AF430/CFD
Instruction Manual

DTS INSIGHT CORPORATION.

AF430/CFD
Instruction Manual
No. M2383QH-01

Publication History

Edition	Date of Issue	Description
1st edition	20 June, 2017	Initial publication

＜Contents＞

1. Overview

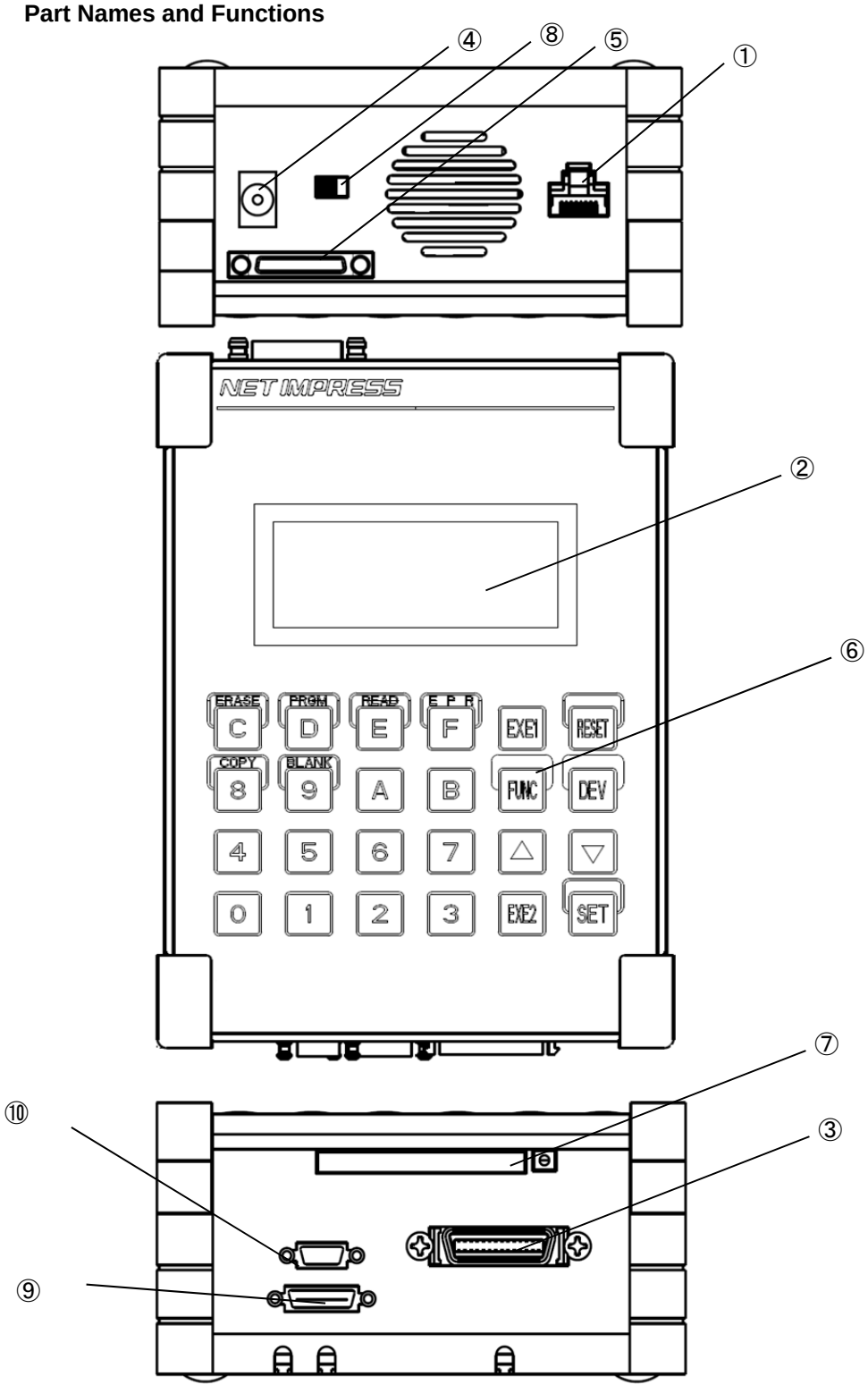
AF430/CFD (NETIMPRESS next) supports programming flash ROM of a microcomputer on a user system using CAN/CAN-FD protocol.

※Refer to NETIMPRESS next Users Manual for further details.

(Manual is available from our home page. Download them from the link below.)

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

1.1. Part Names and Functions

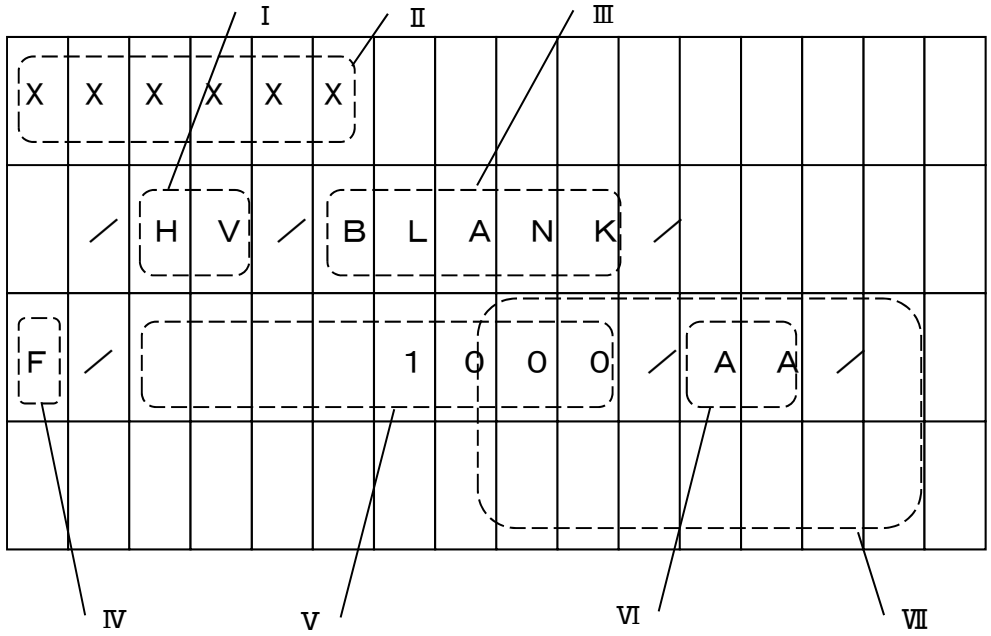


① **ETHERNET**

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

② **LCD**

Displays various information.



I. 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.

II. Type of the target Micom

Displays type of the target Micom.

III. Device function display

Displays the device function being executed.

IV. 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

V. 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.

VI. buffer memory data /error codes

Displays buffer memory data and error codes.

VII. ROM data/sum check

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

③ TARGET PROBE1

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

④ DC12V

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

⑤ DIO PROBE

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

⑥ KEYBOARD

【 0～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”.

⑦ **CONTROL MODULE**

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

⑧ **Power Switch**

I: Power ON

O: Power OFF

⑨ **EXT PROBE1**

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

⑩ **BCR PROBE**

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

2. Target Interface

NETIMPRESS next with /CFD option supports the CAN/CAN-FD interface.

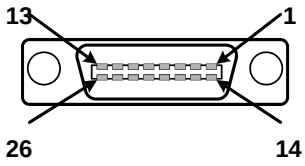
Note:

The CAN/CAN-FD 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/CAN-FD interface, please disconnect the interface cable from target interface (TARGET PROBE1) or select “CAN (TARGET PROBE2)” for the Set Cable Selection (Function CD0).

2.1. Connector (EXT PROBE 1)

Connector pin arrangement (mate side view)



HDR-EA26LFYPG1+
(Honda Tsushin Kogyo)

2.2. 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	reserved	Reserved signal line. Do not connect this line.	-	-
5	reserved	Reserved signal line. Do not connect this line.	-	-
6	VBAT	Power input for K-LINE communication.	I	G
7	SBD	SBD for K-LINE communication (send and receive for two-way communication).	I/O	G
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 (*2)**(*4)**	CAN_High for CAN communication (High Speed CAN)	I/O	F
12	reserved	Reserved signal line. Do not connect this line.	-	-
13	reserved	Reserved signal line. Do not connect this line.	-	-
14	reserved	Reserved signal line. Do not connect this line.	-	-
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	D
20	reserved	Reserved signal line. Do not connect this line.	-	-
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	E
24	CANL (*2) **(*4)**	CAN_Low for CAN communication (High Speed CAN)	I/O	F
25	reserved	Reserved signal line. Do not connect this line.	-	-
26	GND	GND	-	-

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

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

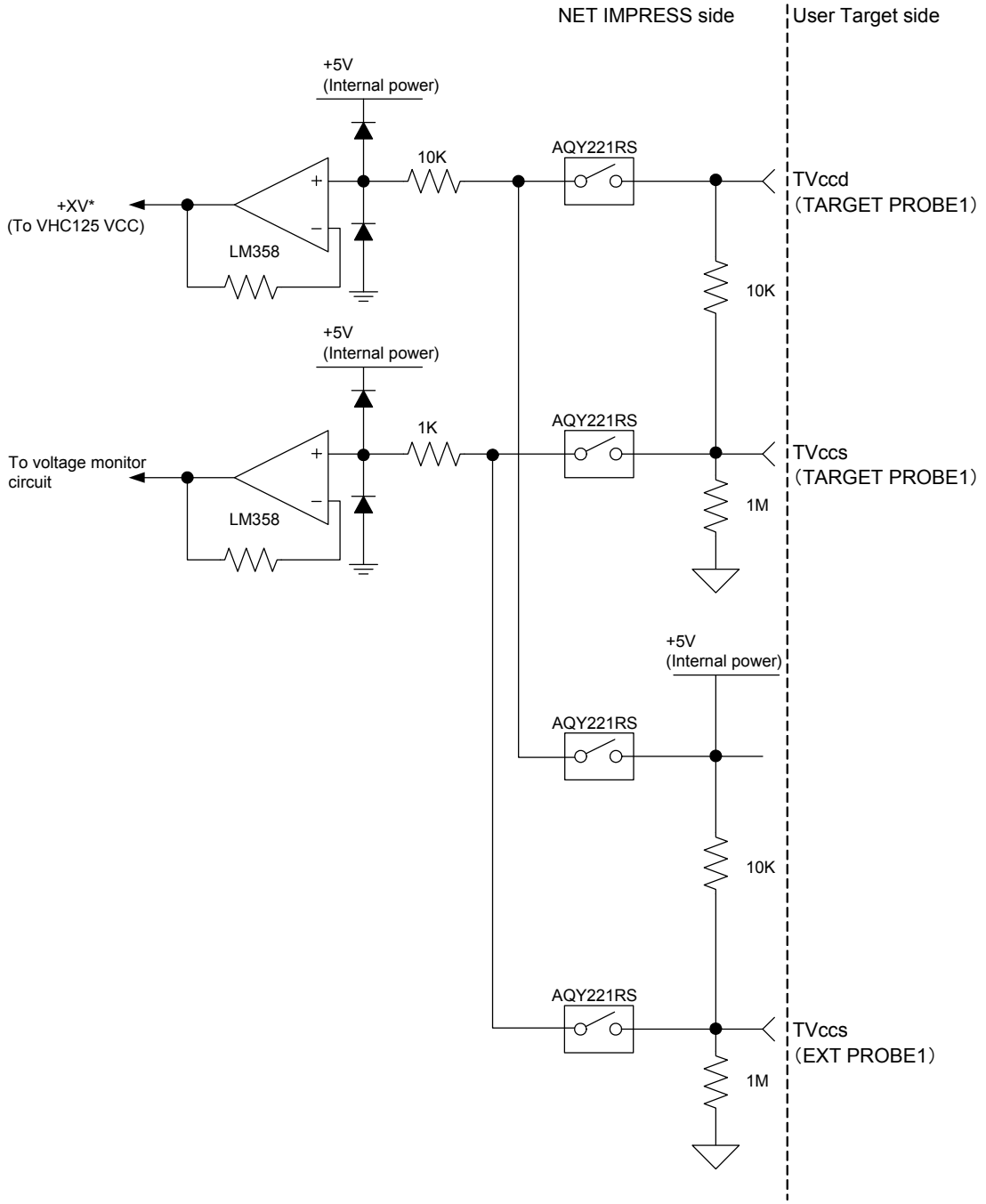
(*3) This shows the input/output circuit type of the signal line. For further information, see the following pages.

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

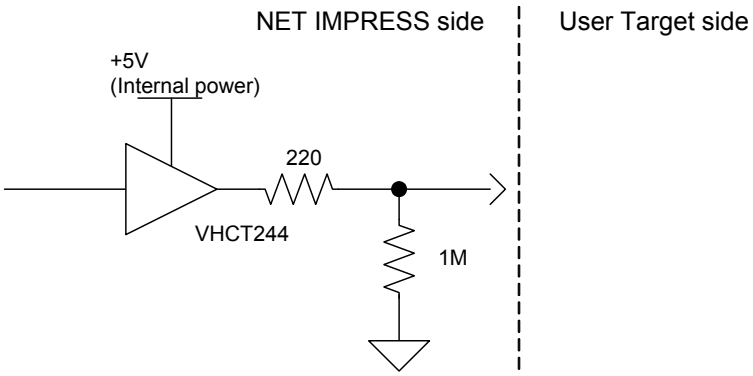
For further information on signal definitions for each control module, see the manual for the relevant control module.

2.3. Circuit Specification

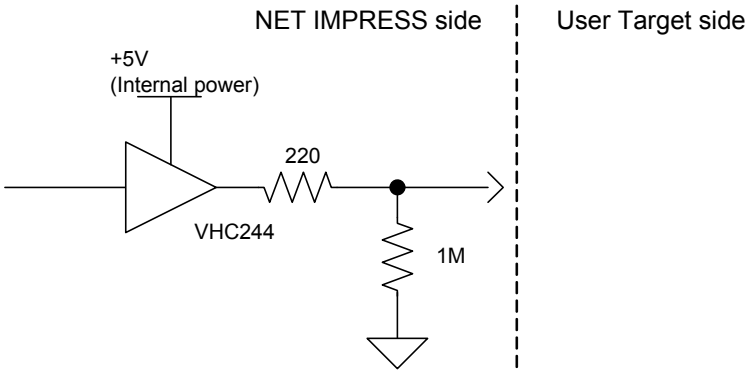
【 Type A 】



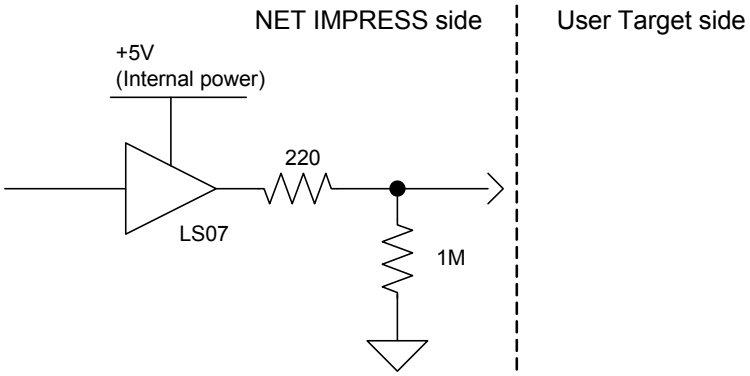
【 Type B 】


NET IMPRESS side
User Target side
+5V
(Internal power)
220
VHCT244
1M

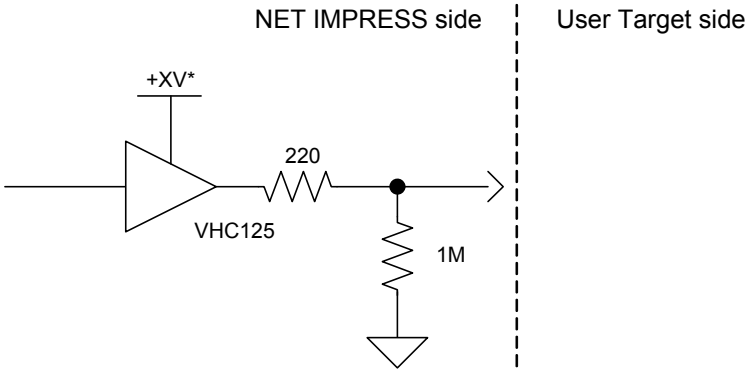
【 Type C 】


NET IMPRESS side
User Target side
+5V
(Internal power)
220
VHC244
1M

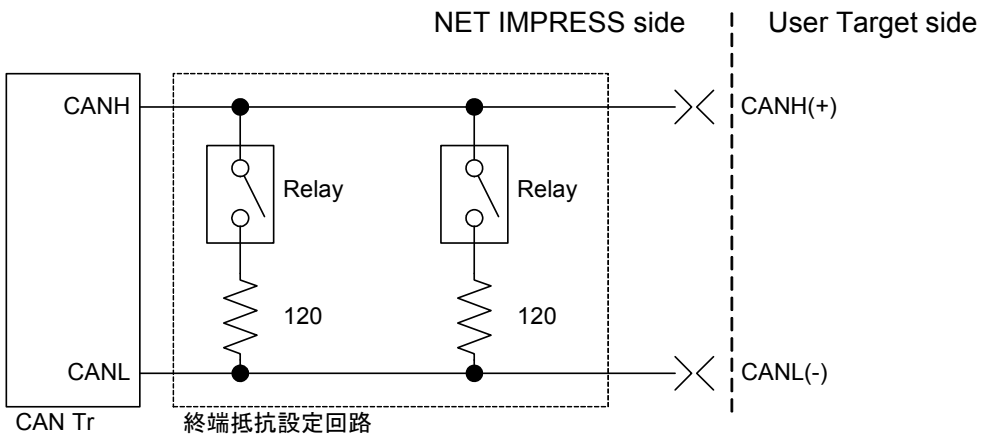
【 Type D 】


NET IMPRESS side
User Target side
+5V
(Internal power)
220
LS07
1M

【 Type E 】


NET IMPRESS side
User Target side
+XV*
220
VHC125
1M

【 Type F 】



Relayの初期状態は“OFF”（OPEN状態：終端抵抗なし）となっています。

【 Type G 】