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1. BRIEF INTRODUCTION

FOREWORD

CD/DVD controller, the ideal choice for CD/DVD duplication system, is always in upgrade to match all sorts of drive/writer.

The List of COPYSTAR controller utmost speed to support

CD/DVD Controller series	Utmost Speed to Support
DVD -88X / DVD-80X	DVD 8X / DVD 4X
CDR -88X / CDR-80X	CDR 52X / CDR 40X

FEATURE

CD/DVD Controller series has numerous features below :

1. Assemble and operate 7 C/DVD drives at most in a complete system.
2. Drives run simultaneously in full speed. Each goes individually which interferes with none of the others.
3. Up to 32MB buffer ram. can decrease the slowdown problem resulted from poor source.
4. Optional inbuilt HD can be the storage of image files. Thru the high-speed transmission of HD avoids the slowdown resulted from the read of source disc.
5. <MUSIC DJ> The function, Edit and Duplicate Audio CDs, enables the compilation of music albums wherever the source is in the drive or in HD.
6. Users can set both the reading and writing speed according to the demand for quality. Various speeds can be for options.
7. CD/DVD controller series supports and differentiates most types of discs.
8. CD/DVD controller series provides users with main functions such as TEST (Simulate Duplication), COPY, VERIFY, COMPARE, and

ERASE.

- 9.Quick and Easy upgrade to the firmware in CD/DVD controller series simply thru a disc and a drive.
- 10.Unreadable sectors or tracks of the source are inspected prior to the duplication by CD/DVD controller series in order to avoid any failed copies.

Statements of Limited Liability

- 1.The purpose of CD/DVD controller series is mainly to backup data and file. The use is limited to related copyright.

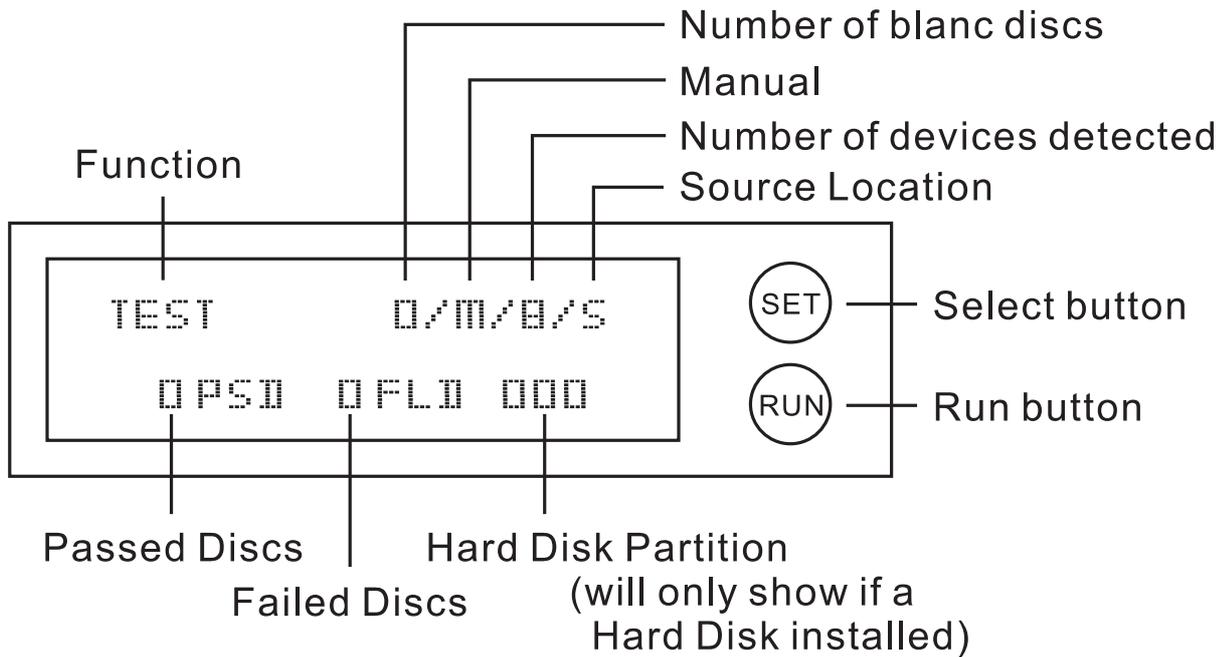
2.Unpack the Case

Please check following list accessories are well included in the package.

List Accessory of CD/DVD Controller series	
Standard Accessory	IDE C/DVD Controller / IDE Flat Cable / User's Guide
Optional Accessory	HDD / Drive / Writer / Case with Power Supply / Power Cord

Remarks : Check the model & the amount once the optional is purchased.

2.LCD Display Diagram of CD/DVD CD/DVD Controller



3. Basic Introduction

1)Start the System

Once you have completed the installation to CD/DVD CD/DVD controller, you can therefore start the duplication system. In start, the screen firstly displays “The Best Duplicator”, the firmware version, and then searches possible devices such as HD, drives, and writers. The device searching sorts #1, #2, ...and so on. If there is any missing devices in search, please check and ensure that the flat cables and the power cords are in stable connection. Also ensure that device jumper is set up in Master mode. The drive, the HDD are in good condition?? For any troubleshooting, please contact local distributor for quick solution. After the start, it thus enters the main function mode.

1-1 Display in Start

(Below exhibitions are for those systems with a inbuilt HD. If only a non-HD system, the 5th exhibition is exclusive.)

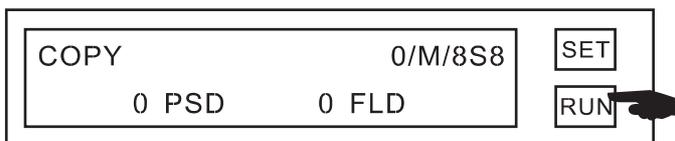


2)Disc Duplication (Below operations are based on default values to the controller)

2-1 Disc-to Disc Copy

Insert separately the source disc in drive/writer, and the target(s) media to writers. Wait until all the discs are well detected. In the upper right side of the LCD display shows the status to the source disc and the blank media. Press SET to switch to COPY function and then press RUN to initiate the duplication. The devices automatically eject the discs separately for passed and failed copies.

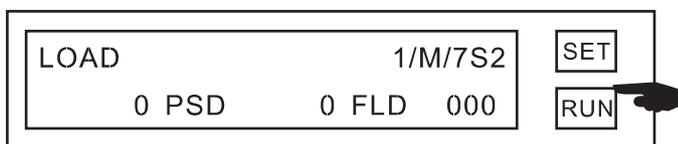
Push "SET" button and select COPY Function



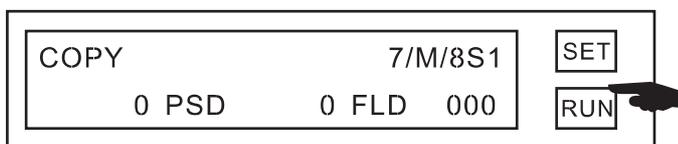
1. Insert the Source Disc and CD-R media into the drives. Once the Duplicator detects all discs, push the "RUN" button to start the duplication.

2-2 HD-to-Disc Copy

This mode can only be practicable when the system is including an inbuilt HD. Firstly, insert the source disc in any of the writers and then wait until the system detects the source. The LCD display then shows in the upper right side the IDE location to the source disc. Press SET to switch to LOAD and then it downloads the content of source to HD. Once the system accomplishes the download to HD, please take out the source disc. Press SET to switch to COPY and then insert the target discs. Press RUN to initiate the duplication.



1. Push the "SET" button and select "LOAD" Function. "1" at this moment means that the Duplicator detected one Hard Disk. The source disc is located in IDE Port #2, and is using the "000" partition location. Push the "RUN" button to start loading.



2. After you finish loading the source disc into the Hard Disk, push the "SET" button and select "COPY" function, then push the "RUN" button to start the Duplication.

2-3 Set Partitions Name in HD

The setting to each partition in HD is five-digit. The first 2 digits are for the ID setting to HD. The rest 3 digits represent the position to HD partition. The capacity of HD determines the amount of partitions to HD. For CDR series, the HDD is split into 1GB/per partition while 9GB/per partition is split up in DVD-series.

*e.g. For a 80GB HD.

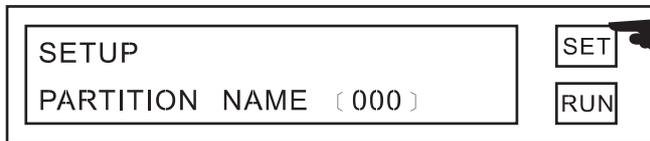
In CDR series, the HD is split up into 80 partitions and codes 00000~00079

In DVD series. The HD is split up into 8 partitions and codes 00000~00007

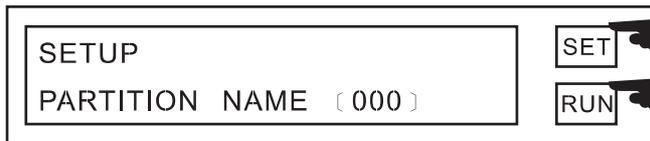
Press SET for 3 seconds. Thus the function is switched to the advanced mode. Press SET to switch to "PARTITION NAME". SET is for the selection to the position of partitions. RUN is for the change of partition codes. Once the setting is finished, press SET for 3 seconds to complete the setting.



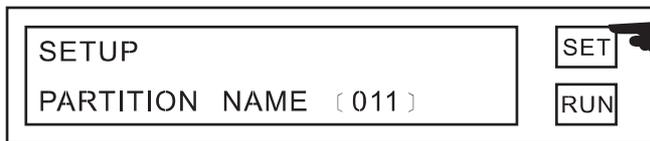
1. Hold the "SET" button for 3 seconds and enter to the Setup Mode.



2. Push the "SET" button and select "PARTITION NAME", and press run to start selecting partition.



3. push the "SET" button to move the cursor to the left and push the "RUN" button to change the location.



4. When partition selection is finished, hold the "SET" button for 3 seconds then let go, the cursor will stop blinking. Hold the "SET" button again to exit Setup Mode and enter to the Function Mode.

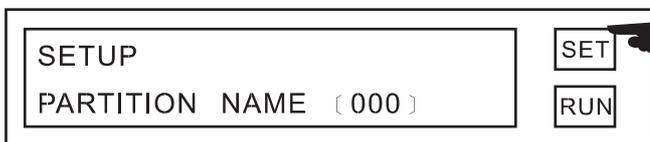
3) Edit and Duplicate Audio CDs

3-1 Compilation and duplication thru drives

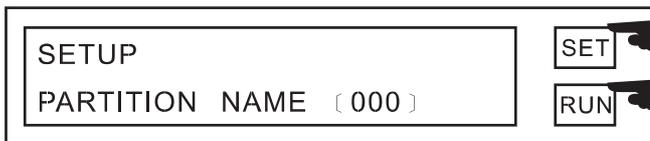
CD/DVD controller enables the compilation of one or more than one audio disc(s). The maximum capacity to the compilation is 99-minute or 99-track per disc.



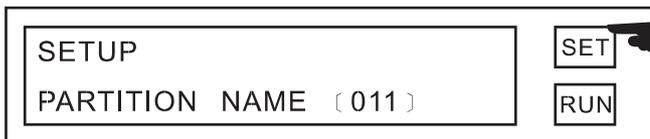
1. Hold the "SET" button for 3 seconds and enter to the Setup Mode.



2. Push the "SET" button and select "PARTITION NAME", and press run to start selecting partition.



3. push the "SET" button to move the cursor to the left and push the "RUN" button to change the location.



4. When partition selection is finished, hold the "SET" button for 3 seconds then let go, the cursor will stop blinking. Hold the "SET" button again to exit Setup Mode and enter to the Function Mode.

3-2 Compilation and duplication thru HD

The maximum capacity to the compilation is 99-minute or 99-track per partition.

Loading Audio CD tracks into the Hard Disk:

LOAD	E 1/M/8S2	SET
#2 01S16T73M	MUSIC	RUN

1. Select the Hard Disk partition where you want to Edit the Audio CD tracks.

LOAD	E 1/M/8S2	SET
#2 01S16T73M	MUSIC	RUN

2. Insert the Audio CD (Source disc) in one of the CD writers/burners and wait for the Duplication system to check.

LOAD TRACKS?	SET
SET → YES , RUN → NO	RUN

3. Push the "SET" button.

SELECT TRACKS	00/99	SET
01 02 03 04 05 06 07		RUN

4. Push the "SET" button to move the cursor and push the "RUN" button to select the desired track. Once the First Audio CD tracks are finished selecting, hold the "RUN" button for 3 seconds and then let go. It will start loading selected tracks into the Hard Disk.

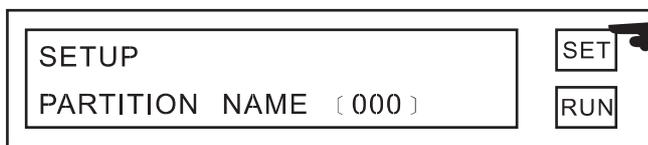
REMOVE SOURCE DISC	SET
ANY KEY → EXIT	RUN

5. Remove the Audio CD (Source Disc) and push any key to exit. If you want to add more tracks into the selected Hard Disk partition, then insert another Audio CD (Source Disc 2) and then close the tray and go back to Step3. If you finished loading, push any key to exit.

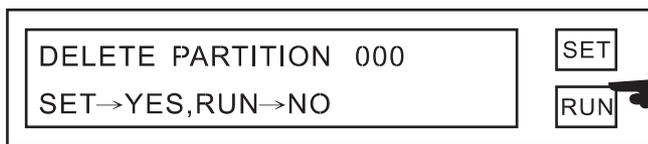
3-3 Delete the Contents in Partition

Press SET to switch to "PARTITION NAME" in advanced mode. Refer to the foregoing in [Set Partition Names in HD] to delete the contents in specific partition . Press RUN for 3 seconds and then the display shows the command if the deletion is decided. If what's in deletion the audio tracks, it comes out the command if the deletion is decided.

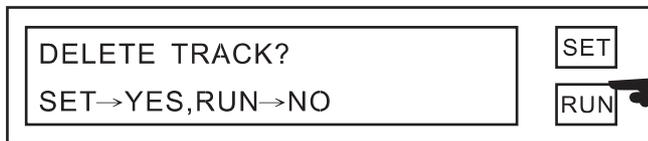
Deleting information or Audio tracks from specific Hard Disk Partition:



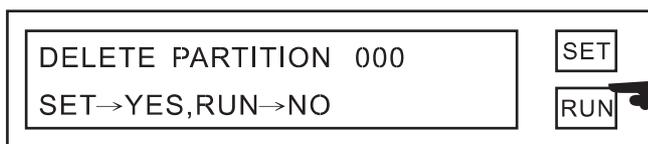
1. Hold the "SET" button for 3 seconds and then let go, it will enter to the Setup Mode.



2. Push the "SET" button and select "PARTITION NAME".



3. Select the Hard Disk Partition that you would like to delete (see diagram 5 for reference).



4. Hold the "RUN" button for three second and then let go, it will display "DELETE TRACKS?" if you loaded Audio tracks in this partition, or it will display "DELETE PARTITION" if you loaded other CD format.

*If you are deleting tracks, then you will have to delete track by track. e.g. If you loaded 10 tracks then you will have to delete ten times, when you are deleting the last track, the LCD will display "DELETE PARTITION".

4) The source disc is unsure if there is any setting with bad tracks

Enter the advanced function mode and set [SHORT] under “SKIP READ ERR”. Switch to “CHECK TRK LEN” and set [SHORT]. Once the setting is ready, the duplication for those source discs with bad tracks is smooth. The setting has no influence on the duplication to normal source discs.

Duplication of source disc with bad tracks which can not be judged by the surface



1. Press SET for 3 seconds to enter the setup mode. Switch to “SKIP READ ERR” and set it [SHORT] thru SET.



2. Press SET and switch to “CHECK TRK LEN” . Switch the setting to be [SHORT] thru RUN.

5) Duplication for those source discs with bad tracks

Enter the advanced function mode and set [LONG] under “SKIP READ ERR”. Switch to “CHECK TRK LEN” and set [LONG]. Once the setting is ready, the duplication for those source discs with bad tracks is smooth. The setting has no influence on the duplication to normal source discs.

Duplication of source disc with bad tracks



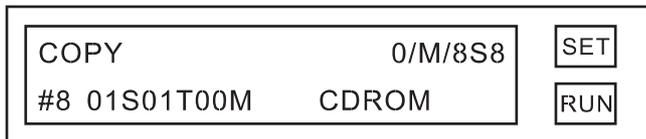
1. Press SET for 3 seconds to enter the setup mode. Switch to “SKIP READ ERR” and set it [LONG] thru SET.



2. Press SET and switch to “CHECK TRK LEN” . Switch the setting to be [LONG] thru RUN.

6) Update Firmware

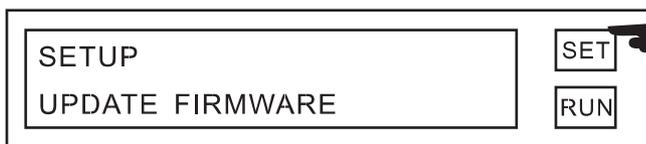
Insert the firmware-update disc in any of the drives. Press RUN for 3 seconds and then enter the advanced mode. Switch to “UPDATE FIRMWARE” and then press RUN to start the update to firmw



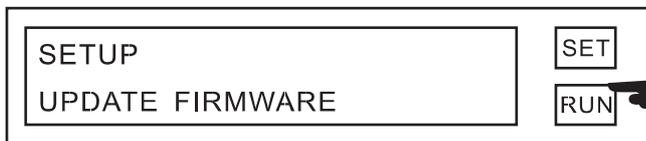
1. Insert the update firmware CD into one of the drives, and wait for the controller to check it.



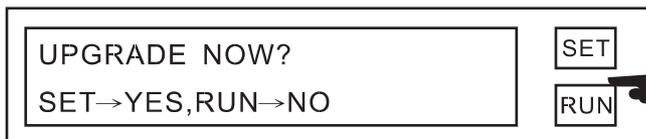
2. Hold the "SET" button for 3 seconds and then let go. It will enter to the Setup Mode.



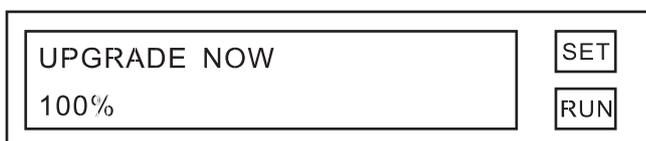
3. Push the "SET" button and select the "UPDATE FIRMWARE" function.



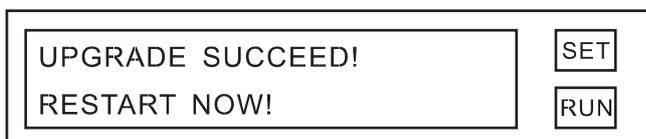
4. Push the "RUN" button to start the upgrade, the LCD will display "UPGRADE NOW?"



5. Push the "SET" button to begin.



6. Attention: do not turn off the power or push any keys while upgrading the CDR/DVD controller, it will break the controller and the only solution is by sending back to your local distributor for repair.



7. After finishing the upgrade, reboot the Duplication system.

4. Points for Attention

1. Check the voltage setting prior to plug in the duplicator to see if it fits the local standard. If the setting is incorrect, it may result in the unstable display and damage the devices.
2. Please be aware that the power cord connection of controller is contrary to what of the drives.
3. Please note that the controller is chiefly for the backup and file keeping. It supports no authentic test. (It's not suitable for the quality restriction to discs.)
4. Please reload the source to HD if the firmware in controller is just updated.
5. It fails to execute "TEST" in use of DVD+R blank media. If users insist on executing the function, the display shows [PLEASE SWITCH TO COPY].
6. The display shows [PLEASE USE BLANK CD] If users insert blank CD in DVD-88X/DVD-80X duplication systems and execute "TEST" and "COPY".
7. How controller finds the source ??
 - 1) In case of drive or inbuilt HD in the system, the controller seeks through the source disc in drives or preset files in HD.
 - 2) If there is none source either in the drive or HD, the controller seeks the devices in turn. Please note the right upper side S(*) when there are glittered words in display. E.g. S5 means that the source is in the 5th writer
 - 3) If there is preset to the source device in setting of [CHOOSE SOURCE], the controller executes COPY thru the preset source.
8. Please check the position of drive where the source is in prior to the execution of each function. The position of the device should be same as what's showing in the display.
9. If both the source and the targets are DVD+RW, please be aware that the position to the source device is correct.

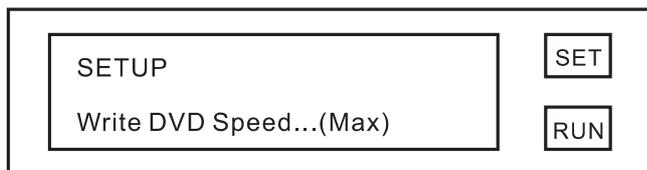
10. Points for Attention in copy thru DVD drive-to-drive (direct) copy.

1) Write in DVD by default

We have no guarantee that the quality of read-out reaches the standard to users in direct copy due to the various models of DVD drives. The DVD controller is under strict proof so that it supports the highest read-out speed in direct copy in below models.

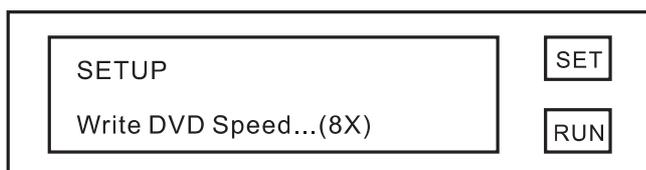
- 1.1 Lite-on JLMS XJ-HD 166S, 167 support full speed in disc-to-disc copy. However, the prerequisite is that source disc must be DVD+R or Book Type as DVD-ROM.
- 1.2 Please contact us for the firmware of above-mentioned models.
- 1.3 Reset it only once in firmware update to the controller. It remains the original setting in restart.

2) Manual setting to DVD write-in speed



1. Press SET for 3 seconds and then enter the advanced mode.

2. Switch to WRITE DVD SPEED.



1. Press RUN to switch the default, MAX, to 8X.

Once the setting is changed. Thus the DVD controller supports the highest read-out speed of installed DVD drives in direct copy. However, it has effect on the quality in direct copy due to the DVD drives can not read out the data in real time.

5.Functions in particular

1) TEST

The simulate duplication executes the duplication either thru disc-to-disc or HD-to disc. TEST just does the burning test but not really writes the blank disc. The source which is determined by the setting of CD/DVD controller can be from either inbuilt HD or the drive .

2) COPY

COPY does the real copy either thru disc-to-disc or HD-to-disc and is decided by the setting of CD/DVD controller.

COPY enables the compilation of audio discs directly thru the source discs. Press RUN for 3 seconds to execute the function. Please refer to Basic Introduction/Edit and Duplicate Audio CDs/Compilation and Duplication thru drives in the foregoing chapter.

3) COMPARE

Compare the preset files either in source drive or in HD with what's in the copied CD.

4) COPY & COMPARE

COMPARE follows COPY.

5) VERIFY

Verify the copied discs to see if there is any unreadable sector. This function is in use of neither the source drive nor inbuilt HD.

6) ERASE

Erase the data in discs. This mode is workable when R/RW writers and R/RW media are used. This function is in use of neither the source drive nor HD. Default is [Quick Erase]. Users can press RUN for 3 seconds for [Full Copy]. The system displays the same process but the work time becomes longer.

7) LOAD

If the system has an inbuilt HD, users can execute LOAD. Users can load the data in source disc from drive to partitions of HD. The original data in the partition are covered repeatedly. Users do not have to reset the partitions if the load is for copy instantly. It just needs a partition only. If users are loading various sources to the HD, switch to [PARTITION NAME] to set the partition after per load is finished. This avoids covering the original data in the partition.

LOAD enables the audio tracks in the source disc to be added to partition of HD. Press RUN for 3 seconds to execute this mode.

For details, please refer to Basic Introduction/Disc Duplication/HD-to-Disc COPY in the foregoing chapter.

6. Advanced Mode and Statements of Specific Setup

Advanced mode provides the setting to the work mode of CD/DVD controller. Press SET for the switches and press RUN for the changes. There is a block, [], behind each setting which indicates the present setting. Press SET for 3 seconds to return to general work modes.

1) CHOOSE SOURCE

Switch the device code of the source. Press RUN to switch the default of device code where the source is. Digits stand for the device code. [A] means the auto-operation determined by CD/DVD controller itself.

If CD/DVD controller is in mode of auto-operation, it seeks and sorts below the device where the source is.

- A. Read-only drive contains a readable disc.
- B. The system is including an inbuilt HD where there are readable data in the partitions.
- C. Recorder/Writer contains a readable disc while the device code is the smallest.

If the setting is in no use of the source device, the CD/DVD controller will not refer to the setting in this mode.

Default is [A] which means the determination by CD/DVD controller itself.

2) DISC COUNTER

The amount of the target discs in auto-operation mode.

Digits stand for the amount of discs.

[M] : Press RUN by manual.

[A] : The CD/DVD controller in auto-operation determines the amount of target discs for demand. Normally, the amount of target discs is equal to what of writers in a system.

Default is [M] which is in manual operation.

3) SKIP READ ERR

CD/DVD controller skips the read errors of the source disc and keeps on reading.

[NO] : The drive instantly rejects the source disc in face of read errors. The display shows copy failure.

[SHORT] : The system skips read errors at 2-KB sectors

[MED] : The system skips read error at 100-KB sectors.

[LONG] : The system skips read error at few-MB sectors.

[SKIPA] : The system skips the read of the track in face of the first bad sector.

Default is [NO]

4) CD WRITING WAY

CD/DVD controller provides 3 modes of CD reading/writing. It follows the default of writing setting in controller upon the read of the source by the drive. If users want to change the CD writing mode, just reset appropriate

writing mode before loading. If users force the setting, the accuracy to the content in targets is unsure.

Default is [DAO].

[DAO] : Disc at Once which is in most common use.

[TAO] : Track at Once which means track-by-track writing. This mode is in rare use.

[RAW] : This mode is in rare use. It is only workable when compatible writer supports RAW writing. If the above-mentioned 2 modes both fail in writing, users can try RAW.

5) DVD WRITING WAY

[DAO] : Disc at Once which is in most common use. DAO is fit for not only outdated but up-to-date DVD writers.

[INC] : INC improves the readability in other DVD players. INC suits passed writers or writers which support INC writing.

Default is [DAO].

6) CD READING SPEED

The setting to reading speed of CD drive. CDR series supports :

MX/01/02/04/06/08/10/12/16/20/24/32/40/46/48/52

[MX] : The highest speed in CD reading. If the setting exceeds the highest speed of the drive in CD reading, the drive works at its highest speed.

[MD] : It reads at the highest speed the blank disc supports.

Default is [MX].

7) CD WRITING SPEED

The setting to writing speed of CD writer. CDR series supports :

MX/01/02/04/06/08/10/12/16/20/24/32/40/46/48/52

[MX] : The highest speed in CD writing. If the setting exceeds the highest

speed of the writer in CD writing, the writer works at its highest speed.

[MD] : It writes at the highest speed the blank disc supports.

Default is [MX].

8) DVD READING SPEED

The setting to reading speed of DVD drive. DVD series supports :

MX/1/2/2.4/4/6/8

[MX] : The highest speed in DVD reading. If the setting exceeds the highest speed of the drive in DVD reading, the drive works at its highest speed.

[MD] : It reads at the highest speed the blank disc supports.

Default is [MX].

9) DVD WRITING SPEED

The setting to writing speed of DVD writer. DVD series supports :

MX/MD/1/2/2.4/4/6/8

[MX] : The highest speed in DVD writing. If the setting exceeds the highest speed of the writer in DVD writing, the writer works at its highest speed.

[MD] : It writes at the highest speed the blank disc supports.

Default is [MX].

10) SET AS DEFAULT

CD/DVD controller stores up the setting of arguments in advanced mode. If users want to save the adjustments as default, please use this function.

11) UPDATE FIRMWARE

11-1 Update the firmware of CD/DVD controller

Enter the advanced mode and switch to [UPDATE FIRMWARE]. CD/DVD controller seeks through the drives for the disc inside the update program.

When the controller finds the right update disc, it queries if users really want the execution of firmware update. Press RUN to cancel the update if necessary. Please do not turn off the power in update. That results in failed update and the controller has no choice but to be returned for repair. Once the update is finished, the controller displays the message. All arguments are returned to default values. Please restart the system to complete the work.

11-2 Update the firmware of drive/writer thru CD/DVD controller

Enter the advanced mode and switch to [UPDATE FIRMWARE]. CD/DVD controller seeks through the drives for the disc inside the update program.

When the controller finds the right update disc, it queries if users really want the execution of firmware update. Press RUN to cancel the update if necessary.

Statement about the update :

1. Confirm the correctness of the firmware edition prior to the update
2. There is no guarantee of the update due to unsure factors.
3. Once the update is failed, please contact the vendor there.

11-2.2 How to update the firmware of drive/writer ??

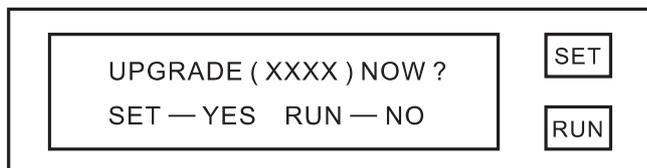
STEP 1 : Turn on the power.

STEP 2 : Put the update disc in any of the writers and wait until the disc is ready for execution.

STEP 3 : Press SET for 3 seconds to enter the advanced mode and then choose [UPDATE FIRMWARE].



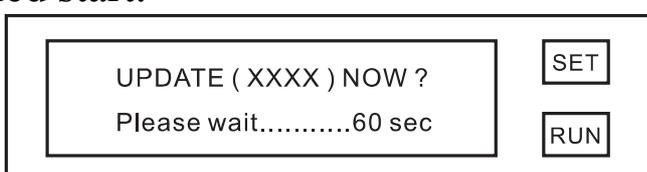
STEP 4 : Press SET to confirm the execution of firmware update to drive/writer.



P.S. (XXXX) means the brand of the device

STEP 5 :

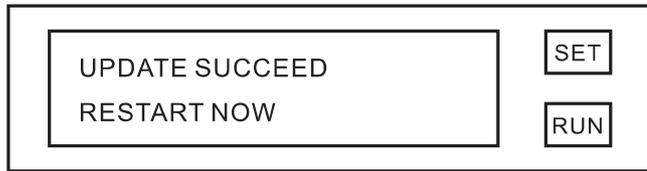
Press SET to start the update. It takes around 60 seconds to execute the firmware update to the devices. Please do not turn off the power or press any button in execution-otherwise it resulted in the incomplete update and failed start.



P.S. (XXXX) means the brand of the device

STEP 6 : Once the update exceeds, please turn on and restart the controller.

Note : Take out the update disc prior to the restart of the controller.



12) CHECK TRK LEN

There are various ways for the detection of bad sectors.

[NO] : Read as GAP = 0.

[AUTO] : Read by standard GAP.

[SHORT] : Read by short GAP.

[LONG] : Read by long GAP.

13) PARTITION NA.[00000]

Set up the ID and the partition number of HD

The partition number is composed of 5 digits. The first 2 digits are I.D. of the HD which users can change it for demand. It can be from 00 to 99.

The rest 3 digits represent the position of partition which is determined by the capacity of HD.

Default is 0000.

CDR-88X • CDR-80X	1GB/per partition
DVD-88X • DVD-80X	9GB/per partition

Press RUN for 3 seconds to delete particular partition. If what's in the partition the audio tracks, it enables the deletion of the last track. CD/DVD controller queries if users are really deleting the partition. Press RUN to cancel the command or press SET to decide to delete the partition.

14) SHOW DISC INFO.

Show the disc info. what is inside the drive/writer.

For CD : It shows ATAPI CODE

For DVD : It shows MANUFACTURE CODE

15) SHOW SYSTEM INFO.

Show hardware info. about the controller, drive, writer, and HD.

16) SHOW EXE TIME

It shows the consuming time when the execution of any of the functions is finished.

17) AUTO EXE TIME

The drive/writers have to detect the blank discs before the use of this function. Regardless of the amount of the blank discs put on the writers is correct or not, the controller goes executing the functions automatically. This execution is not repeated until the cancellation of this option.

AUTO EXE TIME	30 sec
	60 sec
	120 sec

18) DISABLE SEND OPC

Adjustment in the blank discs to get the optimum laser power.

Thru OPC, Optical Proximity Correction, we can find the best laser power range for the discs.

It can therefore remain the low read error rate by means of the value when we write data in.

The default is closed.

19) SUPPORT UPC/ISRC

Copy the UPC code of music CDs and the ISRC code of tracks. The copy of

ISRC code includes its full information. It records the country of the manufacture, the owner, the date, the serial number of each track...etc. The content can be different from track to track.

The default is closed.

20) REGION FREE SET

Rip the restriction of DVD movie region code and set the region code free automatically. As such, the duplicated DVD movies have no protection to the region code. Please note that the DVD movies have to be non-CSS.

The default is closed.

21) PARTITION SIZE

Assign the space of HD partition according to the demand. Therefore, it can increase the utility rate of HD space and makes it flexibly to data storage thru the partition blocks.

The system default is 9GB. Once you have changed the size of partition, you have to reload the source. Please also be aware of the size between the source disc and the assigned partition block.

Partition Size	9G
	5G
	1G

A) Error Messages

SET_SPEED_ERROR	'S'
READ_ERROR	'r'
WRITE_ERROR	'w'
READ_DMA_ERROR	'R'
WRITE_DMA_ERROR	'W'
CUE_SHEET_ERROR	'U'
ERASE_ERROR	'E'
FORMAT_ERROR	'F'
COMPARE_ERROR	'C'
SYNCHRONIZE_ERROR	'Z'
CLOSE_ERROR	'O'
TERMINATE_ERROR	'T'
BLANKMED_ERROR	'B'
ATIPCODE_ERROR	'A'
READDISCINF_ERROR	'D'
TARGNOTEEMPTY_ERROR	'N'
UNKNOWN_ERROR	'K'
SEND OPC_ERROR	'X'

B) TROUBLESHOOTINGS

●Impossibility of start / Start without display

- 1.Check to see if the voltage setting in the rear Power Supply fits the local standard.
- 2.Open the top plate to see if the Power cables inside the tower are stable.
- 3.Open the top plate to see if the connector to the display is stable.

● Impossibility of duplication

- 1.Check to see if the controller has detected all devices. If not, please open the top plate to see if all flat cables and power cables are stable in correct slots. All devices have to be set in MASTER.
- 2.Check to see if there is scrapes or damage to the source disc.
- 3.Try to use some other blank discs.
- 4.Ensure that the source disc is without any protection.
- 5.Check to see if the source device works fine.

● Slowdown in duplication / Unstable duplication

- 1.If users install the devices by themselves, please ensure the installation is correct according to this user's guide.
- 2.The writers in a system have to be the same model. It will be better if the firmware editions of the writers are the same.
- 3.Try to use other brands of blank disc. The qualities of blank discs are uneven. There might be blank discs of poor quality. Furthermore, the writer can not be compatible with the blank disc at that moment.
- 4.An inbuilt HD as the source enhances the stability and the writing speed in burning. This avoids the slowdown by reading thru drive or the failed copy caused by source of poor quality.
- 5.Try to find the device of poor quality since it may have influence on the

performance of the others

6. Try to go down the speed by degrees. It happened that the blank disc is unable to support that speed. Furthermore, the output from the drive to the writers can be unstable.

● **Noises of shock wave in copying audio tracks/Mosaics in VCD**

1) Please make sure there are not above-mentioned problems in the source disc.

2) Try to go down the speed 1 to 2 degrees