Global Customer Support

Roche/HITACHI 902

Service Bulletin No. 86

Subject: *Release CF Drive Unit instead of FDD Unit*

Date: 21-DEC-2011 **SB Version:** 2

Modification Code: n/a

Information:	Note page 1 attached
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n/a Modification Tracking in Clarify	X Hardware	n/a Software	X Spare Parts	n/a Documentation
Attachment(s):	Attachment1_External of CF Drive Unit in 902 Analyzer.pdf, Attachment2_Short Plug Settings of CF Drive Unit in 902 Analyzer.pdf, Attachment3_CF Card Creating Procedure in 902 Analyzer.pdf, Attachment4_Software Installation Procedure in 902 Analyzer.pdf			
References:	Sm1067_Sb86; COM-025, COM-044			
Manufacturer ID (Link to iSDoc Partslist) R621021; 741-5956				

Field Implementation

n/a Mandatory

n/a Recommended

Implementation Timing

n/a Extra site visit

n/a Next site visit

Units Concerned
No new shipment. Only for maintenance.

Summary
CF Drive Unit is released instead of FDD Unit. Because the current FDD (Floppy Disk Drive) Unit used for E2010/902/Urisys2400 has much trouble, RD request Hitachi to find a device to replace FDD Unit.andatory brief description in Free Text (incl. action, reason for change)

Note: Please use for the format procedure of CF cards, as described in Attachment 3, an external CF card reader/writer which you should buy locally. Do not use the 902 card readers for this process step.

Details

Please refer to Table 1 and Table 2 for detail information of FDD and CF Drive Unit.

Table 1 Detail of Change of IDE type FDD

	Before the Change	After the Change
Product Name	Floppy Disk Drive Unit	CF Drive Unit
Part Number	R621021	741-5956
Material number		05669863001
Part Name	FLOPPY DISK DRIVER YD-702D-6639D	CF Drive Unit
Model Name of Manufacturer	YD-702D-6639D	MBX044-F
Manufacturer	YE-DATA	MMC
Dimension	25.4mmx101.6mmx149mm	25.4mmx101.6mmx149mm
Use Media	FD (Floppy Disk)	CF (Compact Flash Card)
Interface	IDE(ATAPI)	IDE(ATAPI)/USB
Setting method	Short Plug Setting (Drive1/Drive2, others)	Short Plug Setting (Drive1/Drive2, IDE/USB)
Accessories of Drive	-	USB Cable x 1.0m (Nonuse)

Table 2 Detail of Change of USB type FDD

	Before the Change	After the Change
Product Name	Floppy Disk Drive Unit	CF Drive Unit
Part Number	741-5935	741-5956
Material number		05669863001
Part Name	USB FDD ASSY	CF Drive Unit
Model Name of Manufacturer	YD-8U10	MBX044-F
Manufacturer	YE-DATA	MMC
Dimension	17mmx103.5mmx142mm	25.4mmx101.6mmx149mm
Use Media	FD (Floppy Disk)	CF (Compact Flash Card)
Interface	USB	IDE(ATAPI)/USB
Setting method	-	Short Plug Setting (Drive1/Drive2, IDE/USB)
Accessories of Drive	-	USB Cable x 1.0m

Hitachi developed CF Drive Unit instead of FDD Unit. There are some notes when CF Drive Unit is used.

They are interchangeable by exchanging both media at the same time as Drive and following the notes described in "Caution".

1. General notes when CF Drive Unit is used.

1-1. For IDE type, the dimension is the same before and after the change. However, the dimension for USB type is different before and after the change. Therefore, the exchanges of the part such as Base Plate are needed in USB type.

1-2. For USB type, USB Cable attached to CF Drive Unit is used. Insert the connector of USB Cable in CF Drive Unit surely so as not to pull off. And do not add the stress to the insertion part of connector.

1-3. CF Drive Unit has two short plugs for the drive selection (Drive1 or Drive2) and the interface selection (IDE or USB). It is necessary to set short plugs correctly according to the usage.

1-4. It is necessary to use the tool software (FDD Client Tools) for creating FD imaging file in CF card and copying files from FD to CF card.

1-5. The setting of "Changeover Switch" in front of CF Drive Unit is usually "0" except for case of software installation. Adjust the setting to "0" when the Analyzer works.

1-6. First of all, push "REMOVE Button" in front of CF Drive Unit when you remove CF card while the power is supplied to the Analyzer. Then, after LED is turned off, push "EJECT Button" and remove CF card. When CF card is removed without pushing "REMOVE Button", the saved data in CF card are damaged. When CF card is removed without pushing "REMOVE Button" and inserted again, CF Drive Unit does not correctly recognize CF card, and data cannot be written correctly to CF card or the Analyzer does not work normally. In this case, it is necessary to turn off the power supply of the Analyzer once and to turn it on again.

1-7. While LED is lighted, CF card and CF Drive Unit are being accessed. In this case, never remove CF card and never turn off the power supply of the Analyzer. (It contains "Power failure" and "Power failure at moment".) If they are executed, the saved data in CF card are damaged. In that case, warranty by HHT is not valid.

1-8. When you insert CF card to CF Drive Unit (it contains when you remove it once and insert it again.) while the power is supplied to the Analyzer, start the operation after turning off LED in front of CF Drive Unit. When the operation is started while LED is lighted, data cannot be read correctly from CF card, data cannot be written correctly to CF card or the Analyzer does not work normally.

1-9. When you insert CF card for which FD imaging file is not created or breakdown CF card, though CF Drive Unit tries to recognize it. (LED blinks at long intervals while CF Drive Unit repeats retrying.) LED blinks at short intervals to show abnormality when it is not possible to recognize it. In this case, push "REMOVE Button" and remove it after LED is turned off. Then, insert normal CF card again.

2. Notes when CF Drive Unit in 902 Analyzer is used.

2-1. For IDE type, the dimension is the same before and after the change. However, the dimension for USB type is different before and after the change. Therefore, the exchanges of the part such as Base Plate are needed in USB type. Please refer to Attachment 1 for details of external difference in 902 before and after the change and set of necessary parts for USB type.

Table 4 Set of parts for USB type in 902 Analyzer

P/N	Mat number	Part Name	Contents
713-0182	05669812001	902(CF) Base Assy	Set of parts for USB type in 902 Analyzer

2-2. CF Drive Unit has two short plugs for the drive selection (Drive1 or Drive2) and the interface selection (IDE or USB). It is necessary to set short plugs correctly according to the usage. If the settings are not correctly, "NO FD" alarm (121-01, 121-02) occurs in 902 and the Analyzer does not work normally. Please refer to Attachment 2 for details of contents of short plug settings.

2-3. It is necessary to use the tool software (FDD Client Tools) for creating FD imaging file in CF card and copying files from FD to CF card. Please refer to Attachment 3 for the creating procedure of "Installation CF", "Parameter CF" and "Data CF" for 902 by using this tool software.

Table 5 FDD Client Tools CD

P/N	Mat number	Part Name	Contents
713-0580	06342604001	Tool CD(1) Assy	FDD Client Tools CD for Service
713-0581	06342612001	Tool CD(2) Assy	FDD Client Tools CD for End User

2-4. For FDD, there are six Installation FD of 902 in total. Three FD are for ECPU237, other three FD are for ECPU550. For CF Drive Unit, six Installation FD is stored on one Installation CF card. Therefore, software installation procedure is changed. Software installation is not always necessary when exchanging FDD for CF Drive Unit. It is necessary to execute it when upgrading or reinstalling are needed in the Analyzer that mounted CF Drive Units. Please refer to Attachment 4 for software installation procedure of using Installation CF card.

2-5. The setting of "Changeover Switch" in front of CF Drive Unit is usually "0" except for case of software installation. Adjust the setting to "0" when the Analyzer works. In 902, when Parameter CF and Data CF are inserted to start Analyzer under the condition that the setting is other than "0", "NO FD" alarm (121-01, 121-02) occurs. In this case, the power supply of the Analyzer is turned off once. After setting the switch to "0", the power supply of the Analyzer is turned on again.

2-6. 902 Analyzer has a function of "Format & Copy" of FD. However, when CF Drive Unit is used, this function is not available. If you use this function, "FD WRITE?" alarm (119-06) occurs or the Analyzer enters the state without the response. FD imaging file in CF card is damaged when the alarm occurs. It is necessary to turn off the power supply of the Analyzer once and to turn it on again. when it

enters the state without the response. Use the tool software when you copy data of CF card onto another CF card.

2-7. In 902 Analyzer, if FDD cleaning is not executed for 30 days, "FDD CLINIC" alarm (152-01, 152-02) occurs. Similarly, when CF Drive Unit is used, this alarm occurs. Though the cleaning is not necessary for CF Drive Unit, execute "Cleaning1" and "Cleaning2" of "FD Utilities" function menu in the state of inserting the CF card (Parameter CF and Data CF) when this alarm occurs. As a result, this alarm does not occur for 30 days after the power supply of the Analyzer is turned on next time. The execution time of "Cleaning1" and "Cleaning2" is about several seconds for each.

2-8. When CF card is breakdown and data cannot be written during operation, "FD PROTECT" alarm (123-01, 123-02) occurs. ("NO FD" alarm (121-01, 121-02) might occur at the same time.) When this alarm occurs, push "REMOVE Button" and remove CF card after LED is turned off. And insert normal CF card again. According to the state of the breakdown of CF card, it becomes impossible to remove CF card so that LED keeps lighting. In this case, the power supply of the Analyzer is turned off once. After CF card is exchanged with a normal CF card, the power supply of the Analyzer is turned on again. After "FD PROTECT" alarm (123-01, 123-02) occurs, data cannot be read correctly from CF card with the tool software, or the latest data is not correctly written to CF card even it is possible to read the data.

2-9. Parameter CF and Data CF have only one FD imaging file (Disk 00) in CF card. Therefore, when you make the setting of "Changeover Switch" other than "0" by mistake while the power is supplied to the Analyzer, it becomes the same as the insertion of CF card for which FD imaging file is not created. If Parameter CF and Data CF have two or more FD imaging files, CF card might be recognized even with the setting other than "0". However, when data is written with the switch setting other than "0", "FD PROTECT" alarm (123-01, 123-02) occurs and data cannot be written.

2-10. When CF Drive Unit is released, the software of 902 Analyzer is not changed. Therefore, even when CF Drive Unit is used, each alarm related to FD occurs for the same alarm name.

Parts Required
n/a

Related documents
1. Attachment 1: External of CF Drive Unit in 902 Analyzer
2. Attachment 2: Short Plug Settings of CF Drive Unit in 902 Analyzer
3. Attachment 3: CF Card Creating Procedure in 902 Analyzer
4. Attachment 4: Software Installation Procedure in 902 Analyzer

Certification for modification or changes
Hitachi High-Technologies Corporation hereby certifies that this modification or changes has been validated and verified as required by all applicable laws and its quality policies and procedures.