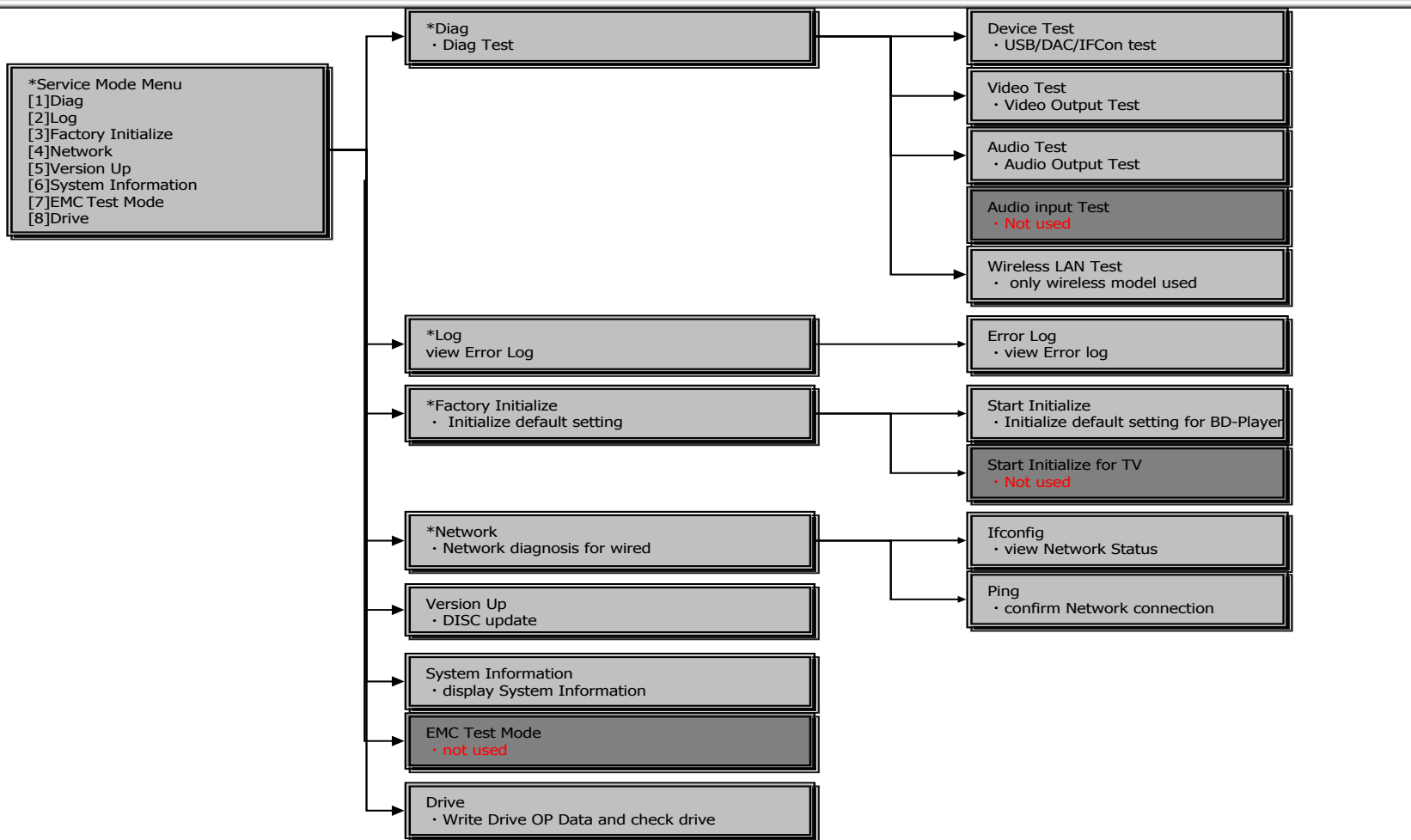


- Enter ServiceMode
The set disconnect AC, and Push front panel key ([OPEN/CLOSE] + [PLAY] + [STOP]) and AC IN
The keys will be released if the character of "SERVICE" displays on a front panel display.
After that, the screen in service mode is displayed on a monitor.
Control via Remote Controller
- Display Error Log
Error log is displayed.
The displayed logs can be saved in a USB memory.
- Diag
The unit test of the device mounted on the MainBoard.
The unit test of the device mounted on the wireless board. (only wireless model)
- Factory Initialize
Return all of the player setting to their factory defaults.
Caution) please check boot normally after that. (See: "Factory Initialize" Page)
- Network
Confirm Wired Network connection.
- Version Up
The set updates by Update DISC.
- System Information
System information of the set is displayed.
The Information on a soft version and drive information, etc. is displayed.
- EMC Test Mode
Not used.
- Drive
Write Drive OP Data and check drive.

Menu



Service Mode Menu

Outline :

Service Mode Top Menu
It selects to each function from here.
output HDMI/Component 480p forcibly.

Operation :

- [1] Select and Activate Diag Menu.
- [2] Select and Activate Log Menu,
- [3] Select and Activate Factory Initialize Menu.,
- [4] Select and Activate Network Menu
- [5] Select and Activate Version Up (DISC version Up) Menu,
- [6] Select and Activate System Information Menu.
- [7] Select and Activate EMC Test Mode Menu. **(not Used)**
- [8] Select and Activate Drive Menu.
- [UP] Move Up cursor
- [DOWN] Move Down cursor
- [ENT] Activate the selected cursor.

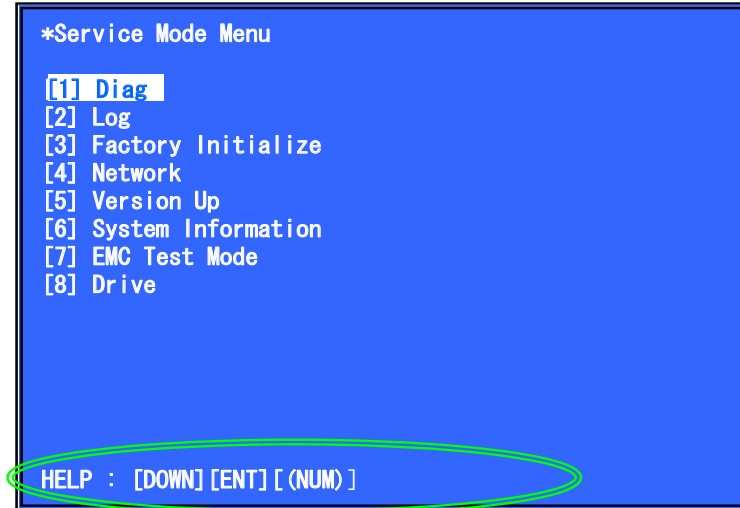
*The cursor is not displayed when initial.

Front Panel Display :

If cursor or arbitrary menu keys are operated,
the character will output to a front panel display, respectively.

*the character string.

initial display	SERVICE
Diag :	S-DIAG
Log :	S-LOG
Factory Initialize :	S-FINIT
Network :	S-NET
Version Up :	S-VUP
System Information :	S-INFO
EMC Test Mode	S-EMC
Drive :	S-DRV



Display Hint

(The key in which the present use is possible)

Outline :

The device carried in the substrate is tested.

(Window 1) Select test category

Operation :

[LEFT][RIGHT] Select Category
 [DOWN][ENT] Activate the selected Category.
 [RET] Return to Service Top Menu.

(Window 2) Device Test

After "Device Test" selects in window 1, the device to test is chosen.

Operation:

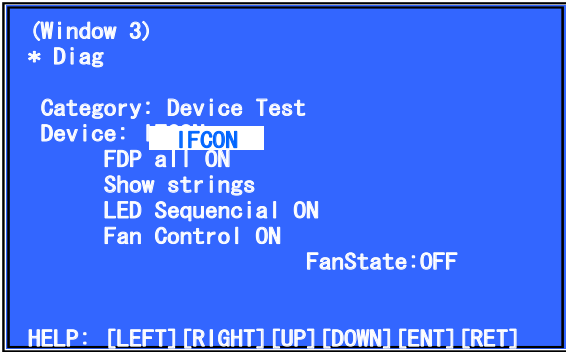
[LEFT][RIGHT] Select Device
 [ENT] Activate and Start Test
 [UP] Return to test category selection.
 IF select IFCON, Move Up cursor. (see windows 3)
 IF select IFCON, Move Up cursor. (see windows 3)
 [DOWN] IF select IFCON, Move Up cursor. (see windows 3)
 [RET] Return to test category selection.

>Test category list

Device Test
 Video Test
 Audio Test
 Audio Input Test **(not Used)**
 Wireless LAN Test **(only Wireless Model)**

>Device Test :Device List

USB Host : USB Media Check (Front and Rear)
Only one time.
 D/A Converter : DAC write check (non-verification)
 IFCON : IFCON Test (see windows 3)
 FDP all ON
 Show Strings
 LED Sequential
 FAN Control ON
 Fan State (Display)



Outline:

Activate Video Test and Audio Test

(Window 1) Select Video Test Category

Operation:

[ENT] Activate and display Color Bar
[UP][RET] Return to test category selection.

(Window 2) Display Color Bar

Operation :

[ENT] Return to Select Video Test Category.

(Window 3) Select Audio Test Category

Operation :

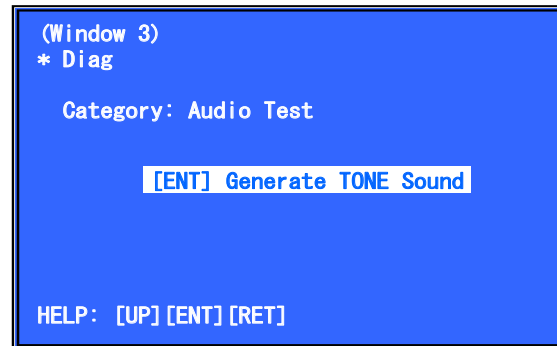
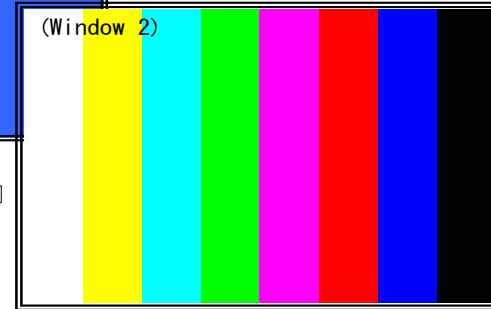
[ENT] Play TONE Sound/Stop
[UP][RET] Return to Select Audio Test Category

>Video Test:

Color Bar output S terminal & composite & Component & HDMI.

>Audio Test;

TONE sound output ineOut(2ch)&/ SPDIF & HDMI.



Outline:
 Activate Wireless LAN Tests

(Window 1) Select Wireless LAN Test Category
Operation:
 [LEFT][RIGHT] Select Category
 [DOWN][ENT] Activate the selected Category.
 [RET] Return to Service Top Menu.

(Window 2) Select Wireless LAN Test
Operation:
 [1] Show Wireless LAN module Information
 [2] Connect Access Point
 [3] Start display RSSI value.
 [4] Start Ping Test
 [UP][DOWN] Select Test
 [ENT] Activate and Start Test
 [RET] Return to test category selection.

> Show WLAN HwInfo (See Window 2)
 Serial : Serial Number
 Hard : Hardware Version
 Mac : Mac Address

> Connect to AccessPoint (See Window 3)
 Connect Access Point only with the following AP settings.
 Authentication method: NO-ENCRYPT
 WEP key : abcdef1234
 SSID : NETGEAR-DualBand-N
 PMK : ABCDE12345
 IP: 192.168.1.10
 Net mask: 255.255.255.0
 Broadcast : 192.168.1.255

• When connect to AP, Status is "Connected!"
 When cannot connect to AP, Status is "can't Connect!"

> Start Display RSSI Value (See Window 4)
 Display RSSI value.

> Start Ping Test (See Window 5)
 Ping Test.
 IP address use the value of "192.168.1.10".

Note:
 Set the parameter of access point as follow

1. Security mode : Disable
2. SSID : NETGEAR Dualband-N
3. IP adress 192.168.1.1

(Window 1)
 * Diag
 Category: Wireless LAN Test

(Window 2)
 * Diag
 Category: Wireless LAN Test
 [1] Show WLAN HwInfo
 [2] Connect to AccessPoint
 [3] Start Display RSSI Value
 [4] Start Ping Test
 [WLAN Module Info]
 Serial: 200912313165535
 Hard : 0x04
 Mac : 00:01:36:23:FD:CF
 HELP: [(NUM)][RET]

(Window 3)
 * Diag
 Category: WirelessLAN Test
 [1] Show WLAN HwInfo
 [2] Connect to AccessPoint
 [3] Start Display RSSI Value
 CERT : NO-ENCRYPT
 WEPKEY : abcdef1234
 PMK : ABCDE12345
 SSID : NETGEAR-DualBand-N
 IPADDR : 192.168.1.10
 NETMASK: 255.255.255.0
 BCADDR : 192.168.1.255
 Status : Connected!
 HELP: [(NUM)][RET]

(Window 4)
 * Diag
 Category: Wireless LAN Test
 [1] Show WLAN HwInfo
 [2] Connect to AccessPoint
 [3] Stop Display RSSI Value
 [4] Start Ping Test
 RSSI chain0 : 60
 RSSI chain1 : 60
 RSSI combined : 60
 HELP: [(NUM)][RET]

(Window 5)
 * Diag
 Category: Wireless LAN Test
 [1] Show WLAN HwInfo
 [2] Connect to AccessPoint
 [3] Stop Display RSSI Value
 [4] Start Ping Test
 Ping To : 192.168.1.10
 PING 192.168.1.10 OK!
 HELP: [(NUM)][RET]

Outline :

Display each contents of the Error log,

(Window 1) select log.**Operation :**

[1] Activate and Display Error log
[UP] Move Up cursor
[DOWN] Move Down cursor
[ENT] Activate the selected cursor.
[RET] Return to Service Top Menu.

(Window 2) : Display Error Log**Operation :**

[LEFT] Next Page
[RIGHT] Previous Page
[RET] Return to select log (window 1)
[RED] Write the contents of an error log on a USB memory.

Front Panel Display :

select log Error Log : S-ELOG
Display Page display page ex) 001/050

>Log contents

Error Log :

08/01/01 00:53:19: [ErrCode:080400000000]
[Date] [Time] [ErrCode]

****Write the contents of a log on a USB memory****

[RED] is pushed where a USB memory is inserted in a set in log display screen.

Please do not push the RED button immediately after USB memory is inserted.

Please do not pull out USB memory immediately after the RED button was pushed.

Error Log:

"getErrLogFile.trm" file is outputted in a USB memory.

(Window 1)
* Select Log

[1] Error Log

(Window 2)
* Error Log

08/01/01 00:53:19: [ErrCode:090200023A00]
08/01/01 00:53:45: [ErrCode:090200023A00]
08/01/01 00:54:00: [ErrCode:090200023A00]
:
:

HI

Factory Initialize

Outline:

Return all of the player setting to their factory defaults.

(Window 1) select initialize.

Operation :

When you return a set to the factory defaults, push [1] on this screen.

- [1] Start Factory Initialize
- [2] Start Factory Initialize for TV **(not used)**
- [UP] Move Up cursor
- [DOWN] Move Down cursor
- [ENT] Activate the selected cursor.
- [RET] Return to Service Top Menu.

(Window 2)

It is a screen of the end of initialization.

- [RET] Return to Service Top Menu.

Please disconnect AC power supply, and connect AC again.
- The operation of other service mode menu can be continued.

Front Panel Display:

Initialize : SETTING
Initialize OK : INIT-OK (window 2)
Initialize NG : INIT-NG

Caution:

When "Quick Stand By" sets ON, The additional processes of AC IN and OFF are needed.

Please confirm the following processes for all sets.

1. Initialize (This command)
2. AC Off
3. AC In
4. Check FLD. If WAIT keep blinking, go to 5.else go to 8.
5. AC Off
6. AC In
7. Check FLD.
8. AC Off. (finish)

(Window 1)

* Factory Initialize

[1] Start Initialize

[2] Start Initialize for TV

[RET] Return to Top Menu

(Window 2)

* Factory Initialize

Reboot to complete.

[RET] Return to Top Menu

HELP : [RET]

Outline :

Network Menu for the wired Ethernet.

(Window1)Ifconfig Test

Operation :

[ENT] Activate Ifconfig (Display network setting)
[RIGHT] Select Ping Test.
[RET] Return to Service Top Menu.

(Window 2)Ping Test

Operation:

[LEFT] Select Ifconfig Test.
[RET] Return to Service Top Menu.
(The details of a Ping test are next page)

(Window 3)Ifconfig Test Active

Display Ifconfig command results.

Operation:

[ENT] Ifconfig retry
[RIGHT] Select Ping Test.
[RET] Return to Service Top Menu.

Front Panel Display :

S-NET



Outline :
Ping Test for the wired Ethernet.

(Window 1) Ping Test
Operation:
[LEFT] Select Ifconfig Test.
[DOWN] Ping execution preparation.
[RET] Return to Service Top Menu.

(Window 2) The IP address of the Ping point is set up. (IP address input mode)
When "Ping to :>" is reversed, [ENT] is pushed and IP is inputted.
Operation:
[ENT] Finish to input.
[RET] Finish to input.
[LEFT] Finish to input and Select Ifconfig Test.
[(NUM)] Input Character sting '0-9'
[TIME] Input Character sting '.'
[CLEAR] Backspace

(Windows3): Ping Test Active
When [START] is reversed, [ENT] is pushed and execute ping .
Operation:
[ENT] Activate Ping Test
[UP] The IP address of the Ping point is set up.
[RET] Return to Service Top Menu.

Front Panel Display :
S-NET

(Window 1)
* Network
Test: Ifconfig Ping
Ping To : [START]

(Window 2)
* Network
Test: Ifconfig Ping
Ping To :> 192.168.200.13
[ENT] : Release
[RET] : Release

(Window 3)
* Network
Test: Ifconfig Ping
Ping To : 192.168.200.13
[START]
PING 192.168.200.13 OK!
[HELP]: [ENT]:Start [UP][LEFT]

Outline:

update software using DISC

(Window 1)Version Up Menu

Operation:

[ENT] Start Update →(Tray Open and go to window 2)
[RET] Return to Service Top Menu.

(Window 2)Place the Update Disc

Operation :

[ENT] Tray Close and check DISC.
[RET] Cancel Update (Tray Close and return to window 1)

(Window 3) Disc Check and OK (Right DISC)

Operation: start update sequence automatically and reboot.
After reboot, please open tray and eject Update Disc manually.

(Window 4) Disc Check and NG (not update DISC)

Operation: [Error] ... (error message) and wait.
open tray automatically.

Front Panel Display :

DISC Insert	V-INSCD
Can't Mount	V-NODSC
DISC Check NG	V-CHKNG
DISC Check OK	V-CHKOK

(Window 1)
* Version Update

[ENT] Start Update
[RET] Return to Top Menu

(Window 2)
* Version Update

Insert update DISC ...

[ENT] Tray Close and Check start
[RET] Cancel

(Window 3)
* Version Update

Now, mounting and checking... OK

(Window 4)
* Version Update

Insert update DISC ...

[ENT] Tray Close and Check start

[RET] Cancel

[Error] Cannot mount this DISC!

HELP: [ENT] [RET]

Outline:

Display System Information

(Window 1)Basic Information Menu

Operation:

[RIGHT] Drive Information (delta IOP of a drive is measured) and Wireless device Information (only wireless model) displayed. (go to window 2)
 [RET] Return to Service Top Menu.

(Window 2)Drive and Wireless Information Menu

Operation:

[LEFT] Basic Information displayed. (go to window 1)
 [RET] Return to Service Top Menu.

When delta IOP is measured, it becomes impossible to use the Version Up function.

Contents List:

Model
 Destination
 Sequence Number
 MAC
 IP
 IFCON IFCON Version
 Bootloader Bootloader Version
 Host Main Host Main Version
 Host Sub Host Sub Version
 Middleware Middleware Version

WLAN module Serial (only wireless model)
 WLAN module hw version (only wireless model)
 WLAN module MAC Address (only wireless model)
 Drive Firm Revision
 CD DIOP Delta IOP
 DVD DIOP Delta IOP
 BD DIOP Delta IOP
 CD LD TIME LD Time
 DVD LD TIME LD Time
 BD LD TIME LD Time

Front Panel Display :

Display Host Main Version

```
(Window 1)
* System Information

Model : BDP5G-SU
Destination : US
Sequence Number : *****
Mac : 00-1a-80-d0-47-65
IP : 192.168.102.32
IFcon -Block0 version:0x57, Block1 version:0x0*
Bootloader version:**
Host Main version:M03.R.***
Host Sub version:2009*****
Middleware version:****

HELP: [RET] [RIGHT]
```

```
(Window 2)
* System Information

WLAN module Serial:200911300000335
WLAN module hw version:04
WLAN module MAC Address:00:1a:80:d0:47:65
Drive Firm Version: CC1910
CD DIOP:0x****
DVD DIOP:0x****
BD DIOP:0x****
CD LD TIME 0x*****
DVD LD TIME 0x*****
BD LD TIME 0x*****

HELP: [RET] [LEFT]
```

Overview:

This menu is used to operate the drive using drive-related diagnostic and tools.

Screen 1: Selecting items under *Service Menu

Screen 2: Selecting items under *Drive

Operations:

[UP] [DOWN] Move the cursor up and down
 [ENT] Open the selected cursor item
 [RET] Return to top menu

Test item list	Display Panel
[1] Drive OP data Write	: D-OPWRT
[2] Servo Parameter Check Menu	: D-SEVPA
[3] Servo Signal Check Menu	: D-SEVSG
[4] S-Curve Check Menu	: D-SCUR
[5] Readability Check Menu	: D-READ
[6] OP Position Check Menu	: D-OPPOS
[7] OP Check Menu	: D-OP
[8] Load Eject Aging	: D-LOAD
[9] Spindle Control Check Menu	: D-SPIND
[10] FA Test Mode	: D-FAMOD

Screen 3: *Drive OP data Write

Purpose: Write OP data into flash IC

[UP] [DOWN] Move the cursor up and down
 [ENT] Start the selected cursor item
 [RET] Return to top menu

Remarks:

Mode 1 --> Basic & Entry model (BD modulation frequency 410Mhz)
 Mode 1 --> Step Up model (BD modulation frequency 429Mhz)

Screen 1
 *Service Menu
 [1]Diag
 [2]Log
 [3]Factory Initialize
 [4]Network
 [5]Version Up
 [6]System Information
 [7]EMC Test Mode
 [8]Drive

Screen 2
 *Drive
 [1]Drive OP data Write
 [2]Servo Parameter Check Menu
 [3]Servo Signal Check Menu
 [4]S - Curve Check Menu
 [5]Readability Check Menu
 [6]OP Position Check Menu
 [7]OP Check Menu
 [8]Load Eject Aging
 [9]Spindle Control Check Menu
 [10]FA Test Mode

Screen 3
 *Drive OP data Write
 Insert USB StorageDevice ...
 Remove DISC and Close tray.
 [1]Disc: Eject
 [2] Mode: 1
 [ENT] Start

Able to select mode 1 or 2
 BD modulation frequency
 Mode 1 --> 410Mhz
 Mode 2 --> 429Mhz

<p>Screen 4: *Servo Parameter Check Menu Not Use Purpose: Verify servo parameter [UP] [DOWN] Move the cursor up and down [LEFT] [RIGHT] Move the cursor left and right [ENT] Start the selected cursor item [RET] Return to top menu</p>
<p>Screen 5: *Servo Signal Check Menu Not Use Purpose: Verify servo signal [UP] [DOWN] Move the cursor up and down [LEFT] [RIGHT] Move the cursor left and right [ENT] Start the selected cursor item [RET] Return to top menu</p>
<p>Screen 6: *S-Curve Check Menu Not Use Purpose: Verify S-Curve signal [UP] [DOWN] Move the cursor up and down [LEFT] [RIGHT] Move the cursor left and right [ENT] Start the selected cursor item [RET] Return to top menu</p>

Screen 4
 *Servo Parameter Check Menu
 [1]Disc : Eject
 [2]Show Parameters

Screen 5
 *Servo Signal Check Menu
 [1]Disc : Eject
 [2]Servo Signal Monitor out : OFF
 [3]RTADJ : OFF
 [4]FocusBias : 0000
 [5]SA - Act.move : FWD 00 step

 [6]PI Level : 0000
 [7]RF Level : 0000
 [8]TRV Level : 0000
 [9] Current FB : 0000 SA : 0000

Screen 6
 *S - Curve Check Menu
 [1]Disc : Eject

 [2]Media Type : BD - ROM SL
 [3]Layer : L0
 [4]SLD move to Home
 [5]SLD move : FWD 00 step

 [6]FCS Search start

Screen 7: *Readability Check Menu **Not Use**

Purpose: Verify readability data

- [UP] [DOWN] Move the cursor up and down
- [LEFT] [RIGHT] Move the cursor left and right
- [ENT] Start the selected cursor item
- [RET] Return to top menu

Screen 8: *OP Position Check Menu **Not Use**

Purpose: Verify OP position

- [UP] [DOWN] Move the cursor up and down
- [LEFT] [RIGHT] Move the cursor left and right
- [ENT] Start the selected cursor item
- [RET] Return to top menu

Screen 9: *OP Check Menu

Purpose: Verify OP related such as delta IOP and LD time

- [UP] [DOWN] Move the cursor up and down
- [ENT] Start the selected cursor item
- [RET] Return to top menu

Screen 7
 *Readability Check Menu
 [1]Disc : Eject

 [2]Address : 00000000
 [3]Length : 0000

 [4]Execute
 Jitter P: 0000
 Jitter PR: 0000
 Jitter DC: 0000
 SER: 0000 0000

Screen 8
 *OP Position Check Menu
 [1]Disc : Eject

 [2]OP Position Check

Screen 9
 *OP Check Menu
 Remove DISC and Close tray
 [1]Disc Eject
 [2]OP Serial : xxxxxxxxxxxxxxx
 [3]dIOP
 BD : x[xx]
 DVD : x[xx]
 CD : x[xx]
 TEMP : xx.x deg
 [4]LD ON Time
 BD : xxxh xxm
 DVD : xxxh xxm
 CD : xxxh xxm

Screen 10: *Load Eject Aging **Not Use**
Purpose: Perform load eject aging
[UP] [DOWN] Move the cursor up and down
[LEFT] [RIGHT] Move the cursor left and right
[ENT] Start the selected cursor item
[RET] Return to top menu

Screen 11: *Spindle Control Check Menu **Not Use**
Purpose: Verify spindle rotation
[UP] [DOWN] Move the cursor up and down
[LEFT] [RIGHT] Move the cursor left and right
[ENT] Start the selected cursor item
[RET] Return to top menu

Screen 12: *FA Mode Test **Not Use**
Purpose: Perform FA(Drive) aging
[UP] [DOWN] Move the cursor up and down
[ENT] Start the selected cursor item
[RET] Return to top menu

Screen 10
*Load Eject Aging
[1]Disc : Eject
[2]Repeat set : 00000
[3]Mecha type : Tray mecha
[4]Aging type : Normal

[5]Start

Screen 11
*Spindle Control Check Menu
[1]Disc : Eject

[2]rpm : 0000 rpm

[3]Spindle : OFF

Screen 12
*FA Mode Test
[1]Enter Repeat FA mode
Repeat number : 0000

[2]Save FE log to USB

Error Log Information

issue	Error LogCode						note
	Category	ErrorCode	ErrorInfo_0	ErrorInfo_1	ErrorInfo_2	ErrorInfo_3	
CXD9983/CXD9984 Error	0x01	0x**					
DDR2 Error	0x02	0x**					
Ifcon transmission time out	0x03	0x01	0x00	0x00	0x00	0x00	No response from Ifcon
Ifcon Error	0x03	0x**					Other Error
NAND Init Fail	0x04	0x00	0x00	0x00	0x00	0x00	NAND initialization failed
NAND Error	0x04	0x**					Other Error
NOR write Error	0x05	0x01	flash offset(0~MAX_FLASH_SIZE)				flash write error
NOR Erase Error	0x05	0x02	flash offset(0~MAX_FLASH_SIZE)				flash erase error
NOR Error	0x05	0x**					Other Error
DRIVE Error	0x06	0x01	Error Code				Cannot detect optical drive
DRIVE Error	0x06	0x02	Error Code				SATA cable disconnected
DRIVE Error	0x06	0x03	SCR Diag Field(Simultaneous error)				SATA IF ERROR
DRIVE Error	0x06	0x**					Other Error
Fan error	0x07	0x01	0x01	0x00	0x00	0x00	Temperature is too high
Fan error	0x07	0x01	0x02	0x00	0x00	0x00	Can not change fan state
Ethernet Error	0x08	0x**					
MEDIA - OPTICAL DISC	0x09	0x01	Read Error LBA				Disc read error
MEDIA - OPTICAL DISC	0x09	0x02	Cmd	Error Sense Key			Other commands read error
USB media read error	0x0A	0x01	0x1	0x1	0x00	0x00	ErrorInfo_0: LUN number ErrorInfo_1: LBA address
USB media write error	0x0A	0x02	0x1	0x1	0x00	0x00	ErrorInfo_0: LUN number ErrorInfo_1: LBA address
Unsupported USB device	0x0A	0xFF	0x1	0x1	0x1	0x1	ErrorInfo_0: Device Class ErrorInfo_1: bDeviceSubClass ErrorInfo_2: bDeviceProtocol ErrorInfo_3: bNumConfigurations
USB error	0x0A	0x**					Other Error