

Numerical Protection Relay



HMI SOFTWARE Model PC-DISW

INSTRUCTION MANUAL

Request

Ensure that this Instruction Manual is delivered to the end users and the maintenance manager.

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1. Function

1.1. Function Table

Menu	Su	bmenu	Function	Print
		Connection	Connect the relay with PC (*1)	
	Online	Disconnection	Disconnect the relay with PC	
System	Select Station	No. & Relay	Display station No./device No./relay type/remark/alarm/trip list Select relay to operate	0
	Access log		Display date/time/user ID/operation list (Max. 200 events) (※2)	0
	Print		Print screen	
	Logout		End the HMI software	
	Measurement	1	Display real-time value/maximum value Setup Display/Non-display property	0
Belov	Measurement	2	Display real-time value/maximum value Setup display/non-display property Scroll display	0
Status	Operate LED		Display the status of relay front LED Reset operate LED or reset contacts	0
	Alarm		Display the monitoring information Delete monitoring data	0
	DI		Display DI input information Setup DI item name property	0
Setting	Setting		 Setting value: Display present setting value data of relay or selected setting value data (From relay or file) Change setting value: Change of relay setting value or setting file Relay setting display/change Contact arrangement display/change Operation indicator LED hold display/change CT/VT ratio display/change Waveform data save setup display/change (*3) 	0
Operation	Operation		Select DO contact and let it operate forcedly	
Fault Record	Fault Record		Display the record of past 5 phenomena (**4) Operation time Operation element Operation value Waveform download 	0
	PC	Communication	Set communication port and connection PC style	0
	Configuration	Folder	Set folder for saving user information & setting file	0
		Auto Logout	Set automatic logout information	0
	Set Station No	o. & Relay Type	Set station No./device No./relay type/remark	\bigcirc
		Change User Password	Change user password (logged in user only)	
Option		User Registration	Add/delete user by administrator (*5)	0
	Security	Function Option	Set level of each function	0
		Change Relay Password	Change relay password (**6)	0
		Relay Password Enable/Disable	Set relay password valid or invalid	0
	Set Relay Tim	e	Set the connecting relay time with PC (*7)	0
Help	Help		Display the operation description, etc.	0

Explanation

- *1 No login password is required for each connection type.
- %2 Access log is stored in PC, not in relay.
- ※3 Waveform data function is as follows:
 - (1) Trigger : Trip
 - (2) Phenomena number of Record : Past 5 phenomena
 - (3) Accuracy
 - : 12 points/cycle : 224 cycles/channel (e.g.: A,B,C, zero-phase) (4) Accumulation number

 - (5) Accumulation number setting : Set accumulation data cycles begging trip point (10-224 cycles) e.g. : If accumulation number after trip is set to 112 cycles,
 - then accumulation number before trip becomes 112 cycles. (All of cycle = 224 cycles).
 - (6) Download data saved type : COMTRADE type file
- %4 Past 5 phenomena are stored in relay as follows:
 - (1) Operation element: Trip element
 - (2) Operation value : All electric input at the time of trip
 - (3) Operation time : Year, month, date, hour, minute and second
 - (4) Waveform data : Refer to *3
- *5 Functional class for access level of PC operation Users are classified into 4 levels and are given access right according to the level.

Level	Level name	Operation limit
1	Monitor	Display of Measurement, records, etc.
2	Operate	Forced operation, LED reset, memory clear
3	Protection	Setting value change
4	Master	Password management

Each high level has the access right of any lower level.

- *6 Password function of relay panel operation At the time of shipment, the relay password is set as default. The password can be changed under condition of PC login status using this function.
- %7 Time setup accuracy is 1 second

Menu		Submenu	Function	User level (Default)
	Online	Connection	Communication connection	1
	Onine	Disconnection	Communication disconnection	1
Sustam	Select Static	on No. & Relay	All functions	1
System	Access log		All functions	1
	Print		All functions	1
	Logout		All functions	1
	Measuremen	s t 1	Real-time value/maximum value display	1
	weasuremen		Property setup	1
			Real-time value/maximum value display, Up/Down button	1
	Measuremer	at 2	Property setup	1
Relay			Maximum value reset	2
Status	Operate LED		LED display	1
			LED display reset	2
	Alarm		Alarm status display	1
	/ lann		Alarm data reset	2
	וח		DI status display	1
			Property setup	1
Setting	Setting		Setting value display	1
Cotting	County		Setting value change	3
Operation	Operation		All functions	2
Fault	Fault Record		Record display, waveform download	1
Record			Record reset	2
	PC	Communication	All functions	1
	Configuration	Folder	All functions	1
	Configuration	Auto Logout	All functions	1
	Set Station N	lo. & Relay Type	All functions	4
		Change User Password	All functions	1
Option		User registration	All functions	4
	Security	Function Option	All functions	4
	Coounty	Change Relay Password	All functions	4
		Relay password Enable/Disable	All functions	4
	Set Relay Ti	me	All functions	3

1.2. User Level and Function Correspondence

2. PC Operating Environment

Recommended operation environment of this HMI software is as follows:

OS
Windows XP(English), 7(English)
CPU
Pentium 300MHz or higher
Display
Resolution: 800×600dpi or higher
Required memory
128MB or higher
HDD
300MB or higher

3. Installation





Setup - MELPRO(TM)-DASH HMI SOF	TWARE	
Select Destination Directory Where should MELPRO(TM)-DASH H	HMI SOFTWARE be installed?	
Select the folder where you would like installed, then click Next.	e MELPRO(TM)-DASH HMI SOFTWARE to be	
D:\Program Files\MELPRO-D		
🔁 D:\	<u> </u>	
Program Files		
analysis		
Efp302		
e d:	<u> </u>	
The program requires at least 9.1 MB	of disk space.	
	< <u>B</u> ack <u>N</u> ext> Cance	

- 1. Turn on the PC and start Windows.
- Insert the HMI software Disk 1 in FDD, and select
 「Start」 「Run by designating file name」.

 Enter A: ¥ Setup.exe and click "OK".
- 3. Click "Yes (Y)".
- 4. Click "Next" to contintinue or "Cancel" to Exit Setup.

5.Select the folder where you would like MELPRO^(TM)-DASH HMI SOFTWARE be installed? If installed, click "Next".

Setup - MELPRO(TM)-DASH HMI SOFTWARE Select Start Menu Folder Where should Setup place the program's shortcuts?	
Select the Start Menu folder in which you would like Setup to create the program's shortcuts, then click Next. MELFRO-D	_
Accessories Games Startup	4
< <u>B</u> ack <u>N</u> ext >	Cancel



Setup - MELPRO(TM)-DASH HMI SOFTWARE	_ 🗆 🗵
Ready to Install Setup is now ready to begin installing MELPRO(TM)-DASH HMI SOFTWARE on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination directory: D:\Program Files\MELPRO-D	<u> </u>
Start Menu folder: MELPR0-D	
Additional tasks: Create a desktop icon	
	_
< Back	Cancel

6. Select the Start Menue folder in which you would like Setuo to create the program's shortcuts,then, click "Next ".

 Select the additional tasksyou would kike Setup To perform while installing MELPRO^(TM)-DASH HMI SOFTWARE,then click "Next"

 Identify current setup status. If the setting is right, click "Install ". Otherwise, click "Back " to change setting.



9. Setup finished. Click "Finish" to end setup.

4. Login

Login				×
UserID Passw) ord	dash		
	OK		Cancel	

↓



Login Verification 🛛 🛛 🕅
Incorrect UserID or Password.
OK

- 1. Select $\lceil Start
 floor \lceil Program
 floor \lceil Melpro-d
 floor$.
- Enter user ID and password. (For the first login, use the default user ID.) Enter "dash" for User ID and let Password blank, then, click "OK". Note) "dash" is the default user ID.

If you want to setup your own user ID and password, please refer to 8.7.3.

 Main menu screen is shown if you have entered the correct user ID and password. At this time, the HMI software has logged in but the relay has not connected with PC.

<Note>

This message will be shown if you have entered an incorrect user ID or password.

5. Logout



↓

Logout	X	<
Exit this program r	iow ?	
OK I	Cancel	

1. Select 「System」 - 「Logout」.

2. Click "OK" to exit this program.

6. Connection

↓

Connect to relay ?

ÖΚ

Connection

Connection



Cancel

х

1. Click the button of "ONLINE/OFFLINE".

2. Click the "OK" button to connect PC with relay.



The left message is shown if connection has failed.

3. Click "OK" to set Station No. and Relay type.

4. Click the button of "Auto Lineup". It will automatically recognize the relay.

Conne	ction faild				
(OK				
	Ļ			_	
onnec	tion		×		
The St type ar Set it r	ation No. (re not set. now pleas(and relay e.			
(OK I	Car	ncel		
Channel No.	& Relay			-	
Channel No. Station No.	& Relay	∆ Type	Remark		Auto Lineup
Channel No.	& Relay	🔺 Туре	Remark		Auto Lineup Property
Channel No.	& Relay Device No.	А Туре	Remark.		Auto Lineup Property
Channel No.	& Rolay Device No.	A Type	Remark		Auto Lineup Property
Channel No.	Relay Device No.	✓ Type	Remark.		Auto Lineup Property
Channel No.	\$ Relay Device No.	X Type	Remark.		Auto Lineup Property
Channel No.	¢ Relay Device No.	✓ Type	Remark.		Auto Lineup Property
Channel No.	Relay	A Type	Remark.		Auto Lineup Property
Channel No.	¢ Relay Device No.	✓ Type	Remark.		Auto Lineup Property
Channel No.	\$ Relay Device No.	✓ Type	Remark		Property

Station No. Device I	lo. Type		Remark		
	C0C4-	A01 D1		U	Auto Lineup
					Property
DODUT 1				OK	Cancel
		5 H B 10			
LPROCTIO-DASH HMI m® Relay Status (19) :	etting(5) Operation(0)	Fault Record@) Option(P) H	telp(B)	
LPRO(TID-DASH HILL m(2) Relay Status (2) S ALARM (Der	iettine©) Operation(©) ail)	Fault Record@	0 Option(P) H	(g)(dat	ONLINE / OFFLINE
LPROCTIO-DASH HIMI m® Relay Status @ 1 ALARM (Der	ettine© Operation@) ai0	Fault Record@ TRS	0 Option(P) H P (Detail)	elp(l)	ONLINE / OFFLINE
LPROCEED-DASH HML MCD Relay Status (MD S ALARM (Det ion No.	ettine(S) Operation(Q) ail) [Device h	Fault Record@ TRS) Option(P) F P (Detail)		ONLINE / OFFLINE
LERROCTOD-DASH HALL mCD Relay Status (9) 5 ALARM (Det ion No. [y Type [C0C4-A01D1]	ettine©) Operation(@) ail) Device h Remark	Fault Record@ TR3 No.	0 Option⊕ F 9 (Detai0	65(B)	ONLINE / OFFLINE
LPROCTOD-DASH HALL mcD Relay Status (29) 5 ALARM (Det ion No. [y Type [C0C4-A01D1] lenu	ettine(2) Operation(2) ail) Device N Remark	Fault Record@ TR3 No.	0 Option(P) P P (Detail)	600	ONLINE / OFFLINE
PRINT	ettne(2) Operation(2) ai0 Device N Remark	Fault Record@ TRS	0 Option(P) P 9 (Detail)	600	ONLINE / OFFLINE
LPROCTO-DASH HHL m27 Relay Status (9 S ALARM (Det ion Na C004-A0101 lenu	attine(S) Operation(Q) all Device h Remark	Fault Record@ TRS	0 Option(P) P 9 Optial0	905-009	ONLINE / OFFLINE
LPROCTO-DASH HMI IPROCTO-DASH	ettine ⁽⁵⁾ Operation(0) all [Device N Remark	Fault Record (0 Option(P) H 9 (Detail)	6600	ONLINE / OFFLINE
	ettine© Operation(0) all [Device N Remark	Fault Record@ TRB	0 Option(P) + 9 (Detail)	65(J)	ONLINE / OFFLINE
EPROCTUD-DASH HME EPROCTUD-DASH HME Teley Gleburge 1 ALARM Col Anno V Type COC4-ACTDT tenu	etting(5) Operation(0) a0 [Device h Pemark	Fault Record@) Option®) + • (Detail)	str@	ONLINE / OFFLINE
LPROCEDDASH HIME IPROCEDDASH HIME IPROCEDASH HIME IPROCEDASH ALARM Corr ALARM Corr IPROCEDASH I	ettine ⁽⁵⁾ Operation(0) a0 [Device h Remark	Fault Record@ TR8 kb.	0 Option(P) 1 9 (Detail)	wbty	ONLINE / OFFLINE
	ettine© Operation(0) all [Device H Remark	Fault Record(2	9 Option(P) P 9 Option(P) P	Neb(19)	ONLINE / OFFLINE
LEPROCTUD-DASH HML MCD Relay Status (9) 3 ALARM Option ALARM Option Type (DOC4-A01D1 terru	etting(5) Operation(0) a0 [Device h Remark	Fault Record(2	0 Option(P) P © Certail0	seting	OMUNE / OFFLINE
LPRO(TD)-DASH HINT MCD Relay Dataset HINT MCD Relay Dataset HINT ALARM (Der vr Type (2004-401 D1 enu	ettine© Operation(0) all Device N Remark	Fault Record@	0 Option(9) P 0 Opti	set(9	ONLINE / OPFLINE
LEPROTUD-DASH HML LEPROTUD-DASH HML MC Relay Glavare() 1 ALARM Col ALARM Col V Type COC4-RATIDT ternu	etting(5) Operation(0) a0 Device h Penad Relay Status	Fault Record (2	0 Option(0) + 0 Opti	setting	ONLINE / OFFLINE
LPRO(TID-DASH HHI IPRO(TID-DASH HHI IPRO (TID-DASH HHI IPRO) ALARM (Der ipro) ALARM (Der ipro) IPRO(TID-ARI) IPRO(TID-DASH HHI IPRO(TID-DASH HHI IPRO(TID-	ettine ⁽⁵⁾ Operation(0) a0 [Device h Remark Relay Status	Fault Record @	9 Option®) + 9 Option®) +	setup	ONLINE / OFFLINE
LEPROCTIND-DASH HIME CPROCTIND-DASH HIME CRAW Genungy 1 ALARM Gen ion No y Tippe COC4-ROTET terru	etting (Correlation (C)) a0 Dervice h Remark Relay Status 2 In Operation	Fault Record@	0 Option(2) 1 9 Option(2) 1 9 Option(2)	setting	ONLINE / OFFLINE
LEPROCTUD-DASH HML IMPO Relay Skourge to ALARM Ope ion No Type COC4-A01D1 terru	etting® Operation(®) a0 [Device h Relay Status 2] Operation	Fault Record (2 TRB	9 Option(9) + 9 (Detail)	Setting	OMUNE / OFFLINE
LPRO(TD)=DASH HINT MO Topo (TD)=DASH HINT MO Topo ALARM (Det V) type TOC4-A01D1 terru	ettine ⁽²⁾ Operation(3) all Device h Remark Relay Status 2 Relay Status Operation	Pault Record@	Option(P) P Option(P)	setting	ON DRE / OFFLINE
LEPROCTUD-DASH HML LEPROCTUD-DASH HML MC Relay Glavar 99 1 ALARM Col ALARM Col V Type COLCE-RATIOT enu	etting(5) Operation(0) a0 Device h Penad Relay Status 2 n Operation	Fault Record@ TR3	0 Option@) + 0	Setting	ONLINE / OFFLINE
LPROCTOD-DASH HML IPROCTOD-DASH HML IPROCTOD-DASH HML IPROCTOD-DASH HML IPROCTOD-ACTION IPROCTOD IPROCTOD IPROCTOD IPROCTOD IPROCTOD IPROCTOD IPROC	ettine ⁽⁵⁾ Operation((3) a0 [Device N Remark Relay Status 2 0peration	Fault Record (2	9 Option@) + 9 (Detail)	Setting	OMUNE / OFFLINE

5. The connected relay information is read out and displayed automatically.

If the information is right, click "OK" please.

6. If the connection is done successfully, the button of "ONLINE/OFFLINE" will flickers in green, and the relay type will be displayed.

7. Disconnection



1. Click the button of "ONLINE/OFFLINE".

- 2. Click the "OK" button.
- 3. The "ONLINE/OFFLINE" button turns off.

8. Interface Operation

8.1 Main Menu

The following is a screen after login.



(1) System

Connection, Disconnection, Logout, Print can be carried out.

- (2) Relay Status Real-time value, LED information, Alarm information can be displayed.
- (3) Setting

The setting value can be displayed or changed.

- (4) OperationThe forced operation of relay contacts can be carried out.
- (5) Fault Record

Display the operated records.

- (6) OptionSet the PC information and security information and so on.
- (7) Help

Provide an online manual of this HMI software.

(8) ALARM(Detail) The monitoring information of relay connected with PC can be displayed. (9) TRIP(Detail) The operating status of relay connected with PC can be displayed. (10) ONLINE/OFFLINE Indicate the connecting status of PC with relay or connect/disconnect PC with relay. (11) Select Station No. & Relay Select the Station number and type of the connecting relay. (12) Station No. Display the station number of connecting relay. (13) Relay Type Display the type of connecting relay. (14) Device No. Display the number of connecting device. (15) Remark Display the remark of relay. (16) Relay Status Identical to (2) (17) Setting Identical to (3) (18) Operation Identical to (4) (19) Fault Record Identical to (5)

8.2. System

- 8.2.1. Online Connection Refer to section 6.
- 8.2.2. Online Disconnection Refer to section 7.

8.2.3. Select Station No. & Relay

Station No.	Device No.	Туре	Remark		
		C0C4-A01D1		Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
				Alarm(Detail)	Trip(Detail)
	- 1				

The same screen will be displayed like above if press the button of 「ALARM(Detail)」, 「TRIP(Detail)」 or 「Select Station No. & Relay」.

- ALARM(Detail)
 - If monitor abnormality (ALARM) is detected by relays, the 「ALARM (Detail)」 buttons of the corresponding relays will flicker red.
 - · Click the flickering button to open a screen for detail alarm information.
- TRIP(Detail)
 - If a trip is detected, 「TRIP (Detail)」 button of the corresponding relay will flicker red.
 - Click the flickering button to open a screen for detail operating LED information.

8.2.4. Access Log Operation of this software can be logged as the following items shown below.

cess Log					
Date	Time	UserID	Content	StationNo.	Туре
PRINT				[Cancel

8.2.5. Print

Each screen can be print out as a list form.

8.2.6. Logout Refer to section 5.

8.3. Relay Status

8.3.1. Measurement 1

Measurement 1 displays all real-time elements of relay in digital format.

System(E) Relay Status(M	I MI) Setting(<u>S</u>) Op	peration(<u>O</u>) Fault Reco	ord(<u>R</u>) Option(<u>P</u>) Hel	р(<u>Н</u>)	
ALARM	(Detail)		TRIP (Detail)		ONLINE / OFFLINE
Station No. Relay Type COC4-A010	01	Device No.			Select Station No. & Relay
Relay Status					
Measurement1 N	leasurement2	Operate LED	Alarm	DI	Back to Main Menu
IA (A)	IB (A)		IC (A)	Io (A)
	Α	000 A			000 ^
				000 🔺	Q00 A
]
			_		
		1			
					J
Phase name displa	Element	name display	Max. value disp	blay 2 Max.	value display
					Realtime value display

(1) Startup

Select 「Relay status」 - 「Measurement 1」 from menu bar or click "Relay Status" button to startup.

(2) Property of each element

Click "Phase name" display column or "Element name" display column to open property screen of each element.

Property		
Phase Name		
Element Name	IA (A)	•
Alarm Upper Limit		A
Alarm Under Limit		A
	ок	Cancel

Phase name

Enter a phase name and click "OK", and then the entered phase name can be displayed.

Element name

Select it only when you want to change default name.

Alarm upper limit/under limit

If real-time value is outside this range, the element display column flickers red.

Beware of input value unit. The unit cannot be changed.

 $\langle E.g. \rangle$ For 2000A : 2000

(3) Max. value display

"-" (Negative) maximum value of active and reactive power is displayed in Max. value display 2.

NOTE) About 1f/2f (2f content) measurement of COC4-A03D1 type, when there is no current input, it is displayed as "100%."

8.3.2. Measurement 2

Measurement 2 displays each line of Measurement 1 at digital + analog format.

<mark>⊛MELPRO(TM)−DASH_HMI</mark> System(<u>F</u>) Relay Status(<u>M</u>) Setting(S)	Operation(<u>O</u>) Fault Record(<u>R</u>)	Option(P) Help(H)	
ALARM (Detail)	TRIP	(Detail)	ONLINE / OFFLINE
Station No. Relay Type C0C4-A01D1	Device No. Remark		Select Station No. & Relay
Relay Status Measurement1 Measurement2	Operate LED	Alarm DI	Back to Main Menu
IA (A) 999000.00 0.00 0.00 0.00 0.00 0.00 0.0	IB (A) 9999000.00 0.00 0.00 0.00 0.00 0.00 0.	IC (A) 9999000.00 0.00 0.00 0.00 0.00 0.00 0.	

(1) Startup

Select $\lceil \text{Relay status} - \lceil \text{Measurement 2} \rceil$ from menu bar or click "Relay Status" - "Measurement 2" button to startup.

(2) Property of each element

Click "Phase name" display column or "Element name" display column to open property screen of each element.

Property	
Phase Name	
Element Name	IA (A)
Max. Indication Value	999000
Min. Indication Vlaue	0
Alarm Upper Limit	A
Alarm Under Limit	A
💿 Bar Graph	🔿 Pointer Graph
ОК	Cancel

Phase name

Enter phase name and click "OK", and then the entered phase name can be displayed.

Element name

Select it only when you want to change default name.

Max./Min. indication value

Set the display range of real-time value.

Alarm upper limit/under limit

If real-time value is outside this range, the element display column flickers red.

Beware of input value unit. The unit cannot be changed.

- <E.g.> For 2000A : 2000
- Bar/Pointer graph

Select or change the display format.

(3) Reset Max. values

Click the button of "Reset Max. values" to popup following screen.

Click "OK" to reset maximum value.

At this time, all input data stored in the relay are deleted.

Reset Max. Value	s	×
Reset all recorded	max. values ?	
(OK	Cancel	

8.3.3. Operate LED

Operate LED can be indicated as same as the indicator LED on the relay front panel.

₩ELPRO(TM)-DASH HMI System(<u>F)</u> Relay Status(<u>M</u>) Setting(<u>S</u>)	Operation(0) Fault Record(R) Option(P) Help(H)	
ALARM (Detail)	TRIP (Detail)	ONLINE / OFFLINE
Station No. Relay Type C0C4-A01D1	Device No. Remark	Select Station No. & Relay
Relay Status Measurement1 Measurement2	Operate LED Alarm D)I Back to Main Menu
	Opera Element Trip Phase fault time-lag A Phase fault time-lag B Phase fault time-lag C Earth fault time-lag Phase fault instantaneous A Phase fault instantaneous B Phase fault instantaneous C Earth fault instantaneous	Reset Indicator

(1) Startup

Select $\lceil \text{Relay status} - \lceil \text{Operate LED} \rceil$ from menu bar or click "Relay Status" - "Operate LED" button to startup.

(2) Reset Indicator

Click the button of "Reset Indicator" to popup following screen. Click "OK" to reset operate LED.

At this time, all operate LEDs located the relay front panel will be turned off.

Reset Indicator		×
Reset all of operat	tion LEDs?	
OK	Cancel	

8.3.4. Alarm

Indicate all of monitoring information.

MELPRO(TM)−DAS System(E) Relay Stat	SH HMI :us(M) Setting(<u>S</u>) O	peration(<u>O</u>) Fault I	Record(<u>R</u>)	Option(<u>P</u>) He	эlp(<u>H</u>)	
AL	ARM (Detail)		TRIP	(Detail)		ONLINE / OFFLINE
Station No. Relay Type COC4-	-A01 D1	Device No. 🛛				Select Station No. & Relay
Relay Status Measurement1	Measurement2	Operate LED		Alarm	DI	Back to Main Menu
	Element 0001:ROM check 0002:RAM check 0003:A/D precisior 0004:A/I check 0005:A/D check 0006:SRAM check 0008:D0 status ch 0009:D0 operation 0011:A/I double ch 0013:EEPROM check 0013:EEPROM check 0013:EEPROM check 0015:WDT check	eck check check check check eck ck ck ck ck	Opera	Element 0028:Communic 0029:Channel N 0030:Baud rate 0031:Channel N 0032:Baud rate	ation card check o. swaitch setting e switch setting error o. switch change err switch change error	Reset

(1) Startup

Select $\lceil \text{Relay status} - \lceil \text{Alarm} \rceil$ from menu bar or click "Relay Status" - "Alarm" button to startup.

(2) Reset Indicator

Click the button of "Reset" to popup following window. Click "OK" to reset monitoring information.

At this time, all alarm data stored in the relay are deleted.

Reset Alarm		×
Reset all of alarm I	LEDs?	
<u>OK</u>	Cancel	

(*) With this operation, only monitoring data reset is possible, and monitoring output logout of relay hardware is impossible. Also, when the relay hardware is in monitoring abnormal status, the monitoring data reset is impossible.

Refer to manual of relay for details.

8.4. Setting

Display or change the setting values of relay connected with PC.

	ALARM (Detail)		TRIP	(Detail)	ONLINE / OFFLINE
Station No.		Device	No.		
Relay Type	C0C4-A01 D1	Remar	'k		Select Station No. & Relay
tting					
Settir	ne				Back to Main Menu
	I				
Item No.	Item Name	Range of Setting	Step of Setting	Present S∈ ▲	READ
511	Phase fault tim-lag o	LOCK1-12A	01A		
512	Phase fault tim-lag o	0.25.0.5-50	0.5		
513	Phase fault tim-lag o				From Relay From File
514	Phase fault tim-lag R				Troin Neiay Troin The
521	Phase fault intantane	LOCK,2-80A	1A		
522	Phase fault instantan	INST,0.1-0.5s	0.1s		
531	earth fault instantane	LOCK,0.1-0.8A	0.05A		-
532	Earth fault tim-lag op	0.25,0.5-50	0.5		
533	earth fault tim-lag op				CHANGE
534	earth fault tim-lag re				
541	earth fault instantane	LOCK,1-8A	0.1 A		Start
542	earth fault instantane	INST,0.1-0.5s	0.1s		
000	Contact arrangement				Refer to Saved Setting File
800	Contact arrangement				Trater to bayed betting File
800 810					
800 810 820	Contact arrangement		1		Set.end Cancel
800 810 820 830	Contact arrangement Contact arrangement				
800 810 820 830 840 850	Contact arrangement Contact arrangement Contact arrangement				
800 810 820 830 840 850 860	Contact arrangement Contact arrangement Contact arrangement Contact arrangement				
800 810 820 830 840 850 860	Contact arrangement Contact arrangement Contact arrangement Contact arrangement Operation indicator L			 ▼	
800 810 820 830 840 850 860 •	Contact arrangement Contact arrangement Contact arrangement Operation indicator L				Save File

(1) Startup

Select $\lceil \text{Setting}
floor - \lceil \text{Setting}
floor$ from menu bar or click "Setting" button to startup.

8.4.1. Setting display

(1) At case of the setting values are read out from relay

	ALARM (Detail)		TRIP	(Detail)	ONLINE / OFFLINE
Station No. Relay Type	C0C4-A01D1	Device	No.		Select Station No. & Relay
etting					
Relay of S	etting				Back to Main Menu
Item No.	Item Name	Range of Setting	Step of Setting	Present Sr +	READ
511	Phase fault timular o	LOCK1-12A	014	15	
512	Phase fault timelar o	025.05-50	05	1.0	
513	Phase fault tim-lar o	020,00 00	0.0	E001	From Balan
514	Phase fault tim-lar R.			50ms	From Helay From File
521	Phase fault intentane	LOCK2-80A	18	20	· · · · · · · · · · · · · · · · · · ·
522	Phase fault instantan	INST.01-05c	0.1s	01	
531	earth fault instantane	LOCK01-08A	0.05A	0.5	
532	Earth fault tim-lag op.	0.25.0.5-50	0.5	0.25	
533	earth fault tim-lag op			E101	CHANGE
534	earth fault tim-lag re.			200ms	
541	earth fault instantane	LOCK1-8A	01A	1	Start
542	earth fault instantane	INST.0.1-0.5s	0.1s	0.1	0.00
800	Contact arrangement			0101	
810	Contact arrangement			0010	
820	Contact arrangement			00E0	
830	Contact arrangement			000F	Setend Ganzel
840	Contact arrangement			OTFE	
850	Contact arrangement			01FE	
860	Operation indicator L.			01FF -	
4					Save File
4					Save Fi

 Click the button of "From Relay". The present relay setting values will be displayed in the present setting column.

The tab will be displayed as "Relay setting".

(2) At the case of the setting values are read out from a file

File	Read out				? ×
ţ	Save in:	🔄 setting 💌	E	1 📥	
	coc4a01.set				
F	ile name:	[Sa	ave
S	ave type:	Setting File	•	Can	cel

↓

	ALARM (Detail)		TRIP	(Detail)	ONLINE / OFFLINE
Station No.		Device	No.		
Relay Type	C0C4-A01D1	Rema	к <u>г</u>		Select Station No. & Relay
tting					
File of Se	ttios				Back to Main Menu
Bern No.	Item Name	Range of Setting	Step of Setting	Present Se .	READ
511	Phase fault tim-lag o	LOCK,1-12A	0.1A	1.5	
512	Phase fault tim-lag o	0.25,0.5-50	0.5	3	
513	Phase fault tim-lag o			LUI	From Relay From File
514	Phase fault tim-lag PC.	100000.0000	14	SUms	
5621	Phase fault infantane	DUCK2-80A	18	20	
804	Phase taut instantan.	1000601-000	0.15	05	
531	Earth fault timelat on	02505-50	05	0.5	
522	earth fault timelar on	0.2000-00	0.0	6101	CHANGE
594	earth fault tim-lar re			200mc	
541	earth fault instantane	LOCK1-8A	01A	1	
542	earth fault instantane	INST.01-05s	0.1s	01	
800	Contact arrangement			0101	
810	Contact arrangement			0010	
820	Contact arrangement			00E0	
830	Contact arrangement			000F	Setend Gonzel
840	Contact arrangement			01FE	
850	Contact arrangement			OTFE	
860	Operation indicator L.			01FF -	

 Click the button of "From File".
 A window for file select will be popup. Select a setting file and click "Open".

2. Setting values are displayed in the present setting column.

The tab is displayed as "File setting". But for the setting values which are read from a log file, the setting values cannot be changed.

8.4.2. Change Settings





LOCK1-8A INST.01-05s

Ť

01A 01s

> 0010 00E0 000F 01FE 01FE 01FF

1 2

 First to read out setting values with the button "From Relay". Change is possible only when the "Start" button is in activated. Then click the "Start" button.

- 2. Click "OK" please.
- 3. If "Start" button flickers, it means that the setting mode is in available.

 Double-click the item column that you want to change the setting value. Or click "Refer to Saved Setting File" and select a setting file.

At this time,

If new value is the same as old value, it can not be displayed as new setting value in "New Settings" column.

CHANGE

Cancel

Save File

Fig. 1

Ind./Change		Î
Item No.	511	
Item Name	Phase fault tim-lag operation curre	
Range of Setting	LOCK,1-12A	
Step of Setting	0.1A	
Present Settings	1.5	
New Settings	•	
The new setting PC. But this ope present setting v (If you want to c values, it is nece button after pres	data will be programmed in to the ration does not change the relay values yet. hange the relay present setting essary to press the "Set.end" ssing the button "Set".)	
Write in	Cancel	

Fig. 2 Contact Arrangement

		X2	X3	X4	X5	X6	X7	X8	X9	XA	XB	XC	X_
													†
1		—	—	—	—								١
ta will ies yet buttoi	be pro t.(If yo n after	ogramr u wan r press	n ed in t to ch sing th	to the lange le butt	PC.B the rel on "W	ut this ay pre rite in	opera sents ')	ation d etting	loes ni : value	ot cha s, it is	nge th : nece	e rela <u>;</u> ssary	/ to
			5										
	ta will butto	a will be proved of the set of th	a will be programs button after press	a will be programmed in button after pressing th	a will be programmed into the base yet (if your to change button after pressing the but	a will be programmed into the PC. B a will be programmed into the PC. B a will be programmed into the PC. B button after pressing the button "W	a will be programmed into the PC. But this relay pre- button after pressing the button "Write in	a will be programmed into the PC. But this operative set (1) your and to charge the relay pressing the button "Write in")	a will be programmed into the PC. But this operation a will be programmed into the PC. But this operation button after pressing the button "Write in".	a will be programmed into the PC. But this operation does no expected by the relay programmed setting value button "Write in")	a will be programmed into the PC. But this operation does not change yet (f) you want to change the relay pregent setting values, it is button after pressing the button "Write in")	a will be programmed into the PC. But this operation does not change the relay present setting values, it is nece button after pressing the button "Write in")	a will be programmed into the PC. But this operation does not change the relay resent setting values, it is necessary button after pressing the button "Write in")

5. CT/VT ratio for item No. 5XX, 6XX and 9XX is displayed in Fig. 1.

Select new value from "New Settings" column with pull-down button, and click "Write in".

Setting value, which is being run by the relay, is not changed yet at this time. (If you want to change it, click "Set.end" please.)

Double-click the "Contact Arrangement" of item No. 8XX.

The ordinate represents elements mounted on the relay, and the abscissa represents contacts mounted in the relay.

Elements allotted in each contact flickers red. Click"
—", which is put out, to allot other elements to the contact.

If you click it, it flickers red.

If there is an element not allotted at the contact, click the part that flickers red.

Click "Write in" if all setup is completed.

Setting value, which is being run by the relay, is not changed yet at this time.

(If you want to change it, click "Set.end" please.)

Fig. 3

	LED	Hold
	Trip	
Phase t	ault time-lag A	
Phase t	ault time-lag B	
Phase t	ault time-lag C	
Earth	fault time-lag	
Phase fau	It instantaneous A	
Phase fau	lt instantaneous B	
Phase fau	lt instantaneous C	
Earth fai	ult instantaneous	
he new setting data peration does not c et.(If you want to cł ecessary to press t utton "Write in".)	a will be programmed in hange the relay preser hange the relay presen he "Set.end" button af	nto the PC. But th it setting values t setting values, it ter pressing the
utton "Write in".)	[**********	

Fig. 4



Double-click "Operate LED" of Item No. 8XX. LED mounted on the relay is displayed and red flickering is maintained.

Click " \square ", which is put out, to maintain. Then, it flickers red.

Click red flickering part for automatic reset.

Click "Write in" if all setup is completed.

Setting value, which is being run by the relay, is not changed yet at this time.

(If you want to change it, click "Set.end" please)

Double-click "Waveform Record".

When fault is detected by relay, instantaneous waveform data is recorded.

Up to 224 cycles of instantaneous waveform data can be recorded. Set cycle number for recording. Drag scroll bar or click arrows on either side. Click "Download" if all setup is completed. Setting value, which is being run by the relay, is not changed yet at this time.

(If you want to change it, click "Set.end" please)

D. ite	o you want ems? Yes(Y)	to char	nge oth N	o(N)	
	Ļ				-
Sta	rt to Cha	nge Se	etting	s 🔀	
P(ne th	C.if you wa www.settings e "Set.end"	nt to ex , please button. OK	press	the	
	\downarrow				
5 MELPH System(E)	tO(TM)-DASH HMI E Relay Status∰ Settin	e⊗) Operation@) Fault Record	1(8) Option(12) Help(12)	
[ALARM (Detail)		7	RIP (Detail)	ONLINE / OF
	a. [_			-
Relay Ty	ne C0C4-A01D1	Ren	erko. j		Select St
Setting					
Relay o	of Setting				B
Ren No	Bam Name	Banga of Satting	r Step of Sett	or Present Se	
511	Phase fault tim-lag o	LOCK1-12A	01A	2 1.5	
513	Phase fault tim-lag o	020,00-00	0.0	E001	From Bellay
514	Phase fault tim-lag R. Phase fault intantane.	LOCK2-80A	18	50ms 20	
522 531	Phase fault instantan.	INST.01-05c LOCK 01-024	0.1s	01	
532	Earth fault tim-lag op.	0.25,05-50	0.5	0.25	
534	earth fault tim-lag op.			200ms	
541 542	earth fault instantane. earth fault instantane.	INST.0.1-0.5s	01A 01s	1 01	
800	Contact arrangement			0101	Refer to S
820	Contact arrangement			00E0	

Set

X

 Start
 Image: Start to change the present settings with the new setting data, and execute the new settings.OK?

 Image: OK
 Cancel

01FE 01FF

1.2

↓

Contact arrangemen Operation indicator

- Click "Yes(Y)" to select other setting items. And repeat above procedure. If there is no item to change, click "No (N)".
- 7. Click "OK" please.

8. "Set.end" button flickers blue.

 Click "OK" to change setting value, which is being run by the relay. And otherwise click "Cancel".

ion No. & Relay

tting File

Save File



10. Click "OK" please.

Station No.		Device	No.		
Relay Type	C0C4-A01D1	Rema	ik 🗍		Select Station No. & Relay
tting					
Relay of S	Setting				Back to Main Menu
Item No.	Item Name	Range of Setting	Step of Setting	Present Sr +	READ
511	Phase fault tim-lag o	LOCK 1-12A	01A	15	
512	Phase fault tim-las o	02505-50	05	3	
513	Phase fault tim-las o	020,00 00		6001	From Parley From File
514	Phase fault tim-lag R.			50ms	From Heldy From Fig
521	Phase fault intentane	LOCK2-80A	18	20	
522	Phase fault instantan.	INST.0.1-0.5s	0.1s	0.1	
531	earth fault instantane	LOCK.0.1-0.8A	0.05A	0.5	
532	Earth fault tim-lag op	0.25.0.5-50	0.5	0.25	
533	earth fault tim-lag op			E001	CHANGE
534	earth fault tim-lag re			200ms	
541	earth fault instantane	LOCK,1-8A	01A	1	Start
542	earth fault instantane	INST.0.1-0.5s	0.1s	0.1	
800	Contact arrangement			0101	
810	Contact arrangement			0010	
820	Contact arrangement			00E0	
	Contact arrangement			000F	Setend Cancel
830	Contact arrangement			UTFE	
830 840	Contact arrangement			UTFE	
830 840 850				01FF *	
830 840 850 860	Operation indicator L.				

11. End setting value change.

8.4.3. Save File

	ALARM (Detail)		TRIP	(Detail)	ONLINE / OFFLINE
Station No		Device	No.		
Relay Type	C0C4-A01D1	Remar	k [Select Station No. & Rela
tting					
Relay of	Setting				Back to Main Menu
Item No.	Item Name	Range of Setting	Step of Setting	Present St +	READ
511	Phase fault tim-lag o	LOCK1-12A	01A	15	
512	Phase fault tim-las o.	02505-50	0.5	3	
513	Phase fault tim-lag o			E001	Eron Balau Eron Eile
514	Phase fault tim-lag R.			50ms	Trom rwny. From riv
521	Phase fault intantane	LOCK2-80A	18	20	
522	Phase fault instantan.	INST.0.1=0.5s	0.1s	0.1	
531	earth fault instantane	LOCK,0.1-0.8A	0.05A	0.5	
532	Earth fault tim-lag op.	0.25,0.5-50	0.5	0.25	
533	earth fault tim-lag op			E101	CHANGE
534	earth fault tim-lag re.			200ms	
541	earth fault instantane	LOCK,1-8A	01A	1	Start
542	earth fault instantane	INST.0.1-0.5s	0.1s	01	
800	Contact arrangement			0101	
810	Contact arrangement			0010	
820	Contact arrangement			0050	
0.00	Contact arrangement			0007	Detend Gancel
940	Contact arrangement			OTEE	
000	Connact arrangement			0155 -1	
4	Operation indicator L.			UIPP -	· · · · · · · · · · · · · · · · · · ·
1					Save File
					_Save Fi

↓

File write in		×
Save settings to a	file.	
OK	Cancel	

↓

File write in				?	х
Save in:	🔄 setting	•	1 🚮	<u>r</u>	
🔁 coc4a01.set 🝙 abc.set					
File name:				Save	
Save type:	Setting File			Cancel	

↓



1. Click the button of "Save File".

2. Click "OK" to save a file.

3. Enter a file name and click "Save (S)".

4. Click "OK" please.

8.5. Operation

Display both contacts mounted on the relay and elements allotted to the contacts, and can render the contacts to operate forcedly.

System(<u>F)</u>	TM)-DASH HMI Relay Status(<u>M</u>) – Se	etting	<u>s</u>) ()perati	on(<u>O</u>)	Fau	lt Reci	ord(<u>R</u>)	Opt	ion(<u>P</u>)	Hel	р(<u>Н</u>)					_ 🗆 X
	ALARM (Deta	ιiD						TRIP	(Deta	iD					C	DNL	INE / OFFLINE
Station No. Relay Type	C0C4-A01D1			D	evice Rema	No. ′k											Select Station No. & Relay
Operation Forced ope	ration																Back to Main Menu
								Cor	ntact								
	Element Name	XD	X1	X2	X3	X4	X5	X6	X7	X8	X9	XA	ХВ	XC	X	•	Please select forced
	Contact hold																below list and then
	ase fault time-lag																click the button "Operate"
	ase fault time-lag																
	ase fault time-lag																Operate
	arth fault time-lai																
	⇒ fault instantanec																
	Fault instantanec																
	Fault instantanec h fault instantanec																
	n tauit instantane				믐												
					H		H										
			F				H										
							F										
																 ₹	
	•		+							-					Þľ		
															_		

(1) Startup

Select 「Operation」 - 「Operation」 from menu bar or click "Operation" button.

(2) About list

Ordinate : Contacts mounted on the relay

Abscissa : Element names allotted to the contacts

When a relay element is under operating, the corresponding contact is displayed red. This setup is set at the time of shipping. However, it can be changed by programmable contact operation.

8.5.1. Forced Operation



↓



 Select contacts for forced operation. Click contact names (X0~Xd). Multiple selection is available by holding "Ctrl" key.

If contacts for forced operation are decided, click "Operate" please.

 Click "OK" to execute forced operation of the contacts which are selected. Contact output time is about 1 second.

8.6. Fault Record

w MELPRO	DCLMD-DASH HML Polou Status(M) Sottin	r(S) Operation(O) Ea	ult Beeerd(P) On	ion(P) Hole(U)		الالا
bystem(<u>r</u>)	Relay Status (M) Settin	gvo/ Operation(O/ Fa	uit Record (<u>F</u> V) Opi	lion(<u>r</u>) Help(<u>r</u>)		
	ALARM (Detail)		TRIP (Deta	iD	ONI	INE / OFFLINE
Station No.		Device No.				
Relay Type	CPP1-A02D2	Remark				Select Station No. & Relay
ault Record						
Fault Re	ecord					Back to Main Menu
Select phenomena 1st phenomena Operation time 2000/01/01 01:24:22 Operation Record 						
Г	Element name	Operate	~	Operation p	ohase Operat	tion value
	Directional phase faul			IA (A)	0.00	
	Undervoltage			IB (A)	0.00	
	Heverse power	H		IC (A)	· 0.00	
	Overfrequency			VBC (V	/) 0.00	
	Underfrequency			VCA (\	Λ 0.00	
	Earth fault overvoltage			Vo (%) 0.00	
-	Uvervoltage			P (W)	0.00 k	
				Power fac	ztor 1.00 K	
				Frequency	(Hz)	-
				1		
			File	write in	Download	Reset

(1) Startup

Select 「Fault Record」 - 「Fault Record」 from menu bar or click "Fault Record" button.

After selecting [fault record], select which do you read the data from Relay side or PC side.



Relay

Fault record data will be read out from the relay and indicated on the PC screen. (NOTE) The following message shows that there is no former fault record.



Click 「OK」, the fault record window will popup. But, operation time, operation element and operation

record remain blank.

File

The following indication will be appeared.

Fault Record rea	ıd		? 🗙			
Look in: 🗀 dowr	nload	- + 🗈	💣 🎟 •			
CGP1-A01D2						
File <u>n</u> ame:			Upen			
Files of <u>type</u> : Fau	It Record	•	Cancel			

After selection of stored data file, select [down load] button.

😹 MELPR	D(TM)-DASH H	IMI						
System(<u>F</u>)	Relay Status(<u>M</u>)	Setting(<u>S</u>)	Operation(<u>O</u>)	Fault Record(<u>R</u>)	Option(<u>P</u>)	Help(<u>H</u>)		
	ALARM (I	Detail)		TRIP	(Detail)		ONLINE / OFFLINE	
Station No. Device No.								
Relay Typ	e COC4-A03D1		Remar	k			Select Station N	o. & Relay
Fault Record								
Fault R	ecord						Back to M	ain Menu
Select phenomena 1st phenomena Operation time 2000/01/01 01:24:22 Operation Operation Record								
[Element name Operate		^		Operation phase	Operation value		
	Directional pha Undervolta Reverse po Underpow Overfreque Underfreque Earth fault ove Overvolta	ase fault age wer ver ency ency rvoltage ige				IA (A) IB (A) IC (A) VAB (V) VBC (V) VCA (V) VCA (V) P (W) P (W) Power factor Frequency (H2)	0.00 0.00 0.00 0.00 0.00 0.00 0.00 k 1.00 	
				_	File write in	Downle	Dad Reset	
Fault record	ding power factor ·	∹LEAD +:LA	G					

In case of the data reading out from file in PC, operation of [Fault Record read] will be ignored and data can not be overwritten.

(2) Browse record

1st phenomena (the newest operation record) will be displayed at first when open the window of "Fault Record".

The other phenomena ($2^{nd} \sim 5^{th}$ phenomena) also can be selected from the column of the "Select phenomena" with pull-down button.

😹 MELPRO (TM)-DASH HMI						
System(F) Relay Status(M) Setting(S)	Operation(O) Fault Record	(<u>R</u>) Option(<u>P</u>) Help(<u>H</u>)				
ALARM (Detail)	AT	IP (Detail)	ONLI	INE / OFFLINE		
Station No. Relay Type CPP1-A02D2	Device No. Remark		5	Select Station No. & Relay		
Fault Record						
Fault Record				Back to Main Menu		
Select phenomena 1st pheno Operation 2nd pheno 3rd pheno Directional phase fault Undervoltage Reverse power Underpower Overfrequency Underfrequency Earth fault overvoltage	mena	Operation time Operation Record IA (A) IB (A) IC (A) VAB (V) VBC (V) VCA (V) V	2000/01/01 01:24 hase Operatie 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	:22		
File write in Download Reset						
Fault recording power factor ∹LEAD +:LA	G					

Operation time : Operation time is displayed in year, month, day, hour, minute and second.

Operation element : Operation element flickers red when the relay operated.

Operation record : Displays input quantity of electricity when the relay operated.

It is possible to save the data indicated on the screen of PC by the selection of "File write in".

File write in	
Save fault record	to a file.
OK	Cancel

Please decide the file name after selecting "OK".

(3) Reset fault record

Click $\lceil OK_{\perp}
cdot$ to remove all of fault records (1st $\sim 5^{th}$ phenomena).

Reset	
Reset all records of 1s	t – 5th fault phenomena.
OK	Cancel

(4) Download

Instantaneous waveform data are recorded in the relay while it operated. The recoded waveform can be downloaded and displayed.

The following window will popup when click "Download" button.

Down load				
Which do you read waveform data from?				
Relay	File			

Relay : Read stored waveform data from relay.

File : Read saved waveform data from a file.

If there is no fault record stored in relay, you cannot click the button of "Relay".

Relay

It will tale a little time to download the waveform data from the relay.

If you want to download, please select OK button.

Waveform Download	×			
The waveform data will be downloaded. It will take a little time to download. Would you like to start it ?				
Cancel				

After select OK button, the following screen will be appeared and continued up to 100%

Down load		
Downloa Wait a m	ding oment please.	
0%	50%	100%
	Cancel	

NOTE) In case of no fault record or waveform data, the following messages will be indicated after download starting,

Waveform display 🛛 🛛 🔀
There is not fault record or waveform data. Refer to the "Help" for details.
<u> </u>

NOTE) Please carry out waveform download before changing a setting value when downloading a waveform, the above-mentioned message is displayed and waveform download cannot be performed, when a setting value is changed.

File

Download			? ×
Save in:	🔄 download	- 🗈 💆	
coc4a01.cfg			
coc4a01.hdr			
File name:			Save
Save type:	COMTRADE Type	•	Cancel

The file type can be ".cfg", ".dat" or ".hdr", to select each type is the same.

The following waveform window is available when read out waveform data from relay or a file.



The ordinate value is 1/5 of 1.5 times of each element maximum value.

The abscissa/ordinate values can be changed at random.

Press "Enter" key of the keyboard and enter values to change.

■Primary/secondary ratio is converted to value set by the relay.

■ Save file can be selected only when instantaneous waveform data was read from relay.

■If click 「Cancel」, the following window will popup.

Fault waveform display	•	\times
Are you sure to exit?		
Yes(Y)	No(N)	

8.7. Option

- 8.7.1. PC Configuration
- 8.7.1.1. Communication

PC connector port is set up. Also, the PC connecting type with relay is set up here.

Set PC	
Communication Port	COM1
Connection PC Style	Direct PC
	Detail
PRINT	OK Cancel

- (1) Startup
- Select $\lceil Option \rfloor \lceil PC Configuration \rfloor \lceil Communication \rfloor$ from menu bar. (2) Communication Port
 - Select from COM1 \sim COM8.
- (3) Connection PC Style Direct PC: Directly communicate by connecting with connector located relay front panel.

8.7.1.2. Folder

Set up folders to save each data read from the relay.

(1)	Startup		
	Select $\lceil \text{Option} \rfloor - \lceil \text{PC Cor} \rceil$	nfiguration _ Folder	from menu bar.
(2)	Folders		
	Default folders are as follows.		
	Relay Setting Info.	: C:¥Users¥Public¥Doo	cuments¥MELPRO-D¥setting
	Waveform download Info	: C:¥Users¥Public¥Doo	cuments¥MELPRO-D¥download

If you want to change the folder name, please click "Browse" and set folder as you like.

8.7.1.3. Auto Logout

This is a function that the HMI software can log out automatically when the HMI window was laid aside over logout time.

Auto Logout		
T Auto Logo	ut Function Option)	
Auto Logout ⁻	Time (3-60min) 3	<u>.</u>
PRINT	ОК	Cancel

But if the function of auto logout is not in active condition, it cannot log out even though the auto logout time had been set.

(1) Startup Select 「Option」 - 「PC Configuration」 - 「Auto Logout」 from menu bar.

8.7.2. Set Station No. & Relay Type

Display the type of relay which has been connected with PC.

Station No.	Device No.	Туре	Remark]
		C0C4-A01D1		Auto Lineup
				Property

(1) Startup

Select 「Option」 - 「Set Station No. & Relay Type」 from menu bar.

8.7.3. Security

8.7.3.1. Change User Password

It is available to change the user password when the user login.

Change User Password	
User ID	dash
Name	
Level	Master
Old Password	
New Password	
Re-enter New Password	
ОК	Cancel

(1) Startup

- (2) Change password
 - 1 Enter pervious password in "Old password".
 - 2 Enter new password in "New password" (alphanumeric within 8 characters).
 - ③ Re-enter new password in "Re-enter New Password".
 - 0 Click "OK".

If there is an error, the following message is displayed.

At the case of the old password was wrong

Password Verification	\times
The old password entered incorrect. Please re-enter it again.	is
OK	

At the case of the re-entered new password was wrong

Password Verification 🛛 🕅		
There is different between new password and re-enter new password. Please check and re-enter it again.		
OK		

8.7.3.2. User Registration

|--|

User ID	Name	Level	Date	Remark	
dash		Master	2001/02/23		Change
MITSUBISHI	MITSUBISHI	Master	2002/08/06		
					(
					Add
					-
					Delete
					_
					-
					_
					-
					-
					-
					-
					-
					⊒
PRINT				OK	Canaal

(1) Startup

- Select $\[\] Option \] \[\] Security \] \[\] User registration \] from menu bar.$
- (2) Add

evel Monitor Operate Protection Master Cancel

Enter each item, select user level and click "OK". About the user level, please refer to section 1.2.

User ID:Alphanumeric within 10 charactersName:Any characterPassword:Alphanumeric within 8 charactersRemark:Any character

(3) Change

Select row to change from the list, and click "Change".

User ID	Name	Level	Date	Remark	
dash		Master	2001/02/23		Change
MITSUBISHI	MITSUBISHI	Master	2002/08/06		
					Add
					Delete

↓

Change / Add	d	
User ID Name Password Remark	MITSUBISHI MITSUBISHI *****	Level O Monitor O Operate O Protection O Master
	ОК	Cancel

Enter each item, select user level and click "OK".

(4) Delete

Select row to delete from the list, and click "Delete".

[Warning]

Considering of the security, you had better to delete the user of "DASH" from default.

In this case, it is necessary to register a new Master user to instead of "DASH" user, in advance. Otherwise, the Master setting will become impossible and necessary to re-install the HMI software.

8.7.3.3. Function Option

Sets up the operation range of each user level. The default is shown in section 1.2.

Function	Level	Function	Level 🔄
Direct PC connection	Monitor	Local PC connection	Monitor -
Remote PC connection	Monitor	Communication disconnection	Monitor
Station NoRelay selection	Monitor	Access Log	Monitor
Print	Monitor	Logout	Monitor
[Measurement 1] Real time _Max. value	Monitor	[Measurement 1] Property setup	Monitor
[Measurement 2] Real time Max. value	Monitor	[Measurement 2] Property setup	Monitor
[Measurement 2] Max. values reset	Operate	[Operate LED] LED status display	Monitor
[Operate LED] Indication reset	Operate	[Alarm] Alarm status display	Monitor
「Alarm」Alarm reset	Operate	「DI」 DI status display	Monitor
[DI] Property setup	Monitor	[Setting] Settings display	Monitor
[Settings] Setting value change	Protection	Forced operation	Operate
[Fault record] Record display, waveform	Monitor	[Fault record] Record reset	Operate
Communication option	Monitor	Folder option	Monitor
Auto logout option	Monitor	Station NoRelay type setup	Master
User password change	Monitor	User registration	Master
Function option	Master	Relay password change	Master
•			Þ

(1) Startup

Select $\lceil Option \rfloor - \lceil Security \rfloor - \lceil Function Option \rfloor$ from menu bar.

(2) Change

Function	Level	Function	Level
Direct PC connection	Monitor	Local PC connection	Monitor
Remote PC connection	Monitor	Communication disconnection	Monitor
Station NoRelay selection	Monitor	Access Log	Monitor
Print	Monitor	Logout	Monitor
[Measurement 1] Real time _Max. value	Monitor	[Measurement 1] Property setup	Monitor
[Measurement 2] Real time Max. value	Monitor	[Measurement 2] Property setup	Monitor
[Measurement 2] Max. values reset	Operate	[Operate LED] LED status display	Monitor
[Operate LED] Indication reset	Operate	[Alarm] Alarm status display	Monitor
[Alarm] Alarm reset	Operate	[DI] DI status display	Monitor
[DI] Property setup	Monitor	[Setting] Settings display	Monitor
[Settings] Setting value change	Protection	Forced operation	Operate
[Fault record] Record display, waveform	Monitor	[Fault record] Record reset	Operate
Communication option	Monitor	Folder option	Monitor
Auto logout option	Monitor	Station NoRelay type setup	Master
User password change	Monitor	User registration	Master
Function option	Master	Relay password change	Master
↓			Þ
		I	
PRINT		OK	

↓

1. Click level content where you want to change.

Direct PC connection Monitor Local PC connection Monitor Remote PC connection Monitor Communication disconnection Monitor Station No, Relay selection Monitor Access Log Monitor Station No, Relay selection Monitor Access Log Monitor Print Monitor Legout Monitor Measurement 1] Real time Max. value Monitor IMeasurement 1] Property setup Monitor Measurement 2] Real time Max. value Monitor IMeasurement 2] Property setup Monitor Operate LED I Indication reset Operate ID I Eatsu display Monitor Arm Alarm reset Operate ID U Status display Monitor Arm Alarm reset Operation IStatus display Monitor Settings J Setting value change Protection Fault record] Record display, waveforn Monitor Valuo locut option Monitor Station No. Relay type setup Monitor Valuo locut option Monitor Station No. Relay type setup Monitor Valuo locut option Monitor Station No. Relay	Function	Level	Function	Level 🔺
Remote PC connection Monitor Communication disconnection Monitor Station No, Felay selection Monitor Access Log Monitor Print Monitor Logout Monitor Measurement 1J Real time_Max. value Monitor I Measurement 1J Property setup Monitor Measurement 2J Real time_Max. value Monitor I Measurement 2J Property setup Monitor Measurement 2J Real time_Max. value Monitor I Measurement 2J Property setup Monitor Operate LEDJ Indication reset Operate I Operate LEDJ LED status display Monitor IDJ Property setup Monitor I Settings J Setting value change Protection Forced operation Operate IDJ Property setup Monitor I Fault record] Record display, waveforn Monitor I Fault record] Record operation Operate Fault record] Record display, waveforn Monitor I Fault record] Record reset Operate Communication option Monitor Station No. Prelay type setup Monitor Lato lecout option Monitor Station No. Prelay type setup Monitor	Direct PC connection	Monitor	Local PC connection	Monitor
Station Na. JRelay selection Monitor Access Log Monitor Print Monitor Logout Monitor Measurement 1J Real time JMax value Monitor Measurement 1J Property setup Monitor Measurement 2J Real time Max value Monitor Measurement 2J Property setup Monitor Measurement 2J Max values reset Screet IDerate LEDJ LED status display Monitor Operate LEDJ Indication reset Operate FAlarm J Alarm status display Monitor IOI Property setup Monitor Totacting Setting value change Protection Foreat Card operation Operate IOI Property setup Monitor Settings J Setting value change Protection Foreat operation Operate IStatin Robin	Remote PC connection	Monitor	Communication disconnection	Monitor
Print Monitor Logout Monitor IMeasurement 1J Real time Max: value Monitor IMeasurement 1J Property setup Monitor IMeasurement 2J Real time Max: value Monitor IMeasurement 2J Property setup Monitor IMeasurement 2J Max: values reset Operate IPoperate LEDJ LED setus display Monitor IDported LEDJ Indication reset Operate I Plarm J Alarm status display Monitor IDJ Property setup Monitor I Setting J Settings display Monitor Stating Setting value change Protection Forerate Operate Fault record J Record display, waveforn Monitor I Fault record J Record reset Operate Communication option Monitor Station No. Relay type setup Master Function option Monitor Station No. Relay type setup Master	Station NoRelay selection	Monitor	Access Log	Monitor
Imasurement 1J Real time Max. value Monitor Imasurement 2J Property setup Monitor Imasurement 2J Real time Max. value Monitor Imasurement 2J Property setup Monitor Imasurement 2J Real time Max. value Monitor Imasurement 2J Property setup Monitor Imasurement 2J Real time Max. values Monitor I Property LED status display Monitor Ipperate LEDJ Indication reset Operate I Plarm Jalarm status display Monitor IAmm Jaharn neset Operate I DU D status display Monitor IDJ Property setup Monitor I Setting J Setting s display Monitor ISStitings J Setting value change Protection Forced operation Operate IFault record] Record display, waveforn Monitor I Fault record J Record reset Operate Also locut option Monitor Floider option Monitor Monitor Also locut option Monitor Station No. Relay type setup Monitor User password change Monitor User registration Master	Print	Monitor	Logout	Monitor
Imasurement 2J Real time Max. value Monitor Imasurement 2J Property setup Monitor Imasurement 2J Max. values reset Scretcl Imasurement 2J Property setup Monitor ICoperate LEDJ Indication reset Operate I Alarm J Alarm status display Monitor IAram J Alarm reset Operate I DUD tatus display Monitor IDIJ Property setup Monitor I Setting J Setting value change Monitor IStings J Setting value change Protection Forced operation Operate IFault recordJ Record display, waveforn Monitor I Fault recordJ Record reset Operate Communication option Monitor Station No. Relay type setup Monitor Valo logout option Monitor Station No. Relay type setup Monitor Valo logout option Monitor Station No. Relay type setup Monitor Valo logout option Monitor Station No. Relay type setup Master User password change Monitor Belay password change Master	[Measurement 1] Real time _Max. value	Monitor	[Measurement 1] Property setup	Monitor
IMeasurement 2J Max. values reset Serente	Measurement 2] Real time Max. value	Monitor	[Measurement 2] Property setup	Monitor
Coperate Coperate FAlarm J Alarm status display Monitor FAlarm J Alarm reset Operate FDU Di status display Monitor FDIJ Property setup Monitor FSetting J Settings display Monitor Statings J Settings Value change Protection Foreste Operate Fault record J Record display, waveforn Monitor FFault record J Record reset Operate Communication option Monitor Folder option Monitor Monitor Liser password change Monitor Station NoRelay type setup Master Function option Master Relay password change Master	[Measurement 2] Max. values reset	Operate 💌	[Operate LED] LED status display	Monitor
FAlarm J Alarm reset Operate IDU DI status display Monitor IDU Property setup Monitor ISetting J Setting sisplay Monitor ISetting S Setting value change Protection Forced operation Operate Graunt record J Record display, waveform Monitor I Fault record J Record reset Operate Communication option Monitor Folder option Monitor Monitor Auto logout option Monitor Station No. Relay type setup Master Function option Master Relay password change Master	[Operate LED] Indication reset	Operate	「Alarm」Alarm status display	Monitor
[DI] Property setup Monitor [Setting:] Setting: display, Monitor [Setting:] Setting value change Protection Forced operation Operate [Fault record] Record display, waveform Monitor [Fault record] Record reset Operate Communication option Monitor Folder option Monitor Monitor Auto locout option Monitor Station No. Relay type setup Master User password change Monitor Relay password change Master	[Alarm] Alarm reset	Operate	「DI」 DI status display	Monitor
Factings J Setting value change Protection Forced operation Operate Fault record] Record display, waveforn Monitor Fault record] Record reset Operate Communication option Monitor Folder option Monitor Auto locout option Monitor Station NoRelay type setup Master User password change Master Relay password change Master	[DI] Property setup	Monitor	[Setting] Settings display	Monitor
Fault record] Record display, waveforn Monitor I Fault record] Record reset Operate Communication option Monitor Folder option Monitor Auto legout option Monitor Station NoRelay type setup Master User password change Monitor User resitvation Master Function option Master Relay password change Master	[Settings] Setting value change	Protection	Forced operation	Operate
Communication option Monitor Folder option Monitor Auto logout option Monitor Station No. "Relay type setup Master User password change Monitor User registration Master Function option Master Relay password change Master	[Fault record] Record display, waveform	Monitor	[Fault record] Record reset	Operate
Auto logout option Monitor Station No. Relay type setup Master User password change Monitor User registration Master Function option Master Relay password change Master	Communication option	Monitor	Folder option	Monitor
User password change Monitor User registration Master Function option Master Relay password change Master	Auto logout option	Monitor	Station No. Relay type setup	Master
Function option Master Relay password change Master	User password change	Monitor	User registration	Master
	Function option	Master	Relay password change	Master
< <u>↓</u>	•			Þ

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Function	Level	Function	Level
Direct PC connection	Monitor	Local PC connection	Monitor
Remote PC connection	Monitor	Communication disconnection	Monitor
Station NoRelay selection	Monitor	Access Log	Monitor
Print	Monitor	Logout	Monitor
[Measurement 1] Real time _Max. value	Monitor	[Measurement 1] Property setup	Monitor
[Measurement 2] Real time Max. value	Monitor	[Measurement 2] Property setup	Monitor
[Measurement 2] Max. values reset	Operate 💌	[Operate LED] LED status display	Monitor
[Operate LED] Indication reset	Monitor	「Alarm」Alarm status display	Monitor
[Alarm] Alarm reset	Protection	「DI」DI status display	Monitor
[DI] Property setup	Master	[Setting] Settings display	Monitor
[Settings] Setting value change		Forced operation	Operate
[Fault record] Record display, waveforn	Monitor	[Fault record] Record reset	Operate
Communication option	Monitor	Folder option	Monitor
Auto logout option	Monitor	Station NoRelay type setup	Master
User password change	Monitor	User registration	Master
Function option	Master	Relay password change	Master
↓			Þ

↓

Function	Level	Function	Level 🔺
Direct PC connection	Monitor	Local PC connection	Monitor
Remote PC connection	Monitor	Communication disconnection	Monitor
Station NoRelay selection	Monitor	Access Log	Monitor
Print	Monitor	Logout	Monitor
[Measurement 1] Real time _Max. value	Monitor	[Measurement 1] Property setup	Monitor
[Measurement 2] Real time Max. value	Monitor	[Measurement 2] Property setup	Monitor
[Measurement 2] Max. values reset	Protection 💌	[Operate LED] LED status display	Monitor
[Operate LED] Indication reset	Operate	「Alarm」Alarm status display	Monitor
[Alarm] Alarm reset	Operate	「DI」 DI status display	Monitor
[DI] Property setup	Monitor	[Setting] Settings display	Monitor
[Settings] Setting value change	Protection	Forced operation	Operate
[Fault record] Record display, waveform	Monitor	[Fault record] Record reset	Operate
Communication option	Monitor	Folder option	Monitor
Auto logout option	Monitor	Station NoRelay type setup	Master
User password change	Monitor	User registration	Master
Function option	Master	Relay password change	Master
			E E

2. Click at the same place once again.

3. Then, a pull-down menu appears.

4. Select a level and click "OK".

8.7.3.4. Change Relay Password

This is a function that to change the relay password which is set "1234" at the time of shipment. A new password can be set up forcedly with this function.

The relay password will become valid if the "Relay Password Enable/Disable Option" is checked.

Change Relay Passwo	rd
Password	
, <u>, , , , , , , , , , , , , , , , , , </u>	
ОК	Cancel

(1) Startup

Select	「Option」 -	「Password」 -	 Change Relay 	/ Password」	from menu bar.

[Caution]

The password should be a 4-digit alphanumeric (0 \sim 9 and A \sim F be available only). The default password is "1234".

8.7.3.5. Relay Password Enable/Disable Option

Set the relay password valid or invalid when carrying out setting change with front panel of relay. If the relay password is valid, it is necessary to enter the password when carrying out setting change with front panel of relay.

Set Relay Password E	nable/Disable	
Relay Password	Enable/Disable Optio	9
PRINT	ОК	Cancel

(1) Startup

Select 「Option」 - 「Security」 - 「Relay Password Enable/Disable Option」 from menu bar.

[Caution]

Password Enable: Once press "Setting" button of relay front panel, the password input mode responds first.

Password Disable: Once press "Setting" button of relay front panel, the setting mode responds.

The relay password is set "Disable" in default like the above window.

8.7.4. Set Relay Time

This is a function that the time of relay can be set with PC. But the relay time will erase once the relay control power source is be turned OFF. When the relay power source turned ON, the relay time starts from 2000/01/01 00:00:00.

(1) Manu	ıal		
Set Rela	ay Time		
Plea on s	ise select one system time.	e model below to s	et relay time based
Inter	mal time	2008/08/04 18:5	i1:42
Syst	tem Time	2008/08/04 18:5	i1:42
۰M	anual		
O Au	uto 1		
	Setting Da	ate Daily	_
	Setting Ti	me 00 × :	00
C Au	uto 2		
	Setting Inf	terval 00 🔹 :	00 *
P	RINT	ОК	Cancel

1. Select "Manual" and click "OK". The present time of PC is written into relay.

Internal time : The time counted in the relay is displayed. System time : The time of PC is displayed.

2) Auto 1					
Set Relay Time					
Please select one model below to set relay time based on system time.					
Internal time 2008/08/04 18:51:21					
System Time 2008/08/04 18:51:21					
C Manual					
• Auto 1					
Setting Date Daily					
Setting Time 00 : 00					
C Auto 2					
Setting Interval 00 × : 00 ×					
PRINT OK Cancel					

1. Select Auto 1.

Set Relay Time	
Please select one i on system time.	model below to set relay time based
Internal time	2008/08/04 18:52:03
System Time	2008/08/04 18:52:03
C Manual	
Auto 1	
Setting Date	e Daily
Setting Time	e Weekly(Sunday) Weekly(Monday)
C Auto 2	Weekly(Tuesday) Weekly(Wednesday) Weekly(Thursday)
Setting Inter	Weekly(Friday)
PRINT	OK Cancel

(3) Auto 2

Set Relay lime	
Please select one model below to set relay time based on system time.	
Internal time 2008/08/04 18:52:19	
System Time 2008/08/04 18:52:19	
C Manual	
C Auto 1	
Setting Date Daily	
Setting Time 00 + : 00 +	
Auto 2	
Setting Interval 00 + : 00 +	
PRINT OK Cancel	

1. Select "Auto 2" and set "Setting Interval" an

then click "OK".

<e.g.> Setting Interval : 12:00

This setting means that the PC time will be written into relay at interval 12 hours if the relay is still online.

- This setting means that the PC time will be written into relay at 00:00 on Wednesday
- every week if the relay is still online.Note: After 12 hours pass, the first time correction is executed after setting it. The time correction is executed at the set time at the

2. Set a adjustment period and adjustment time

<e.g.> Setting Date : Weekly (Wednesday) Setting Time : 00:00

and then click "OK".

following.

9. Error Message

(1) There is no waveform data. Refer to Help for details.

This message is shown in the following cases:

- The relay has never operated.
- The relay power source has been turned off after operated.
- (2) [Communication error occurred. Do you want to do again? If the error continuously occurs, refer to the "Help" please.]

This message is shown in the following cases:

- The cable is not connected between PC and relay or the cable has problem.
- The cable is connected normally, but the relay power source is in OFF.

Do according to the following processing in case of that error is shown repeatedly.

- 1. Exit the HMI software.
- 2. Check if the cable is properly connected.
- 3. Check if there is disconnection of the cable.
- 4. Check if the relay power is turned ON.
- 5. Restart the HMI software.

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