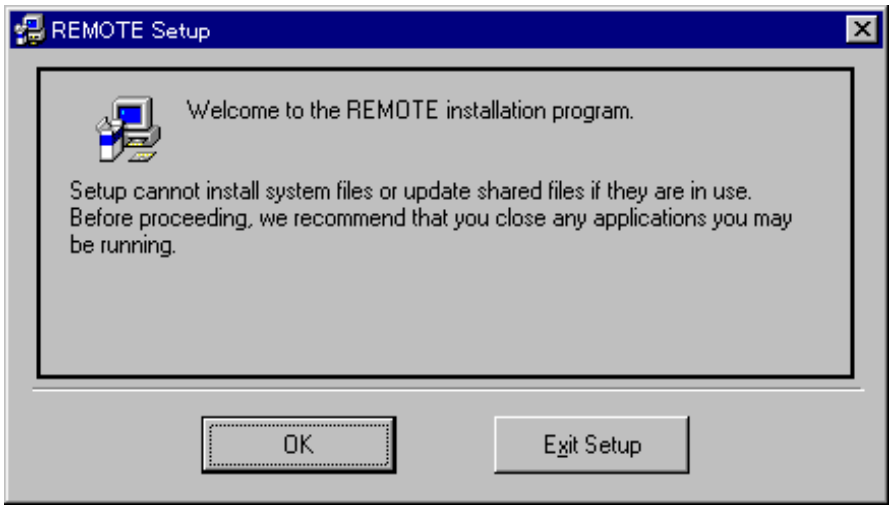
To install Remote Controller AZ490, follow the steps below.

(1) Download AZ490 from our Web site, uncompress it and double-click the setup.exe file to start the installation as shown below.

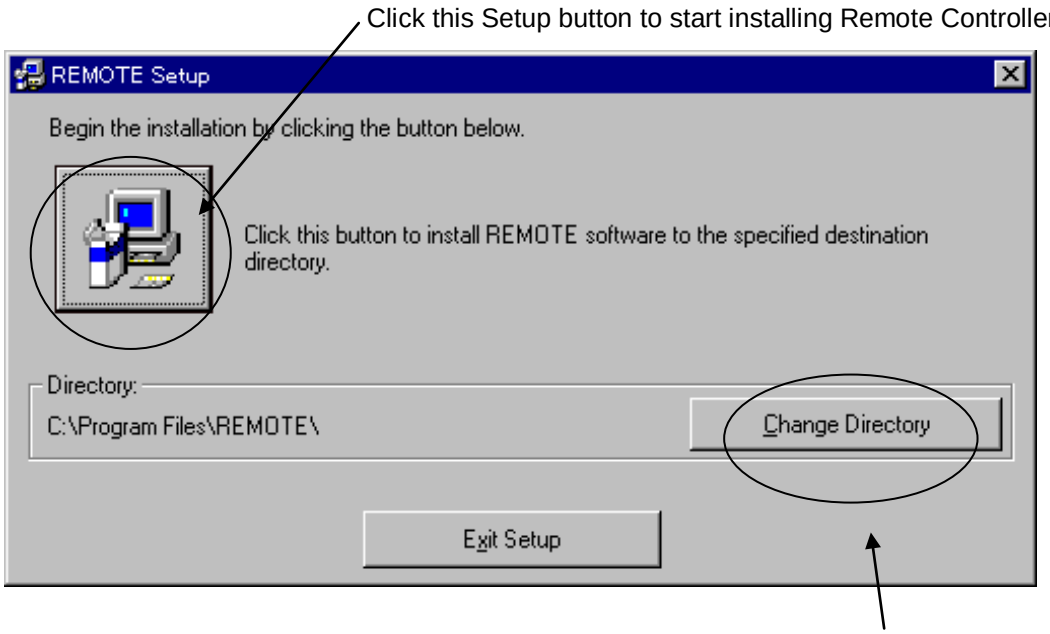


Double-click the Setup.exe.

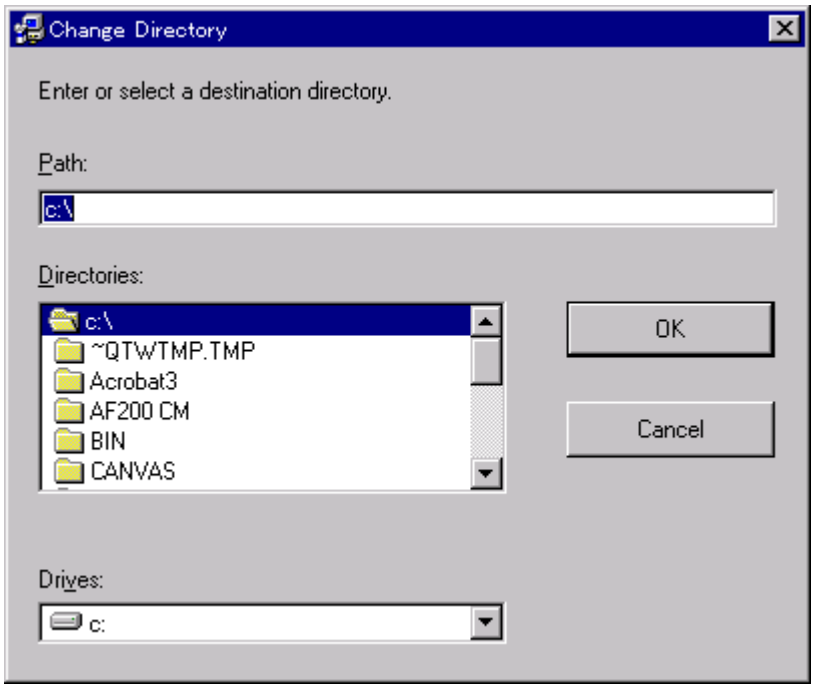
(2) The Remote Setup dialog box as shown below appears. Click OK to proceed.



(3) Select a directory you want to install AZ490 as a current directory. The default directory is C:¥Program Files¥REMOTE.) If you want to install AZ490 in the default directory, click the Setup button. Or, if you want to change a directory, click the Change Directory button.



(4) The Change Directory dialog box appears. Set up a directory path and click the OK button.



The message as shown below appears. Then, the installation is completed.

(5) Open the Program (P) menu from the Start button and confirm if the Remote Controller program (“Remote”) is listed under DTS INSIGHT Tools in the menu.

6.2 Starting Remote Controller AZ490

To start up Remote Controller AZ490, follow the steps below.

> Before you start up AZ490, check that a PC and NETIMPRESS are connected via Ethernet or RS232C.

When AZ490 is started and if communication conditions (Port No., Baud Rate, etc.) are not matching with those of NETIMPRESS, the Communication dialog box appears as shown below.

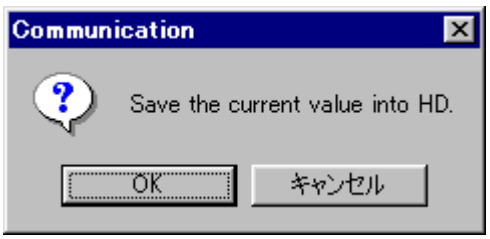
(1) Click OK. Then, AZ490 is activated and the Host Interface Configuration tab appears. Set up a communication channel and conditions in this tab.

(2) Then, click the Communication Check button

.

(3) If the communication conditions match and the communication is successfully established, the following message appears. Click OK.

(4) The message as shown below appears asking if you want to save the specified communication conditions as initial settings for AZ490. Click OK.



The communication conditions are saved as initial conditions and the Basic Operation tab to remotely control NETIMPRESS appears.

Note: In case communication conditions you set up do not match with those of the NETIMPRESS, the message "Cannot be connected to AF200" will be displayed.

7 Appendix — Error Messages

This chapter describes the error messages that would appear when using Remote Controller AZ490.

Remote Controller AZ490 outputs the error messages that would occur with NETIMPRESS. Therefore, please refer to the pages of Appendix – List of Error Code of both NETIMPRESS Instruction Manual and MegaNETIMPRESS/C”arNETIMPRESS Instruction Manual as well as the error message pages of Control Module’s Instruction Manual.

Error Code & Message	Description
63: NEW FILE ERR	Log file of the Universal command is not set up correctly.
100: File not found.	The file does not exist.
101: File access error.	The file cannot be accessed and may be damaged.
102: File format error.	The file is not formatted correctly. Check if the file is formatted as specified.
103: Irregular parameters	Invalid parameters. Check the parameter file.
104: Can not use double byte character to filename	Double-byte character is not allowed for a file name. Check the file name.
105: RS232C already connected.	Connection is made in RS232C. You cannot change the setting.
110: Can not Connected to AF200. 01	Connection error. Check the connection between a PC and NETIMPRESS.
111: AF200 Time Out. xx	A communication time-out error occurred. Check the connection between a PC and NETIMPRESS. Check communication between a target and NETIMPRESS.
112: Invalid data.	Set up the correct value.
113: Can not Communication Break	Failed to disconnect Ethernet connection.
114: Not IP Address	IP address setup error. Set up IP address correctly.
115: The search name is not defined	File search error. Enter a file name to search for.
116: File Name Error	The file name is not correct.
120: Device Function error.	An error occurred while executing the Device Functions.
121: Command Not Support	The Universal command is not supported.
133: Format error.	Format of the data sent from NETIMPRESS is not correct. Please contact our support center.
140: Remote2.ini File Format Error	Remote2.ini file is not formatted correctly.
200: Current Module Undefined.	Control Module is not set up. Download Control Module.
201: Module not found.	YIM folder does not exist.
202: Download File Unmatching.	Parameter file error. The parameter file you are trying to load is not correct.
203: Module Name is too long.	The file name is too long. Check the file name.

204: YIM Folder Full	You cannot create YIM folder any more. Delete unnecessary YIM folders.
205: Control File Full	You cannot create Control file any more. Delete unnecessary Control files.
206: Current Module File Full	You cannot create a file in a current folder any more. Delete unnecessary files.
300: YMN Execute error.	An error occurred when executing YMN. Check if YMN file is correct.
900: This function is not support.	This function is not supported.
901: Folder is not selected.	YIM folder is not selected. Select YIM folder first before you execute.
1066: Full Path Error!	Full path for file and folder is not entered correctly or the file and folder does not exist in the specified path.
1202: The number of files is over!	The number of files exceeded the limit.
1203: The number of files and folders is over!	The number of files and folders exceeded the limit.
Not Execute	YIM folder is not selected.
Busy	Other command is being executed. Wait to execute a next command till execution of a current command is completed.
xxx: FILE CLOSE ERR	An error occurred while closing the file.
xxx: S FORMAT ERR	The file of Motorola S format is not formatted correctly.
xxx: HEX FORMAT ERR	The file of Intel HEX format is not formatted correctly.
xxx: FORMAT ERR	The file is not formatted correctly.
xxx: ERR UNKNOWN	An unexpected error occurred.
Other command executing	Other command is being executed.
Parameters are not set into AF200	Modified parameters are not registered.
No Item	YIM folder and YMN file are not set up.
Non Data	Modified data not found when searching for modified bit.
Buffer Area (FUNCTION F5) Data Data Error	The value set up with FUNCTION-F5 is not correct.
Device Function Area (FUNCTION-0) Data Data Error	The value set up with FUNCTION-0 is not correct.
TVcc Threshold Data Error	TVcc threshold value is not set up correctly.
Flash ROM First Address Data Error	First address set up with FUNCTION-D6 is not correct.
Flash ROM Last Address Data Error	Last address set up with FUNCTION-D6 is not correct.
ROM Block Address Data Error	Address set up for block configuration is not correct.

ROM Block Size Data Error	Block size set up for block configuration is correct.
MCU Clock Frequency Data Error	Operating clock is not set up correctly.
WDT Clock Period Data Error	WDT cycle is not set up correctly.
Key_Length Data Error	Key length of application read is not set up correctly.
Data Error	The values for block store is not correct.
～ is access error!	Access to the file failed.
This file is NOT Motorola S recode file or Intel HEX file	The file is not Motorola S format file nor Intel HEX format file.
～ is not accessible	Failed to access the file.
Wrong File	The parameter file is not formatted correctly.
FOLDER IS EXIST	There is another folder with the same name.
Invalid Password, try again	The specified password is not correct. Please check your password and try again.
U1: COMMAND FILE NOT FOUND	The universal command file name is not correct.