

NETIMPRESS

Network Compatible In-circuit Flash Microm Programmer for Embedded Smart Systems

NETIMPRESS next

FLASH PROGRAMMER
Instruction Manual

DTS INSIGHT CORPORATION

Instruction Manual

No. M2383AM-05

Publication History

Edition	Date of Issue	Description
First edition	4-February-2013	Initial publication
Second edition	9-April-2013	Errata are corrected.
Third edition	9-July-2015	Errata are corrected.
Fourth edition	28-June-2016	Addition of AZ403.
Fifth edition	1-April-2017	Bar-code reader Process mode change. Unusable letter addition.

- (1) No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, without the written permission of DTS INSIGHT CORPORATION.
- (2) The contents of this manual are subject to change without prior notice due to improvement of the functionality.
- (3) If any question about the contents of this manual arises, contact DTS INSIGHT CORPORATION.
- (4) DTS INSIGHT CORPORATION shall not be held responsible for direct or indirect adverse effects resulting from operation of this system irrespective of the above item (3).

Product and company names mentioned in this manual are the trademarks of their respective owners.

© 2013 DTS INSIGHT CORPORATION. All rights reserved

Printed in Japan

NETIMPRESS

Network Compatible In-circuit Flash Microm Programmer for Embedded Smart Systems

Compatibility with MegaNETIMPRESS/C”arNETIMPRESS

NETIMPRESS next is compatible with MegaNETIMPRESS/C”arNETIMPRESS series.

You can use the control module for MegaNETIMPRESS/C”arNETIMPRESS series without any changes.

* Programming voltage output control signal is adapted by NEIMPRESS next even though TVpp output is supported by MegaNETIMPRESS/C”arNETIMPRESS.

Contents

1	Overview and Features	1
2	General Precautions	2
3	Part Names and Functions	3
4	System Configuration of NETIMPRESS next	8
4.1	Connecting with Peripheral devices.....	8
4.2	About Each Configuration.....	10
4.2.1	Ethernet environment.....	10
4.2.2	Target system.....	10
4.2.3	Bar-code environment.....	15
4.2.4	Digital I/O Connection/Example.....	29
4.3	Other New Functions of NETIMPRESS next.....	33
4.3.1	Keylock Function.....	33
4.3.2	Log Function.....	34
4.3.3	Clock Function (RTC).....	36
5	Commands	37
5.1	Commands and their functions.....	37
5.2	File Operations.....	39
5.2.1	File Load.....	39
5.2.2	File Save.....	40
5.2.3	File Purge.....	41
5.2.4	Display Current File (Function F4).....	42
5.2.5	Set Transfer Address (Function F5).....	44
5.2.6	Delete All Files (Function F7).....	46
5.2.7	Quick Format (Function FA).....	47
5.2.8	Regular Format (Function FC).....	48
5.3	Editing Buffer Memory.....	50
5.3.1	Edit (Modify Buffer Memory Data).....	50
5.3.2	Block Store (Modify Buffer Memory Data).....	51
5.3.3	Clear Buffer (Initialize Buffer Memory).....	53
5.3.4	Modified Bit Search (Search Modified Data).....	54
5.3.5	Display Sum Value (Function 93).....	55
5.3.6	YSM File Check (Function 98).....	56
5.4	Parameter Settings.....	57
5.4.1	Setting Execution Address (Function 0).....	57
5.4.2	Communication Channel Setting (Function D1).....	59
5.4.3	UART Baud Rate Setting (Function D2).....	60

5.4.4	Set CSI Baud Rate (Function D9)	61
5.4.5	Set TVcc Threshold (Function D3)	62
5.4.6	Set MCU Mode (Function D4)	63
5.4.7	Set Watchdog Timer (Function D5)	64
5.4.8	Display Flash Memory Area (Function D6)	65
5.4.9	Set Communication Channel (Function D7)	66
5.4.10	Change Displayed Model Name (Function D8)	67
5.4.11	Set Data Format (Function 5)	68
5.4.12	Set MCU Operating Frequency (Function DF)	70
5.4.13	View Version Info (Function 94)	71
5.4.14	Verify Mode Switching (Function 99)	72
5.4.15	Set Buffer Memory Initial Mode	73
5.4.16	View License (Function 9B)	74
5.4.17	SUM Value Mode Switching (Function 9C)	75
5.4.18	ADDRESS WARNING On/Off for File Loading (Function 9E)	76
5.4.19	ADDRESS WARNING On/Off for Startup (Function 9F)	77
5.4.20	View Serial No. (Function AE)	78
5.4.21	Add License (Function AF)	79
5.5	Overview/Operation of the Control Module	80
5.5.1	Select YIM Folder (Function B0)	81
5.5.2	Create YIM Folder (Function B1)	82
5.5.3	Delete YIM Folder (Function B2)	83
5.5.4	Copy YIM Folder (Function B3)	84
5.5.5	Protect Current YIM Folder (Function B4)	85
5.5.6	Retain Current YIM Folder (Function B5)	86
5.5.7	View Current YIM Folder (Function B6)	87
5.5.8	Set Current YMN File (Function BC)	88
5.5.9	Execute Current YMN File (Function BD)	89
5.6	Ethernet Settings	90
5.6.1	IP Address/Port Setting (Function E2)	90
5.6.2	Gateway Address Setting (Function E3)	92
5.6.3	Subnet Mask Setting (Function E4)	93
5.6.4	Communication Speed/Communication Mode Setting (Function E8)	94
5.7	Device Functions	95
5.7.1	Copy	96
5.7.2	Blank Check	97
5.7.3	Erase	98
5.7.4	Program	99
5.7.5	Read Check	100
5.7.6	E.P.R.	101
5.8	Log Operation	103
5.8.1	Set Log Mode (Function CA0)	103

5.8.2	Delete the Log (Function CA5).....	104
5.8.3	Delete the All Log (Function CA0).....	105
5.8.4	Set Log Deletion (Function CA8)	106
5.9	I/F Setting.....	107
5.9.1	Set Cable Selection (Function CD0)	107
5.9.2	Set the Input Filter Value of Digital Input (Function CD1)	107
5.10	Restrictions	108
6	Command Sequence Function	109
6.1	EXE Key.....	109
6.1.1	Function Overview	109
6.1.2	EXE Key Setting	110
6.2	YMN File	112
6.2.1	Function Overview	112
6.2.2	Format of Command Sequence File (*.YMN)	113
6.3	Definitions of Device Command.....	114
7	Sum Check Function	115
7.1	Sum Check Overview.....	115
7.2	Sum Check Function Settings.....	115
7.2.1	YSM Files (*.YSM).....	115
7.2.2	YSM File Format	116
8	Specifications.....	117
8.1	Operating Conditions	117
8.2	Ethernet Interface	117
8.2.1	Connector (Ethernet).....	117
8.2.2	Signal Table	117
8.3	Compact Flash Interface.....	118
8.3.1	Connector (Control Module).....	118
8.3.2	Signal Table	118
8.4	Digital I/O Interface	119
8.4.1	Connector (DIO PROBE).....	119
8.4.2	Signal Table	120
8.4.3	Timing Specifications	122
8.4.4	Electrical Characteristics.....	123
8.4.5	Digital I/O PROBE (AZ401).....	124
8.4.6	Digital I/O PROBE (AZ403).....	125
8.5	Bar-code reader Interface	126
8.5.1	Connector (BCR PROBE).....	126
8.5.2	Signal Table	126
8.5.3	Electrical Characteristics.....	126
8.5.4	BCR PROBE (AZ402).....	127

8.6	Target Interface.....	128
8.6.1	Connector (TARGET PROBE 1).....	128
8.6.2	Signal Table	129
8.6.3	Interface Circuit Type.....	130
8.6.4	DC Characteristics	134
8.6.5	Interface Cable (AZ410).....	135
8.6.6	Interface Cable (AZ411, AZ413).....	136
8.6.7	Interface Cable (AZ412).....	137
8.7	CAN Interface	138
8.7.1	Connector (TARGET PROBE 2).....	138
8.7.2	Signal Table	139
8.7.3	Interface Circuit Type.....	140
8.7.4	CAN Interface Cable (AZ414).....	145
8.7.5	CAN Interface Cable (AZ415).....	146
8.7.6	CAN Interface Cable (AZ416).....	147
APPENDIX List of Error Codes.....		148

Ensuring Safety Use of Flash Programmer

In order to ensure the proper and safety use of Flash Programmer, please be sure to follow the safety caution mentioned below as operating Flash Programmer. DTS INSIGHT CORPORATION has no responsibility nor guarantee for any injuries which occur as a result of the violation of these safety caution and warnings.

- Following safety-related symbols are used on Flash Programmer and its instruction manual for a safety use.



It indicates not only that there is a danger to humans as well as to the equipment, but also that it is necessary to refer to the instruction manual.



It indicates a safety ground terminal. As this terminal is on the main unit, please be sure to connect this terminal to the ground before operating.

WARNING

In order to avoid the risk of death or serious injury which may occur as a result of an incorrect use.

CAUTION

In order to avoid the risk of minor injury or material damage which may occur as a result of an incorrect use.

- To avoid the risk of death or serious injury to users, such as electrocution or any other accidents, as well as the risk of damage to Flash Programmer, please follow the warnings mentioned below.

WARNING

- **Use in Chemical Gases**

Do not use Flash Programmer in an environment where are combustibile or explosive gases or steam. Using Flash Programmer in such environment is extremely dangerous.

- **Flash Programmer is designed for indoor use**

Do not use Flash Programmer in an outdoor.

- **Power Supply**

As Flash Programmer is designed to prevent the electrocution or any other accidents, be sure to use the power supply pack (AC adapter) specified by DTS INSIGHT CORPORATION ONLY.

Confirm that the supply-side voltage matches to the rated power supply voltage for a power supply pack. Also ensure that the power supply switch (on the back panel) of Flash Programmer is switched "OFF" before connecting to the power cord.

The provided power cable complies with the electrical power system of the country where the product is originally sold.

When using the product outside the country of sale, check in advance the supply voltage and the plug type in the country where you use, and prepare a suitable power cable.

Be sure to connect the FG terminal of the power cable to the ground.

Always connect the Flash Programmer system, user's system, and host computer to the same AC power outlet.

- **Removing the Case**

Only qualified service engineers should remove the case of Flash Programmer because of the high voltage.

Making the Most of Flash Programmer

The Flash Programmer is an electronic device which consists of high-precision electronic components. Please be sure to understand and follow the caution listed below in order to avoid any accidents and as well as to make the most of your Flash Programmer.

1. Switch ON / Switch OFF Sequence

CAUTION

- Refer to the Switch ON / Switch OFF sequence below regarding Switch ON and OFF of the host computer, Flash Programmer, and a target system.
- The Switch ON / Switch OFF sequence should be followed in order to avoid major damages to a target system and Flash Programmer itself. (Especially between Flash Programmer and a target system.)

<Power Up Sequence>

- (1) Host computer
- (2) Flash Programmer
- (3) Target system

<Power Down Sequence>

- (1) Target system
- (2) Flash Programmer
- (3) Host computer

2. Connecting the Probe and Connector

CAUTION

- Switch OFF the power supply of Flash Programmer and a target system before plugging in or unplugging any probes or cables.
- All probes and cables are designed to prevent an incorrect connection. Never force them to plug in nor unplug. Confirm the position and direction.

3. Disassembling Flash Programmer

CAUTION

- Since Flash Programmer contains printed circuit boards with minute patterns, never remove screws or disassemble Flash Programmer.

IMPORTANT

Thank you for your purchasing this Flash Programmer “NETIMPRESS next”.

To make the most of Flash Programmer, please read and understand NETIMPRESS next Flash Programmer Instruction Manual before use. After reading the instruction manual, please keep it for the further reference whenever required. Please ensure that Flash Programmer should be used only by persons who have read and understood the instruction manual. We strongly recommend that the first-time users receive a proper instruction from those who have a good knowledge of Flash Programmer.

What is Flash Programmer?

The Flash Programmer refers to the Flash Programmer main unit, control modules, and other related products manufactured by DTS INSIGHT CORPORATION. A target system and the host computer are strictly excluded.

Flash Programmer is an electronic device which consists of the high-precision electronic components. In order to make the most of Flash Programmer and also to prevent any accidents, please follow the caution listed below.

A certain repair fee is required regarding the equipment damages resulted from an incorrect use or connection, etc. Please aware that it may require a few months for repairs.

Regarding software products and manuals, DTS INSIGHT CORPORATION guarantees only if there are any damages of media provided by DTS INSIGHT CORPORATION, manual defects or trouble executing the program installation.

If proved that there are bugs or that there are problems apart from those listed above, the action will be taken based on the maintenance agreement.

WARNING

Be sure to Switch OFF the power supply of Flash Programmer and a target system before plugging in or unplugging any cables between Flash Programmer and a target system. Be aware that plugging in or unplugging any cables while the power supply is ON, may result in an explosion or ignition of Flash Programmer or a target system.

Before Switching ON the power supply, be sure to confirm whether the direction of Pin 1 in the probe tip matches to Pin 1 Socket in a target system. An incorrect connection may result in an explosion or ignition of Flash Programmer or a target system.

CAUTION

As particular parts of electronic circuits in the probe tip are exposed, Flash Programmer should be used only in environments where are protected from a static electricity. Using Flash Programmer in such environment as without static electric protection may result in destroying Flash Programmer or a target system.

The Switch ON / OFF sequence should be followed. Flash Programmer should be switched ON prior to a target system and remained ON while Switch ON / OFF of a target system power supply. An incorrect Switch ON / OFF sequence may result in a serious damage to Flash Programmer or a target system circuits.

1 Overview and Features

NETIMPRESS series is the universal flash microcomputer programmer for programming flash microcomputers soldered on a user's system.

By using the microcomputer-specific control module, NETIMPRESS series supports programming flash microcomputers of various types.

The speed of writing is increased for NETIMPRESS next. Also the external control functions by bar-code reader and digital I/O are improved.

NETIMPRESS next of /CAN option can program flash microcomputer via the CAN interface in addition to the serial interface functions and features.

Features

- (1) NETIMPRESS next supports programming microcomputers of various types using the microcomputer-specific control module.
- (2) Connect NETIMPRESS next to a user system using the microcomputer-specific target probe (optional). A target microcomputer can be programmed while it is being soldered on a user system.
- (3) NETIMPRESS next can be used as a standalone. Programming information can be saved as a file on the Compact Flash.
- (4) NETIMPRESS next can be controlled remotely from a host computer with Ethernet interface. This enables file transfer and programming parameter changes (optional AZ490 software is required).
- (5) As NETIMPRESS next can be connected via Ethernet, it can be connected to a network and used to build a system. It can be easily controlled remotely with your application software created at a customers' sites using the remote control package AZ491 (optional software), enabling you to build an automatic programming system.
- (6) High speed flash memory programming.
- (7) High speed search for modified data.
- (8) Modified information can be saved on the Compact Flash as a modified file of an original programming information file.
- (9) Item numbers can be changed by using a bar-code reader.
- (10) Sequential operation can be available by using the digital I/O.
- (11) Log can be saved.

2 General Precautions

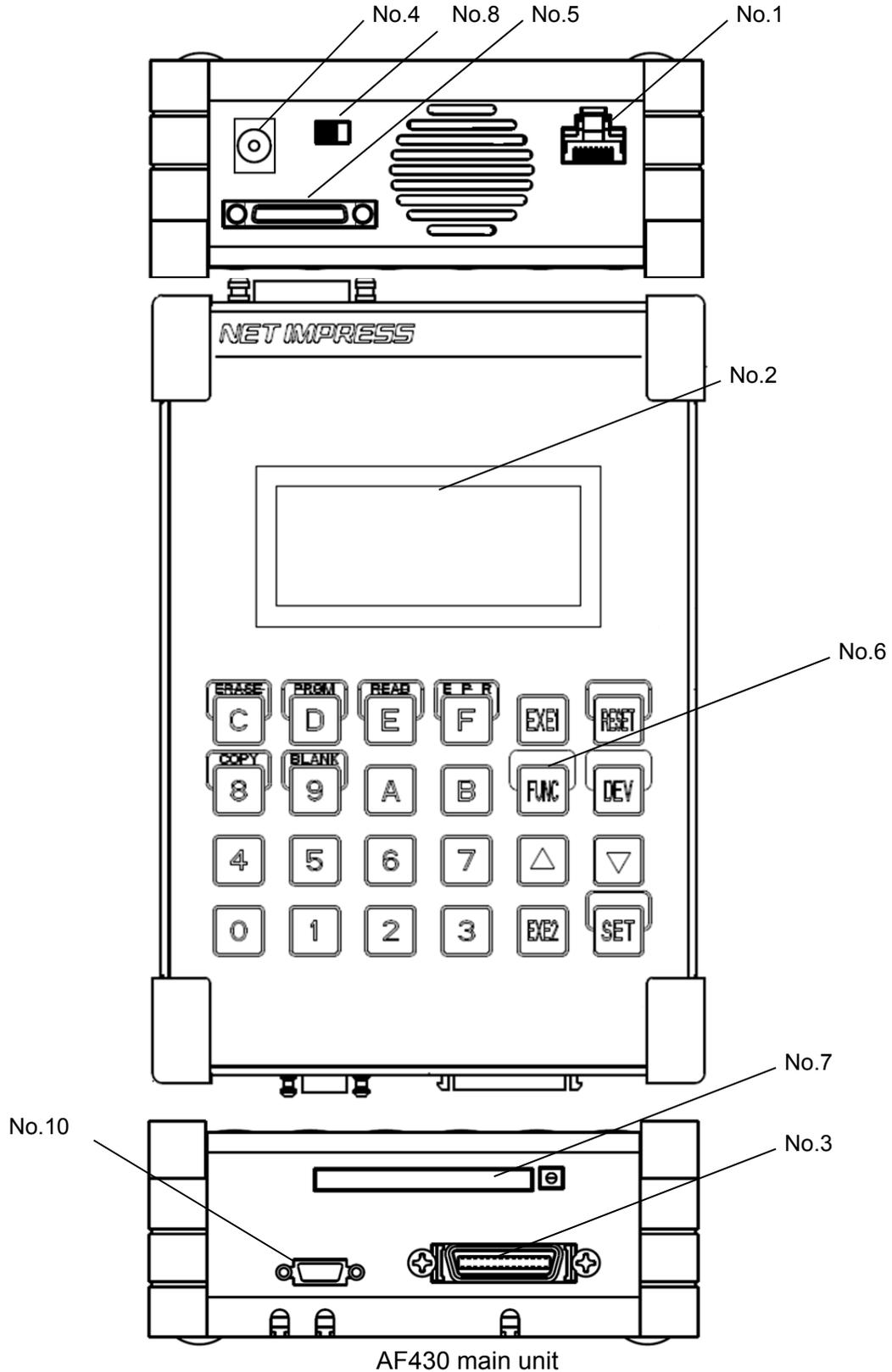
- (1) Be sure to use the AC adapter specified by DTS INSIGHT CORPORATION. When you connect the DC jack to NETIMPRESS next, make sure that the AC plug is unplugged and the Power Switch is turned off.
- (2) Do not use NETIMPRESS next in dusty areas, where there is direct sunlight or corrosive gas is generated.
- (3) Use NETIMPRESS next in environments with temperature between 5 and 40°C and humidity between 20% and 80%.
- (4) In case there is noise in the AC current line, use a noise filter to eliminate the noise.
- (5) To insert or remove the control module, be sure to turn off the power of NETIMPRESS next.
- (6) To turn the power on, turn on the power of NETIMPRESS next first and then a user system. To turn off the power, follow the reverse order.
- (7) NETIMPRESS next operates with the control module set into the Compact Flash connector. NETIMPRESS next does not operate with the Compact Flash being removed.

Visit our Web site for information about how to use NETIMPRESS next and related products and for the latest information.

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

3 Part Names and Functions

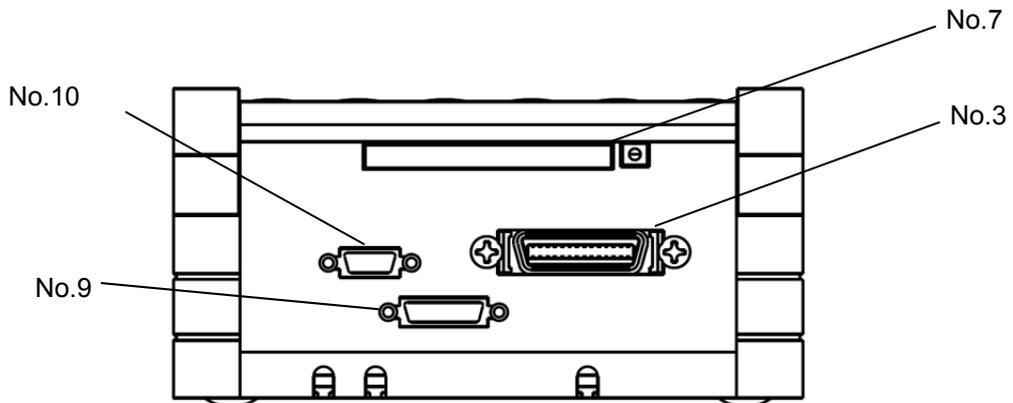
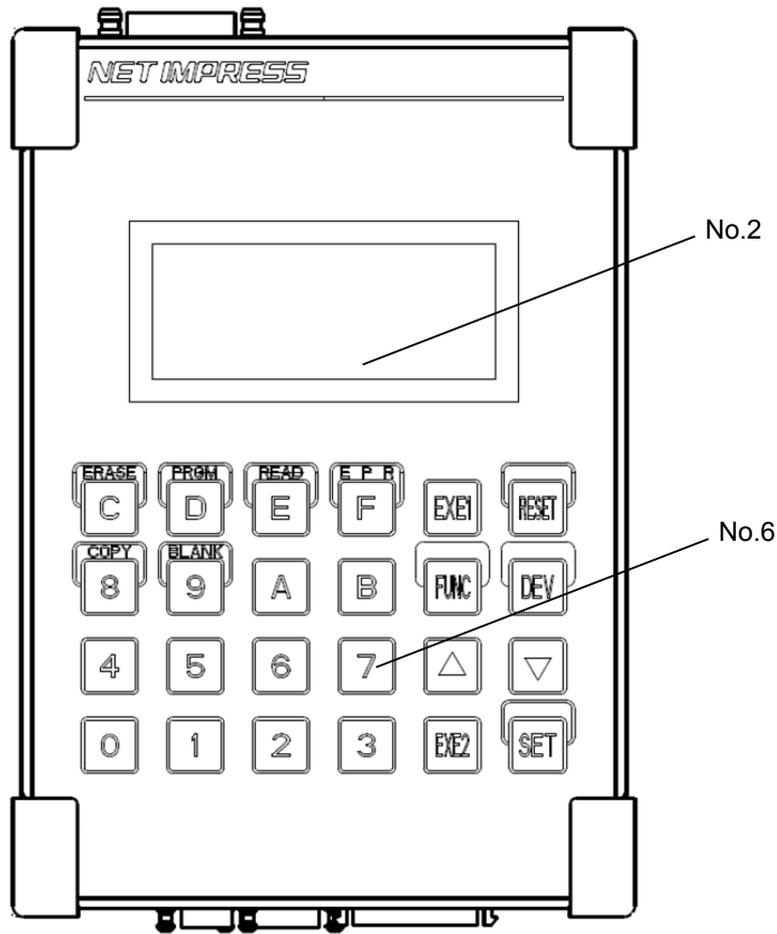
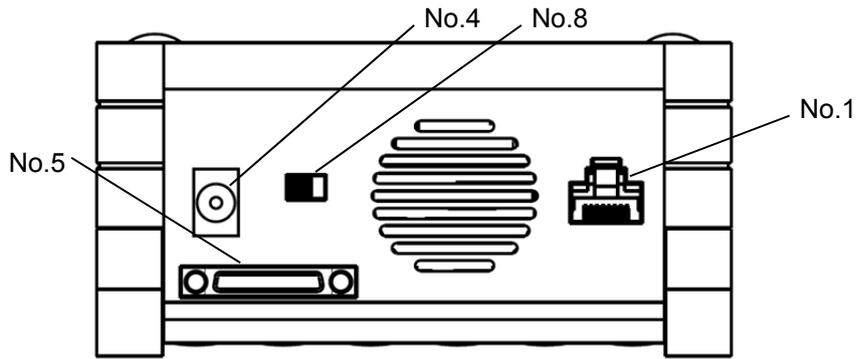
The figure below illustrates the parts and components names of NETIMPRESS next main unit.



AF430 main unit

NETIMPRESS

Network Compatible In-circuit Flash Microm Programmer for Embedded Smart Systems



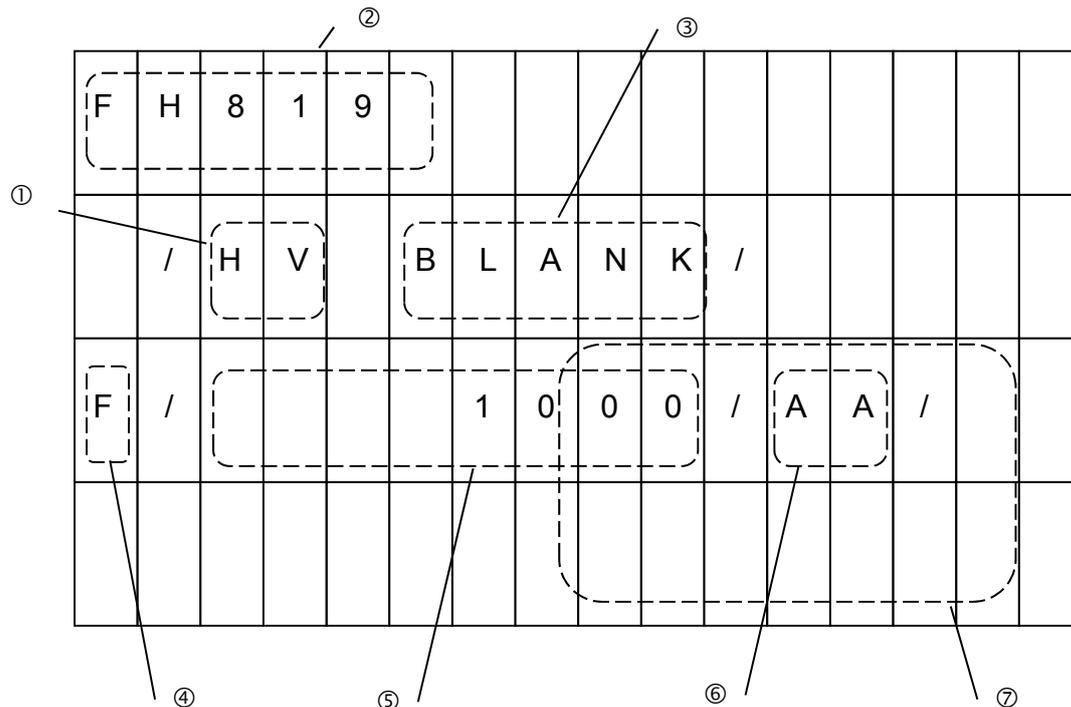
AF430/CAN main unit

No.1 ETHERNET

This is the connector to connect with Ethernet (10/100Base-T).

No.2 LCD

Displays various information.



① Programming power application display

This shows that high voltage power for programming is being applied. This display can be cleared by pressing the RESET key.

② Control module model name

Displays the model name of the control modules in the Compact Flash. You can customize this display part using the steps described in Chapter 5.

③ Device function display

Displays the device function being executed.

④ Function display/Modify bit display

Displays the function currently being executed or that the data in the buffer memory is modified data.

When "F" is displayed, it indicates the function, which is currently being executed.

When "D" is displayed, it indicates the device function, which is currently being executed.

When "M" is displayed, it indicates the data modified by the key entry or buffer transfer.

⑤ Address display

Displays the flash memory address, data key entry and various messages. This only displays the lowest eight address digits and does not display the higher address digits.

⑥ Buffer

Displays buffer memory data and error codes.

⑦ ROM data/sum check

Displays the flash ROM data and a sum value of buffer memory data.

No.3 TARGET PROBE 1

This is the connector to connect the probe that connects with a target system.

No.4 DC12V

This jack is to connect the AC adapter for NETIMPRESS next.

No.5 DIO PROBE

This is the connector to control by digital I/O.

No.6 KEYBOARD

[0 to F]

Use the hexadecimal data keys to enter the numeric values. 8, 9, C, D, E and F are used as the keys to specify each device function combining with the DEV key.

[RESET]

Use this key to abort operations or delete the error messages. Pressing this RESET key disconnects remote connection too.

[FUNC, DEV]

Use these command keys to make various operation settings combining with the hexadecimal data keys.

[▲ ▼]

These are the keys to increment and decrement the address values. The buffer memory and the ROM data for the addresses are displayed simultaneously. This is also used as a parameter delimiter for FUNC.

[SET]

Use this key to set the functions and device functions. You can also use this SET key to modify the data in buffer memory.

[EXE1, EXE2]

You can assign various commands to these two keys. For further information, see Chapter 6 "Command Sequence Function".

No.7 CONTROL MODULE

This is the slot to insert the control module. NETIMPRESS next only operates with its specific Compact Flash.

No.8 POWER

Power Switch

I: Power ON

O: Power OFF

No.9 TARGET PROBE2 (AF430/CAN only)

This connector is used to connect a probe to connect NETIMPRESS next and a target system through the CAN interface.

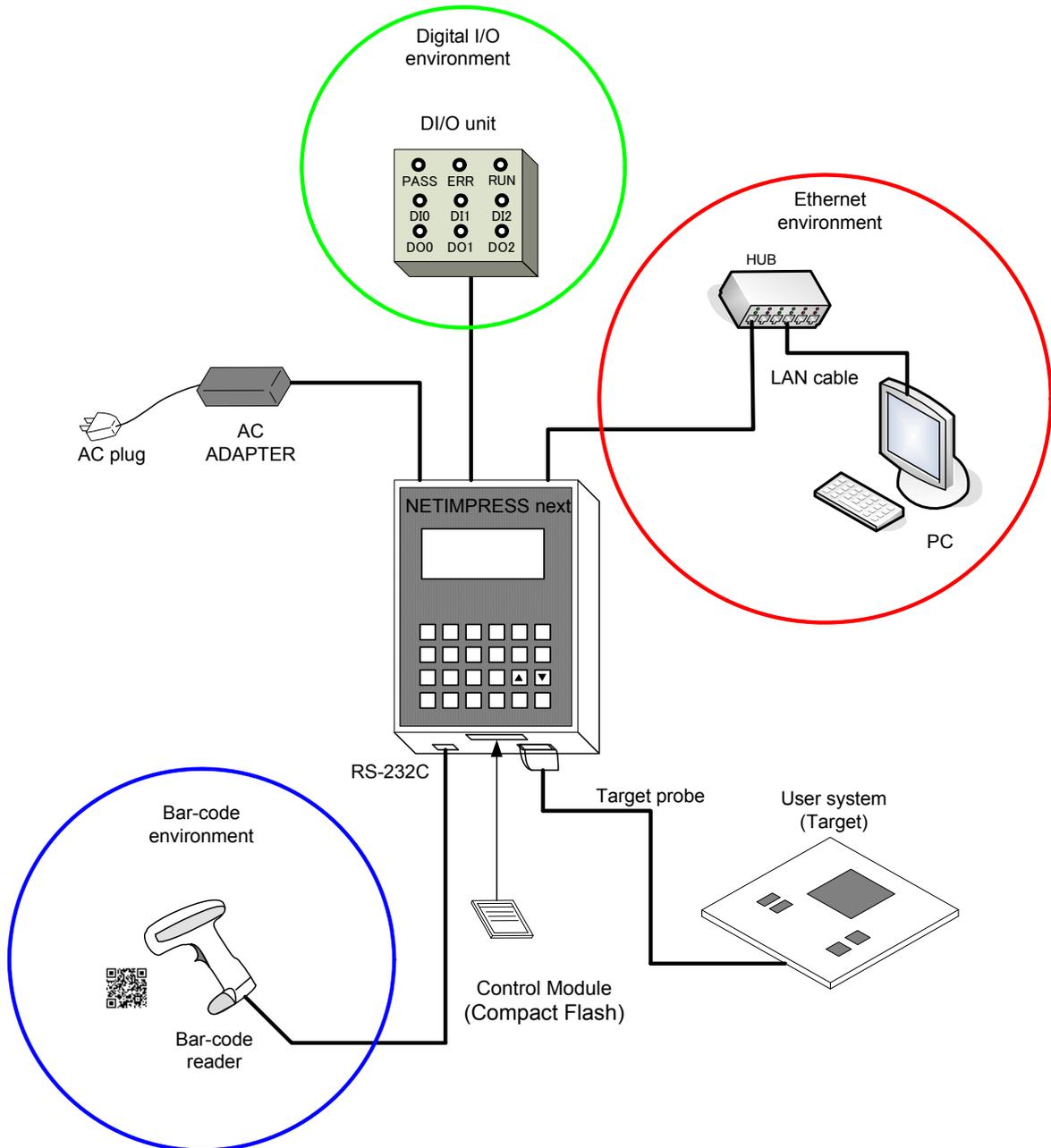
No.10 BCR PROBE

This is the connector to connect the probe that connects with a bar-code reader.

4 System Configuration of NETIMPRESS next

4.1 Connecting with Peripheral devices

The following figure shows a connection example of NETIMPRESS next and peripheral devices.



[Configuration example]

- Ethernet environment
 - LAN cable (use a crossing cable instead when directly connecting to PC)
 - PC
 - Software to operate NETIMPRESS next
(Remote controller: AZ490 or others)

- Target system
 - Target probe
 - Optional adapter (Adapter which can convert communication methods in accordance with the communication I/F of user system)
 - User system (Target microcomputer)
 - Control module: The control module has to be compatible with the target microcomputer.

- Bar-code environment
 - BCR PROBE (AZ402): Optional
 - Bar-code reader: You need to prepare by yourself

- Digital I/O environment
 - Digital I/O PROBE (AZ401): Optional
 - Digital I/O unit: You need to prepare by yourself

4.2 About Each Configuration

4.2.1 Ethernet environment

To connect NETIMPRESS next to PC, you need to set the Ethernet.

Follow the steps below to set up the Ethernet.

- a. Create YCM file in advance by using the AZ482 (F/DF sheet generator).
- b. Copy the YCM file into the root directory of the control module. Only one .YCM file can exist in the root directory. Also, if the .YCM file is copied into a place other than the root directory, the file is not recognized correctly.
- c. Insert the control module into NETIMPRESS next main unit and turn ON the power.
- d. As the message, "YCM DATA SET?", appears on the LCD, press [EXE1] or [EXE2] key. Then, IP address, Port, Sub-net mask, and Gateway mask specified in the .YCM file are set up for Ethernet connection. If you do not want to make this setting, press [RESET] key.
- e. The IP address you have set up are shown on the LCD, and then NETIMPRESS next is started up. Ethernet setting is now completed.

* Ethernet can be also set up by a standalone operation (Function E2 to E4). For details, see Section 5.6 "Ethernet Settings".

After you completed the Ethernet setting, you can establish the communication with the remote controller (AZ490), which is software for controlling the programmer.

4.2.2 Target system

[Pin assignment]

The information on target interface of NETIMPRESS next (information on pin assignments and circuits) is described in Chapter 8 "Specifications".

For input signals to a user system, it is recommended to attach pull-up resistor (about 10 K Ω) considering possible malfunction when NETIMPRESS next is not connected.

The definitions for specific signal lines vary for each the control module. For details, see the manual for your control module.

[Programming on a stand-alone basis]

Basic instructions for programming on a stand-alone basis are described below.

For more details, refer to the table listing the commands and their functions in Chapter 5 "Commands".

1. Initializing the Buffer Memory^{*1}

Initialize^{*2} the buffer memory of an area which corresponds to the flash ROM area of the microcomputer (MCU).

Key Operations



Buffer memory initialization function

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	2	/	B	U	F	F	E	R	C	L	E	A	R				



Set

*1 Buffer memory

This is the place where the program data for the Flash ROM is stored. By loading an object file on to the buffer memory, it is converted into binary data and stored. Data can be modified using the Edit function (See Section 5.3 "Editing Buffer Memory"). Even if the power of NETIMPRESS next is turned off, the buffer memory data is preserved because the buffer memory is on the Compact Flash.

*2 Initialization

The buffer memory data when initialized varies depending on the control module and it will be "00" or "FF". (For information about the data contents, see your control module manual.)

2. Setting Execution Address

Set up a target area to execute the device functions. The default setting is the entire flash ROM area. Make the settings when you want to change the programming area.

Example: Change the setting address from "FE0000H" to "FF0000H".

Key Operations

FUNC	0
------	---

 Programming area setup function

LCD Display (Whole)

F	x	n	n	n											
				/	x	x	x	x	/						
F	0	/	E	X	E	C	U	T	E		A	R	E	A	
F	-	A	D	D	R	/				F	C	0	0	0	0

F	E	0	0	0	0	▼
---	---	---	---	---	---	---

 Enter the first address.

4th line

F	-	A	D	D	R	/				F	E	0	0	0	0
---	---	---	---	---	---	---	--	--	--	---	---	---	---	---	---

F	F	0	0	0	0	▼
---	---	---	---	---	---	---

 Enter the last address.

4th line

L	-	A	D	D	R	/				F	F	0	0	0	0
---	---	---	---	---	---	---	--	--	--	---	---	---	---	---	---

SET	FUNC	SET
-----	------	-----

If you change the execution address, the warning message may appear when the power of NETIMPRESS next is turned on.

Execution address (Function 0)

Microcomputer flash ROM area (Function D 6)

Transfer address (Function F 5)

If the above settings are not consistent, the warning message such as "ADDRESS WARNING" will be displayed with a beep sound. You can cancel the warning by pressing the RESET key. This warning can be ignored to execute the device functions in such cases that an area to execute the device functions is intentionally set up narrowly.

3. Loading the Object File

Load a user's object file on the Compact Flash into buffer memory of NETIMPRESS next. For example, load the "DAT128K.BIN" file.

Key Operations



File load function



Select "DAT128K.BIN".



LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	F	1	/	F	I	L	E		L	O	A	D					
					T	E	S	T	1		.	H	E	X			

4th line

				D	A	T	1	2	8	.	B	I	N				
--	--	--	--	---	---	---	---	---	---	---	---	---	---	--	--	--	--

3rd line

				D	O	W	N	L	O	A	D	.	.	.		B	I	N
--	--	--	--	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---

4. Programming

Execute EPR command to perform ERASE, BLANK-CHECK, PROGRAM and READ-VERIFY commands sequentially. Each command can be executed individually.

(The supported commands vary depending on the control modules. For more information, see your control module manual.)

Key Operations



EPR command



Displayed sequentially.



LCD Display (Whole)

F	x	n	n	n													
						/	x	x	x	x	/						
D	/	E	.	P	.	R											
F	-	A	D	D	R	/											0

3rd line

E	R	A	S	E	.	.	.										
---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--

3rd line

P	R	O	G	R	A	M	.	.	.								
---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

3rd line

S	U	M		C	H	E	C	K	.	.	.						
---	---	---	--	---	---	---	---	---	---	---	---	--	--	--	--	--	--

F	x	n	n	n													
						/	x	x	x	x	/						
P	A	S	S		P	/											00
					R	/											00

4.2.3 Bar-code environment

[Overview]

Bar-code reader, whose connection type is RS232C, can be connectable.

You need to prepare the followings if you use a bar-code reader for NETIMPRESS next.

- BCR PROBE (AZ402)
- Bar-code reader main unit (RS-232C connection type)
- Bar-code
- YBO file

The process mode is written in a dedicated option file (extension: YBO).

<NOTES>

Bar-code reader can be used with the standalone environment only. (cannot be used with the Ethernet communication).

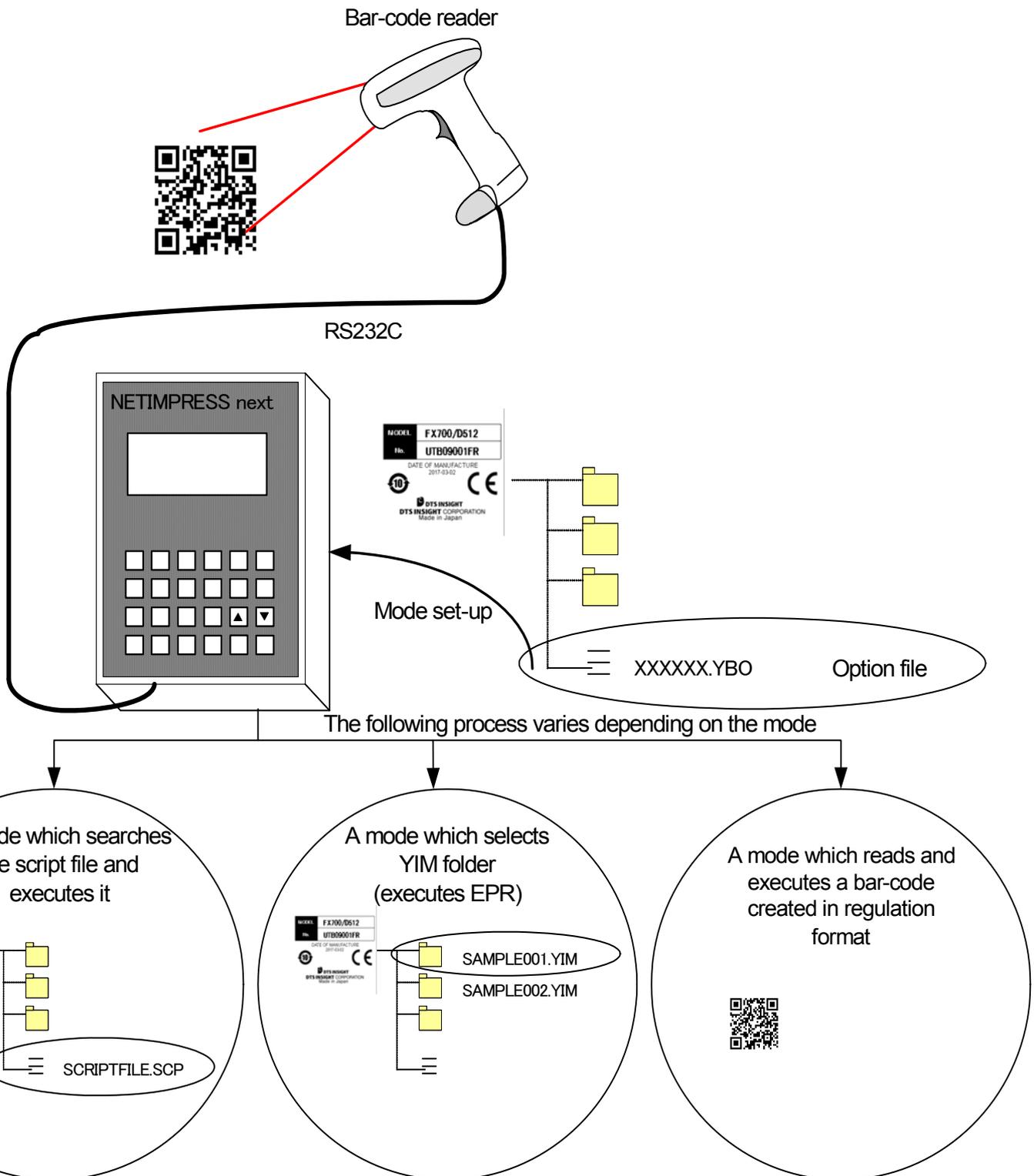
■ YBO file:

- You can create and edit the file by software (AZ486).
(AZ486 can be downloaded from our home page.)
For further information, see the AZ486 manual.
- Make sure to place the YBO file into the root directory of Compact Flash which is inserted to the programmer.
- If it is in a place other than the root directory, the bar-code process becomes invalid. (The bar-code cannot be received.)

■ Process mode:

- (1) Mode which executes a script file conformed with the bar-code (SCRIPT mode)
- (2) Mode which executes a bar-code whose format is provided by DTS INSIGHT CORPORATION (ORIGINAL mode)
- (3) Mode which selects a YIM folder conformed with the barcode, and then executes the access to the target (EPR) (SELECT mode)

[General flowchart]



[Set up the Bar-code reader]

To read the bar-code by NETIMPRESS next, set the bar-code reader as follows.

Communication setting of the bar-code reader

Baud rate	9600bps
Parity	No
Stop bit	1-stop bit
Data length	8-bit

Data format

Prefix (header)	No
Suffix (footer)*	CR (0x0d)
Scan data transfer format	<data><suffix>

* For suffix information, information in the YBO file has priority in case it is specified by YBO file.

[YBO file]

Only one YBO file can exist in the root directory of the Compact Flash.

Bar-code process becomes invalid if there is no file in the root directory or if there are more than one files in the root directory.

Bar-code can be read by the bar-code reader in case the file format has no problem.

YBO file is configured by some options and a mode which switches programmer control.

■ YBO file name:

XXXXX.YBO

*1. You can name xxxx parts as you like.

*2. The extension must be YBO.

■ YBO file configuration:

/	/		X	X	X	X	X	.	Y	B	O			
/	/		2	0	x	x	.	x	x	.	x	x		
[	M	O	D	E	]									← Header
S	C	R	I	P	T									
[	S	E	T	T	I	N	G	]						← Header
S	T	A	R	T	=	0	0	0	2					
E	N	D	=	0	0	1	2							
S	U	F	F	I	X	=	0	x	0	D				
[	E	N	D]										

■ Format

1. The lines before [MODE] are treated as comments. It is ignored.
2. Programming order is [MODE] – [SETTING].
3. In case there is no setting in [SETTING], it is operated as START=0, END=delimiter, SUFFIX=0x0D.
4. Make sure to place [END] at the end of the file. If there is no [END], it will become a format error.

■ [MODE]

Process mode of the bar-code data is specified by the character strings described on the lines after [MODE].

You must describe these lines.

If there is no description on these lines, bar-code process becomes invalid.

Header	Command	Description
[MODE]	SCRIPT	Executes the script file conformed with the received data You don't need to describe .SCP (extension) for the bar-code.
	ORIGINAL	Executes a function for the data read by the bar-code reader Use the specified format
	SELECT	Selects an YIM folder conformed with data read by bar-code (select only) You don't need to describe .YIM (extension) for the bar-code.
	SELECT/XXXX	Selects an YIM folder conformed with data read by bar-code, and executes a device function You can set one of ERASE, BLANK, PROGRAM, READ, EPR, or COPY. You don't need to describe .YIM (extension) for the bar-code.

■ [SETTING]

Effective range and end code of received bar-code are set by the character strings described on the lines after [SETTING].

You can omit these settings.

Header	Argument	Description
[SETTING]	START=	Where to start the sampling: Set the starting point of the data sample Settable range: 1 to 2047 (decimal) 0x1 to 0x7FF (hexadecimal) * Enable with other than ORIGINAL mode
	END=	Where to stop the sampling: Set the end point of the data sample Settable range: 1 to 2047 (decimal) 0x1 to 0x7FF (hexadecimal) * Enable with other than ORIGINAL mode
	SUFFIX=	End code option: Set the end code of the bar-code data If there is no description, 0x0D (CR) will be the end code as default. Settable byte: 1-byte Settable character: ASCII code 0 to 127 (decimal) 0x0 to 0x7F (hexadecimal) * Enable with other than ORIGINAL mode

* If you specify SUFFIX by ASCII, enclose the characters on the following table with ' (single quotes).

Example: When specifying 0 as SUFFIX

SUFFIX='0'

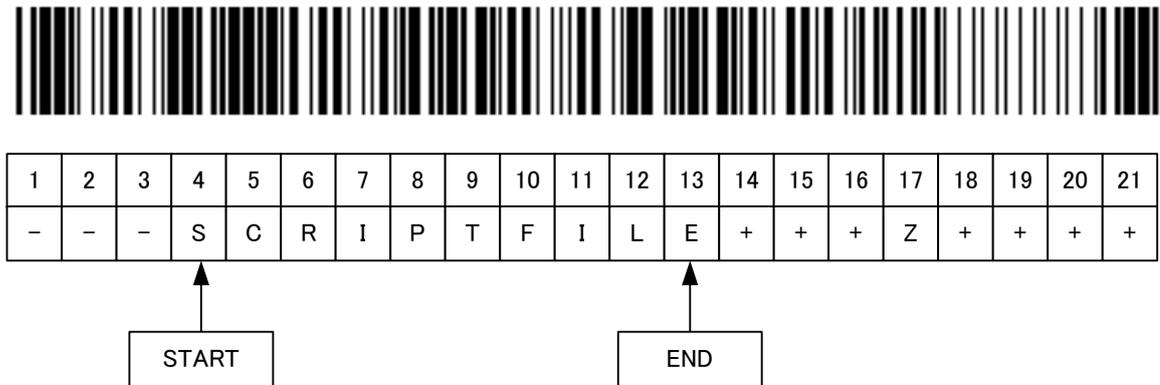
■ Correspondence table of codes which can be specified as SUFFIX

Code		Character	Code		Character	Code		Character	Code		Character
decimal	HEX										
0	00	NUL	33	21	!	66	42	B	99	63	c
1	01	SOH	34	22	"	67	43	C	100	64	d
2	02	STX	35	23	#	68	44	D	101	65	e
3	03	ETX	36	24	\$	69	45	E	102	66	f
4	04	EOT	37	25	%	70	46	F	103	67	g
5	05	ENQ	38	26	&	71	47	G	104	68	h
6	06	ACK	39	27	'	72	48	H	105	69	i
7	07	BEL	40	28	(	73	49	I	106	6a	j
8	08	BS	41	29	)	74	4a	J	107	6b	k
9	09	HT	42	2a	*	75	4b	K	108	6c	l
10	0a	LF	43	2b	+	76	4c	L	109	6d	m
11	0b	VT	44	2c	,	77	4d	M	110	6e	n
12	0c	FF	45	2d	-	78	4e	N	111	6f	o
13	0d	CR	46	2e	.	79	4f	O	112	70	p
14	0e	SO	47	2f	/	80	50	P	113	71	q
15	0f	SI	48	30	0	81	51	Q	114	72	r
16	10	DLE	49	31	1	82	52	R	115	73	s
17	11	DC1	50	32	2	83	53	S	116	74	t
18	12	DC2	51	33	3	84	54	T	117	75	u
19	13	DC3	52	34	4	85	55	U	118	76	v
20	14	DC4	53	35	5	86	56	V	119	77	w
21	15	NAK	54	36	6	87	57	W	120	78	x
22	16	SYN	55	37	7	88	58	X	121	79	y
23	17	ETB	56	38	8	89	59	Y	122	7a	z
24	18	CAN	57	39	9	90	5a	Z	123	7b	{
25	19	EM	58	3a	:	91	5b	[	124	7c	|
26	1a	SUB	59	3b	;	92	5c	¥	125	7d	}
27	1b	ESC	60	3c	<	93	5d	]	126	7e	~
28	1c	FS	61	3d	=	94	5e	^	127	7f	DEL
29	1d	GS	62	3e	>	95	5f	—			
30	1e	RS	63	3f	?	96	60	`			
31	1f	US	64	40	@	97	61	a			
32	20		65	41	A	98	62	b			

* For START, END, SUFFIX

1. If you specify START=4, END=13

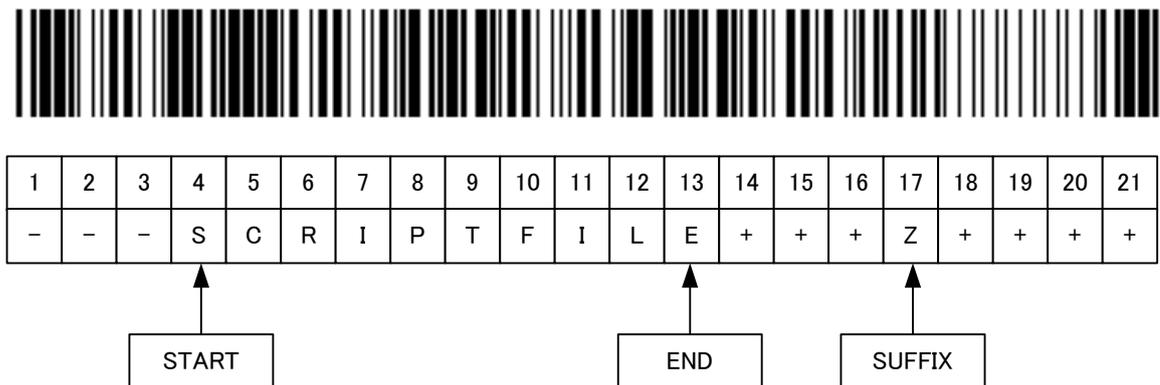
Characters from 4-byte to 13-byte are treated as an effective data.



2. If you specify START=4, END=13, SUFFIX='Z'

Programmer gets data until 16-byte (before Z: 17-byte).

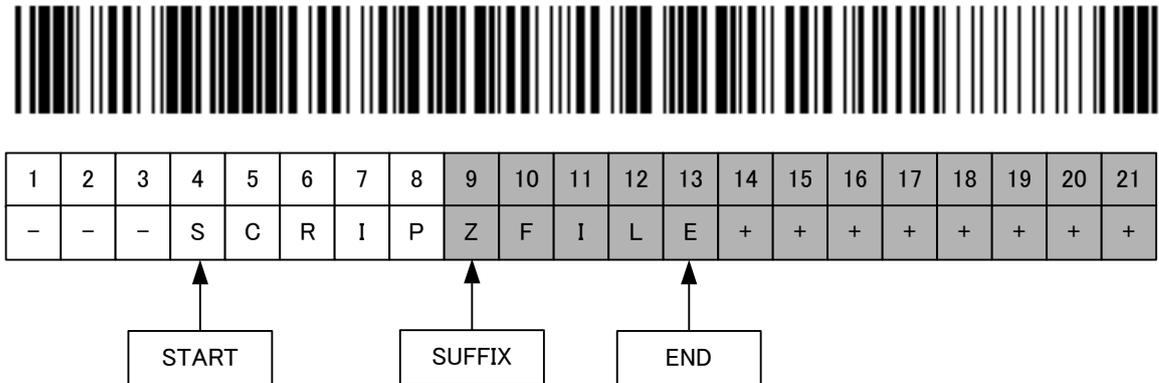
Characters from 4-byte to 13-byte are treated as an effective data.



3. If you specify START=4, END=13, SUFFIX='Z'

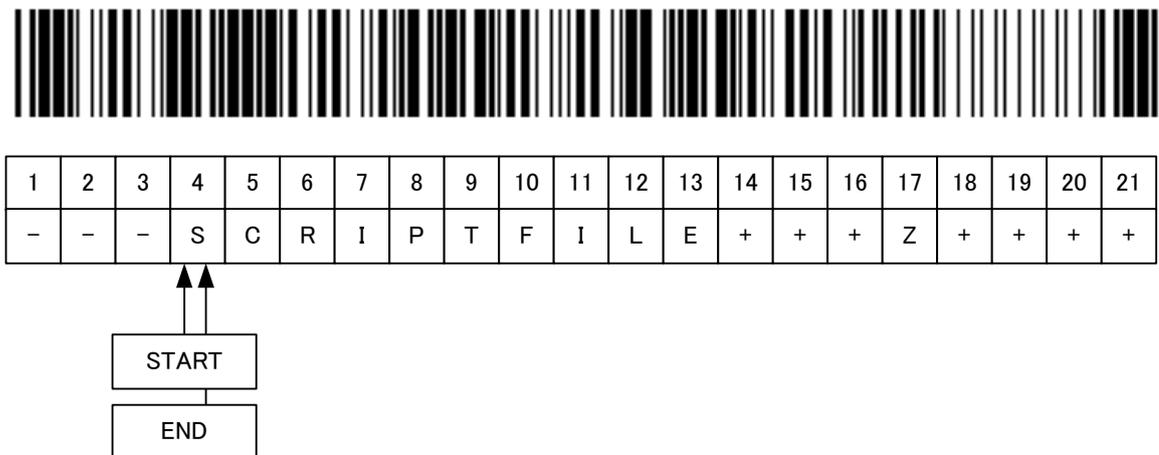
Programmer gets data until 8-byte (before Z: 9-byte).

SUFFIX is placed before END, so this becomes an error.



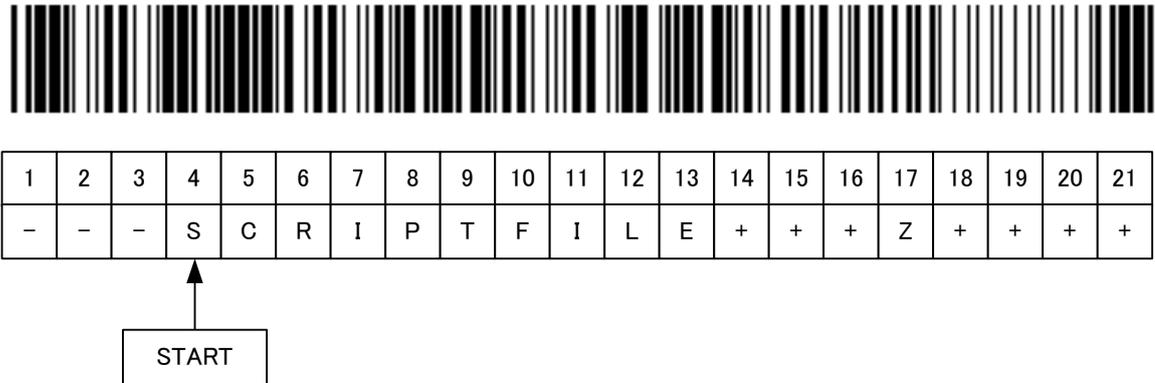
4. If you specify START=4, END=4

Data 'S' (at 4-byte) is treated as an effective data.



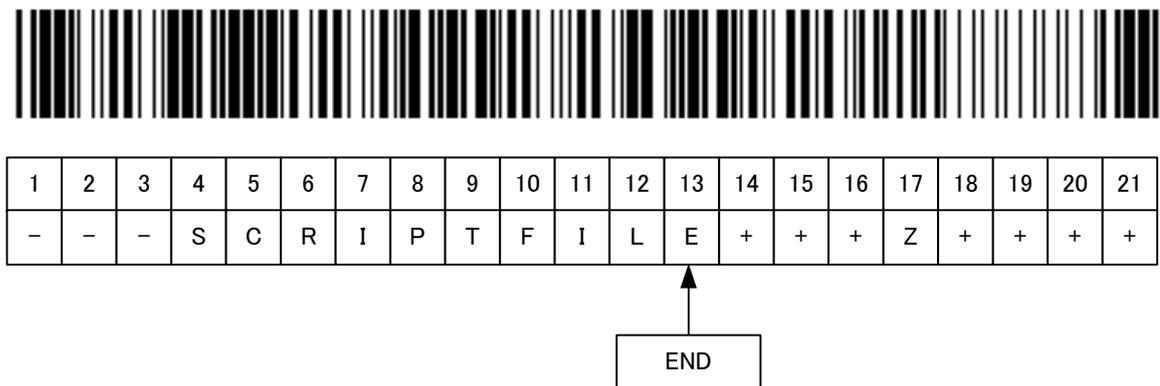
5. If you specify START=4 only

Data from 4-byte to 21-byte are treated as an effective data.



6. If you specify END=13 only

Data from 1-byte to 13-byte are treated as an effective data.



[Execution mode]

(1) SCRIPT mode

■ Overview

It compares a script file (extension: SCP) placed in the root directory of the Compact Flash to bar-code information, and executes the matched script file.

You need to create/prepare the script file by yourself.

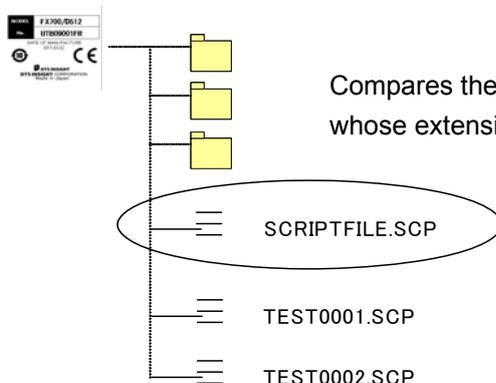
The bar-code information to be compared is a file name only. It does not include the extension.

■ Example of YBO file creation by using SCRIPT mode

[	M	O	D	E]													
S	C	R	I	P	T													
[	S	E	T	T	I	N	G]										
S	T	A	R	T	=	0	0	0	4									
E	N	D	=	0	0	1	3											
[	E	N	D]														

Example for when YBO file is specified as below:

If you read the following bar-code, it searches a file whose name is a character string of column 4 to 13 with extension “SCR” in the root directory, and executes the script file if it is found.



Compares the bar-code data to a file name whose extension is SCP.

(2) ORIGINAL mode

■ Overview

It reads a bar-code created by the provided format, and controls NTEIMPRESS next. You can execute some commands in order if they are listed on the command list.

■ Example of YBO file creation by using SCRIPT mode

[	M	O	D	E]												
O	R	I	G	I	N	A	L										
[	S	E	T	T	I	N	G]									
[	E	N	D]													

■ Format



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
(1)		(2)	(3)									(2)	(3)		(4)	
0	2	/	F	B	0	\$	A	.	Y	I	M	/	D	F	/	/

(1) Number of commands

01 to 99 (decimal)

(2) Command delimiter

/ (fixed)

Place the '/' in between commands.

(3) Command

Describe the commands. (For details of the commands, see a table on the next page.)

(Place '\$' in between command and argument and in between arguments.)

(4) Delimiter (End code)

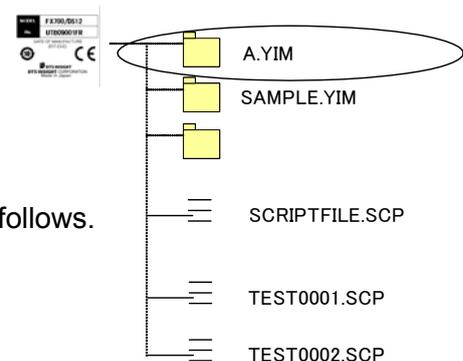
// (fixed)

End code is 2-byte

For the example bar-code above, the process will be as follows.

1. <FB0\$A.YIM>: Select A. YIM

2. <DF>: Execute EPR



■ Command

The commands on the table below can be used.

Command	Meaning	Details/Example
FB0	Selects module (SelectModule)	Select YIM folder/ FB0\$SAMPLE.YIM
FF1	Loads a file (LoadFile)	Buffer load of the object file/ FF1\$TEST.S
F2	Clears the buffer (BufferClear)	Buffer clear/ F2
D8	Copy	Copy/ D8
D9	Blank Check (Blank)	Blank check/ D9
DC	Erase (Erase)	Erase and blank check/ DC
DD	Program (Program)	Program verify/ DD
DE	Verify (Read)	Verify/ DE
DF	EPR	Do EPR/ DF

■ Restrictions

1. The length of bar-code (from a point where it starts receiving data to a delimiter) must be less than 0x800 (2KB). Error occurs if it is more than 0x800.

■ Instructions

When use ORIGINAL mode; firmware version of the programmer more than 13.06 and AZ486 version more than 1.02.

Please contact us about the firmware version up of the programmer.

(3) SELECT mode

■ Overview

It compares a YIM folder (extension: YIM) placed in the root directory of the Compact Flash to the bar-code information, and selects the matched YIM folder.

After selecting, it continuously executes a device function specified by /XXX.

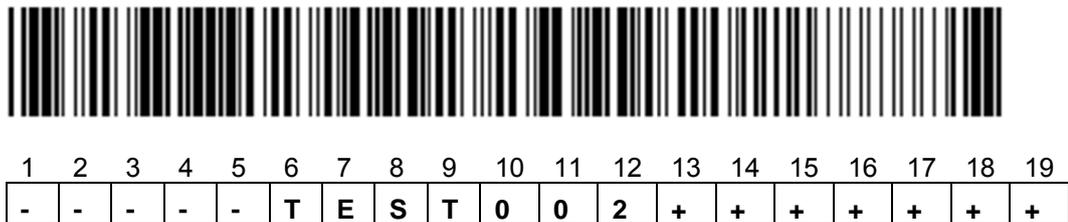
■ Example of YBO file creation by using SCRIPT mode

[	M	O	D	E]														
S	E	L	E	C	T	/	E	P	R										
[	S	E	T	T	I	N	G]											
S	T	A	R	T	=	0	0	0	6										
E	N	D	=	0	0	1	2												
[	E	N	D]															

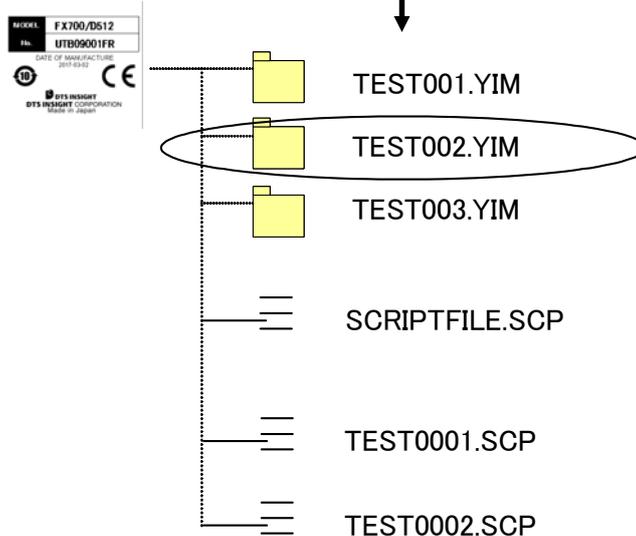
Example for when YBO file is specified as above:

If you read the following bar-code, it searches a file whose name is a character string of column 6 to 12 with extension "YIM" in the root directory, and selects the YIM folder if it is found.

After selecting the folder, executes EPR.



Compares the bar-code data to a folder name whose extension is YIM.



4.2.4 Digital I/O Connection/Example

[Overview]

You can do the followings by digital I/O input.

- Receive a notice of execution state of programmer (RUN signal)
- Receive a notice of state of programming to flash memory (PASS and ERR signal)
- Receive a notice of state of script execution (PASS and ERR signal)
- Select and execute the script file

[Signals used for script execution]

Signal Name	definition	Script *2	I/O
Digital I/O ST0	Script selection signal 0 (Digital I/O input)	Script selection: bit 0 *3	I
Digital I/O ST1	Script selection signal 1 (Digital I/O input)	Script selection: bit 1 *3	I
Digital I/O ST2	Script selection signal 2 (Digital I/O input)	Script selection: bit 2 *3	I
Digital I/O ST3	Script selection signal 3 (Digital I/O input)	Script selection: bit 3 *3	I
Digital I/O ST4	Script selection signal 4 (Digital I/O input)	Script selection: bit 4 *3	I
Digital I/O IN0	Digital I/O input signal0	IN0	I
Digital I/O IN1	Digital I/O input signal1	IN1	I
Digital I/O IN2	Digital I/O input signal2	IN2	I
Digital I/O IN3	Digital I/O input signal 3	IN3	I
Digital I/O IN4	Digital I/O input signal 4	IN4	I
Digital I/O OUT0	Digital I/O output signal 0	OUT0	O
Digital I/O OUT1	Digital I/O output signal 1	OUT1	O
Digital I/O OUT2	Digital I/O output signal 2	OUT2	O
Digital I/O OUT3	Digital I/O output signal 3	OUT3	O
Digital I/O OUT4	Digital I/O output signal 4	OUT4	O

*1: For all signal information of digital I/O, see Section 8.4 "Digital I/O Interface".

*2: OUT0 to OUT4 and IN0 to IN4 are command names of digital input/output specified by the script file. On this table, signal names for each signal are listed.

*3: Bit 0 to bit 4 signals for script file selection. On this table, it is corresponding to the signal name.

For details of the correspondence of bit 0 to bit 4 signal selection and script file name, see [Script Execution] on the following page.

[Script file]

Script file is an execution file which enables to control digital I/O, execute the flash programming, and select the programming type sequentially.

Create the script file by using software (AZ488) for creating the script file.

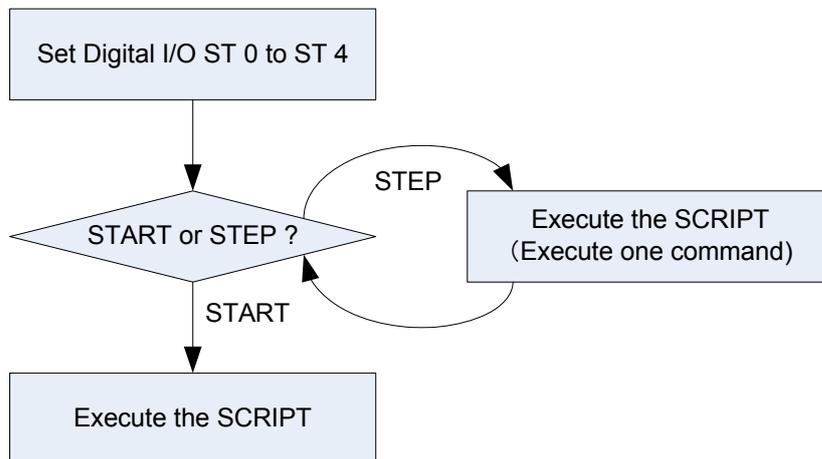
Command which can be executed by script file:

- Buffer memory clear
- File Load
- Digital I/O output OUT 0 to OUT 4
- Digital I/O input IN 0 to IN 4
- Wait designation
- Device function BLANK
- Device function ERASE
- Device function PROGRAM
- Device function READ
- Device function EPR

[Script Execution]

Script execution by script signal selection is as a following figure.

- a. Select the script file to be executed by using a script selection signal, digital I/O ST 0 to ST 4.
- b. The selected script file is executed by a START signal input. (If you input the STEP signal, the commands described on the script file are executed in order.)



[Script file name]

For details of the digital I/O ST 0 to ST 4 and the corresponding script files, see the table below.

The script file names are fixed.

Script file can be executed if it is placed in the root directory of the Compact Flash.

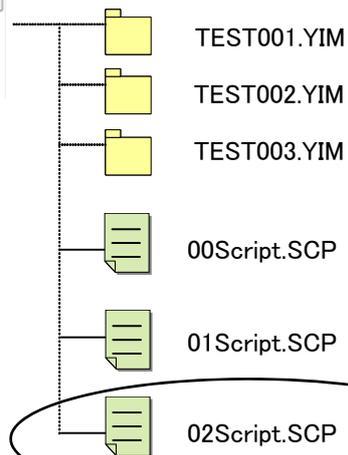
XXScript.scp

*1: For xx, you can designate 00 to 31. (It must be a biliteral.)

*2: You can name the file by either uppercase or lowercase characters. (not case-sensitive)

■ Corresponding script file for each digital I/O ST 0 to ST 4

ST4	ST3	ST2	ST1	ST0	Script file name
0	0	0	0	0	00Script.scp
0	0	0	0	1	01Script.scp
0	0	0	1	0	02Script.scp
0	0	0	1	1	03Script.scp
0	0	1	0	0	04Script.scp
•	•	•	•	•	•
•	•	•	•	•	•
1	1	1	1	1	31Script.scp



4.3 Other New Functions of NETIMPRESS next

4.3.1 Keylock Function

This is a function to lock the key operation of NETIMPRESS next.

[How to lock the key operation]

Press the RESET key for more than 3 seconds.

There are 2 selectable modes for keylock. One is FULL KEY MODE which can use all key operation (no key lock), and the other is SINGLY KEY MODE, which means only some key operations (RESET, EXE1, EXE2) are available, and the other keys are locked.

The mode is switched in the order of FULL KEY MODE→SINGLE KEY MODE repeatedly.

4.3.2 Log Function

This is a function to save execution histories of programmer into the Compact Flash.

The execution histories are saved as log file (csv).

[How to save the log]

Function: Select ON/OFF of log output by FUNC-CA0.

There are 2 selectable modes for log output. One is a brief log mode, and the other is a full log mode. See below for the details of both modes. Select either one mode by FUNC-CA0.

[Log format]

Format described on the log file is as follows.

Time and date, Command, Option, Execution results

*1. Time and date

Shows starting time of the command

YYYY/MM/DD hh:mm:ss (e.g.2013/04/22 15:33:40)

*2. Command

Function command:

Device function: EPR START ← Starting time of EPR execution (Grant START)

EPR END ← Termination time of EPR (Grant END)

*3. Option (Max.255 characters can be displayed)

Downloaded file and changed folder name etc. at when executing the command at *2 can be displayed here.

Ex: TEST.YIM, 12345678.S, OOOOXXXX.HEX

*4. Execution results (Max.255 characters can be displayed)

Normal end: OK

Abnormal end: Error number: Message

Brief log mode:

Outputs the logs for device function, EXE key function, starting time and termination time of script execution.

Example: When executing EPR:

```
START EPR      Exnnn.YIM(Fxnnn/MP version/CM version)  OK
END EPR                               OK
```

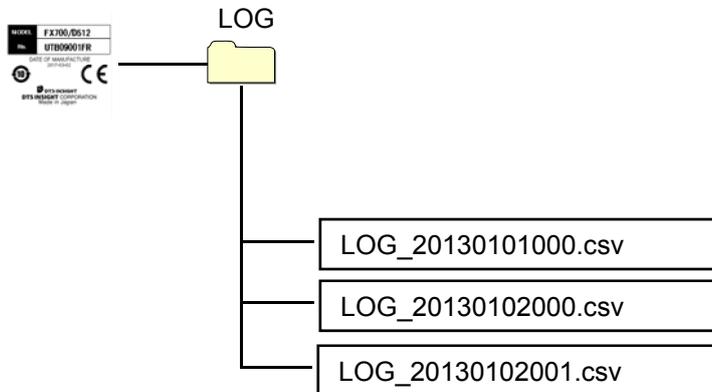
FULL log mode:

All functions, device functions, EXE key functions, script execution histories are saved in log file.

[Save]

LOG is saved in the "LOG" folder in the Compact Flash (the extension is csv).

You can find the LOG folder right under the root of Compact Flash.



File name of LOG is defined as below.

File name: <LOG_yyyymmddxxx.csv>

Example: LOG_20130101000.csv

*1: xxx means a file number.

One LOG file can hold 256 Kbytes data.

If the data exceeds 256 Kbytes in one day, a new LOG file will be created by incrementing the file number.

LOG_20130101000.csv

LOG_20130101001.csv



Create a new file to keep a log if the previous file exceeds 256 Kbytes.

*2: Upper limit of xxx is 999.

*3: Log for 1500 to 2000 execution of device function EPR can be saved in one log file.

[Delete]

Old log files are automatically deleted.

(If you select NOT DELETE in Section 5.8.4 “Set Log Deletion (Function CA8)”, it is not deleted.)

You can set the duration of retention of log file (keep the log file for how many months from now). For details see Section 5.8.4 “Set Log Deletion (Function CA8)”.

4.3.3 Clock Function (RTC)

NETIMPRESS next has a built-in RTC to output the execution time of log file. The default setting is Japan time.

If you need to change it, use a remote controller AZ490. You can change it within the range of ± 1 day from the default setting.

5 Commands

The table below lists the command and their functions for NETIMPRESS next.

The contents of [NETIMPRESS next Operation] and [NETIMPRESS next Display] which are described in Section 5.2 “File Operations” are as follows:

[NETIMPRESS next Operation]: Command input operation

[NETIMPRESS next Display]: LCD display

5.1 Commands and their functions

Command	Description	Command key
File operation		
File Load	Calls a file from the control module to the buffer memory.	“FUNC”, “F1”
File Save	Saves the buffer memory contents to the control module as a file.	“FUNC”, “F2”
File Purge	Deletes files on the control module.	“FUNC”, “F3”
Current File Display	Displays the name of the file loaded in the buffer memory.	“FUNC”, “F4”
Transfer Address Setting	Sets the buffer memory address range.	“FUNC”, “F5”
Delete All Files	Deletes all files existing in the root directory of the control module.	“FUNC”, “F7”
Quick Format	Executes formatting the Compact Flash.	“FUNC”, “FA”
Normal Format	Executes formatting the Compact Flash selecting a file system (FAT16 or FAT32).	“FUNC”, “FC”
Buffer area editing		
Edit	Modifies the buffer memory contents.	
Block Store	Modifies the data in the specified range of the buffer memory.	“FUNC”, “1”
Buffer Clear	Resets the buffer memory data to the initial state.	“FUNC”, “2”
Modified Bit Search	Displays the addresses of the modified buffer memory data.	“FUNC”, “3”
Sum Value Display	Displays a sum value of the buffer memory data.	“FUNC”, “93”
YSM File Check	Performs sum check using the YSM file.	“FUNC”, “98”
Parameter settings		
Execution Address Setting	Sets the device function execution address range.	“FUNC”, “0”
UART/CSI Switchover	Sets the communication channel between NETIMPRESS next and a target system.	“FUNC”, “D1”
UART Baud Rate Setting	Sets the baud rate for UART communication.	“FUNC”, “D2”
TVcc Threshold Setting	Sets a target system operating voltage.	“FUNC”, “D3”
MCU Mode Setting	Target MCU mode switchover.	“FUNC”, “D4”
Watchdog Timer Setting	Sets the pulse to be sent to the watchdog timer circuit in a target system.	“FUNC”, “D5”
Flash Memory Area Display	Displays the data in the target MCU’s flash memory area.	“FUNC”, “D6”
Communication Channel Setting	Sets the communication channel between NETIMPRESS next and a target system.	“FUNC”, “D7”
Displayed Model Name Change	Changes the model name displayed on NETIMPRESS next.	“FUNC”, “D8”
CSI Baud Rate Setting	Sets the CSI communication baud rate.	“FUNC”, “D9”
Data Format Setting	Sets data format (50: Intel Hex, 60: Motorola S)	“FUNC”, “5”
MCU Operating Frequency Setting	Sets the MCU operating frequency.	“FUNC”, “DF”
Version Display	Displays the version.	“FUNC”, “94”
Verify Mode Switching	Sets the read check mode.	“FUNC”, “99”
Set Buffer Memory Initial Mode command	Switches between keeping and clearing of the buffer memory when starting up NETIMPRESS next and switching a YIM folder.	“FUNC”, “9A”

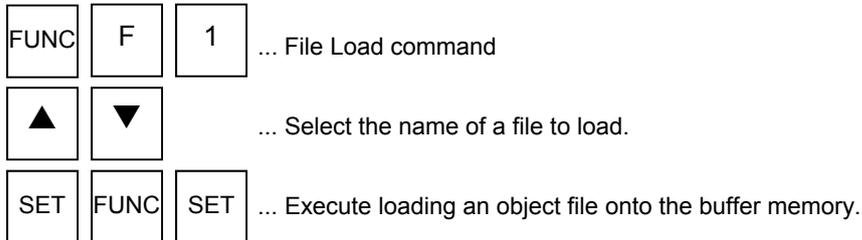
View License command	Displays the license, which can be downloaded using the definition program download function.	"FUNC", "9B"
SUM Value Mode Switching	Sets a desired SUM value calculation method (8/16-bit addition) and display method (8/16-bit).	"FUNC", "9C"
WARNING On/Off for File Loading	Sets the WARNING display (ON/OFF) when loading data in an area other than the target flash memory area.	"FUNC", "9E"
WARNING On/Off for Startup	Sets the WARNING display (ON/OFF) when checking the flash memory setting area at starting up NTEIMPRESS next and at folder selection.	"FUNC", "9F"
View Serial No.	Displays the serial No.	"FUNC", "AE"
Add License	Adds a license, which can be downloaded using the definition program download function.	"FUNC", "AF"
Control module related		
Select YIM Folder	Selects a YIM folder located in the root directory of the control module.	"FUNC", "B0"
Create YIM Folder	Creates a YIM folder in the root directory of the control module.	"FUNC", "B1"
Delete YIM Folder	Deletes a YIM folder in the root directory of the control module.	"FUNC", "B2"
Copy YIM Folder	Makes a copy of the YIM folder in the root directory of the control module.	"FUNC", "B3"
Protect Current YIM Folder	Sets to protect the current YIM folder.	"FUNC", "B4"
Save Current YIM Folder	Sets to save the current YIM folder.	"FUNC", "B5"
View Current YIM Folder	Displays the currently selected YIM folder.	"FUNC", "B6"
Set Current YMN File	Sets the YMN file to be executed.	"FUNC", "BC"
Execute YMN File	Executes the selected YMN file.	"FUNC", "BD"
Ethernet setting		
IP Address/Port Setting	Sets NETIMPRESS next IP address and port number.	"FUNC", "E2"
Gateway Address Setting	Sets NETIMPRESS next default gateway address	"FUNC", "E3"
Set Subnet Mask	Sets NETIMPRESS next sub-net mask.	"FUNC", "E4"
Communication speed/mode setting	Sets a communication speed and a communication mode of NETIMPRESS next.	"FUNC", "E8"
Log operation		
Set ON/OFF of Log	Sets ON or OFF of execution log.	"FUNC", "CA0"
Delete a Log	Deletes the execution log file.	"FUNC", "CA5"
Delete All Logs	Deletes all execution log files.	"FUNC", "CA6"
Set Log Deletion	Sets how long the execution log is retained.	"FUNC", "CA8"
I/F Setting		
Set Cable Selection	Switches the serial/CAN communication	"FUNC", "CD0"
Set DI/O Input Filter	Sets the filtering time of digital I/O input signal	"FUNC", "CD1"

5.2 File Operations

5.2.1 File Load

Calls the specified object file from the control module.

[NETIMPRESS next Operation]



Operation Example:

Load the "DAT128K.BIN" file from the control module.

[NETIMPRESS next Operation]

Key Operations



File Load command



Select "DAT128K.BIN".



Execute loading an object file.

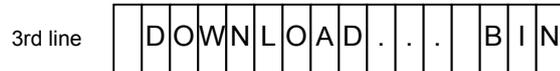
[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	F	1	/	F	I	L	E			L	O	A	D						
				T	E	S	T	1	.	H	E	X							



(Select the file name when it is displayed.)



(Displayed during loading, and then disappears when the loading completes.)

5.2.2 File Save

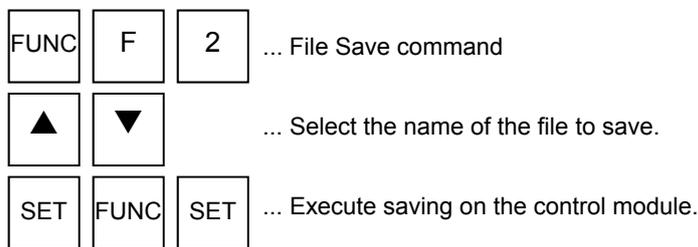
Saves buffer memory contents of NETIMPRESS next onto the root directory in the Compact Flash as an object file. When you save modified data as a differential file, it is written to an automatically created modified object file (a file with a current file name with three digits added). When you save the contents as a new object file, an empty file will be selected to write.

In case an empty file is not prepared in advance, select "RAMxxx.BIN", "RAMxxx.S", or "RAMxxx.HEX".

*1 Differential file: A file in which only modified portion of the object is saved.

*2 It is useful to have an empty object file prepared in advance before you start using NETIMPRESS next.

[NETIMPRESS next Operation]



Operation Example:

Save the modified data as a differential file. (The current file name is "DAT128K.BIN")

[NETIMPRESS next Operation]

Key Operations



File Save command



Execute saving.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	F	2	/	F	I	L	E		S	A	V	E					
				D	A	T	1	2	8	K	0	0	0				

(Since a file will be created automatically when saving a differential file, execute saving.)

3rd line

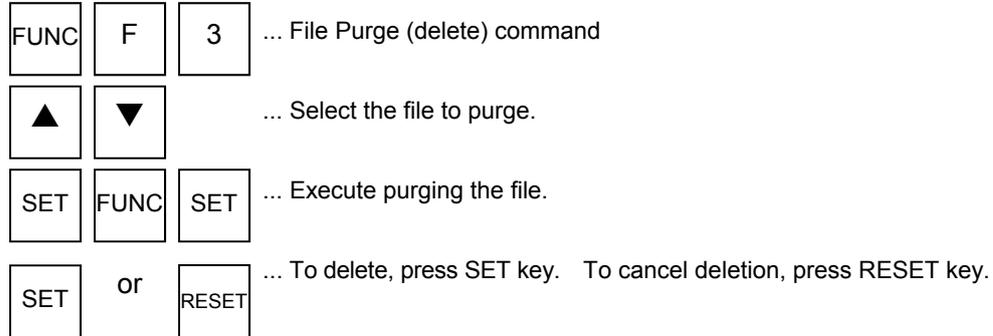
U	P	L	O	A	D	.	.	.									
---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

(Displayed during saving, and then disappears when the saving completes.)

5.2.3 File Purge

Deletes the object files in the control module.

[NETIMPRESS next Operation]

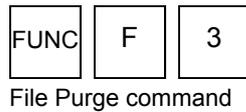


Operation Example:

Delete the "DAT128K.BIN" file from the control module.

[NETIMPRESS next Operation]

Key Operations



Select the "DAT128K.BIN" file.



Execute Purge command.



Execute deletion.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	F	3	/	F	I	L	E	D	E	L	E	T	E				
				T	E	S	T	1	.	H	E	X					

4th line

				D	A	T	1	2	8	K	.	B	I	N			
--	--	--	--	---	---	---	---	---	---	---	---	---	---	---	--	--	--

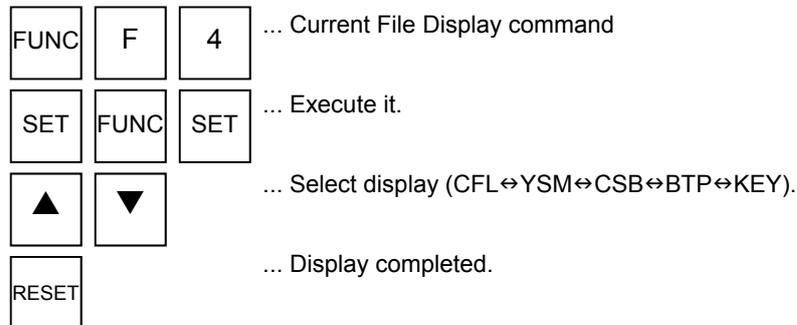
3rd line

F	I	L	E	D	E	L	E	T	E	O	K	?					
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

5.2.4 Display Current File (Function F4)

Displays the name of the current file loaded to the buffer memory. This command also displays KEY, BTP, YSM and CSB files. If there are no files, "NO FILE" message will be displayed.

[NETIMPRESS next Operation]



NETIMPRESS next Display

F	x	n	n	n															
				/	x	x	x	x	/										
F	F	4	/	C	U	R	R	E	N	T		F	I	L	E				
C	F	L	.	D	A	T	1	2	8	.	B	I	N						

CFL...Current file
 YSM...YSM file
 CSB...CSB file
 BTP...BTP file
 KEY...KEY file

(Shadowed section shows the selected item.)
 Note:

There may be the functions not available depending on a type of the control module you use. In such case, unsupported functions will not be displayed.

- * YSM File: This is required to use the sum check function. For further information, see Chapter 7 "Sum Check Function".
- * CSB File: This is required to use the one-action key function. For further information, see Chapter 6 "Command Sequence Function".
- * BTP File: This is a programming control program that is required to program the MCU. This file may be required depending on a type of the MCU. For further information, see your control module manual.
- * KEY file: The KEY file may be required with MCUs that have the security function. For further information, see your control module manual.

Operation Example:

Display the current file, BTP file, KEY file, YSM file and CSB file.

[NETIMPRESS next Operation]

Key Operations



Current File Display command



Execute the command → Current file is displayed.



YSM file is displayed.



CSB file is displayed.



BTP file is displayed.



Key file is displayed.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
			/	x	x	x	x	/											
F	F	4	/	C	U	R	R	E	N	T		F	I	L	E				

4th line

C	F	L	:	D	A	T	1	2	8	K	.	B	I	N					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(Current file is displayed with "CFL" at top.)

4th line

Y	S	M	:	D	A	T	1	2	8	K	.	Y	S	M					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(YSM file is displayed with "YSM" at top.)

4th line

C	S	B	:	D	A	T	1	2	8	K	.	C	S	B					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(CSB file is displayed with "CSB" at top.)

4th line

B	T	P	:	D	A	T	1	2	8	K	.	B	T	P					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(BTP file is displayed with "BTP" at top.)

4th line

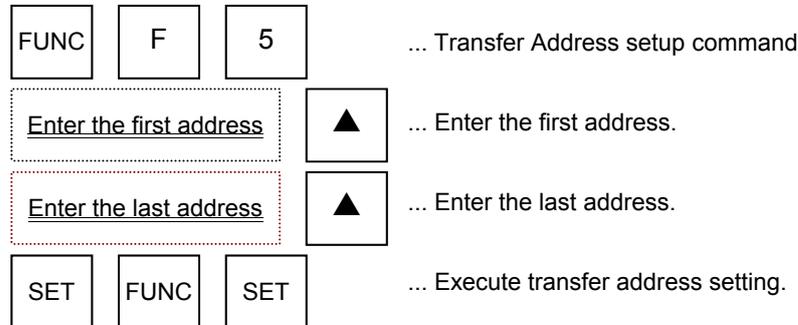
K	E	Y	:	D	A	T	1	2	8	K	.	B	I	N					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(KEY file is displayed with "KEY" at top.)

5.2.5 Set Transfer Address (Function F5)

This command sets up the buffer memory range for loading and saving an object file. For object files with Intel HEX or Motorola S format, which contain address descriptions, the settings become disabled when loading the files.

[NETIMPRESS next Operation]



NTOES: NETIMPRESS display during address settings.

F	x	n	n																
				/	x	x	x	x	/										
F	F	5	/	B	U	F	F	E	R	A	R	E	A						
F	-	A	D	D	R	/				F	E	0	0	0	0				

-F-ADDR ... First address
-L-ADDR ... Last address

(Shaded section shows the selected item.)

Operation Example:

Set the first address to "FE0000" and the last address to "FFFFFF".

[NETIMPRESS next Operation]

Key Operations



Transfer Address setup command

[NETIMPRESS next Display]

LCD Display (Whole)

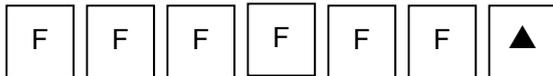
F	x	n	n	n													
				/	x	x	x	x	/								
F	F	5	/	B	U	F	F	E	R	A	R	E	A				
F	-	A	D	D	R	/		F	C	0	0	0	0				



Enter the first address.



(Check that "F-ADDR" (first address) is displayed.)



Enter the last address.



(Check that "L-ADDR" (last address) is displayed.)



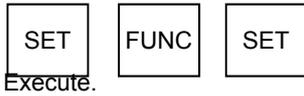
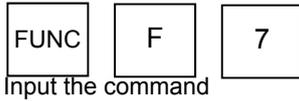
Execute setting transfer address.

5.2.6 Delete All Files (Function F7)

Deletes all object files in the root directory of the Compact Flash regardless of their file extensions.

[NETIMPRESS next Operation]

Key Operations



All files are deleted

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	F	7	/	A	L	L		D	E	L	E	T	E						



The above message appears when executing the command.

- OK → SET
- NG → RESET

5.2.7 Quick Format (Function FA)

Executes formatting the Compact Flash.

When formatting with this command, a file system is same as the one before formatting.

[NETIMPRESS next Operation]

Key Operations



Quick format command



Set.



The Compact Flash is formatted.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	F	A	/	Q	U	I	C	K	F	O	R	M	A	T					

3rd line

Q	U	I	C	K	F	O	R	M	A	T	?
---	---	---	---	---	---	---	---	---	---	---	---

The above message appears when executing the command.

OK → SET

NG → RESET

5.2.8 Regular Format (Function FC)

Selects a file system and executes formatting the Compact Flash.

A file system that can be selected is either FAT16 or FAT32.

Also, you can check a currently formatted file system by executing this command. For details, see the operation example below.

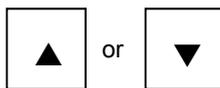
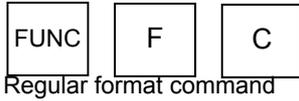
FUNC	F	C	: Regular format command
▲	▼		: Selects a file system to format (FAT16 or FAT32)
SET	FUNC	SET	: Executes the regular format.
SET	or	RESET	: Press the SET key to format, or press the RESET key to cancel formatting.

Operation Example:

The following is an operation example to format the Compact Flash changing its current file system FA16 to FA32.

[NETIMPRESS next Operation]

Key Operations



Select a file system to format.



Set



Executes the formatting.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	F	C	/	C	F	_	F	O	R	M	A	T							
F	A	T	1	6			F	O	R	M	A	T							



A file system currently formatted is displayed. If it is formatted with FAT32, it is displayed as "FAT32 FORMAT".

4th line

F	A	T	3	2		F	O	R	M	A	T								
---	---	---	---	---	--	---	---	---	---	---	---	--	--	--	--	--	--	--	--

Switches FAT16→FAT32→FAT16 using the ▲▼ keys.

3rd line

	F	A	T	3	2		F	O	R	M	A	T	?						
--	---	---	---	---	---	--	---	---	---	---	---	---	---	--	--	--	--	--	--

A file system selected with the ▲▼ keys is displayed.

5.3 Editing Buffer Memory

5.3.1 Edit (Modify Buffer Memory Data)

Searches for data of the specified buffer memory address to edit them.

[NETIMPRESS next Operation]

Enter the address SET ... Enter the address.

Enter the modified data SET ... Modify buffer memory.

Operation Example:

Modify the data of the buffer address "FE0000" to "00".

[NETIMPRESS next Key Operations]

F E 0 0 0 0 SET
 Enter the address "FE0000".

[NETIMPRESS next Display]

F	x	n	n	n													
			/	x	x	x	x	/									
/			F	E	0	0	0	0	/	F	F	/					

0 0 SET
 Modify buffer memory to "00".

3rd line / F E 0 0 0 0 / 0 0 /
 (When changed, it moves to next address.)

* Buffer memory

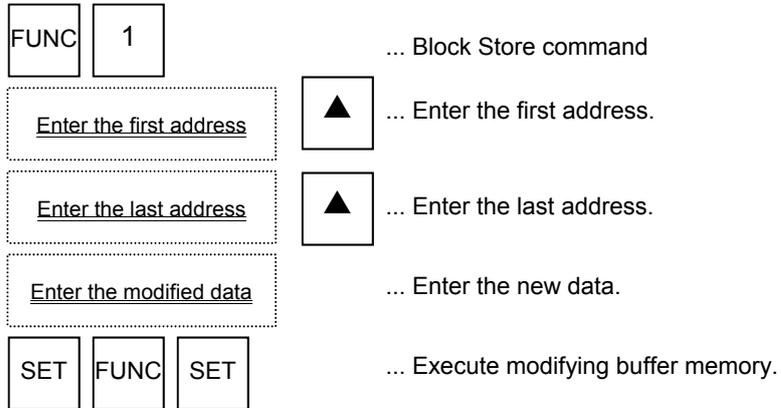
This is a place to store the data to program the MCU.

By loading an object file on to the buffer memory, it is converted into binary data and stored. Even if the power of NETIMPRESS next is turned off, the buffer memory data is preserved because the buffer memory is on the Compact Flash.

5.3.2 Block Store (Modify Buffer Memory Data)

Fills the specified range of the buffer memory with the same specified data.

[NETIMPRESS next Operation]



NETIMPRESS next display during address and data entries.

F	x	n	n	n															
				/	x	x	x	x	/										
F	1	/	B	L	O	C	K	S	T	O	R	E							
F	-	A	D	D	R	/		F	E	0	0	0	0						

- F-ADDR ... First address
- L-ADDR ... Last address
- DATA ... New data

(Shaded section shows the selected item.)

Operation Example:

Modify data in the buffer memory addresses from "FE0000" to "FFFFFF" to "55".

[NETIMPRESS next Operation]

Key Operations

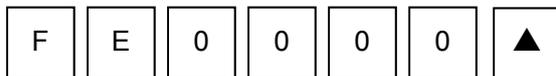


Block Store command

[NETIMPRESS next Display]

LCD Display (Whole)

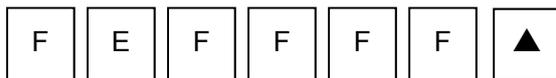
F	x	n	n	n															
					/	x	x	x	x	/									
F	1	/	B	L	O	C	K	S	T	O	R	E							
F	-	A	D	D	R	/					F	C	0	0	0	0			



Enter the first address.



(Check that "F-ADDR" (first address) is displayed.)



Enter the last address.



(Check that "L-ADDR" (last address) is displayed.)



Enter the new data.



(Check that "-DATA" (data) is displayed.)

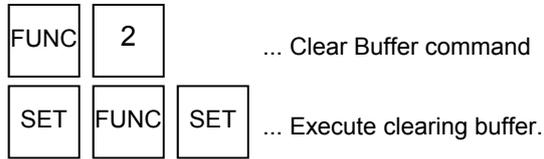


Execute modifying buffer memory.

5.3.3 Clear Buffer (Initialize Buffer Memory)

Initializes the buffer memory which corresponds to the flash memory area (displayed by [FUNC D6]).

[NETIMPRESS next Operation]



* Initialization

The buffer memory data when initialized varies depending on the control module and it will be "00" or "FF". ((For information about the data contents, see your control module manual.)

5.3.4 Modified Bit Search (Search Modified Data)

Searches for and displays the addresses of the modified buffer memory data, which correspond to the flash memory area (displayed by Function D6).

[NETIMPRESS next Operation]

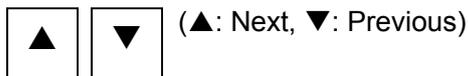
Key Operations



Modified Bit Search command



Execute searching.



Display the searched addresses.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	3	/	M	-	B	I	T	S	E	A	R	C	H						

3rd line

M	-	B	I	T	S	E	A	R	C	H	.	.	.						
---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--

When modified data is found,

3rd line

M	-	B	I	T	S	E	A	R	C	H									
	M	/			F	E	0	0	0	/	1	1							

4th line

(Displays the address for modified data.)

When modified data is not found,

3rd line

4th line

(Nothing is displayed.)

5.3.5 Display Sum Value (Function 93)

Displays a sum value of the object file loaded on to the buffer memory. The following two types of sum values will be displayed:

F0: Sum value of an area to execute the device functions set up using Function 0.

FF5: Sum value of the buffer memory area set up using Function F5.

[NETIMPRESS next Operation]

Key Operations



Sum Value Display command



Execute displaying the sum value.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	9	3	/	S	U	M		C	A	L	C						

3rd line

S	U	M		C	A	L	C	.	.	.							
---	---	---	--	---	---	---	---	---	---	---	--	--	--	--	--	--	--

3rd line

F	0			S	U	M	/									0	1
---	---	--	--	---	---	---	---	--	--	--	--	--	--	--	--	---	---

4th line

F	F	5		S	U	M	/									0	1
---	---	---	--	---	---	---	---	--	--	--	--	--	--	--	--	---	---

5.3.6 YSM File Check (Function 98)

Compares the YSM file contents and the buffer memory contents. For more information, see Chapter 7 "Sum Check Function".

[NETIMPRESS next Operation]

Key Operations



Display Sum Value command



Execute displaying sum value.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
F	9	8	/	Y	S	M	C	H	E	C	K								

3rd line

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3rd line

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Displayed when sum check is passed. If an error occurs, the error location will be displayed.

Error Display

- YSM NOT FOUND

Cause: Displayed when the YSM file is not found.

Action: Copy the YSM file on to the YIM folder.

- YSM FILE FORMAT ERROR

Cause: The YSM file has the wrong description or the file is corrupted.

Action: Check contents of the YSM file and describe in the correct format.

- YSM CHECK ERROR YSM/XX RAM/YY

Displayed during a check when sum values are different.

XX shows the sum value described in the YSM file, while YY shows the sum value for the buffer memory.

- YSM CHECK ERROR ADDRESS:ZZZZZZ

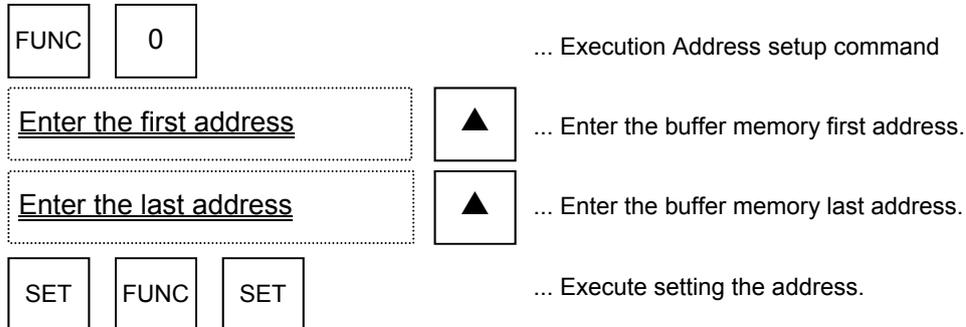
Displayed during a check when the data described in the YSM file and the buffer memory data are different. ZZZZZZ shows the address that has different data.

5.4 Parameter Settings

5.4.1 Setting Execution Address (Function 0)

Sets the target area to execute the device functions.

[NETIMPRESS next Operation]



NETIMPRESS display during address entry

F	x	n	n	n													
				/	x	x	x	x	/								
F	0	/	E	X	E	C	U	T	E		A	R	E	A			
F	-	A	D	D	R	/				F	E	0	0	0	0		

F-ADDR ... First address

L-ADDR ... Last address

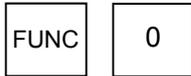
(Shaded section shows the selected item.)

Operation Example:

Set the first address to "FE0000" and the last address to "FFFFFF".

[NETIMPRESS next Operation]

Key Operations

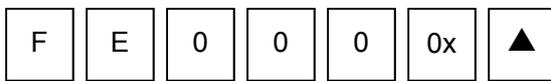


Execution Address setup command

[NETIMPRESS next Display]

LCD Display (Whole)

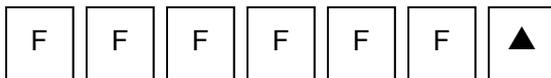
F	x	n	n	n															
				/	x	x	x	x	/										
F	0	/	E	X	E	C	U	T	E		A	R	E	A					
F	-	A	D	D	R	/					F	C	0	0	0	0			



Enter the first address.



(Check that "F-ADDR" (first address) is displayed.)



Enter the last address.



(Check that "L-ADDR" (last address) is displayed.)



Execute setting address to execute the device functions.

5.4.2 Communication Channel Setting (Function D1)

Sets the communication channel between NETIMPRESS next and a target system. You can select "UART" or "CSI" for the communication channel according to the MCU specifications.

[NETIMPRESS next Operation]

Key Operations



Communication Channel setup command



Select the channel.



Execute channel setting.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	D	1	/	T	G	T		I	T	F							
				S	C	I	/	C	S	I							

4th line				S	C	I	/	U	A	R	T						
4th line				S	C	I	/	C	S	I							

(Select UART or CSI using the up and down arrow keys.)

5.4.3 UART Baud Rate Setting (Function D2)

Sets the UART baud rate when the communication channel between NETIMPRESS next and a target system is UART. You can select "2400" to "2M" for the communication baud rate according to the MCU specifications.

[NETIMPRESS next Operation]

Key Operations



UART Baud Rate setup command



Select the baud rate.



Execute setting UART baud rate

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	D	2	/	U	A	R	T		B	A	U	D					
								2	4	0	0	b	p	s			

4th line

								x	x	x	x	b	p	s			
--	--	--	--	--	--	--	--	---	---	---	---	---	---	---	--	--	--

(Select UART baud rate using the up and down arrow keys.)

5.4.4 Set CSI Baud Rate (Function D9)

Sets the CSI baud rate when the communication channel between NETIMPRESS next and a target system is CSI. You can select "62.5K" to "10M" for the communication baud rate according to the MCU specifications.

[NETIMPRESS next Operation]

Key Operations



CSI Baud Rate setup command



Select the baud rate.



Execute setting CSI baud rate.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	D	9	/	C	S	I	B	A	U	D									
				6	2	5	K	b	p	s									

4th line

				x	x	x	x	K	b	p	s								
--	--	--	--	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

(Select the baud rate using the up and down arrow keys.)

5.4.6 Set MCU Mode (Function D4)

Sets up the MCU mode. This MCU mode setting command may not be supported depending on a type of MCUs. For further information, see your control module manual.

[NETIMPRESS next Operation]

Key Operations



MCU Mode setup command



Select the mode.

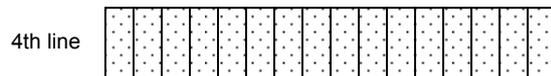


Execute MCU mode setting.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	D	4	/	T	G	T		M	O	D	E						



(Select the MCU mode using the up and down arrow keys.)

Note: Display contents may differ depending on a type of MCU.

5.4.8 Display Flash Memory Area (Function D6)

Displays the flash memory area of a target MCU.

Display:

F-ADDR: Shows the first address of the flash memory area.

L-ADDR: Shows the last address of the flash memory area.

[NETIMPRESS next Operation]

Key Operations



Flash Memory Area Display command



Execute.



Select the display item.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	D	6	/	F	L	A	S	H	A	D	D	R							

4th line

F	-	A	D	D	R	/	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(Displays the first address.)

4th line

L	-	A	D	D	R	/	0	0	0	0	7	F	F	F					
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(Displays the last address.)

5.4.9 Set Communication Channel (Function D7)

Selects the communication channel between NETIMPRESS next and a target system. This command is required when more than one channel is set up between NETIMPRESS next and a target system and you need to specify the number of the communication channel to use it.

[NETIMPRESS next Operation]

Key Operations



Communication Channel setup command



Select the communication channel.



Execute the communication channel setting.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	D	7	/	T	G	T		C	H	A	N	N	E	L			
													1				

4th line

																	2
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---

(Select the communication channel using the up and down arrow keys.)

5.4.10 Change Displayed Model Name (Function D8)

Changes a model name shown in the NETIMPRESS next display.

Up to 16 characters can be entered as a model name.

Note:

When entering on NETIMPRESS next, characters only from "0" to "9" and from "A" to "F" can be entered. By connecting with a PC and using the software that runs on a PC, you can enter any alpha-numeric characters.

[NETIMPRESS next Operation]

Key Operations



Displayed Model Name Change command



Move the cursor with the ▲ and ▼ keys.



Execute changing the displayed model name.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n											
			/	x	x	x	x	/							
F	D	8	/	M	C	U	T	Y	P	E					
F	H	8	1	9											

4th line

A	B	C	1	2	3	4									
---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

(Pressing either the up or down key moves the cursor.)

5.4.11 Set Data Format (Function 5)

Sets the data format and length per record that will be used for data transfer from NETIMPRESS next to a PC. Intel HEX and Motorola S formats are supported.

Enter "50" for the Intel HEX format and "60" for the Motorola S format.

NETIMPRESS next display during setting.

F	x	n	n	n															
				/	x	x	x	x	/										
F	5	/	D	A	T	A	F	O	R	M	A	T							
							5	0	/	-	F	/							

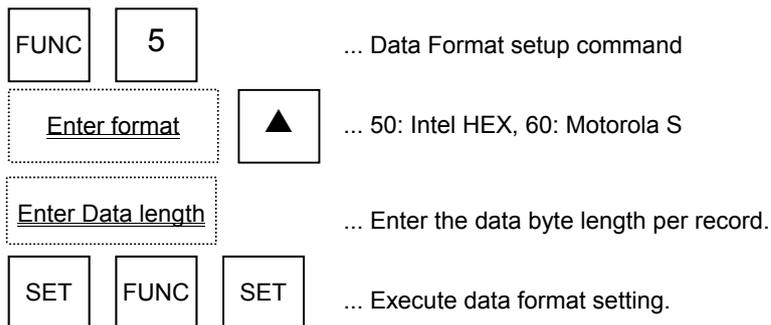
-F ... Format setting

-L ... Data byte length per record setting

(Enter in hexadecimal.)

(Shaded section shows the selected item.)

[NETIMPRESS next Operation]

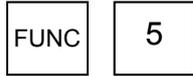


Operation Example:

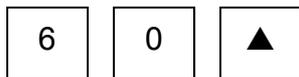
Set the record length to 16-byte and the format to Motorola S format.

[NETIMPRESS next Operation]

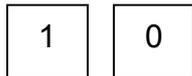
Key Operations



Data Format setup command



Select the Motorola S format.



Enter the record byte length (16-byte) in hexadecimal.

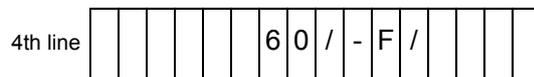


Execute data format setting.

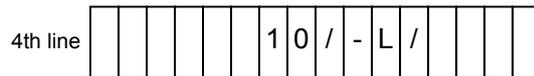
[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	5	/	D	A	T	A		F	O	R	M	A	T				
							5	0	/	-	F	/					



(Check that "-F" (first address) is displayed.)



(Check that "-L" (last address) is displayed.)

5.4.13 View Version Info (Function 94)

Displays the versions of NETIMPRESS next main unit and the control module.

HARD VER: Version of NETIMPRESS next hardware

HARD VER2: Version of NETIMPRESS next hardware 2

SOFT VER: Version of NETIMPRESS next system software

CM VER: Version of the control module

CM NAME: Name of the control module

xxxxMxx: Version of Micom Pack

[NETIMPRESS next Operation]

Key Operations



Version Display command



Execute the command.



Change the display item.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	9	4	/	V	E	R	S	I	O	N									

4th line

H	A	R	D	V	E	R					4	0	0	0
---	---	---	---	---	---	---	--	--	--	--	---	---	---	---

(Displays the version of the NETIMPRESS next hardware.)

4th line

H	A	R	D	2	V	E	R					4	0	2	0
---	---	---	---	---	---	---	---	--	--	--	--	---	---	---	---

4th line

S	O	F	T	V	E	R						1	3	0	0
---	---	---	---	---	---	---	--	--	--	--	--	---	---	---	---

(Displays the version of the system software.)

4th line

C	M	V	E	R								1	2	0	0
---	---	---	---	---	--	--	--	--	--	--	--	---	---	---	---

(Displays the version on the Control Module.)

4th line

C	M	N	A	M	E							F	H	8	1	9		
---	---	---	---	---	---	--	--	--	--	--	--	---	---	---	---	---	--	--

(Displays the name of the control module.)

4th line

F	H	8	1	9	M	0	0							1	2	0	0
---	---	---	---	---	---	---	---	--	--	--	--	--	--	---	---	---	---

(Displays the version of the Micom Pack.)

5.4.14 Verify Mode Switching (Function 99)

Toggles the verify mode. NETIMPRESS next has two verify modes.

FULL READ VERIFY: Compares the programmed data in the MCU with the buffer memory data.

SUM READ VERIFY: Compares the sum values received from the MCU with the sum values of the buffer memory.

Note:

This mode may not be supported depending on a type of the control module. In such case, it is fixed to FULL READ VERIFY.

[NETIMPRESS next Operation]

Key Operations



Verify Mode Switchover command



Select SUM or FULL.



Execute Read Mode toggling.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n											
			/	x	x	x	x	/							
F	9	9	/	V	E	R	I	F	Y	M	O	D	E		
				S	U	M		V	E	R	I	F	Y		

4th line				F	U	L	L	V	E	R	I	F	Y		
4th line				S	U	M		V	E	R	I	F	Y		

5.4.15 Set Buffer Memory Initial Mode

Switches between keeping and clearing of contents of the buffer memory when starting up NETIMPRESS next.

[NETIMPRESS next Operation]

Key Operations



Set Buffer Memory Initial Mode command



Select KEEP or CLEAR.



Execute.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n											
			/	x	x	x	x	/							
F	9	A	/	B	U	F	F	E	R		I	N	I	T	
B	U	F	F	E	R		R	A	M		K	E	E	P	

4th line

B	U	F	F	E	R		R	A	M		C	L	E	A	R
---	---	---	---	---	---	--	---	---	---	--	---	---	---	---	---

4th line

B	U	F	F	E	R		R	A	M		K	E	E	P	
---	---	---	---	---	---	--	---	---	---	--	---	---	---	---	--

5.4.16 View License (Function 9B)

Displays the license that can be downloaded using the definition program download function of the control module.

[NETIMPRESS next Operation]

Key Operations



View License command



Execute.



Change the display contents.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

(Example: Control module has two licenses, "FH817" and "FH819".)

F	x	n	n	n													
				/	x	x	x	x	/								
F	9	B	/	L	I	C	E	N	C	E							

4th line

L	0	1	/	0	2				F	H	8	1	9				
---	---	---	---	---	---	--	--	--	---	---	---	---	---	--	--	--	--

4th line

L	0	2	/	0	2				F	H	8	1	7				
---	---	---	---	---	---	--	--	--	---	---	---	---	---	--	--	--	--

5.4.17 SUM Value Mode Switching (Function 9C)

You can set up a SUM value calculation or display method as described below.

Calculation method: 8-bit addition or 16-bit addition

Display method: 8-bit display or 16-bit display

[NETIMPRESS next Operation]

Key Operations



Display the calculation/display methods.



Change the setting.



Execute.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	9	C	/	S	U	M		M	O	D	E						
C	A	L	C		8		/	D	I	S	P		8				

4th line

C	A	L	C		1	6	/	D	I	S	P		1	6			
---	---	---	---	--	---	---	---	---	---	---	---	--	---	---	--	--	--

(16-bit addition, 16-bit display)

4th line

C	A	L	C		8		/	D	I	S	P		1	6			
---	---	---	---	--	---	--	---	---	---	---	---	--	---	---	--	--	--

(16-bit addition, 16-bit display)

4th line

C	A	L	C		8		/	D	I	S	P		8				
---	---	---	---	--	---	--	---	---	---	---	---	--	---	--	--	--	--

(8-bit addition, 8-bit display)

5.4.18 ADDRESS WARNING On/Off for File Loading (Function 9E)

If data having address data other than the flash memory area of the target microcomputer is loaded when loading a file into the buffer memory of the control module, the error message, "ADDRESS WARNING", is displayed.

By using this command, you can select whether to do the address check. "ADDRESS WARNING" message will be displayed when the address check is failed.

ADDRESS WARNING ON → Address is checked.

ADDRESS WARNING OFF → Address is not checked.

[NETIMPRESS next Operation]

Key Operations



ADDRESS WARNING display



Change the setting.



Execute.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	9	E	/	A	D	D	R		W	A	R	N	I	N	G		
A	D	D	R		W	A	R	N	I	G		O	N				

4th line

A	D	D	R		W	A	R	N	I	G		O	F	F			
---	---	---	---	--	---	---	---	---	---	---	--	---	---	---	--	--	--

(Address is not checked.)

4th line

A	D	D	R		W	A	R	N	I	G		O	N				
---	---	---	---	--	---	---	---	---	---	---	--	---	---	--	--	--	--

(Address is checked.)

5.4.19 ADDRESS WARNING On/Off for Startup (Function 9F)

When NETIMPRESS next is started up or when the YIM folder is selected., it checks the data in the Compact Flash. At this time, if the address range set up with [FUNC 0] or [FUNC F 5] is different from the flash memory area of the target microcomputer set up with [FUNC D 6], the error message, "ADDRESS WARNING", is displayed. And, you can set up either to display "ADDRESS WARNING" or not to display.

By using this command, you can select whether to do the address check. "ADDRESS WARNING" message will be displayed when the address check is failed.

ADDRESS WARNING ON → Address is checked.

ADDRESS WARNING OFF → Address is not checked.

[NETIMPRESS next Operation]

Key Operations



ADDRESS WARNING display



Change the setting.



Execute.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	9	F	/	A	D	D	R	W	A	R	N	I	N	G			
A	D	D	R	W	A	R	N	I	G	O	N						

4th line

A	D	D	R	W	A	R	N	I	G	O	F	F					
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--

(Address is not checked.)

4th line

A	D	D	R	W	A	R	N	I	G	O	N						
---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--

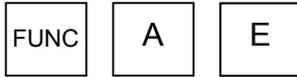
(Address is checked.)

5.4.20 View Serial No. (Function AE)

Displays the serial number of the control module.

[NETIMPRESS next Operation]

Key Operations



View Serial No. command



Execute.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	A	E	/	S	-	N	U	M									

4th line

S	-	N	U	M	:	X	X	X	X	X	X	X	X	F	R
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

(Serial No. is displayed.)

5.4.21 Add License (Function AF)

Adds a license, which can be downloaded using the definition program download function of the control module.

Only one YLC file, which is provided when purchasing the definition program, must be placed in the root directory of the Compact Flash.

[NETIMPRESS next Operation]

Key Operations



Add License command



Execute.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	A	F	/	A	D	D	L	I	C	E	N	S	E						

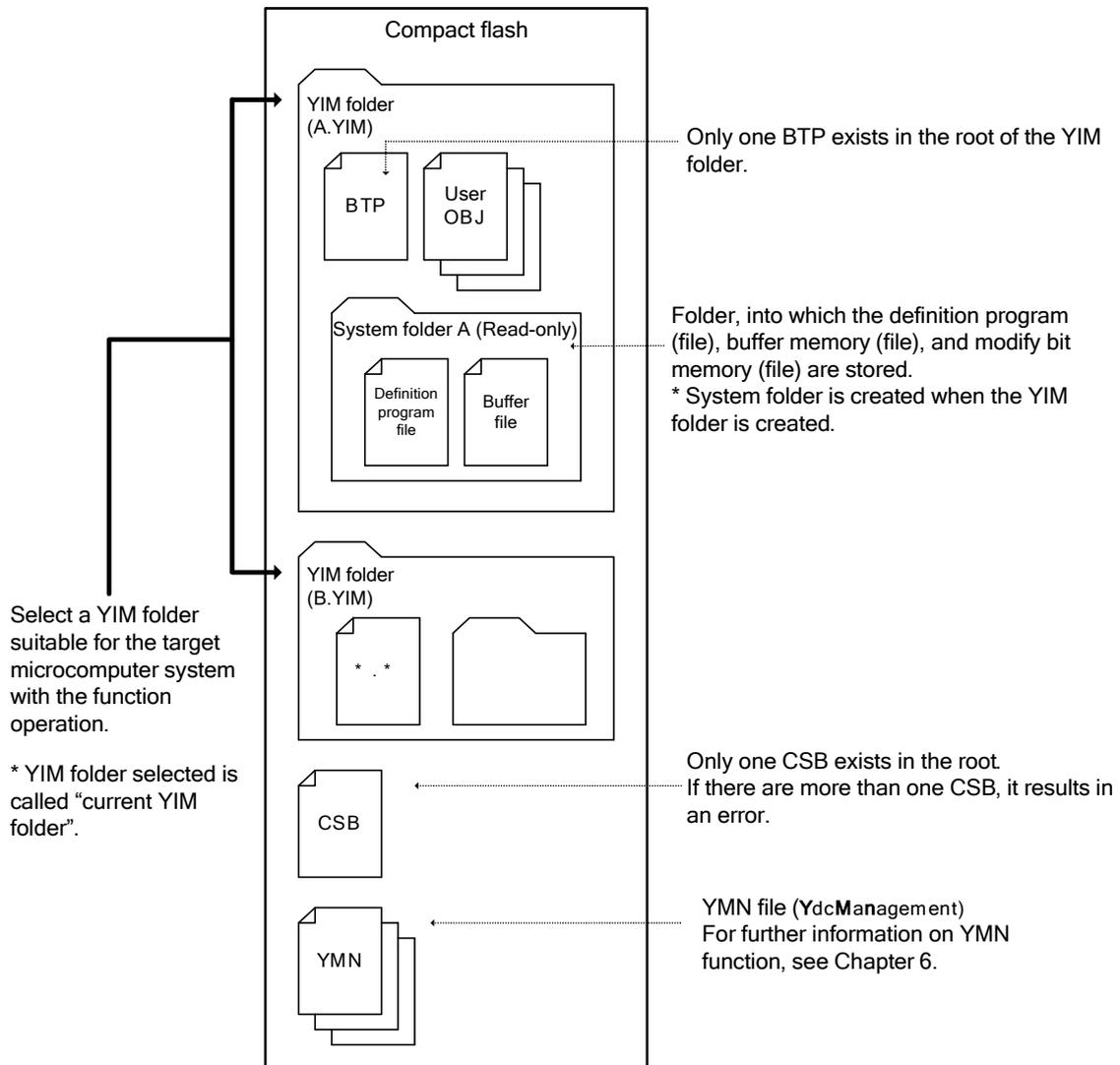
* If any of the following error messages appears, the license cannot be added.

If this happens, check the contents of the root in the Compact Flash once again.

- "YLC NOT FOUND": YLC file does not exist in the root directory of the Compact Flash.

5.5 Overview/Operation of the Control Module

The following schematic diagram describes the overview of the control module.



<<Major functions of YIM folder>>

- Extension of the YIM folder is .YIM.
- The YIM folder is switched between A and B with a function to achieve smooth setup and changes so as to fit a target microcomputer system.
- To prevent incorrect operation, the YIM folder has the protect function. With this protect function, the YIM folder is made to read-only, disabling various downloading and parameter change functions.

* Note for YIM folder:

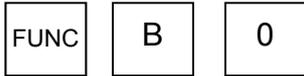
Only one BTP file exists in the YIM folder.

5.5.1 Select YIM Folder (Function B0)

Changes the YIM folder placed in the root directory of the Compact Flash according to a target microcomputer to program.

[NETIMPRESS only Operation]

Key Operations



Select YIM Folder command



Select a YIM folder to be changed.



Check the selection.



Set the selection.

[NETIMPRESS only Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	B	0	/	Y	I	M	S	E	T										
A	.	y	i	m															

“A.YIM” becomes a desired YIM folder name located in the root of the Compact Flash.

4th line

B	.	y	i	m															
---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3rd line

C	H	A	N	G	E	Y	I	M	?										
---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--

5.5.2 Create YIM Folder (Function B1)

Creates a new YIM folder in the root directory of the Compact Flash.

The following two folders are to create:

- (1) System folder (empty folder)
- (2) YIM folder (A system folder of the above (1) is stored in this folder.)

[NETIMPRESS next Operation]

Key Operations



Create YIM Folder command

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	B	1	/	Y	I	M		M	A	K	E						
0	0	0	.	Y	I	M											



Check a folder being created.

3rd line

M	A	K	E		Y	I	M		?								
---	---	---	---	--	---	---	---	--	---	--	--	--	--	--	--	--	--



Execute

* A name sequentially incremented from "000" in the order existing in the root directory of the Compact Flash is put on a newly created YIM folder.

5.5.3 Delete YIM Folder (Function B2)

Deletes the YIM folder located in the root directory of the Compact Flash.

[NETIMPRESS next Operation]

Key Operations



Delete YIM Folder command



Select a YIM folder you want to delete.



Check the delete operation.



Set the delete operation.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	B	2	/	Y	I	M		D	E	L	E	T	E				
A	.	Y	I	M													

4th line

B	.	Y	I	M													
---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--

3rd line

				D	E	L	E	T	E		Y	I	M		?		
--	--	--	--	---	---	---	---	---	---	--	---	---	---	--	---	--	--

5.5.4 Copy YIM Folder (Function B3)

Makes a copy of the currently selected YIM folder (current YIM folder) in the root directory of the Compact Flash.

The files to be copied are as follows:

- BTP file
- Object file (a file created by a user)
- System folder (Read-only folder provided by DTS INSIGHT CORPORATION)
 - Definition program
 - Buffer file

[NETIMPRESS next Operation]

Key Operations



Copy YIM Folder command



Check the copy operation.



Set the copy operation.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	B	3	/	Y	I	M		C	O	P	Y						
0	0	0	.	Y	I	M											

3rd line

C	O	P	Y		Y	I	M		?								
---	---	---	---	--	---	---	---	--	---	--	--	--	--	--	--	--	--

* A name sequentially incremented from "000" in the order existing in the DOS area is put on a copied YIM folder.

5.5.5 Protect Current YIM Folder (Function B4)

To avoid improper operation, the currently selected YIM folder (current YIM folder) is protected to prevent any file from being downloaded or parameters from being changed.

[NETIMPRESS next Operation]

Key Operations



Protect Current YIM Folder command



Set the protect.



Check the setting.



Set the protect.

- PROTECT: Sets the protect.
- UNPROTECT: Cancels the protect.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n											
				/	x	x	x	x	/						
F	B	4	/	Y	I	M	P	R	O	T	E	C	T		
				U	N	P	R	O	T	E	C	T			

4th line

				P	R	O	T	E	C	T					
--	--	--	--	---	---	---	---	---	---	---	--	--	--	--	--

3rd line

	P	R	O	T	E	C	T	Y	I	M	?				
--	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--

5.5.6 Retain Current YIM Folder (Function B5)

The current YIM folder is not selected right after NETIMPRESS next has been started up.

If you want to retain the data of the current YIM folder even after NETIMPRESS next has been powered OFF, such data can be retained using this command.

However, the data you can retain is only the data in the current YIMI folder immediately before NETIMPRESS next is powered OFF.

[NETIMPRESS next Operation]

Key Operations



Retain the Current YIM Folder command



Set data save.



Set.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	B	5	/	Y	I	M	S	A	V	E	S	E	T				
							N	O	T	S	A	V	E				

4th line

							S	A	V	E							
--	--	--	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--

5.5.7 View Current YIM Folder (Function B6)

Displays the currently selected YIM folder (current YIM folder).

[NETIMPRESS next Operation]

Key Operations



View Current YIM Folder command



Display the current YIM folder name.



Display completed.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	B	6	/	C	U	R	R	E	N	T	Y	I	M				

4th line

A	.	Y	I	M													
---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--

5.5.8 Set Current YMN File (Function BC)

Sets a YMN file you want to execute.

[NETIMPRESS next Operation]

Key Operations



Set Current YMN File command



Select a YMN file you want to execute.



Set.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	B	C	/	Y	M	N	S	E	T										
T	E	S	T	.	Y	M	N												

* A desired YMN file name can be used.

4th line

T	E	S	T	2	.	Y	M	N											
---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--

* A desired YMN file name can be used.

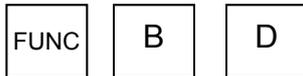
* For further information on YMN file, see Chapter 6 "Command Sequence Function".

5.5.9 Execute Current YMN File (Function BD)

Executes the YMN file you have selected in Section 5.5.8 “Set Current YMN File (Function BC)”.

[NETIMPRESS next Operation]

Key Operations



Execute YMN File command

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
			/	x	x	x	x	/									
F	B	D	/	Y	M	N	E	X	E	C	U	T	E				



Execute.

* For further information on YMN file, see Chapter 6 “Command Sequence Function”.

5.6 Ethernet Settings

5.6.1 IP Address/Port Setting (Function E2)

Sets the IP address and port number for NETIMPRESS next.

[NETIMPRESS next Operation]

FUNC	E	2	... IP Address/Port setup command
▲	▼		... Sets the IP address and port number.
SET	FUNC	SET	... Execute IP address/port setting.

Operation Example:

Set the IP address to "192.0.0.1" and port number to "1100".

[NETIMPRESS next Operation]

Key Operations



IP Address/Port setup command



Set "192" (IP address).



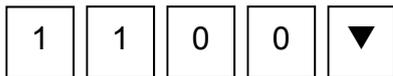
Set "0" (IP address).



Set "0" (IP address).



Set "1" (IP address).



Set "1100" (port number).



Execute IP address/port setting.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
					/	x	x	x	x	/							
F	E	2	/	I	P	A	D	D	R	E	S	S					
1	9	2	.	1	6	8	.			0	.			0			

4th line

1	9	2	.	1	6	8	.			0	.			0			
---	---	---	---	---	---	---	---	--	--	---	---	--	--	---	--	--	--

4th line

1	9	2	.							0	.			0			
---	---	---	---	--	--	--	--	--	--	---	---	--	--	---	--	--	--

4th line

1	9	2	.							0	.			0	.		
---	---	---	---	--	--	--	--	--	--	---	---	--	--	---	---	--	--

4th line

1	9	2	.							0	.			0	.		1
---	---	---	---	--	--	--	--	--	--	---	---	--	--	---	---	--	---

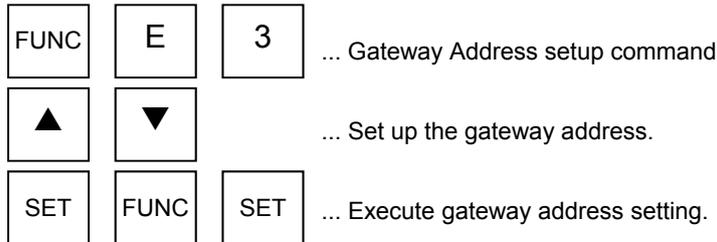
F	x	n	n	n														
					/	x	x	x	x	/								
F	E	2	/	P	O	R	T											
														1	1	0	0	h

5.6.2 Gateway Address Setting (Function E3)

Sets the default gateway address of NETIMPRESS next.

Set the gateway address when you want to access NETIMPRESS next from different network or from the same network using routers. If NETIMPRESS next and a PC are on the same network, set up the gateway address to "0.0.0.0".

[NETIMPRESS next Operation]

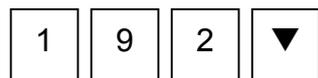
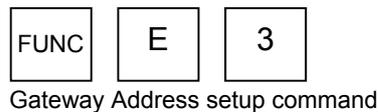


Operation Example:

Set up the gateway address to "192.0.0.254".

[NETIMPRESS next Operation]

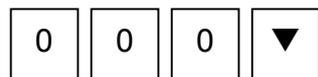
Key Operations



Set "192" (gateway address).



Set "0" (gateway address).



Set "0" (gateway address).



Set "254" (gateway address).

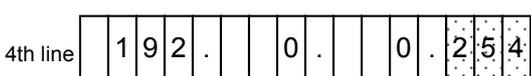
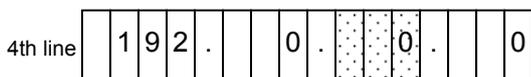
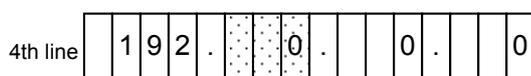
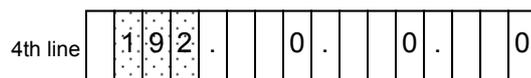


Execute gateway address setting.

[NETIMPRESS next Display]

LCD Display (Whole)

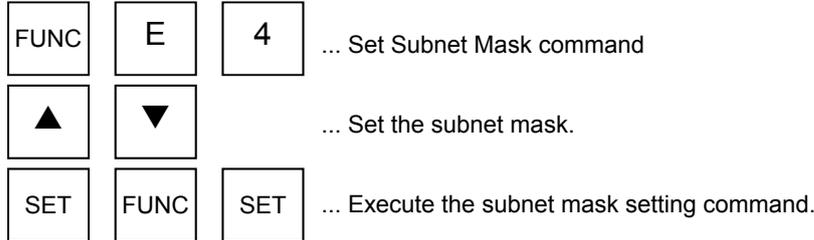
F	x	n	n	n															
				/	x	x	x	x	/										
F	E	3	/	G	A	T	E		W	A	Y								
		0	.			0	.			0	.			0	.			0	



5.6.3 Subnet Mask Setting (Function E4)

Sets up the subnet mask of NETIMPRESS next.

[NETIMPRESS next Operation]

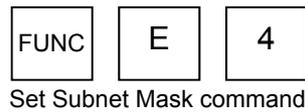


Operation Example:

Change the subnet mask to "255.255.255.0".

[NETIMPRESS next Operation]

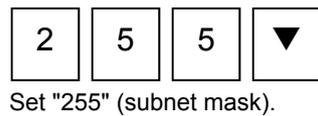
Key Operations



[NETIMPRESS next Display]

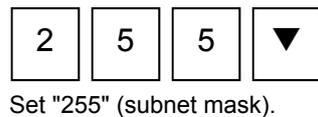
LCD Display (Whole)

F	x	n	n	n													
				/	x	x	x	x	/								
F	E	4	/	S	U	B	N	E	T	M	A	S	K				
		0	.		0	.		0	.		0	.		0			



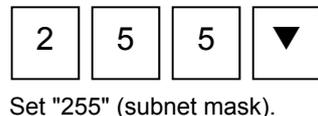
4th line

2	5	5	.		0	.		0	.		0	.					
---	---	---	---	--	---	---	--	---	---	--	---	---	--	--	--	--	--



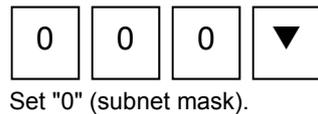
4th line

2	5	5	.	2	5	5	.		0	.		0	.				
---	---	---	---	---	---	---	---	--	---	---	--	---	---	--	--	--	--



4th line

2	5	5	.	2	5	5	.	2	5	5	.			0	.		
---	---	---	---	---	---	---	---	---	---	---	---	--	--	---	---	--	--



4th line

2	5	5	.	2	5	5	.	2	5	5	.					0	.
---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	---	---



Execute the subnet mask setting command.

5.6.4 Communication Speed/Communication Mode Setting (Function E8)

Sets up Ethernet communication speed and communication mode.

This setting is required to fix Ethernet communication speed (10M/A00Mbps) and communication mode (Full/Half Duplex) or to set to auto-negotiation.

When you want to automatically set up the communication speed and communication mode, set to "AUTO NEGOTIATION".

[NETIMPRESS next Operation]

FUNC	E	8	... Communication speed and communication mode setup command
▲	▼		... Set the communication speed and communication mode.
SET	FUNC	SET	... Execute the Communication speed and communication mode setup command.

Operation Example:

Change the communication speed to 100Mbps, and the communication speed to Half Duplex.

[NETIMPRESS next Operation]

Key Operations

FUNC	E	8
------	---	---

Communication speed & mode setup command

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
				/	x	x	x	x	/										
F	E	8	/	E	T	H	E	R	T	Y	P	E							
A	U	T	O	.	N	E	G	O	T	I	A	T	I	O	N				

▲	▼
---	---

Set "100M HALF DUPLEX".

SET	FUNC	SET
-----	------	-----

Execute the communication speed & mode setup command.

4th line

1	0	0	M		H	A	L	F		D	U	P	L	E	X				
---	---	---	---	--	---	---	---	---	--	---	---	---	---	---	---	--	--	--	--

5.7 Device Functions

This section explains about the device functions.

The table below lists the device functions available with NETIMPRESS next.

Command	Command contents	Command key
Copy	Reads data from the flash memory to the buffer memory and performs read check.	"DEV", "8"
Blank Check	Checks if the flash memory is erased before programming.	"DEV", "9"
Erase	Erases the flash memory and performs blank check.	"DEV", "C"
Program	Programs the flash memory and performs read check.	"DEV", "D"
Read Check	Compares the flash memory and the buffer memory.	"DEV", "E"
E.P.R.	Executes the Erase, Blank Check, Program, and Read Check commands sequentially.	"DEV", "F"

* Not all features of the device functions may be supported depending on a type of MCUs. Check with your control module manual.

CAUTION:

"HV" is displayed in the upper left corner of NETIMPRESS next display while executing the device functions. This indicates that the programming voltage is being applied to a target system through the probe. To power off a user system and attach or remove the probe, press the RESET key on NETIMPRESS next and make sure that "HV" is no longer displayed first.

5.7.1 Copy

Copies the contents of flash memory area inside the MCU to buffer memory of NETIMPRESS next. After copying, this command compares the imported contents of the buffer memory with the flash memory contents. Note that the current file is deleted when executing the Copy command.

If the contents are copied successfully and they are found matching, "PASS" will be displayed. If not, the error addresses will be displayed. The copy command is executed within the range where the device functions are executed (FUNC 0).

[NETIMPRESS next Operation]

Key Operations



Copy command



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
D	/	C	O	P	Y														
F	-	A	D	D	R	/													

3rd line

C	O	P	Y	.	.	.													
---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--

(Copy is being executed.)

F	x	n	n	n															
					/	x	x	x	x	/									
	P	A	S	S	P	/	n	n	n	n	n	n	n	n	n	n	n	n	n
					R	/	m	m	m	m	m	m	m	m	m	m	m	m	m

(COPY command is completed.)

nnnnnnn: Sum calculation value of buffer memory data

mmmmmmm: Sum calculation result value of read data

5.7.2 Blank Check

Checks that the flash memory area of the MCU has been erased. If the flash memory contents have been erased, "PASS" will be displayed. If not, the address of the bits that have not been erased or the top address of the erased block including that address will be displayed. The Blank Check command is executed within the range where the device functions are executed (FUNC 0).

[NETIMPRESS next Operation]

Key Operations

DEV	9
-----	---

Blank Check command

SET	DEV	SET
-----	-----	-----

Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
D	/	B	L	A	N	K													
F	-	A	D	D	R	/													

3rd line

B	L	A	N	K	.	.	.												
---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--

(Blank check is being executed.)

F	x	n	n	n															
					/	x	x	x	x	/									
					P	A	S	S	P	/	n	n	n	n	n	n	n	n	n
									R	/	m	m	m	m	m	m	m	m	m

(BLANK command is completed.)

nnnnnnn: Sum calculation value of buffer memory data

mmmmmmm: Sum calculation result value of read data

5.7.3 Erase

Erases the contents of the flash memory inside the MCU. After erasing, this command performs a blank check and verifies erasing has been successful. If erasing has been successful, then "PASS" will be displayed. If not, the error address will be displayed. The Erase command is executed within the range where the device functions are executed (FUNC 0).

[NETIMPRESS next Operation]

Key Operations



Erase command



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
D	/	E	R	A	S	E													
F	-	A	D	D	R	/													

3rd line

E	R	A	S	E	.	.	.												
---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--

(Erase is being executed.)

F	x	n	n	n															
					/	x	x	x	x	/									
P	A	S	S		P	/	n	n	n	n	n	n	n	n	n	n	n	n	n
					R	/	m	m	m	m	m	m	m	m	m	m	m	m	m

(ERASE command is completed.)

nnnnnnn: Sum calculation value of buffer memory data

mmmmmmm: Sum calculation result value of read data

5.7.4 Program

Writes the contents of buffer memory of NETIMPRESS next to flash memory area inside the MCU. Then, this command compares the flash memory contents with the buffer memory contents. If writing is performed successfully and the buffer memory contents match with the MCU flash memory contents, "PASS" will be displayed. If not, the error address on the buffer memory will be displayed. The Program command is executed within the range where the device functions are executed (FUNC 0).

[NETIMPRESS next Operation]

Key Operations



Program command



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n																
					/	x	x	x	x	/										
D	/	P	R	G	M															
F	-	A	D	D	R	/														

3rd line

P	R	O	G	R	A	M	.	.	.											
---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--

(Program is being written.)

3rd line

S	U	M		C	H	E	C	K	.	.	.									
---	---	---	--	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

(Display when sum-verify is selected: Sum check is running.)

3rd line

R	E	A	D		C	H	E	C	K	.	.	.								
---	---	---	---	--	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

(Display when full-verify is selected: Read check is running.)

F	x	n	n	n																
					/	x	x	x	x	/										
					P	A	S	S		P	/	n	n	n	n	n	n	n	n	n
										R	/	m	m	m	m	m	m	m	m	m

(PROGRAM command is completed.)

nnnnnnnn: Sum calculation value of buffer memory data

mmmmmmmm: Sum calculation result value of read data

5.7.5 Read Check

Compares flash memory contents of the MCU with buffer memory contents of NETIMPRESS next. If the data matches, "PASS" will be displayed. If not, the error address or the top address of the erased block including that address will be displayed. The Read command is executed within the range where the device functions are executed (FUNC 0).

[NETIMPRESS next Operation]

Key Operations



Read Check command



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
D	/	R	E	A	D														
F	-	A	D	D	R	/													

3rd line

R	E	A	D	C	H	E	C	K	.	.	.								
---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

(Display when full-verify is selected: Read check is running.)

F	x	n	n	n															
					/	x	x	x	x	/									
					P	A	S	S	P	/	n	n	n	n	n	n	n	n	n
									R	/	m	m	m	m	m	m	m	m	m

(PROGRAM command is completed.)

nnnnnnnn: Sum calculation value of buffer memory data

mmmmmmmm: Sum calculation result value of read data

5.7.6 E.P.R.

Writes to the internal flash memory area inside the MCU. This command executes the Erase, Blank Check, Program, and Read Verify commands sequentially. If the E.P.R. command is completed successfully, "PASS" will be displayed. If not, the error message will be displayed. The E.P.R. command is executed within the range where the device functions are executed (FUNC 0).

You can set the verify mode by FUNC99.

Note:

There may be the commands not available depending on a type of the control modules. For further information, see your control module manual.

[NETIMPRESS next Operation]

Key Operations



E.P.R. command



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
					/	x	x	x	x	/									
D	/	P	R	G	M														
F	-	A	D	D	R	/													

3rd line

E	R	A	S	E	.	.	.												
---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--

(Erase is being executed.)

3rd line

P	R	O	G	R	A	M	.	.	.										
---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--

(Program is being written.)

3rd line

S	U	M	C	H	E	C	K	.	.	.									
---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

(Display when sum-verify is selected: Sum check is running.)

3rd line

R	E	A	D	C	H	E	C	K	.	.	.								
---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

(Display when full-verify is selected: Read check is running.)

F	x	n	n	n															
					/	x	x	x	x	/									
P	A	S	S	P	/	n	n	n	n	n	n	n	n	n	n	n	n	n	n
				R	/	m	m	m	m	m	m	m	m	m	m	m	m	m	m

(E.P.R. command is completed.)

nnnnnnnn: Sum calculation value of buffer memory data

mmmmmmmm: Sum calculation result value of read data

5.8 Log Operation

5.8.1 Set Log Mode (Function CA0)

Sets the mode to get the execution log of NETIMPRESS next.

There are the following 3 modes:

- Not get the log (LOG OFF)
- Brief log mode (LOG ON (DEV))
- FULL log mode (LOG ON (ALL))

[NETIMPRESS next Operation]

Key Operations



Input the command



Select

[NETIMPRESS next Display]

LCD Display (Whole)

4th line

4th line

4th line



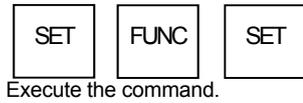
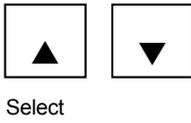
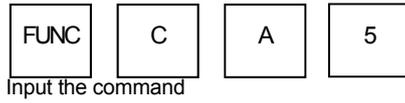
Execute the command.

5.8.2 Delete the Log (Function CA5)

Deletes the selected log file.

[NETIMPRESS next Operation]

Key Operations



[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n															
		/	x	x	x	x	/												
F	C	A	5	/	L	O	G		D	E	L	E	T	E					
L	O	G	_	X	X	X	X	X	X	X	X	X	X						

4th line

L	O	G	_	X	X	X	X	X	X	X	X	X							
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--

4th line

L	O	G	_	X	X	X	X	X	X	X	X	X							
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--

4th line

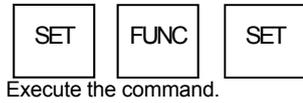
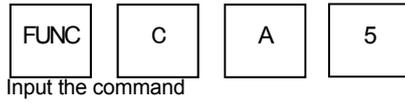
L	O	G	_	X	X	X	X	X	X	X	X	X							
---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--

5.8.3 Delete the All Log (Function CA0)

Deletes the all log files

[NETIMPRESS next Operation]

Key Operations



[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
		/	x	x	x	x	/										
F	C	A	6	/	L	O	G		A	L	L		D	E	L		

5.8.4 Set Log Deletion (Function CA8)

Sets the duration of retention of log file.

The log files whose retention duration is expired are automatically deleted.

There are the following 4 settings:

- Not delete the log (NOT DELETE)
- Retain the log for 1 month (1 MONTH)
- Retain the log for 3 months (3 MONTH)
- Retain the log for 6 months (6 MONTH)

[NETIMPRESS next Operation]

Key Operations



Input the command



Select



Execute the command.

[NETIMPRESS next Display]

LCD Display (Whole)

F	x	n	n	n													
		/	x	x	x	x	/										
F	C	A	8														
1		M	O	N	T	H											

4th line

3		M	O	N	T	H											
---	--	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--

4th line

6		M	O	N	T	H											
---	--	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--

4th line

N	O	T		D	E	L	E	T	E								
---	---	---	--	---	---	---	---	---	---	--	--	--	--	--	--	--	--

5.9 I/F Setting

5.9.1 Set Cable Selection (Function CD0)

Selects the serial/CAN I/F of NETIMPRESS next.

There are the following 3 settings:

- Auto selection (CABLE SELECT)
- Priority: Serial (TARGET PROBE 1)
- Priority: CAN (TARGET PROBE 2)

Auto selection (CABLE SELECT) is set as a default.

5.9.2 Set the Input Filter Value of Digital Input (Function CD1)

Sets the filtering time of digital I/O input.

Settable range: 1 to 256 (ms)

10 [ms] is set as a default.

5.10 Restrictions

This section describes the restrictions on files and folders inside the Compact Flash.

(1) Length of a file and folder name

The maximum length of a file and folder name is 128 characters.

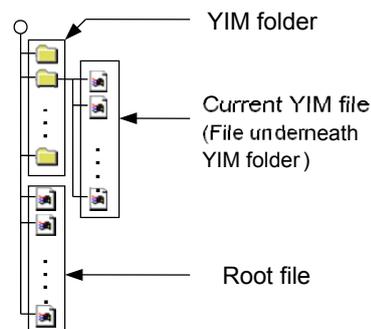
(2) Characters not allowed for a file and folder name

The characters listed in the table below cannot be used in a file and folder name.

%	¥	/	:	*	(space)
?	<	>		"	

(3) Number of files and YIM folder in the Compact Flash

The figure below illustrates the structure of YIM folder and files.



The table below lists the maximum number of files and YIM folders you can have in the Compact Flash.

	YIM Folder	Current YIM File	Root File
FAT16 (1 to 8 characters)	511	511	511
(9 to 13 characters)	255	255	255
(14 to 26 characters)	169	169	169
(27 to 39 characters)	127	127	127
FAT32	2048	2048	2048

Notes:

- The maximum number of files and folders you can have in the Compact Flash varies according to a file system (FAT16/FAT32).
- With FAT16, the maximum number of files and folders you can have in the Compact Flash varies according to the number of characters including extension.

6 Command Sequence Function

6.1 EXE Key

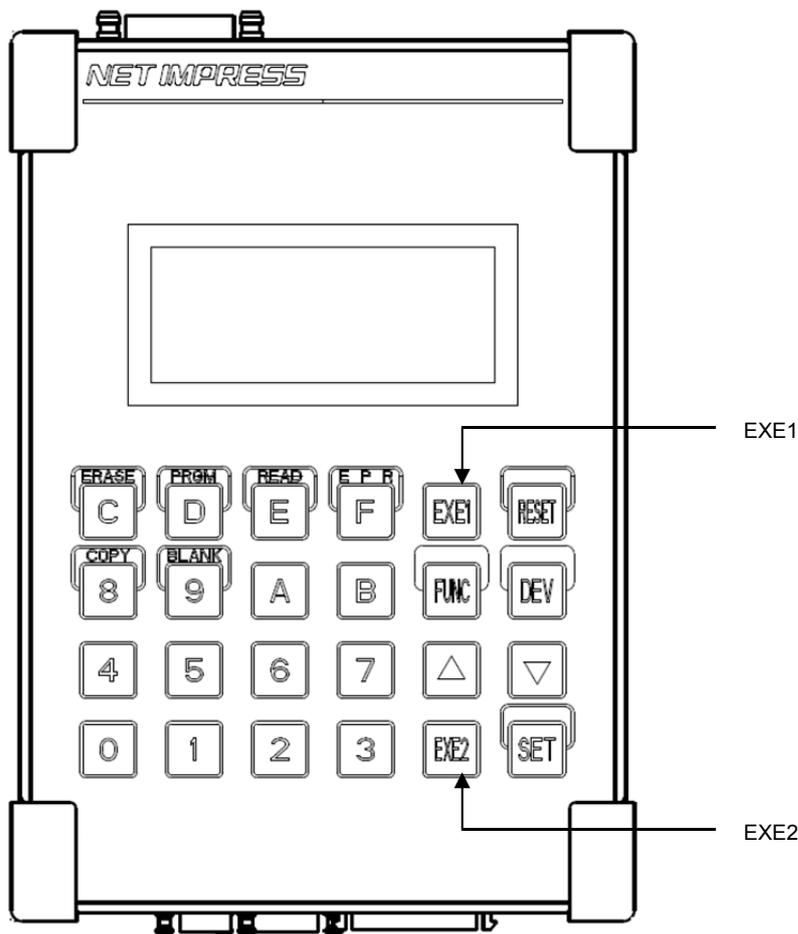
6.1.1 Function Overview

The control modules that support the EXE key function can execute the device functions with one touch key entry. The two keys shown in the figure below, [EXE1] and [EXE2], can be assigned for one touch entry.

The usual key operation to execute the device functions:



will not be necessary and [EXE1] and [EXE2] can be used to execute the device functions in one touch entry.



6.1.2 EXE Key Setting

6.1.2.1 Command Sequence File (*.CSB)

You can set up EXE key using the command sequence file (extension: CSB). Only one CSB file can exist in the root directory of the control module.

6.1.2.2 Command Sequence File (*.CSB) Format

The command sequence file is a text file and stores the information of the device functions (command sequence) to assign to the EXE keys.

L	K	1	,	CNT1	CNT2	,	C1	,	C2	,	...	,	C16	;	Comment
L	K	2	,	CNT1	CNT2	,	C1	,	C2	,	...	,	C16	;	Comment

- ① Key No. code (3 bytes)
LK1: EXE1/ LK2: EXE2
- ② ‘,’ (1 byte)
Shows the command delimiter.
- ③ CNT1 and CNT2 (2 bytes)
Shows the number of device commands.
Decimal notation (after “09” is “10”)
Maximum: “16”
For unused keys, use “00”.
- ④ Cn
Device commands ...See Table 1 in Section 6.3.
- ⑤ ‘;’ (1 byte)
Shows the comment delimiter.
- ⑥ Comment (any number of bytes + CRLF)
Describes the comment.

- Example of creating CSB file (Text file)-(Test.csb)

```

LK1, 01, DF;E.P.R
LK2, 01, DD;Program
    
```

6.1.2.3 Error Messages

Messages, causes and actions are as shown below:

(1) CSB NOT FOUND

Cause: This error will occur when a command sequence file is not found in the root directory, or multiple command sequence files are found in the directory, or the command sequence file has the wrong format.

Action: Check that there is only one command sequence file in the root directory and that it has the proper format.

(2) OAK1 ASSIGN ERR/ OAK2 ASSIGN ERR

Cause: This error will occur when the settings information in the command sequence file has any inconsistencies (undefined device commands, unmatched number of device commands, or others).

Action: Correct the setting information in the command sequence file.

6.2 YMN File

6.2.1 Function Overview

This YMN file is a file to register the command sequence.

With the following function operations, you can execute the commands set up in the YMN file.



Select a YMN file you want to execute. (For further information, see Section 5.5.8 “Set Current YMN File (Function BC)”.)



Execute the YMN file you have selected with [FUNC BC]. (For further information, see Section 5.5.9 “Execute Current YMN File (Function BD)”.)

* Differences compared to CSB file

(1) Starting operation

CSB: Operation is started with the EXE key.

YMN: Operation is started with [FUNC BD].

(2) Selecting a file

CSB: Only one CSB file existing in the root of the Compact Flash is executed.

YMN: YMN file you have selected with [FUNC D8] is executed.

(Multiple YMN files can exist in the root of the Compact Flash.)

(3) Maximum number of commands

CSB: 16 commands

YMN: 100 commands

(4) File format

CSB: See Section 6.1.2.2 “Command Sequence File (*.CSB) Format”.

YMN: See Section 6.2.2 “Format of Command Sequence File (*.YMN)”.

6.2.2 Format of Command Sequence File (*.YMN)

The YMN file is a text file to describe function commands you want to execute.

The following describes the YMN file formatting rules.

Formatting rules

- For commands (key definitions) to be registered, use the same commands as those of the CSB file.
- Describe one command on one line.
- End each line with "CRLF".
- One line consists of 256 bytes including "CRLF" (only "LF" is also permitted).
- Blank line can be used.
- Space and tab can be used between the command and comment.
- Character strings after "/" are determined as comments.

- Example of YMN file creation (text file)-

```
// TEST1. YMN
FB0(A. yim)      // Change to the YIM folder A.
DF              // Write into the target A (E.P.R).

FB0(B. yim)      // Change to the YIM folder B.
DF              // Write into the target B (E.P.R).
```

6.3 Definitions of Device Command

The table below lists the command definitions when creating CSB file and YMN file.

Table 1. Key definitions

Cn	Description
F0(XXXXXXXX□YYYYYYYY)	Device function area setting (XXXXXXXX: First address, YYYYYYYY: Last address) *1
F1(XXXXXXXX□YYYYYYYY□ZZ)	Block store (XXXXXXXX: First address, YYYYYYYY: Last address, ZZ: Data) *2
F2	Buffer memory clear
FF1(XXXXXXXX. XXX)	File load (XXXXXXXX. XXX: Load file name) *3
FF5(XXXXXXXX□YYYYYYYY)	Transfer address setting (XXXXXXXX: First address, YYYYYYYY: Last address) *1
D9	Blank (Device function)
DC	Erase (Device function)
DD	Program (Device function)
DE	Read (Device function)
DF	E. P. R (Device function)
FB0(XXXXXXXX. YIM)	Changing of current YIM folder (xxx.YIM) (XXXXXXXX. YIM: YIM folder name) *4
FBD(XXXXXXXX. YMN)	Execution of current YMN file (XXXXXXXX. YMN: YMN file name to be executed.) *5

*1 These settings can be omitted. When omitted, the address becomes the entire flash ROM area.

*2 These settings can be omitted. When omitted, the address becomes the entire flash ROM area and the data becomes "00".

*3 This setting cannot be omitted.

*4 This setting can be omitted. When omitted, YIM folder in the Compact Flash is searched for.

*5 This setting can be omitted. When omitted, the YMN file, which is selected with [FUNC] [B] [C], is executed.

7 Sum Check Function

7.1 Sum Check Overview

This function is used to check the sum values and data at specified addresses at each execution of the device functions. As this check is performed for each execution of the device functions, it is possible to prevent incorrect object data from being written.

7.2 Sum Check Function Settings

7.2.1 YSM Files (*.YSM)

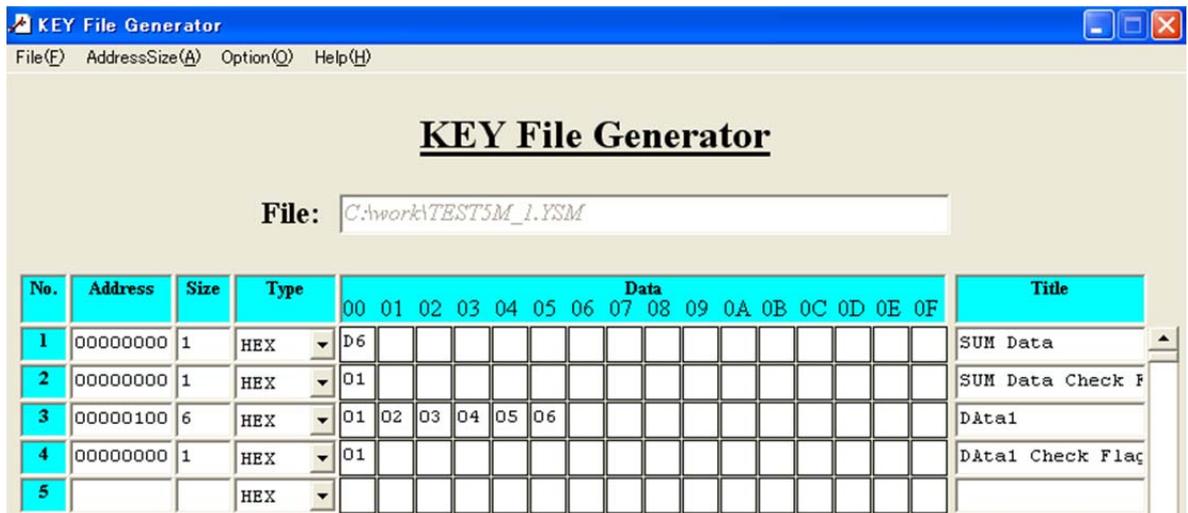
The YSM file (extension: YSM) is used to set up the sum check function.

If the YSM file (example: abc.YSM) having the same file name as that of the current file (example: abc.S) exists in the current YIM folder of the control module, the sum check function is executed.

Before executing the device functions, the YSM file data is compared with the buffer memory data. If it passes the check, then the device functions are executed. After the Read device function is executed, a sum value of YSM file and a sum value when the Read device function is executed are compared.

7.2.2 YSM File Format

The YSM file is in the Motorola S format. Use the AZ281 to create this file.



Line 1 SUM Data

Set a sum value for the object data.

Address: 00000000, Size: 1, Type: HEX

Data: Sum value of the object data

Line 2 SUM Data Check Flag

Set whether Line 1 will be checked or not.

Address: 00000000, Size: 1, Type: HEX

Data: Check (1), Not check (0)

Line 3 Data check (Data1): Direct comparison with the object data

Set the top address, size and data to compare.

Address: Data top address

Size: Data size

Type: HEX or ASCII

Data: Data

Line 4 Data1 Check Flag

Set whether Line 3 will be checked or not.

Address: 00000000, Size: 1, Type: HEX

Data: Check (1), Not check (0)

These file generated in the above example will be as follows. (Motorola S format file)

```

1 S30600000000D623 ← SUM Data
2 S306000000001F8 ← SUM Data Check Flag
3 S30B00000100010203040506DE ← Data1
4 S3060000000001F8 ← Data1 Check Flag
5 S70500000000FA
    
```

From line 3, you can add as many check data and check flag in a pair as you want up to 10 items.

8 Specifications

8.1 Operating Conditions

Ambient temperature: 5 to 40°C

Humidity: 20 to 80% (no condensation)

Power: Main unit DC input 12V, 2.5A or less

AC adapter input 100 to 240 VAC, 50/60Hz, 74VA

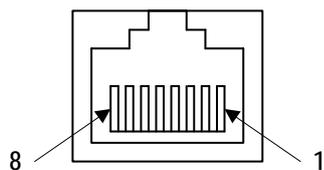
Physical dimensions: AF430: 160(L) x 110(W) x 45(H)

AF430/CAN: 160(L) x 110(W) x 55(H)

8.2 Ethernet Interface

8.2.1 Connector (Ethernet)

Connector pin arrangement (mate side view)



TM11R-5L-88 (HRS)

8.2.2 Signal Table

Pin No	Signal Name
1	TXD+
2	TXD-
3	RXD+
4	N.C.
5	N.C.
6	RXD-
7	N.C.
8	N.C.

8.3 Compact Flash Interface

8.3.1 Connector (Control Module)

Connector pin arrangement (mate side view)



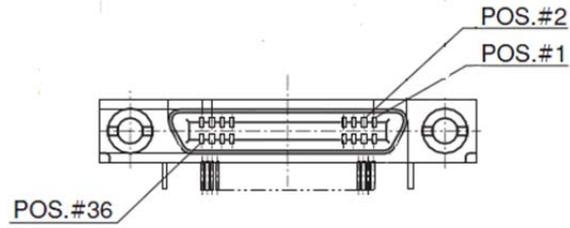
8.3.2 Signal Table

Pin No.	Signal Name	Pin No.	Signal Name
1	G N D	26	- C D 2
2	D 3	27	D 1 1
3	D 4	28	D 1 2
4	D 5	29	D 1 3
5	D 6	30	D 1 4
6	D 7	31	D 1 5
7	- C E 1	32	- C E 2
8	A 1 0	33	- V S 1
9	- O E	34	- I O R D
10	A 9	35	- I R W R
11	A 8	36	- W E
12	A 7	37	R D Y / - B S Y
13	V c c	38	V C C
14	A 6	39	- C S E L
15	A 5	40	- V S 2
16	A 4	41	R E S E T
17	A 3	42	- W A I T
18	A 2	43	- I N P A C K
19	A 1	44	- R E G
20	A 0	45	B V D 2
21	D 0	46	B V D 1
22	D 1	47	D 8
23	D 2	48	D 9
24	W P	49	D 1 0
25	- C D 1	50	G N D

8.4 Digital I/O Interface

8.4.1 Connector (DIO PROBE)

Connector pin arrangement (mate side view)

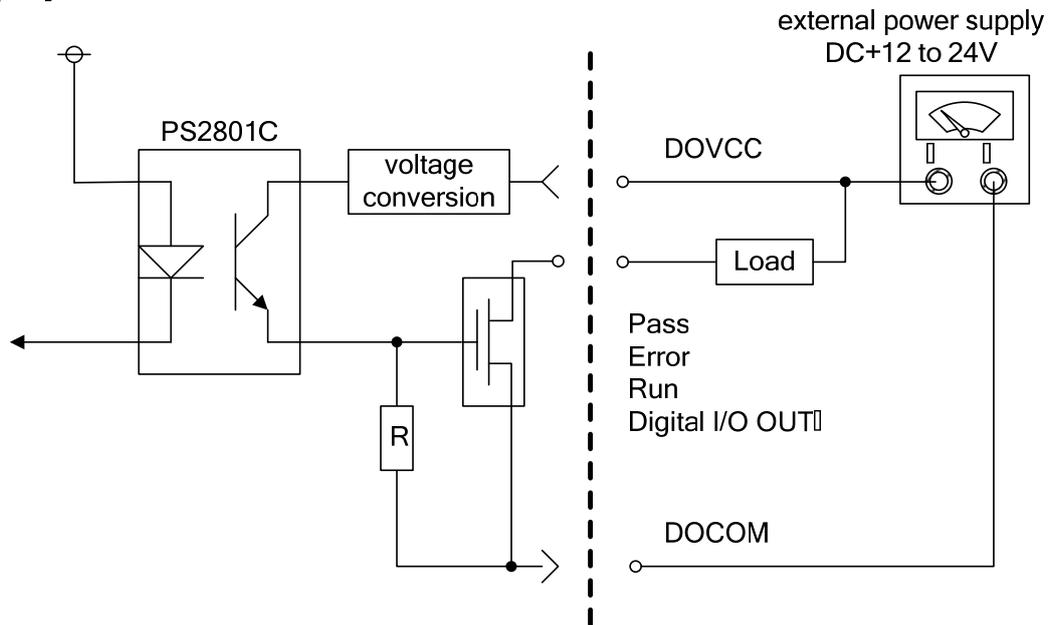


(HDRA-EA36LFDT-SLC+: HKT)

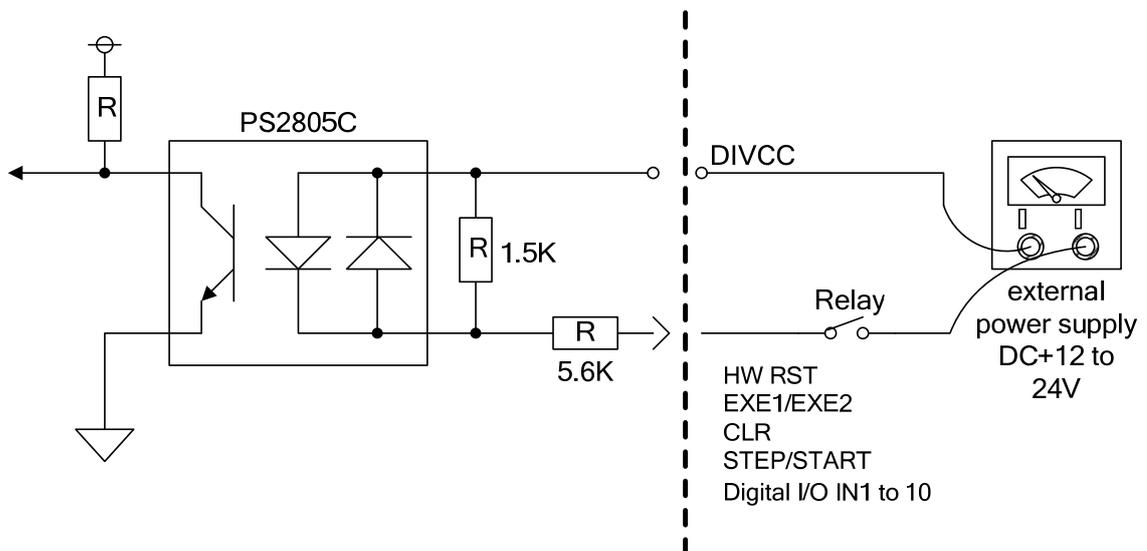
8.4.2 Signal Table

PIN No	Signal Name	definition	I/O	Type (*3)
1	DOCOM	Isolation ground for Digital I/O OUT0 to 4, Pass, Error, and Run	-	-
2	DOVCC	Power supply of overcurrent protection circuit	-	-
3	Pass	PASS status output signal Low: Normal end Hiz: Other than above	O	A
4	Error	ERROR status output signal Low: Abnormal end Hiz: Other than above	O	A
5	Run	Operation condition output signal Low: Writing or function execution is currently being executed Hiz: Other than above	O	A
6	Digital I/O OUT0	Digital I/O output signal0	O	A
7	Reserved		-	-
8	Reserved		-	-
9	Reserved		-	-
10	Digital I/O ST2	Script selection signal 2 (Digital I/O input)	I	B
11	Digital I/O ST3	Script selection signal 3 (Digital I/O input)	I	B
12	Digital I/O ST4	Script selection signal 4 (Digital I/O input)	I	B
13	Digital I/O IN0	Digital I/O input signal 0	I	B
14	Digital I/O IN1	Digital I/O input signal 1	I	B
15	Digital I/O IN2	Digital I/O input signal 2	I	B
16	Digital I/O IN3	Digital I/O input signal 3	I	B
17	Reserved		-	-
18	DIVCC	Isolation power switch for input	-	-
19	DOCOM	Isolation ground for Digital I/O OUT0 to 4, Pass, Error, and Run	-	-
20	DOVCC	Power supply of overcurrent protection circuit	-	-
21	Digital I/O OUT1	Digital I/O output signal 1	O	A
22	Digital I/O OUT2	Digital I/O output signal 2	O	A
23	Digital I/O OUT3	Digital I/O output signal 3	O	A
24	Digital I/O OUT4	Digital I/O output signal 4	O	A
25	Reserved		-	-
26	Reserved		-	-
27	DIVCC	Isolation power switch for input	I	B
28	Digital I/O IN4	Digital I/O input signal 4	I	B
29	EXE1	EXE1 KEY Pin	I	B
30	EXE2	EXE2 KEY Pin	I	B
31	CLR	RESET KEY Pin/ User clear signal	I	B
32	STEP	Step execution input signal	I	B
33	START	Script signal loading trigger input signal	I	B
34	Digital I/O ST0	Script selection signal 0 (Digital I/O input)	I	B
35	Digital I/O ST1	Script selection signal 1 (Digital I/O input)	I	B
36	DIVCC	Isolation power switch for input	-	-

[Type A]



[Type B]



[Connection of output signal]

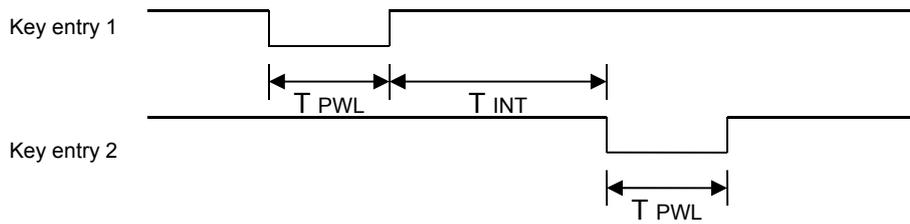
Use it by connecting to devices controlled by current drive, such as relay control or LED.

You can also use it by connecting to devices for current sink output like [Type B].

[Connection of input signal]

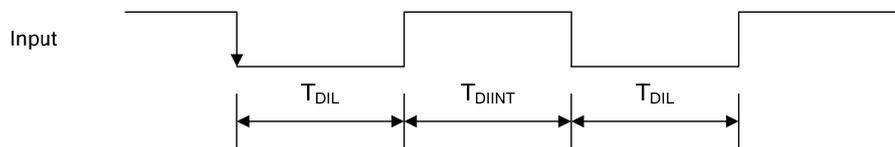
Use it by connecting to devices which can be controlled by current drive, like devices having a switch or transistor output.

8.4.3 Timing Specifications



	Minimum	Maximum
T_{PWL}	30ms	200ms
T_{INT}	30ms	∞

[Digital I/O Inx, Digital I/O STx, STEP, START]



	Minimum	Maximum
T_{DIL}	1ms to 256ms(*1)	∞
T_{DIINT}	1ms to 256ms(*1)	∞

(*1) Changeable by a filter setting

8.4.4 Electrical Characteristics

<Digital I/O output (Type A) >

Item	Specifications
Output	MOS FET output (sink type)
Common	8 points/common
Insulation	Photocoupler insulation
Rated load voltage	12-24V DC
Range of usable load voltage	10.2V to 26.4V DC
Max. load current	0.1A/point, 0.5A/Common
Operation at failure	Power off
External power supply	24V DC, 50mA
Range of the external power supply	10.2 to 26.4V DC

<Digital I/O input (Type B) >

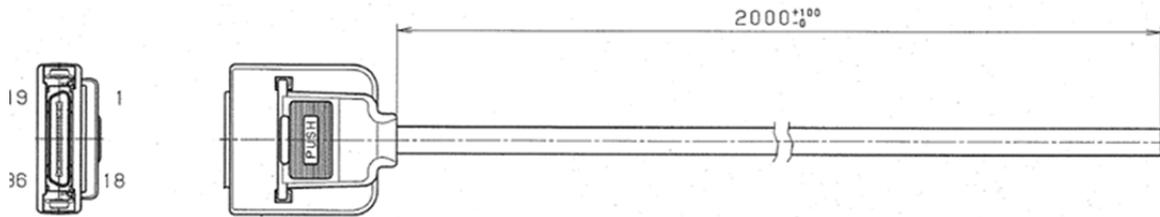
Item	Specifications	
Input	DC voltage(Plus common)	
Common	16 points/common	
Insulation	Photocoupler insulation	
Rated input voltage	12-24V DC	
Range of usable voltage	10.2 to 26.4V DC	
Rated input current	4.1mA/point (24V DC)	
Input impedance	5.9kΩ	
Operation voltage/current	ON	more than 8.0V DC/ more than 1.3mA
	OFF	less than 2.9V DC/ less than 0.3mA
Response time	OFF→ON	40us
	ON→OFF	500us
Input filter setting	1-256ms	

CAUTION

If you use NETIMPRESS next with noise sensitive devices, check the actual waveform. Please take adequate actions like shorten the cable or insert a noise filter if needed.

8.4.5 Digital I/O PROBE (AZ401)

You can customize the connector and wiring as you want.

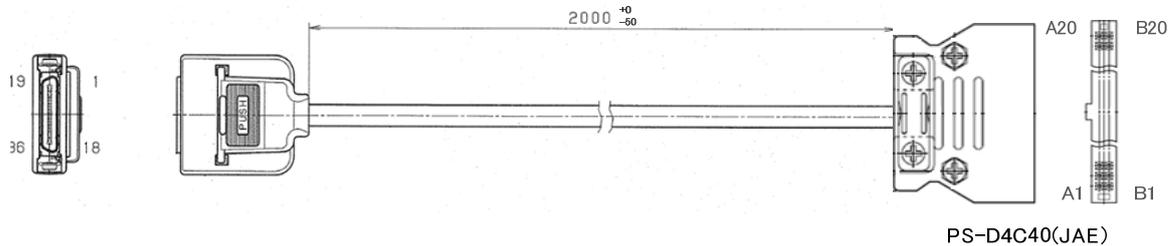


Target-side Wiring Specification

Pin No.	Pin No.		Signal Name
	Insulator color	Dot Mark	
1	Orange	Red 1 dot	DOCOM
2		Black 1 dot	DOVCC
3	Grey	Red 1 dot	Pass
4		Black 1 dot	Error
5	White	Red 1 dot	RUN
6		Black 1 dot	Digital I/O OUT0
7	Yellow	Red 1 dot	Rsv
8		Black 1 dot	Rsv
9	Pink	Red 1 dot	Rsv
10		Black 1 dot	Digital I/O ST2
11	Orange	Red 2 dots	Digital I/O ST3
12		Black 2 dots	Digital I/O ST4
13	Grey	Red 2 dots	Digital I/O IN0
14		Black 2 dots	Digital I/O IN1
15	White	Red 2 dots	Digital I/O IN2
16		Black 2 dots	Digital I/O IN3
17	Yellow	Red 2 dots	RSV
18		Black 2 dots	DIVCC
19	Pink	Red 2 dots	DOCOM
20		Black 2 dots	DOVCC
21	Orange	Red 3 dots	Digital I/O OUT1
22		Black 3 dots	Digital I/O OUT2
23	Grey	Red 3 dots	Digital I/O OUT3
24		Black 3 dots	Digital I/O OUT4
25	White	Red 3 dots	Rsv
26		Black 3 dots	Rsv
27	Yellow	Red 3 dots	DIVCC
28		Black 3 dots	Digital I/O IN4
29	Pink	Red 3 dots	EXE1
30		Black 3 dots	EXE2
31	Orange	Red 4 dots	CLR
32		Black 4 dots	STEP
33	Grey	Red 4 dots	START
34		Black 4 dots	Digital I/O ST0
35	White	Red 4 dots	Digital I/O ST1
36		Black 4 dots	DIVCC

8.4.6 Digital I/O PROBE (AZ403)

When you implement MIL standard conformity connector on the Digital I/O environment, you can use this probe.



NETIMPRESS-side

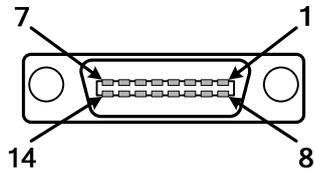
Pin No.	Signal Name
1	DOCOM
2	DOVCC
3	Pass
4	Error
5	RUN
6	Digital I/O OUT0
7	Rsv
8	Rsv
9	Rsv
10	Digital I/O ST2
11	Digital I/O ST3
12	Digital I/O ST4
13	Digital I/O IN0
14	Digital I/O IN1
15	Digital I/O IN2
16	Digital I/O IN3
17	RSV
18	DIVCC
19	DOCOM
20	DOVCC
21	Digital I/O OUT1
22	Digital I/O OUT2
23	Digital I/O OUT3
24	Digital I/O OUT4
25	Rsv
26	Rsv
27	DIVCC
28	Digital I/O IN4
29	EXE1
30	EXE2
31	CLR
32	STEP
33	START
34	Digital I/O ST0
35	Digital I/O ST1
36	DIVCC

Digital I/O System-side

Pin No.	Signal Name
A1	DOCOM
A2	DOVCC
A3	Pass
A4	Error
A5	RUN
A6	Digital I/O OUT0
A7	Rsv
A8	Rsv
A9	Rsv
A10	Digital I/O ST2
A11	Digital I/O ST3
A12	Digital I/O ST4
A13	Digital I/O IN0
A14	Digital I/O IN1
A15	Digital I/O IN2
A16	Digital I/O IN3
A17	RSV
A18	DIVCC
A19	DOCOM
A20	DOVCC
B1	Digital I/O OUT1
B2	Digital I/O OUT2
B3	Digital I/O OUT3
B4	Digital I/O OUT4
B5	Rsv
B6	Rsv
B7	DIVCC
B8	Digital I/O IN4
B9	EXE1
B10	EXE2
B11	CLR
B12	STEP
B13	START
B14	Digital I/O ST0
B15	Digital I/O ST1
B16	DIVCC
B17	n.c
B18	n.c
B19	n.c
B20	n.c

8.5 Bar-code reader Interface

8.5.1 Connector (BCR PROBE)



HDR-EC14LFDT1-SLM+
(Honda Tsushin Kogyo)

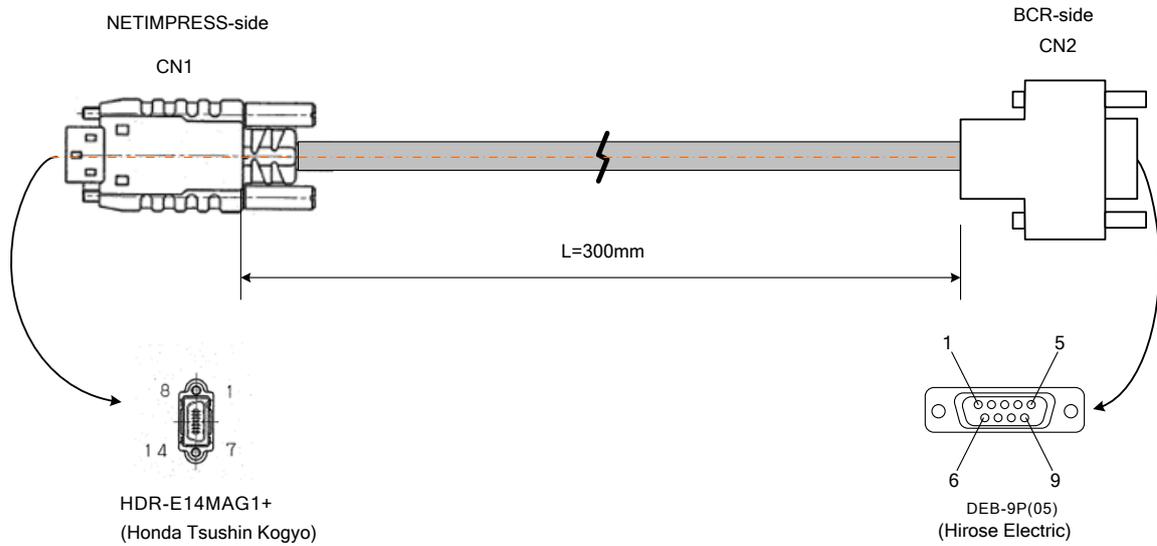
8.5.2 Signal Table

Pin No.	Signal Name	Definition	I/O
1	VCC	Output 5V (Max. 500mA for 1 and 6 pin together)	OUT
2	GND	GND	-
3	RSV	-	-
4	RSV	-	OUT
5	RXD	Receive input for communication	IN
6	VCC	Output 5V (Max. 500mA for 1 and 6 pin together)	OUT
7	RSV	-	-
8	RSV	-	-
9	RSV	-	-
10	NC	NC	-
11	NC	NC	-
12	NC	NC	-
13	GND	GND	-
14	GND	GND	-

8.5.3 Electrical Characteristics

Signal type	DC Characteristics	AC Characteristics
OUT	VOHmin : 5V VOLmax : -5V	slew rate: 30V/μ sec or less
IN	VIHmin:+3V VILmax:-3V	

8.5.4 BCR PROBE (AZ402)

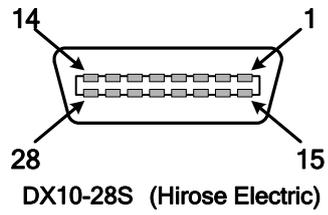


NETIMPRESS-side	
Pin. No	Signal name
1	VCC
8	RSV
2	GND
9	RSV
3	RSV
10	NC
4	RSV
11	NC
5	RXD
12	NC
6	VCC
13	GND
7	RSV
14	GND

BCR-side	
Pin. No	Signal name
1	NC
2	RXD
3	RSV
4	NC
5	GND
6	RSV
7	RSV
8	RSV
9	VCC

8.6 Target Interface

8.6.1 Connector (TARGET PROBE 1)



Connector pin arrangement (mate side view)

8.6.2 Signal Table

The table below shows the signals of the target interface connector.

Pin No.	Signal Name	Definition	Circuit Type
1	GND	Ground	-
2	TVccd	User system power input (or driver power for I/F when an optional adapter is installed)	1
3	Vcc	5 V output (max. 100 mA)	7
4	TRES	Positive logic reset output	3
5	/TRES	Negative logic reset output (Open collector output)	2
6	TCK	Clock output for synchronous communication	8
7	NC	Not connected	-
8	NC	Reserved	-
9	TAUX2	Output pin (Definition may vary depending the type of the Control Module)	3
10	/TICS		3
11	/TOE	Output pin (Definition may vary depending the type of the Control Module)	3
12	TMODE	Output pin (Definition may vary depending the type of the Control Module)	3
13	TTXD	Send output for communication (send and receive for two-way communication)	9
14	GND	Ground	-
15	GND	Ground	-
16	/TVpp1 EN	Voltage output control pin for the negative logic program	5
17	/TVpp2 EN	Voltage output control pin for the negative logic program	5
18	WDT	Watchdog timer output (Open collector output)	2
19	TAUX3	Input/output pin (Definition may vary depending the type of the Control Module)	4
20	TAUX4	Input/output pin (Definition may vary depending the type of the Control Module)	4
21	NC	Reserved	-
22	PROBE SELECT	Terminal for selecting the TARGET PROBE 1 or TARGET PROBE 2.	-
23	TAUX	Input/output pin (Definition may vary depending the type of the Control Module)	4
24	TBUSY	Busy input signal for synchronous communication	6
25	TIO	Input/output pin (Definition may vary depending the type of the Control Module)	6
26	TVccs	Not used (or user power monitor input when an optional adapter is installed)	1
27	TRXD	Receive data input pin	10
28	GND	Ground	-

NOTES:

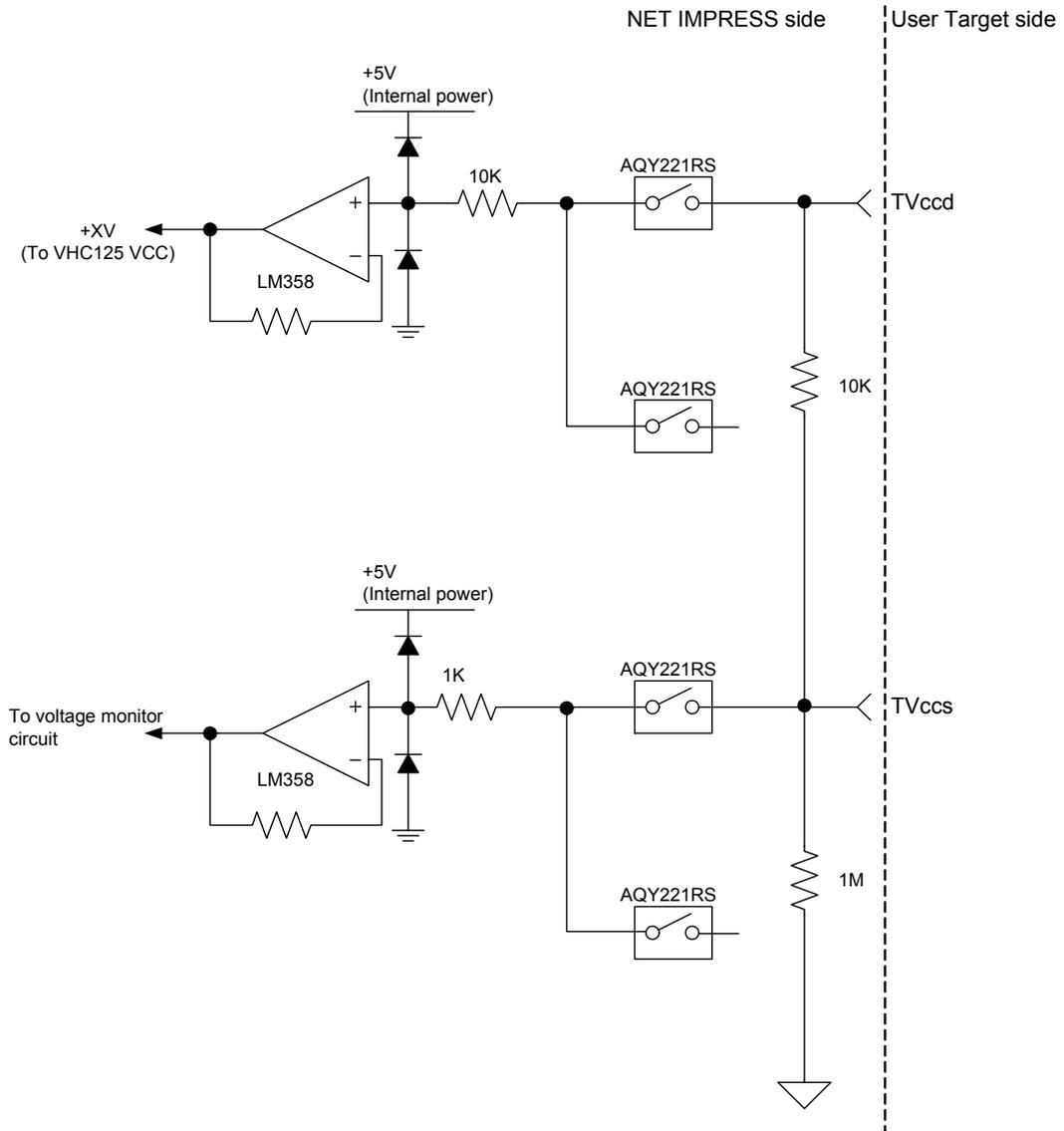
- (1) For input signals to a user system, it is recommended to attach pull-up resistors (about 10 K Ω) considering possible malfunction when NETIMPRESS next is not connected.
- (2) The definitions for the specific signal lines vary depending on the control modules. For more information, see the manual for your control module.
- (3) When you use /TICS, use pull-up resistors (about 10 K Ω).
- (4) A current limiter is provided.

The current limiter functions if a current over 200 mA flows for 1.6 ms or longer.

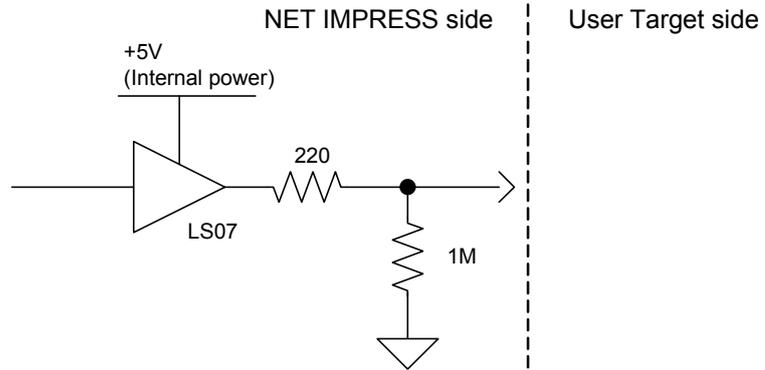
If a capacitor is connected to the Vpp line, use a capacitor satisfying the conditions above.

8.6.3 Interface Circuit Type

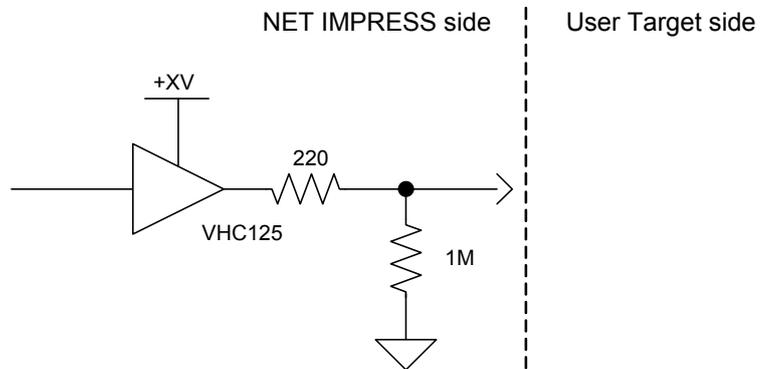
Type 1



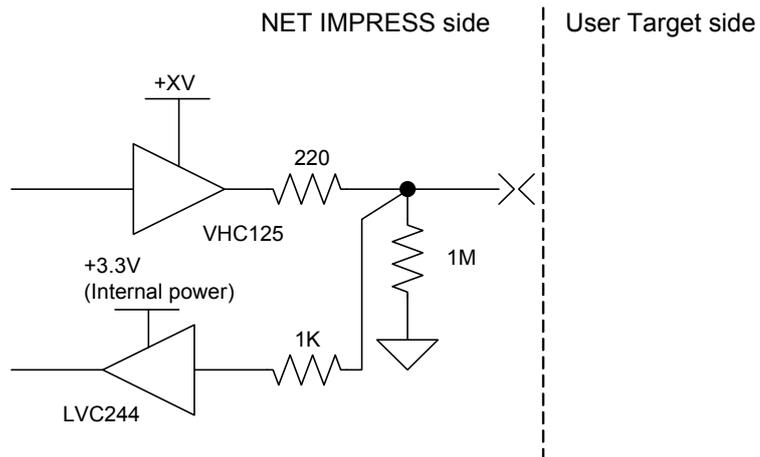
Type 2



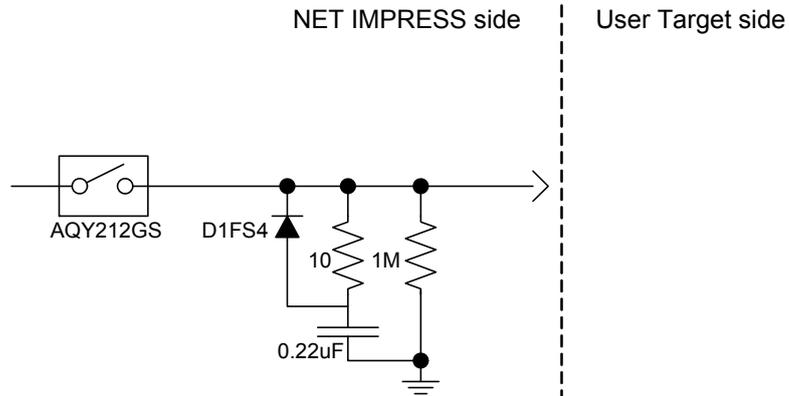
Type 3



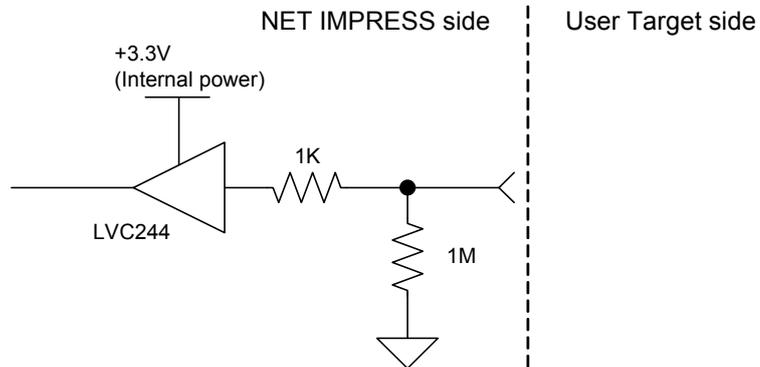
Type 4



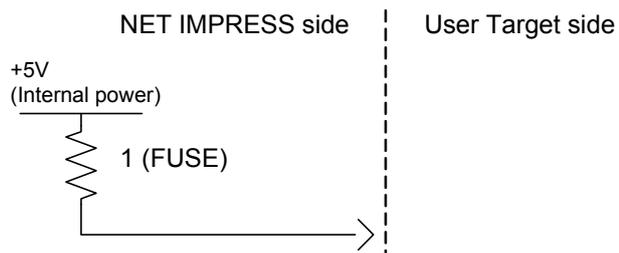
Type 5



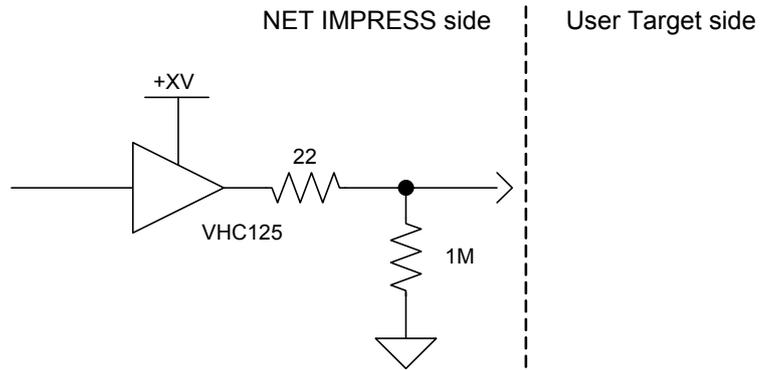
Type 6



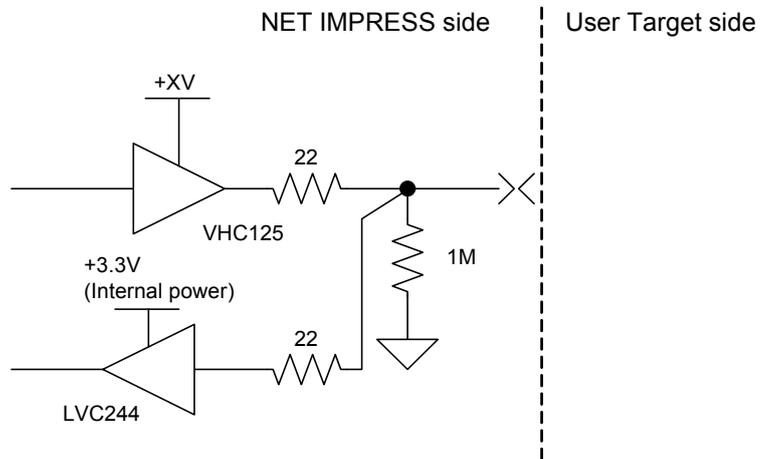
Type 7



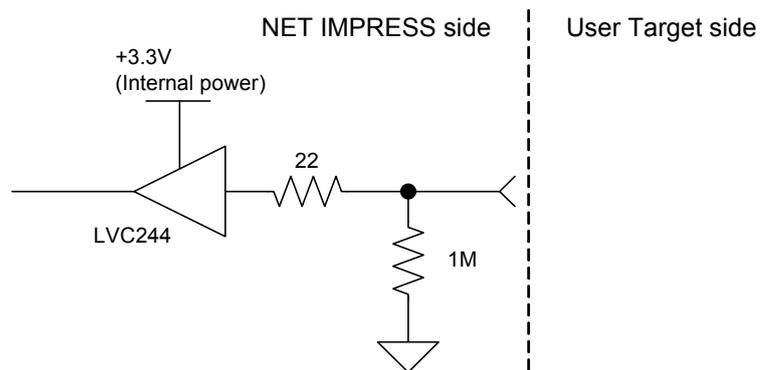
Type 8



Type 9



Type 10



8.6.4 DC Characteristics

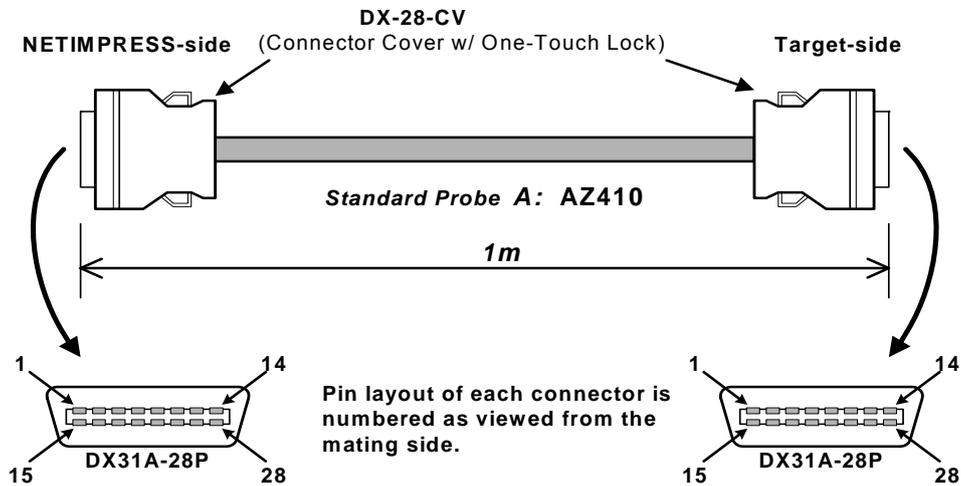
The table below shows the DC characteristics of the target interface.

Name	Terminal name	Parameter	Abbreviation		Unit	Conditions	
Supply MCU power	Vcc	Supply voltage	Vcc		5.0 ±5%	V	
		Supply current (Icc)	Icc	max	100	mA	
				min	0	mA	
User power input 1	TVccd	Allowable input voltage	TVccd	max	5.25	V	
		Current consumption	TIccd	min	2	V	
				max	500	µA	
User power input 2	TVccs	Input range	TVccs		2.0 to 5.25	V	
		Current consumption	TIccs	max	500	µA	
TVcc threshold	TVccs	Detection accuracy			4.9	mV	
		Setting unit			0.1	V	
Target IF input port	TIO, TRXD, TBUSY	Allowable input voltage	TIF1IV	max	5.5	V	
		Input "H" level	TIF1V_VIH	min	2	V	
		Input "L" level	TIF1V_VIL	max	0.8	V	
		Allowable input current	TIF1V_II	max	±1	µA	
	TTXD, TAUX, TAUX3, TAUX4	Allowable input voltage	TIF2IV	max	5.5	V	
		Input "H" level	TIF2V_VIH	min	2	V	
		Input "L" level	TIF2V_VIL	max	0.8	V	
		Allowable input current	TIF2V_II	max	±1	µA	
Target IF output port	TRES, TCK, TAUX2, /TCS, /TOE, TMODE	Output voltage	TIF3OV	max	TVccd	V	
		Output "H" level	TIF3OV_VOH	min	2.4	V	TVccd=3.3V
				3.8	V	TVccd=5V	
		Output "L" level	TIF3OV_VOL	max	0.5	V	
		Allowable output current	TIF3OI	max	±8	mA	
	TTXD, TAUX, TAUX3, TAUX4	Output voltage	TIF2OV	max	TVccd	V	
		Output "H" level	TIF2OV_VOH	min	2.4	V	TVccd=3.3V
				3.8	V	TVccd=5V	
		Output "L" level	TIF2OV_VOL	max	0.5	V	
		Allowable output current	TIF2OI	max	±8	mA	
	/TRES, WDT /TVpp1_EN /TVpp2_EN	Applied voltage	Vin	max	7	V	
		Output "L" level	TIF4OV_VOL	max	0.7	V	Isink=3mA

8.6.5 Interface Cable (AZ410)

This is used for the DX10-28S (HRS) or equivalent connector mounted on the target board.

* The Probe Select signal and GND signals are short-circuited for AZ410A.

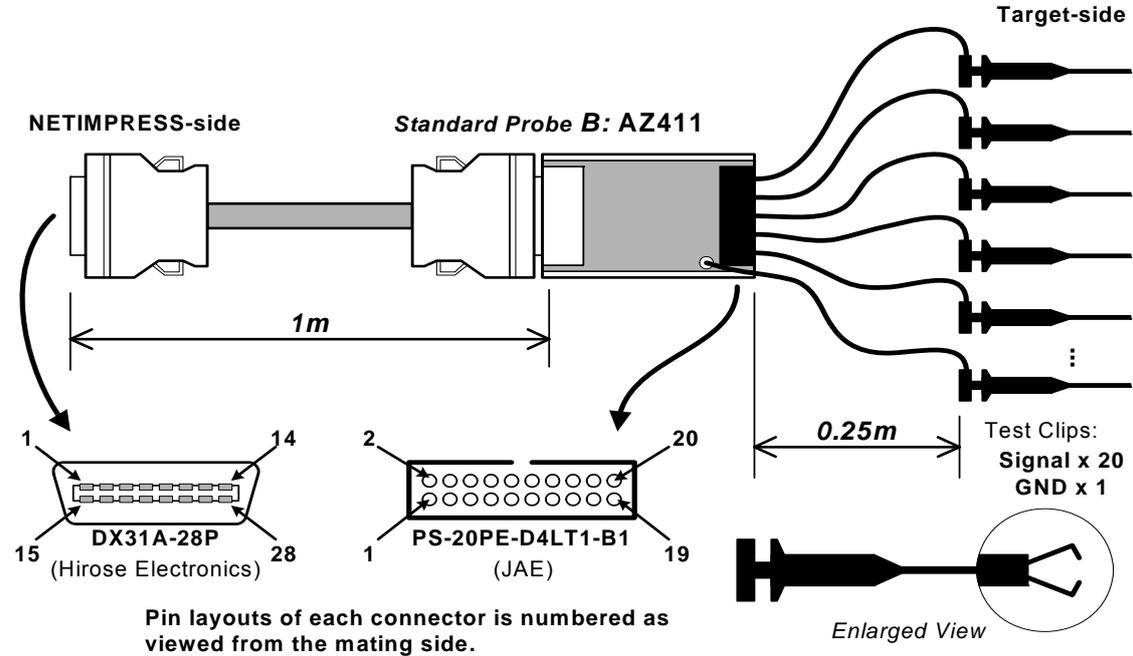


*Connectors
Manufacturer: Hirose Electronics

8.6.6 Interface Cable (AZ411, AZ413)

Use this cable to connect to test pins or others.

The AZ413 does not have any IC test clip and its tip is not treated.



**NETIMPRESS-side
Standard Signal Pin Assign**

Pin No.	NETIMPRESS Standard Signal Name
1	GND
2	TVccd
3	Vcc
4	TRES
5	/TRES
6	TCK
7	Reserved
8	GND
9	TAUX2 (TR/W)
10	/TICS
11	TAUX5 (/TOE)
12	TMODE
13	TTXD
14	GND
15	GND
16	TVpp1
17	TVpp2
18	WDT
19	TAUX3 (TVpp1C)
20	TAUX4 (TVpp2C)
21	GND
22	Probe select
23	TAUX
24	TBUSY
25	TIO
26	TVccs (TI1)
27	TRXD
28	GND

**Target-side
Test Clips Signal Pin Assign**

Pin No.	Lead Color	NETIMPRESS Signal Name	I/O
1	Brown	TRXD	I
2	Red	TTXD	O
3	Orange	TVccs (TI1)	I
4	Yellow	TMODE	O
5	Green	TIO	I
6	Blue	TAUX5 (/TOE)	O
7	Violet	TBUSY	I
8	Grey	/TICS	O
9	White	TAUX	O
10	White & Black	TAUX2 (TR/W)	O
11	White & Brown	TAUX4 (TVpp2C)	O
12	White & Red	TCK	O
13	White & Orange	TAUX3 (TVpp1C)	O
14	White & Yellow	/TRES	O
15	White & Green	WDT	O
16	White & Blue	TRES	O
17	White & Violet	TVpp2	O
18	White & Grey	Vcc	O
19	Yellow & Green	TVpp1	O
20	Light-Blue	TVccd	I

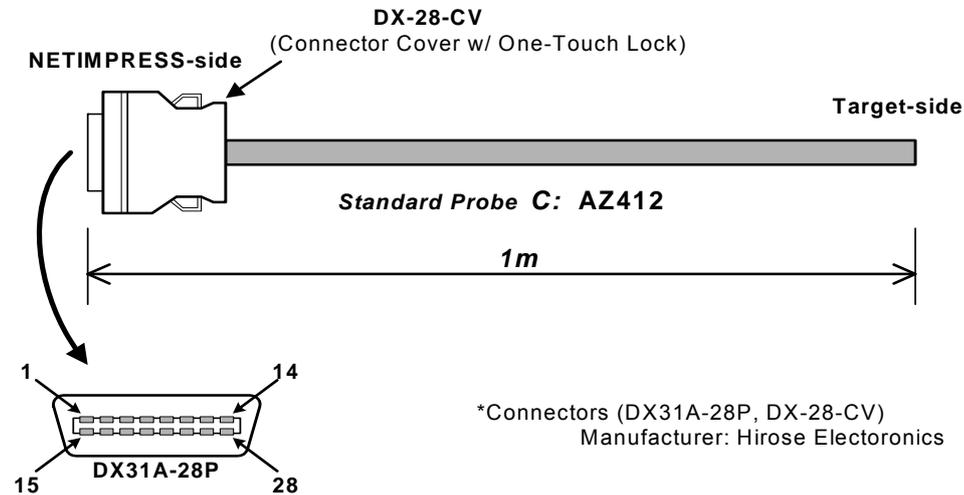
GND (Black) : Directly Soldered to PWB.

※ The lead color of pin No.19 has been changed from "Light-Green" to "Yellow & Green" to distinguish it from "Green".
The pin No.19 which you have may be "Light-Green".

8.6.7 Interface Cable (AZ412)

You can customize the connector and wiring as you want.

* The Probe Select signal and GND signals are short-circuited for AZ410A.



Pin layout is numbered as viewed from the mating side.

**NETIMPRESS-side
Standard Signal Pin Assign**

Pin No.	NETIMPRESS Standard Signal Name
1	GND
2	TVccd
3	Vcc
4	TRES
5	/TRES
6	TCK
7	Reserved
8	GND
9	TAUX2 (TR/W)
10	/TICS
11	TAUX5 (/TOE)
12	TMODE
13	TTXD
14	GND
15	GND
16	TVpp1
17	TVpp2
18	WDT
19	TAUX3 (TVpp1C)
20	TAUX4 (TVpp2C)
21	GND
22	Probe select
23	TAUX
24	TBUSY
25	TIO
26	TVccs (TI1)
27	TRXD
28	GND

**Target-side
Wiring Specification**

Pin No.	NETIMPRESS Standard Signal Name	Insulator Color	Dot Mark
1	GND	Pink	Black ■
2	TVccd	Yellow	Red ■■
3	Vcc	Gray	Black ■■
4	TRES	Pink	Red ■
5	/TRES	Yellow	Red ■
6	TCK	Orange	Red ■
7	Reserved	Yellow	Red ■■■
8	GND	Orange	Black ■
9	TAUX2 (TR/W)	Pink	Black ■■
10	/TICS	Gray	Red ■■
11	TAUX5 (/TOE)	Gray	Red ■■■
12	TMODE	Gray	Black ■■■
13	TTXD	Gray	Red ■
14	GND	Gray	Black ■
15	GND	Orange	Black ■■
16	TVpp1	White	Red ■■
17	TVpp2	White	Black ■■
18	WDT	Orange	Red ■■
19	TAUX3 (TVpp1C)	Orange	Red ■■■
20	TAUX4 (TVpp2C)	Orange	Black ■■■
21	GND	Yellow	Black ■
22	Probe select	Yellow	Black ■■■
23	TAUX	Pink	Red ■■
24	TBUSY	White	Red ■■■
25	TIO	White	Black ■■■
26	TVccs (TI1)	Yellow	Black ■■
27	TRXD	White	Red ■
28	GND	White	Black ■

8.7 CAN Interface

NETIMPRESS next with /CAN option supports the CAN interface.

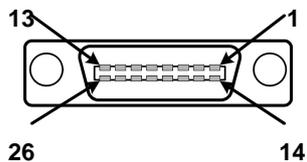
Note:

The CAN interface is disabled when an interface cable (AZ410, AZ411, AZ412 or AZ413) is connected to the target interface (TARGET PROBE1) if "CABLE SELECT" is set for the Set Cable Selection (Function CD0).

If you want to enable CAN interface, please disconnect the interface cable from target interface (TARGET PROBE1) or select "CAN (TARGET PROBE2)" for the Set Cable Selection (Function CD0)

8.7.1 Connector (TARGET PROBE 2)

Connector pin arrangement (mate side view)



HDR-EA26LFYPG 1+
(Honda Tsushin Kogyo)

8.7.2 Signal Table

The table below lists the input and output signals at the target side.

PIN No.	Signal Name	Definition	I/O	Type (*3)
1	GND	GND	-	-
2	/TRES	Negative logic reset output (Open collector output)	O	H
3	reserved	Reserved signal line. Do not connect this line.	-	-
4	TTxD	Send output for communication (send and receive (input and output) for two-way communication)	I/O	D
5	TRxD	Receive input for communication	I	F
6	reserved	Reserved signal line. Do not connect this line.	-	-
7	reserved	Reserved signal line. Do not connect this line.	-	-
8	TAUX	Output terminal (The definition of this terminal may vary depending on the control module.)	O	C
9	TAUX3(TVpp1C)	Output terminal (The definition of this terminal may vary depending on the control module.)	O	C
10	/TICS	For control of target power	O	C
11	CANH_High (*2)(*4)	CAN_High for CAN communication (High Speed CAN)	I/O	J
12	CANH_Low (*2)	CAN_High for CAN communication (Low Speed CAN)	I/O	K
13	Reserved	Reserved signal line. Do not connect this line.	-	-
14	TCK	Clock output for clock synchronized communication	O	E
15	TRES	Positive logic reset output	O	B
16	TVccs (*1)	User power input (For monitoring of user power)	I	A
17	Reserved	Reserved signal line. Do not connect this line.	-	-
18	Reserved	Reserved signal line. Do not connect this line.	-	-
19	WDT	Watchdog timer output	O	H
20	TBUSY	BUSY input for clock synchronized communication	I	G
21	TAUX2(TRW)	Output terminal (The definition of this terminal may vary depending on the control module.)	O	C
22	TAUX4(TVpp2C)	Output terminal (The definition of this terminal may vary depending on the control module.)	O	C
23	TMODE	Output terminal (The definition of this terminal may vary depending on the control module.)	O	I
24	CANL_High (*2) (*4)	CAN_Low for CAN communication (High Speed CAN)	I/O	J
25	CANL_Low (*2)	CAN_Low for CAN communication (Low Speed CAN)	I/O	K
26	GND	GND	-	-

(*1) This signal is used only when the target power is monitored inside the programmer.
Maximum lead-in current, I_{cc} (max) = 500uA

(*2) Input/output voltage range: CAN communication voltage level

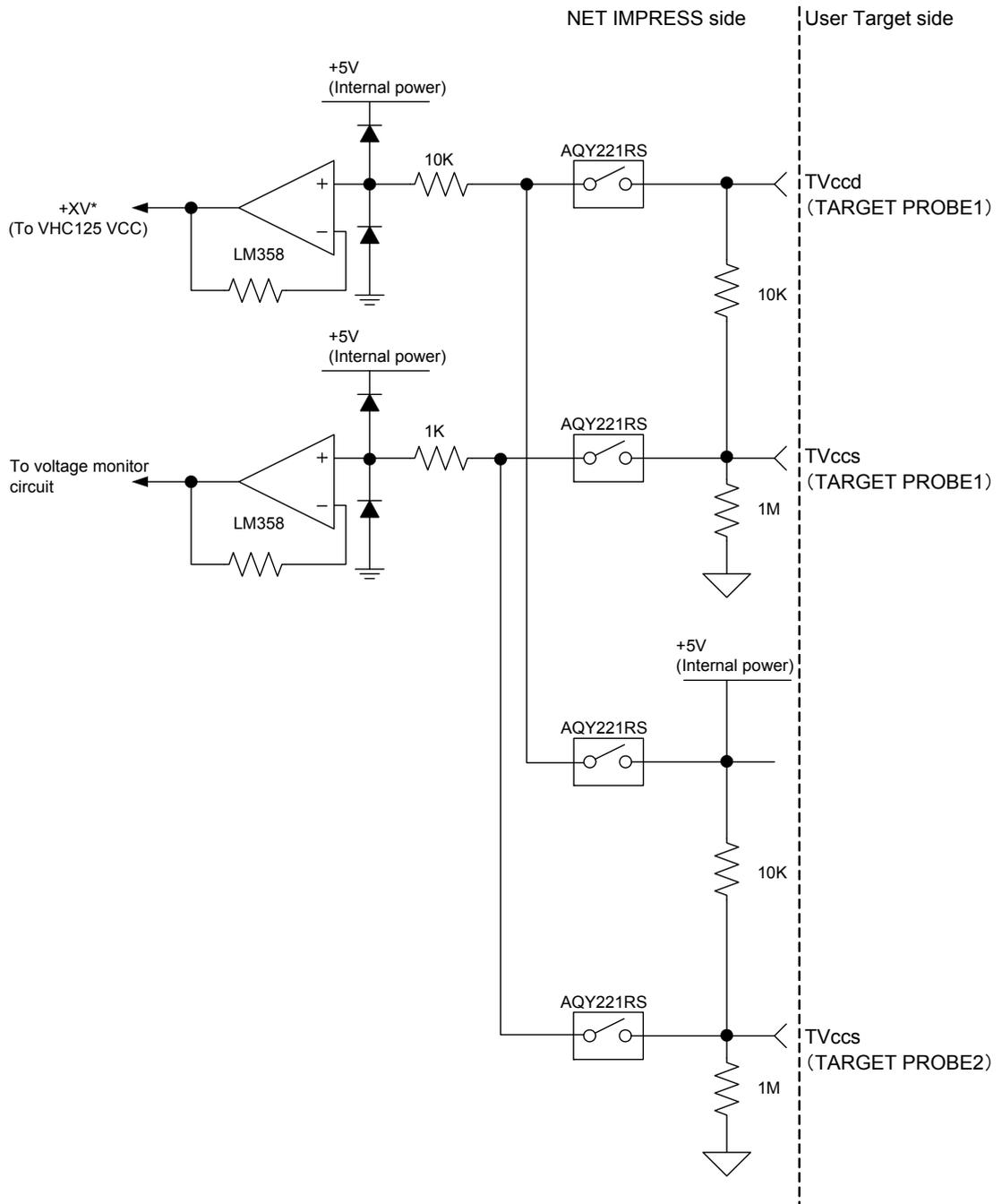
(*3) This shows the input/output circuit type of the signal line. For further information, see the following pages.

(*4) **The default value of the terminating resistor is “open”. The terminating resistor can be changed to “open”, “60Ω”, or “120Ω” using the control module. For further information, see the manual for control module.**

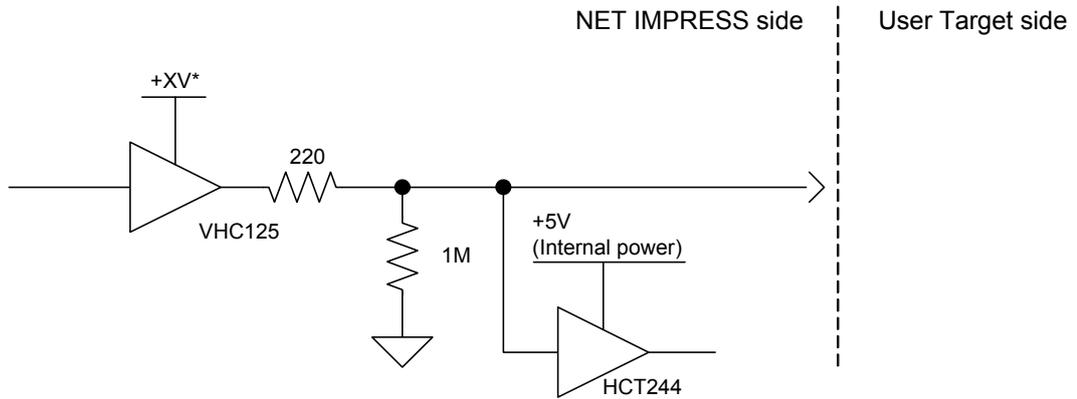
For further information on signal definitions for each control module, see the manual for the relevant control module.

8.7.3 Interface Circuit Type

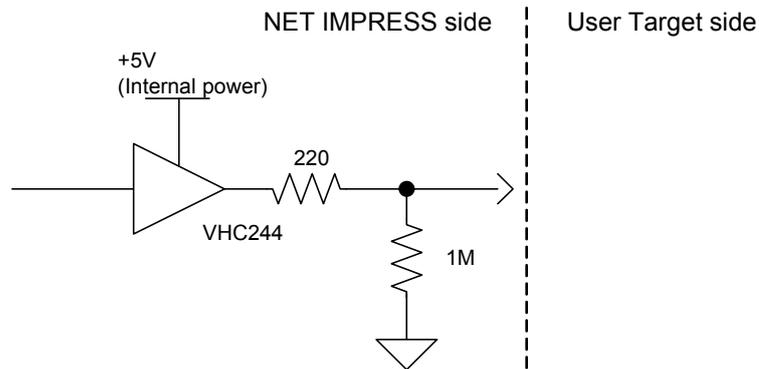
Type A



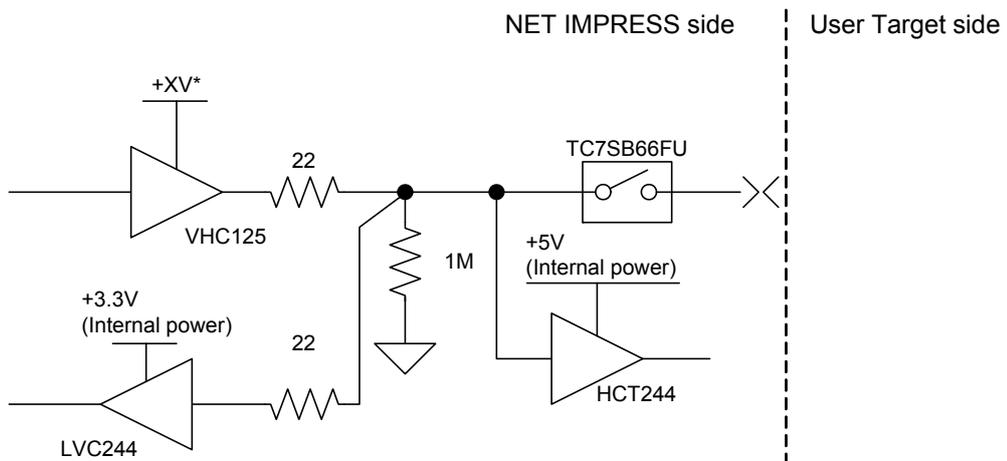
Type B



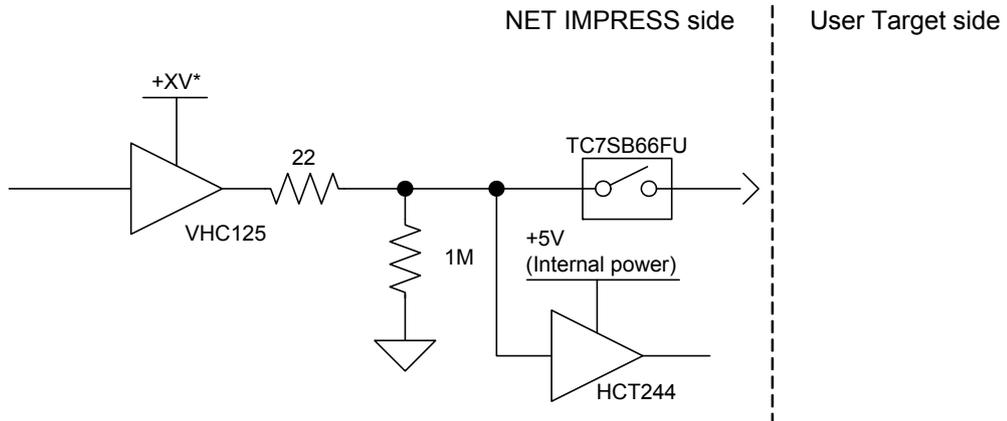
Type C



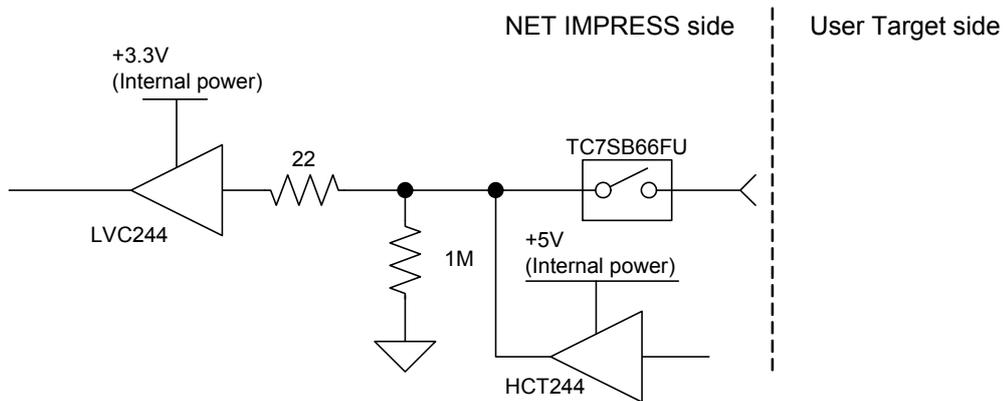
Type D



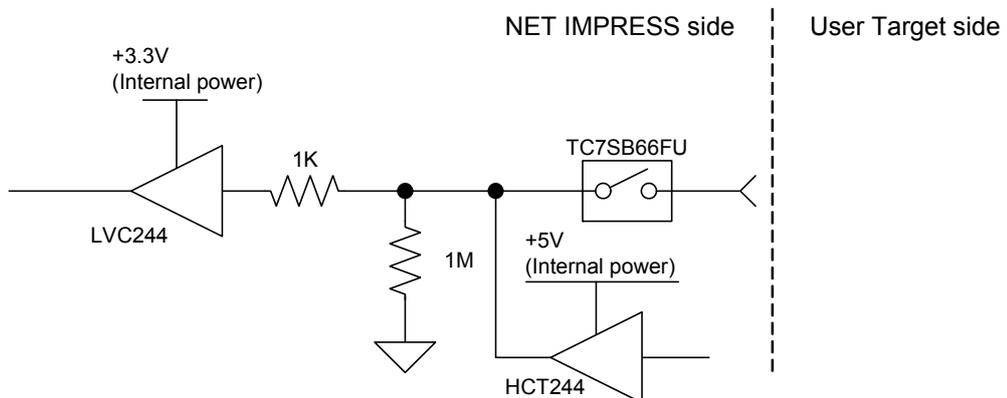
Type E



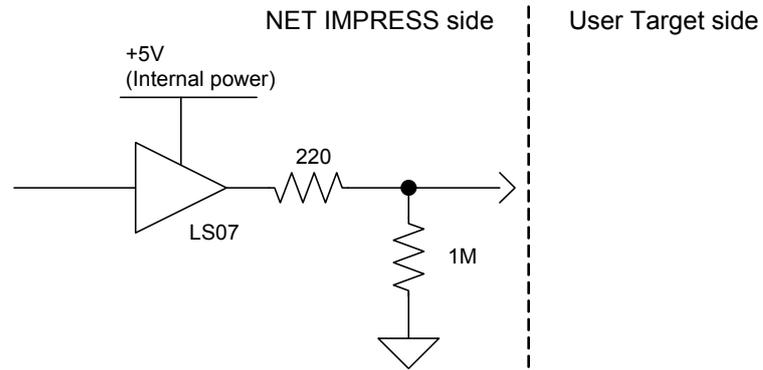
Type F



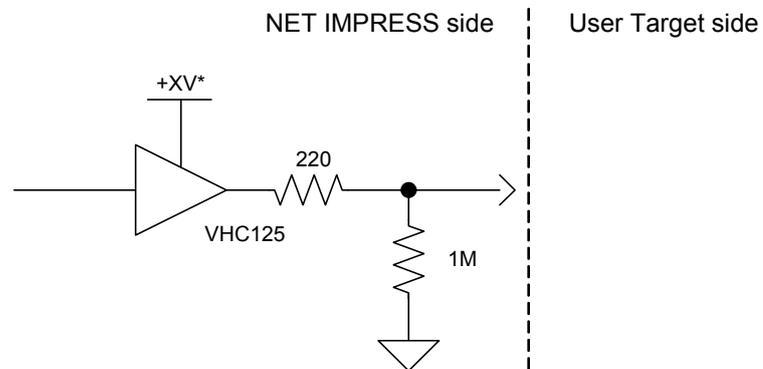
Type G



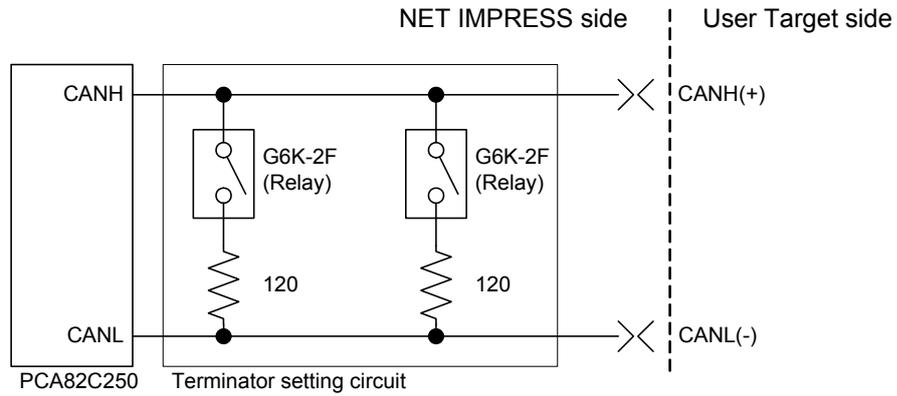
Type H



Type I

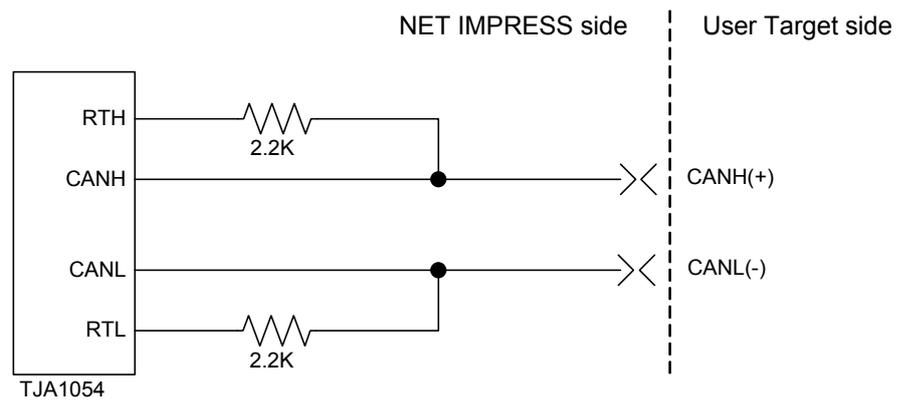


Type J



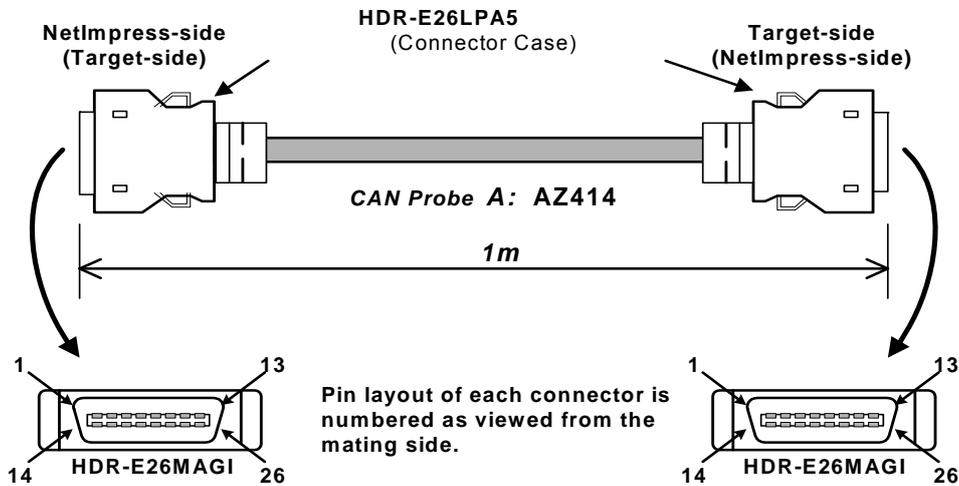
The initial status of Relay "OFF", in other words, an OPEN status without a terminator.

Type K



8.7.4 CAN Interface Cable (AZ414)

This interface cable is used for the connector HDR-EA26LFYPG1-SLE or its equivalent mounted on the target board.



*Connectors
Manufacturer: HONDA TUSHIN KOGYO CO., LTD.

AZ414 Wiring Table

AZ414 : NetImpress-side(Target-side)
Standard Signal Pin Assign

Pin No.	NetImpress Standard Signal Name
1	GND
2	/TRES
3	Reserved
4	TTxD
5	TRxD
6	Reserved
7	Reserved
8	TAUX
9	TAUX3
10	/TICS
11	CANH_high *1
12	CANH_low *2
13	Reserved
14	TCK
15	TRES
16	TVccs
17	Reserved
18	Reserved
19	WDT
20	TBUSY
21	TAUX2
22	TAUX4
23	TMODE
24	CANL_high *1
25	CANL_low *2
26	GND

AZ414 : Target-side(NetImpress-side)
Standard Signal Pin Assign

Pin No.	NetImpress Standard Signal Name
1	GND
2	/TRES
3	Reserved
4	TTxD
5	TRxD
6	Reserved
7	Reserved
8	TAUX
9	TAUX3
10	/TICS
11	CANH_high *1
12	CANH_low *2
13	Reserved
14	TCK
15	TRES
16	TVccs
17	Reserved
18	Reserved
19	WDT
20	TBUSY
21	TAUX2
22	TAUX4
23	TMODE
24	CANL_high *1
25	CANL_low *2
26	GND

*1 _high = High Speed CAN

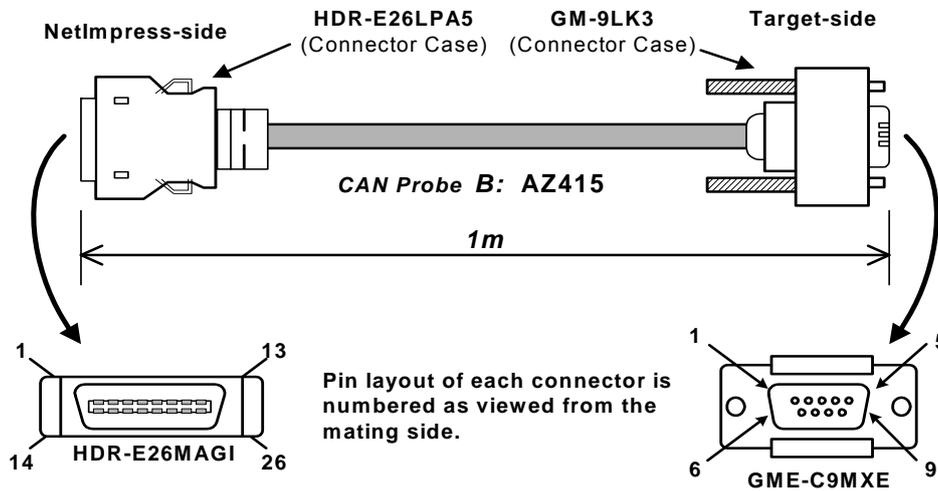
*2 _low = Low Speed CAN

Full 26 pin-to-pin wired.

8.7.5 CAN Interface Cable (AZ415)

This probe is specially designed for the High speed CAN.

This interface cable is used for the D-Sub 9-Pin (female) connector mounted on the target board.



*Connectors
Manufacturer: HONDA TUSHIN KOGYO CO., LTD.

AZ415 Wiring Table

**AZ415 : NetImpress-side
Standard Signal Pin Assign**

Pin No.	NetImpress Standard Signal Name
1	GND
2	/TRES
3	Reserved
4	TTxD
5	TRxD
6	Reserved
7	Reserved
8	TAUX
9	TAUX3
10	/TICS
11	CANH_high *1
12	CANH_low *2
13	Reserved
14	TCK
15	TRES
16	TVccs
17	Reserved
18	Reserved
19	WDT
20	TBUSY
21	TAUX2
22	TAUX4
23	TMODE
24	CANL_high *1
25	CANL_low *2
26	GND

**AZ415 : Target-side
Standard Signal Pin Assign**

Pin No.	NetImpress Standard Signal Name
1	TVccs
2	CANL_high *1
3	GND
4	Reserved
5	Reserved
6	TIO
7	CANH_high *1
8	TMODE
9	Reserved

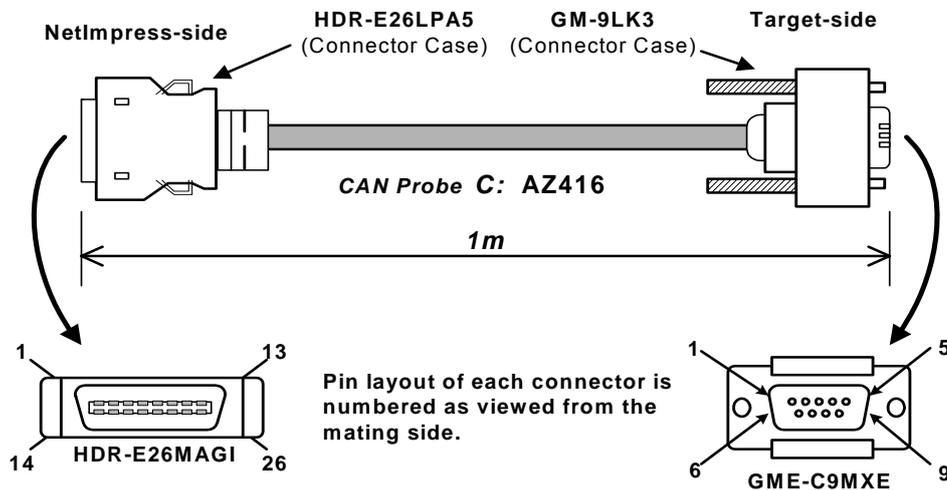
*1 _high = High Speed CAN

*2 _low = Low Speed CAN

8.7.6 CAN Interface Cable (AZ416)

This probe is specially designed for the Low speed CAN.

This interface cable is used for the D-Sub 9-Pin (female) connector mounted on the target board.



*Connectors
Manufacturer: HONDA TUSHIN KOGYO CO., LTD.

AZ416 Wiring Table

**AZ416 : NetImpress-side
Standard Signal Pin Assign**

Pin No.	NetImpress Standard Signal Name
1	GND
2	/TRES
3	Reserved
4	TTxD
5	TRxD
6	Reserved
7	Reserved
8	TAUX
9	TAUX3
10	/TICS
11	CANH_high *1
12	CANH_low *2
13	Reserved
14	TCK
15	TRES
16	TVccs
17	Reserved
18	Reserved
19	WDT
20	TBUSY
21	TAUX2
22	TAUX4
23	TMODE
24	CANL_high *1
25	CANL_low *2
26	GND

**AZ416 : Target-side
Standard Signal Pin Assign**

Pin No.	NetImpress Standard Signal Name
1	TVccs
2	CANL_low *2
3	GND
4	Reserved
5	Reserved
6	TIO
7	CANH_low *2
8	TMODE
9	Reserved

*1 _high = High Speed CAN

*2 _low = Low Speed CAN

APPENDIX List of Error Codes

Error No.	Error message	Contents	Corrective action
1001	SYSTEM PROGRAM ROM ERR	NETIMPRESS main unit is faulty.	Contact DTS INSIGHT support center.
1002	NO LICENSE	No license is found.	You must purchase the license.
1003	GROUP CODE ERR	Group code is different.	Use parameters suitable for the control module.
1004	CM FILE NOT FOUND	CM file does not exist.	Store the control module into the Compact Flash.
1005	MORE 2 CM FILES	Two or more CM files exist.	Make the setting so that only one control module is stored into the Compact Flash.
1006	COM ID VER UNEXPECTED ERR	Version of the common part is old.	Contact DTS INSIGHT support center.
1007	CM ID VER UNEXPECTED ERR	Version of the specific part is old.	
1008	FUNCTION NOT SUPPORT	Function is not supported.	No function is assigned to the specified function.
1009	DEVICE FUNCTION NOT SUPPORT	Device function is not supported.	
1010	HPARAM CONST ERR	Hardware parameter cannot be constructed.	Contact DTS INSIGHT support center.
1015	PARAMETER ERR xxxx	Software parameter is corrupted.	Parameters are corrupted. Download the parameters again.
1016	ADDRESS WARNING	Address of FUNC-0 and FUNC-F5 is different from that of FUNC-D6.	
1020	S FILE FORMAT ERR	S format error	Object file is corrupted. Check the object file.
1021	HEX FILE FORMAT ERR	HEX format error	
1022	FORMAT ERR (REC TYPE)	Record type error	
1023	FORMAT ERR (ADDRESS)	Address field error	
1024	FORMAT ERR (CHECK SUM)	Checksum error	
1025	FORMAT ERR (CRLF)	CRLF code error	
1026	FORMAT ERR (SIZE)	Record size error	
1027	FORMAT ERR (S5)	S5 record check error	
1028	FORMAT ERR (ASCII)	Binary conversion disabled data error	
1029	DATA FORMAT ERR	Communication data format error		Since the communication error occurs, check the communication path.
102A	CM FORMAT ERR	CM file format error	Since the control module is corrupted, download the control module.
102B	ADDRESS WARNING	Data other than FLASH-ROM address is recognized.	This error message appears if data to be assigned to a device other than the target flash ROM is downloaded. To shut-down this output, turn OFF this warning using FUNC-9E.
1030	FROM PARAMETER ERR	Parameter error when accessing to the FLASH-ROM inside the programmer.	Contact DTS INSIGHT support center.
1031	FROM HARDWARE ERASE ERR	Erase error of the FLASH-ROM inside the programmer	
1032	FROM SOFTWARE ERASE ERR	Blank check error of the FLASH-ROM inside the programmer	
1033	FROM HARDWARE PROGRAM ERR	Write error of the FLASH-ROM inside the programmer	
1034	FROM SOFTWARE PROGRAM ERR	Verify error of the FLASH-ROM inside the programmer	
1035	FROM DATA ERR	Initial data error when writing to the FLASH-ROM inside the programmer	

Error No.	Error message	Contents	Corrective action		
1041	PCIC WRITE CMD TIMEOUT	CF write error	The Compact Flash may be defective. Contact DTS INSIGHT support center.		
1042	PCIC WRITE STAT TIMEOUT				
1043	PCIC WRITE BAD ERR				
1044	PCIC WRITE SECTOR ERR				
1045	PCIC WRITE ERR				
1046	PCIC WRITE ECC ERR				
1047	PCIC CMD ABORT				
1048	PCIC WRITE NORMAL ERR				
1049	PCIC WRITE UNKNOWN ERR				
104A	PCIC READ CMD TIMEOUT			CF read error	
104B	PCIC READ STAT TIMEOUT				
104C	PCIC READ BAD ERR				
104D	PCIC READ SECTOR ERR				
104E	PCIC READ ECC ERR				
104F	PCIC READ CMD ERR				
1050	PCIC READ NORMAL ERR				
1051	PCIC READ UNKNOWN ERR				
1060	FILE SYSTEM ERR (MBR)	File system error of Compact Flash	Since the Compact Flash is not formatted in the FAT format, the card cannot be recognized. Format the Compact Flash in the FAT format.		
1061	FILE SYSTEM ERR (PREG)				
1062	FILE SYSTEM ERR (PBR)				
1063	ILLEGAL FILE SYSTEM				
1064	FILE SYSTEM ERR (FAT CNT)				
1065	UNC ERR			It is prohibited to use the network path.	
1066	FULL PATH ERR			Shorten the file and folder names.	
1067	PATH LENGTH ERR			Short file name cannot be created any further.	
1068	SHORT NAME ERR			Free area of the root is insufficient. Delete the file or folder in the root.	
1069	CF DISK FULL (DIR)			Free data area of the Compact Flash is insufficient. Delete the file or folder.	
106A	CF DISK FULL (DAT)			File system of the Compact Flash may be corrupted. Format the Compact Flash in the FAT format.	
106D	DOS FILE SIZE ERR				
106E	FILE SYSTEM ERR (FAT)				
1070	FILE READ ONLY ERR			Write-access is made to the read-only file.	Since the specified file is a read-only file, this error is output. Change the file destination or change the file attribute of the specified file.
1072	FILE NOT EXIST	File is not found.	Since the specified file is not found, this error is output. Change the file destination or store the specified file.		
1073	FILE EXIST	File already exists.	Since the specified file already exists, the error is output. Change the file designation or delete the specified file.		
1074	FOLDER NOT EXIST	Folder is not found.	Since the specified folder is not found, the error is output. Change the folder destination or store the specified folder.		

Error No.	Error message	Contents	Corrective action
1075	FOLDER EXIST	Folder already exists.	Since the specified folder is already exists, the error is output. Change the folder destination or delete the specified folder.
1090	YSM CHECK ERR	YSM checksum error	Check the sum data of the YSM or sum value of the buffer.
1091	YSM CHECK ERR	YSM check buffer error	Check the buffer data of the YSM or data of the buffer.
1092	YSM FILE FORMAT ERR	YSM file format error	Check the YSM file format.
1093	YSM NOT FOUND	YSM file exists.	Store the YSM file.
10A0	ETHER SEND CUT ERR	Line is cut-off when sending ETHER.	Check the ETHERNET line.
10A1	ETHER SEND TIMEOUT	Time-out occurs when sending ETHER.	
10A2	ETHER RECV CUT ERR	Line is cut-off when receiving ETHER.	
10A3	ETHER RECV TIMEOUT	Time-out occurs when receiving ETHER.	
10A4	ETHER ERR	ETHER communication cannot be made.	
10A5	NEXT COMMAND NOT RECV	Abnormal ETHER connection	
10B0	COM OUT ERR	RS232C send error	Check the RS232C line.
10B1	COM IN ERR	RS232C receive error	
10C0	DEVICE SEND TIMEOUT xx	Target communication send time-out	Error occurs in the communication with the target. Check the target connection or parameter setup.
10C1	DEVICE RECV TIMEOUT xx	Target communication receive time-out	
10C2	DEVICE OVERRUN ERR xx	Target communication receive over-run	
10C3	DEVICE FRAMING ERR xx	Target communication framing error	
10C4	DEVICE PARITY ERR xx	Target communication parity error	
10D0	CSB NOT FOUND	CSB file is not found.	Store the CSB file.
10D1	MORE 2 CSB FILES	Two or more CSB files exist.	Delete the CSB files so that one CSB file exists.
10D2	CSB FILE FORMAT ERR xxxx	CSB file format error	Check the CSB file format.
10D3	FUNCTION DATA ERR	CSB or YMN function parameter error	Check the CSB and YMN function parameters.
10D4	YMN FILE FORMAT ERR	YMN file format error	Check the YMN file format.
10D5	YMN NOT REGIST	YMN file undefined error	Set the YMN file to be executed with [FUNC-DC].
10E0	TSIG VPP SETUP ERR	TVPP setup error	Since the TVPP is not calibrated, TVPP cannot be applied. Contact DTS INSIGHT support center.
1100	DEVICE CLEN ERR	Over-current detection	Device may be short-circuited with the target. Check the connection with the target.
1101	TVCC TOO LOW	Target voltage is low.	Target power needs to be connected to the TVCC.
1102	TVCC TOO HIGH	Target voltage is high.	Target power needs to be turned OFF.
1103	TVPP1 TOO LOW	TVPP1 voltage is low.	Check the connection of TVPP.
1104	TVPP2 TOO LOW	TVPP2 voltage is low.	
1105	TVPP1 TOO HIGH	TVPP1 voltage is high.	
1106	TVPP2 TOO HIGH	TVPP2 voltage is high.	
1107	DEVICE TRXD LOW ERR xx	TRXD outputs "Low" when it is attempted to start the UART communication.	Target may not be transitioned to the operation mode. Check the connection with the target.
1108	DEVICE INITIALIZE COM ERR	Initial communication error	
1109	DEVICE ERR xx	Device error	Target may be corrupted. Check the target.
110E	BTP NOT FOUND	BTP file is not found.	Store the BTP file.
110F	MORE 2 BTP FILES	Two or more BTP files exist.	Delete BTP so that only one BTP exists.

Error No.	Error message	Contents	Corrective action
1110	BTP FORMAT ERR	BTP file format error	Check the BTP file format.
1111	KEY NOT FOUND	KEY file is not found.	Store the KEY file.
1112	MORE 2 KEY FILES	Two or more KEY files exist.	Delete KEY so that only one KEY exists.
1113	KEY FORMAT ERR	KEY file format error	Check the KEY file format.
1114	KEY ERR	KEY check err	
1120-113F	xxxxx	Error occurs in the definition of the specific part.	See the manual for control module.
1150	YIM MAX	YIM folder is not created any further.	
1151	YIM PROTECTED	YIM folder is protected.	
1160	YLC NOT FOUND	YLC file is not found.	Contact DTS INSIGHT support center.
1161	MORE 2 YLC FILES	Two or more YLC files exist.	
1162	YLC FORMAT ERR	YLC file format error	Check the YCM file.
1170	YCM FORMAT ERR	YCM file format error	
1180	YIM NOT REGIST	YIM undefined error	Set the YIM folder.
1181	CM NOT REGIST	Control module undefined error	Download the control module.
1182	BUF NOT REGIST	Buffer memory undefined error	Keep a sufficient free area size of the DOS area and start up the programmer.

New Error Codes for NETIMPRESS next

Error No.	Error message	Contents	Corrective action
1A00	SCRIPT FILE NOT (START)	Script file check error: No (START) line on the executing script file	Check the script file
1A01	SCRIPT FILE ERR LINE XXXX	Script file check error: There are unspecified descriptions on the line No. xxx of the executing script file.	Check the script file
1A02	SCRIPT FILE FORMAT ERR	Script file check error: No (END) line on the executing script file.	Check the script file
1A03	SCRIPT EMPTY	Script file check error: No commands to execute on the (START) to (END) of the executing script file	Check the script file
1A04	SCRIPT DI TIMEOUT	Error while executing the script file: Cannot detect the on/off of input signal which is specified during time-out time on the INPUT line of the script.	Check the line of the error script file, and your environments.
1A05	SCRIPT FILE NOT FOUND	Error for the script file search: Cannot find the script file specified by bar-code or digital input.	Make sure that the information specified by the bar-code or digital input conforms to a target script file.
1A06	DIO CLEN ERR	Overcurrent is detected when outputting digital I/O	Check the wire connection of digital I/O of programmer and your DI/O unit.
1A10	RTC DATA FORMAT ERR	Abnormal setting value is detected in the setting of NETIMPRESS next internal RTC	Check that the set value is within the specification time.
1A20	BCR RECV TIMEOUT	Time-out occurs when receiving the bar-code	Check the SUFFIX setting of the bar-code reader. If SUFFIX is specified by YBO file, check the characters specified for SUFFIX, and your bar-code data.
1A21	BCR DATA FORMAT ERR	Format of the bar-code data is not correct	Check the created bar-code data. Check that the designation of bar-code option file (YBO) is correct.
1A23	BCR YBOFILE_FORMAT_ERR	Format error of the bar-code option file (YBO)	Check the YBO file.
1A24	MORE 2 YBO FILES	More than one bar-code option files (YBO) are existed.	Make sure to place only one YBO file in the root directory of the Compact Flash.
1A25	BCR RECV OVER	Over-incoming data buffer of bar-code data	Designate 2048 byte or less for the bar-code data
1A26	MORE 1 YBO FILE	Loaded another YBO file, even though there is a YBO file already	Make sure to place only one YBO file in the root directory of the Compact Flash.
1A27	BCR CLEN ERR	Overcurrent occurs when connecting the bar-code	Check the condition of devices connected to AZ402
1A29-1A2C	BCR ILLEGAL DATA(XXXX)	Analysis error of the received bar-code	Check the created bar-code data. Check that the designation of bar-code option file (YBO) is correct.