



# CopyWriter Pro-452RM

## Users Manual

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## **System Overview**

The CopyWriter Pro Series is an easy to use standalone CD recordable duplication system with advanced features. High-speed duplication at 52x speed is attained with 4 recorders.

The powerful interface still allows for one-touch operation for the novice user along with control of the advanced features for the professional. A hard drive comes standard in the system and allows for CD image archival and track extraction for audio compilations. Recording speed may be adjusted to slower speeds to allow for use with non-52x certified media, however Taiyo Yuden media is suggested for high-speed 52x duplication.

Features of the CopyWriter Pro include:

- 4 (52x) CD recorders for high output
- One touch start for CD to CD duplication
- Hard drive comes standard for CD image archival and track extraction for audio compilation CD's
- Store up to 10 different CD images on the internal hard drive.
- Counter feature allows the user to input how many discs need to be copied and the keeps track of the total discs completed.
- Read Check ensures all copied discs are readable (All supported formats including CD-DA)
- Selectable recording speeds up to 52x for recording stability
- Bit to bit verification of data formats
- Simulation mode to ensure recording stability
- Verbose output on display for easy status and error reporting
- Updates easily installed through CD reader

### ***CD-R Media Note:***

The CopyWriter Tower system is a 52x duplicator. In order to run the system at 52x speed, it is very important that 52x CD-R media is used. If your CD-R media is not rated to 52x speed, please reduce the record speed. If the record speed is set too high, the system will automatically slow down. You may also see a message displayed on the screen "Check CD-R Media Press YES Key". This indicates that the system had to slow down during the recording process because of the media and you should reduce the record speed of the system.

## **Unpacking your system**

When unpacking your duplicator, confirm the following items are included:

- CopyWriter Pro Series duplicator
- Power cable
- Quick Start Guide
- Microboards Documentation CD
- Blank CD-R media

If any of these items are missing, please contact your distributor or Microboards Technology Technical Support at 952-556-1639.

**IMPORTANT:** Please keep all the packing for your CopyWriter Pro duplicator. If your unit ever needs to be sent in for service, it must be returned in the original packing or the warranty will be voided.

## **Installation Requirements**

### *System Setup*

- Connect the power cable to the CopyWriter Pro tower and plug in to a protected power outlet strip or UPS power supply.
- Turn on power to the tower. The system is now ready to use.

Install your CopyWriter Pro duplicator in the following conditions:

- On a level and stable surface
- In a well ventilated location
- Temperature and humidity
- Temperature: 5-40°
- Humidity: 20-80%RH (no dew formation)

Do not install it in the following places:

- Under direct sunlight (If the machine is exposed to sunlight, the light should be blocked by a curtain or blind.)
- A dusty location
- A place where there is a lot of vibration
- Near open flame
- A place where the temperature and humidity change drastically
- Near a heating device such as a heater or furnace
- A location where air from an air conditioner blows directly onto the unit
- Near a container filled with water such as a vase

In winter during times of low humidity or in a location where static electricity is generated, use an anti-static-electricity mat or humidifier to prevent static electricity.

## Power supply

- Use house current as the power source for the unit.
- Do not use an outlet near a motor driven appliance (i.e. air conditioner, copying machine).
- Use an outlet with stable power supply voltages.
- Do not overload an outlet. Do not use a service outlet from a PCs or other office machine.
- Wire the power cord properly.
- Do not touch the power cord with a wet hand.
- Be careful not to damage the power cord.

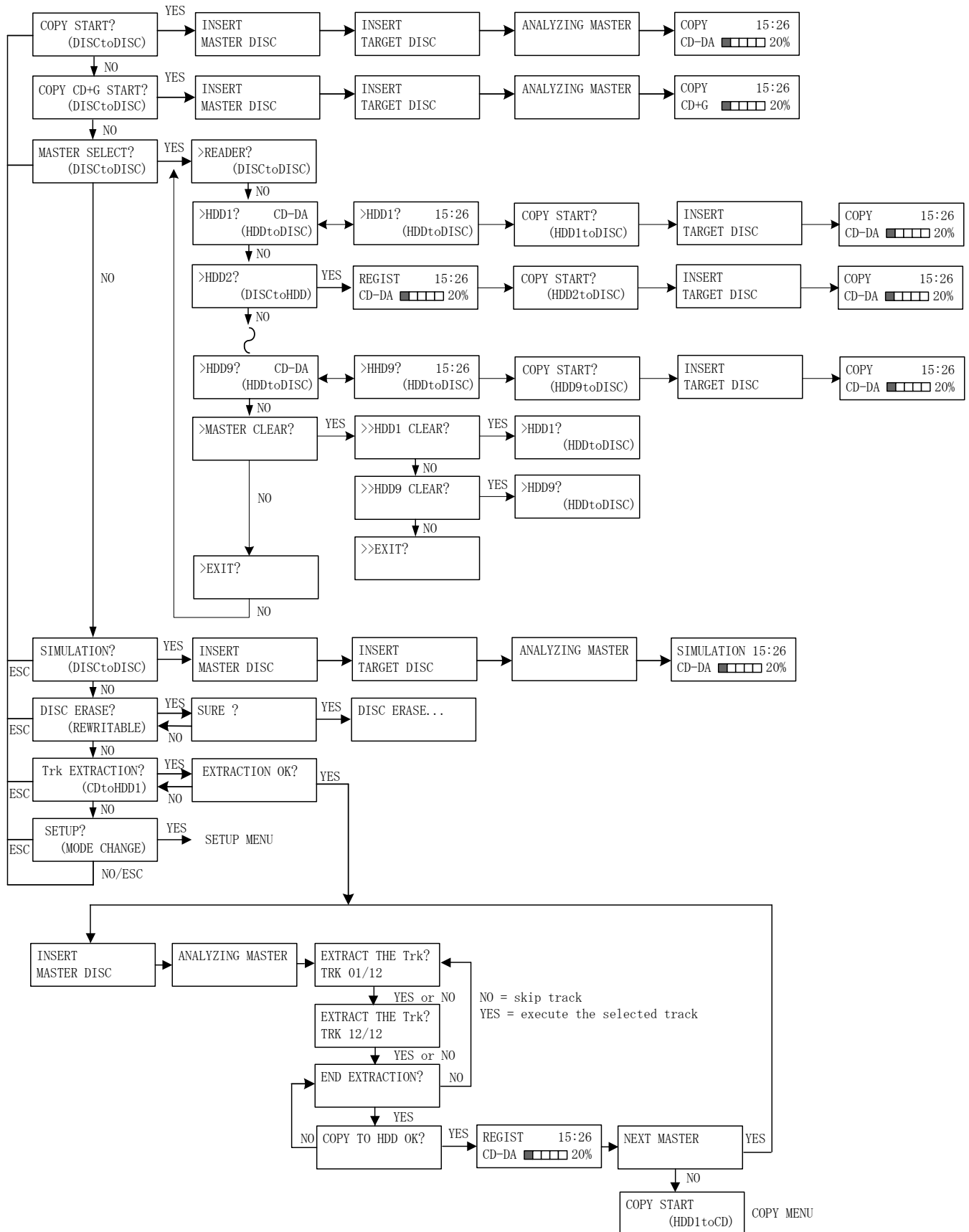
Inspect the power cord periodically.

In the event that the power cord is damaged, replace the power cord.

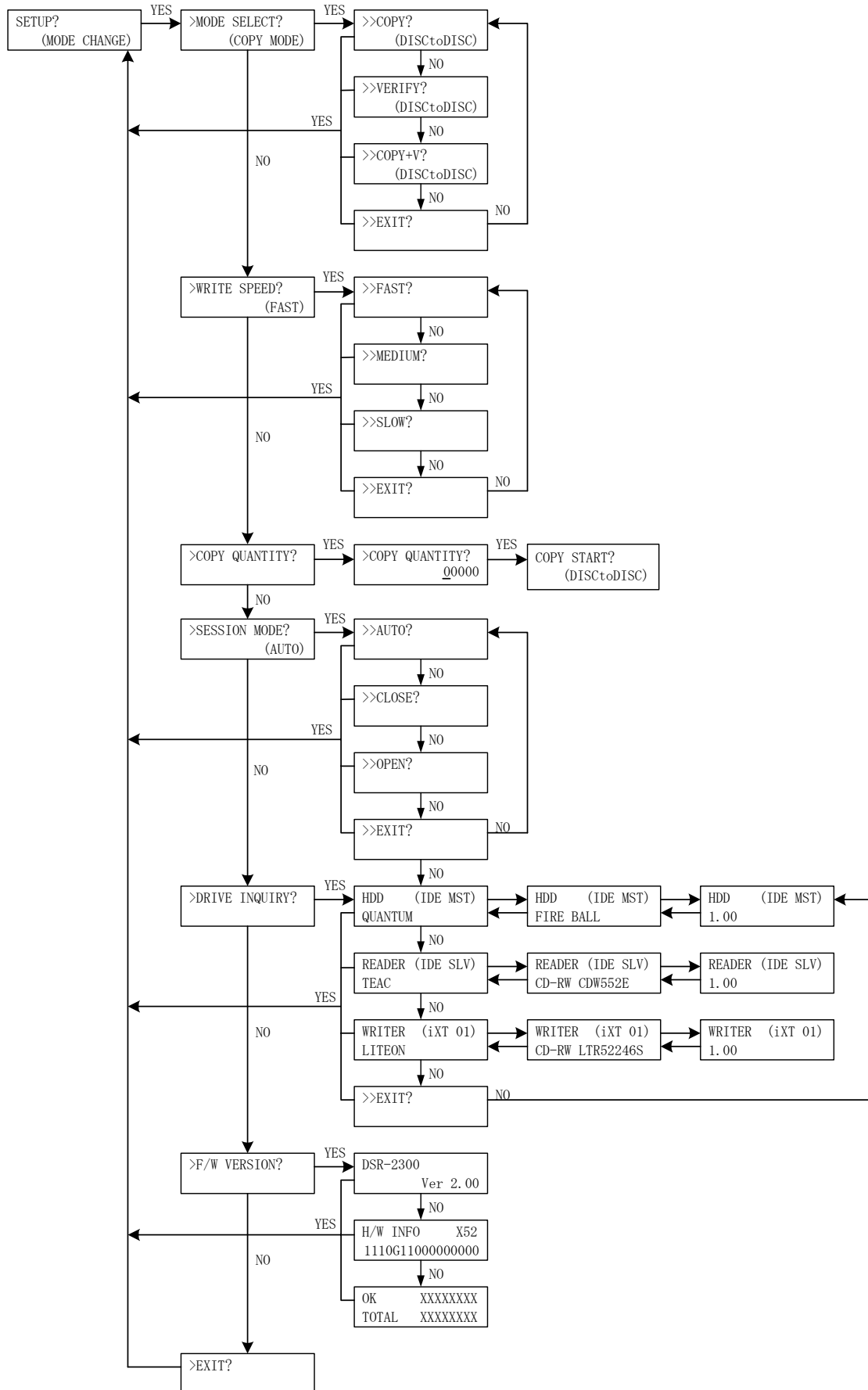


Be sure to use a tool such as the screwdriver to change the 115/230V Switch.  
Do not use your finger.

## Menu Overview



## Setup Menu information:



**Copy CD to CD**

**IMPORTANT NOTE:** When copying CD to CD at 52x speed, it is very important to use a clean, unmarked master. If there are scratches, fingerprints, dust, etc., on the master, it will slow down the recording speed.

1. Place the Master Disc into the Reader drive
2. Place the blank CD-R(/W) disc(s) into the Recorder drive(s)
3. The display reads COPY START? (Disc to Disc)

Copy Start? (Disc to Disc)
-------------------------------

4. Press Yes
5. The display will now show the progress of the Copy Job

COPY	15:26
CD-DA 	15%

6. The Recorder(s) will eject the CD-R discs when the job is complete.
7. The same procedure is used to copy CD+G master discs.

**Simulation CD to CD**

1. At the COPY START? (Disc to Disc) menu, press the NO key until the display shows SIMULATION? (Disc to Disc)

Simulation? (Disc to Disc)
-------------------------------

2. Place the Master Disc into the Reader drive
3. Place the blank CD-R(/W) disc(s) into the Recorder drive(s) and wait 10 seconds for the light(s) on the front of the Recorder(s) to stop blinking.
4. Press Yes
5. The display will now show the progress of the Copy Job

SIMULATION	15:26
CD-DA 	15%

6. The Recorder(s) will eject the CD-R discs when the job is complete.

*Note:* The CD-R media will NOT be recorded to in Simulation Mode.



**Registering Data to the Hard Drive (HDD)**

1. At the COPY START? (Disc to Disc) menu, press the NO key until the display shows MASTER SELECT? (DISC TO DISC)

MASTER SELECT?  
(Disc to Disc)

2. Place the Master CD into the Reader drive.
3. Press the Yes key
4. The display will show:

>READER?  
(DISC TO DISC)

5. Press the No key
6. The display will now show:

>HDD1?  
(DISC TO HDD)

7. If you wish to copy the data to the 1<sup>st</sup> partition, press the Yes key.
8. If you wish to select another partition, press the NO key.

>HDD2?  
(DISC to HDD)

9. By continuing to press the NO key, you will scroll through the different HDD partitions. Once you are at the partition you wish to use, press the YES key.
10. The display will now show the progress of the data being transferred to the hard drive:

REGIST		15:26
CD-DA	<div style="display: inline-block; width: 20px; height: 10px; background-color: gray; border: 1px solid black;"></div> <div style="display: inline-block; width: 20px; height: 10px; background-color: white; border: 1px solid black;"></div> <div style="display: inline-block; width: 20px; height: 10px; background-color: white; border: 1px solid black;"></div> <div style="display: inline-block; width: 20px; height: 10px; background-color: white; border: 1px solid black;"></div>	15%

Once the Master disc has been copied to the HDD, the Reader drive will eject the disc. Proceed to COPY HDD TO CD section (page 11).

**Erasing CD-RW media**

1. At the COPY START? (Disc to Disc) menu, press the NO key until the display shows DISC ERASE? (REWRITABLE):

DISC ERASE?  
(REWRITABLE)

2. Load the Recorder(s) with the CD-RW media you wish to erase. You can erase one disc at a time or fill all the Recorders to erase multiple discs at once.
3. Press the Yes key
4. The next screen asks if you want to perform a Quick Erase.

QUICK ERASE?

If you wish to perform a Full Erase, press the NO key.

FULL ERASE?

Pressing the YES key at either of these selections will show the following screen:

SURE?

5. Press the Yes key if you are sure you want to erase the CD-RW disc. If you do not wish to erase the disc, press the No key and you will go back to the DISC ERASE screen (step 1).
6. The screen will now show:

DISC ERASE.....

Once the erasing is complete, the Recorder(s) will eject the disc(s).

## **Copy Hard Drive (HDD) to CD**

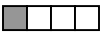
1. Follow the instructions on page 9 to register the Master CD to the HDD.
2. Press to NO key until the screen displays

Master Select?

3. Press the YES key.
4. The display will show READER.
5. Press the NO key and the display will show HDD1. If this is the hard drive partition you wish to copy, press the YES key.
6. The screen will display COPY START? (HDD1 to DISC)

COPY START?  
(HDD1 to DISC)

7. If you wish to select a different hard drive partition, press the NO key in step 5, until the display shows the partition you wish to copy.
8. Place the blank CD-R disc(s) into the Recorder(s) and wait 10 seconds for the light(s) on the front of the Recorder(s) to stop blinking.
9. Press the Yes button.
10. The drive trays will open on any recorder without blank discs installed. If you do not want to make a copy in those drives, close the tray(s), wait for the drive light to go out, and then press the YES key to start the copy job.
11. The display will now show the progress of the copy job from the HDD to the Recorder(s):

COPY	600MB
CDROM 	15%

After the Copy job is complete, the CD-R disc(s) will be ejected from the Recorder(s).

**Clearing the Hard Drive (HDD)**

The Master Clear option will not appear if there is no information stored on any of the hard drive partitions.

1. At the COPY START? (HDD1 to DISC) menu, press the NO key until the display shows MASTER SELECT? (HDD to DISC).

MASTER SELECT? (HDD to DISC)
---------------------------------

2. Press the Yes button.
3. The display will show:

>READER? (DISC TO DISC)
----------------------------


4. Press the No button until you the screen displays MASTER CLEAR? (HDD):

>MASTER CLEAR? (HDD)
-------------------------

5. Press the Yes button
6. You can now select which hard drive partition to erase. Pressing the NO button will scroll you though the partition selections.
7. Press the Yes button if you are sure you want to clear the HDD.
8. The hard drive will now be cleared and you will be asked if you want to register another master to the HDD.

>HDD1? (DISC TO HDD1)
--------------------------

9. Press Yes and the Reader drive will eject and you can insert another master to register to the HDD.

REGIST CDROM 	600MB 15%
-----------------------------------------------------------------------------------------------------	--------------

10. Press NO and you can exit this menu.

>EXIT?
--------

**Track Extraction**

When extracting tracks to the internal hard drive, the CopyWriter Pro always uses the first hard drive partition (HDD1). If there is information already stored on HDD1, the system will ask if you want to overwrite this information. This partition cannot be changed from HDD1.

1. Start up TRACK EXTRACTION mode.  
Press "YES" in the following screen.

Trk  
EXTRACTION?

\* TRACK EXTRACTION mode is not appeared unless HDD is connected.

2. Press "YES" again in the following screen.

EXTRACTION  
OK?

If any master data is already registered in HDD, the CopyWriter Pro asks you whether you want to overwrite data.  
Press "YES" to overwrite, "NO" to cancel.

EXTRACTION  
OK?

3. Insert a master audio disc. CopyWriter PRO will analyze the master disc.

INSERT  
MASTER DISC

ANALYZING  
MASTER

4. After it completes to analyze the master disc, it displays Selected Track Number / Total Track Number.

EXTRACT THE  
Trk?

This master data has total 12 tracks.

Press "NO" to skip forward a track.  
Press "YES" to select the track you want to extract.

5. If you skip forward all tracks, it asks if you want to end extraction for the master data.

EXTRACT THE  
Trk?

END  
EXTRACTION?

Since this master data has total 12 tracks, CopyWriter PRO asks you to end extraction for this data if you press "NO" after 12<sup>th</sup> track.

Press "YES" to finish extraction and register selected tracks in HDD.  
Press "NO" to add more tracks from this master data.

6. If you press “YES” in 1-5, CopyWriter PRO asks you to register the extracted tracks in HDD.

COPY TO HDD  
OK?

Press “YES” to start registration.

7. After registration completes, CopyWriter PRO asks you if you want to extract more tracks from other master audio discs.

NEXT MASTER

Press “YES” to extract more tracks from other master audio discs.  
Press “NO” to complete extraction.

8. If you press “NO”, CopyWriter PRO moves back to COPY menu so that you can copy the extracted tracks in HDD to blank CD-R media.

COPY START  
(HDDtoCD)

#### Error status in Track Extraction:

In the following situation in TRACK EXTRACTION, CopyWriter PRO shows an error status in LCD.

1. When you select a track which is not an audio track:

EXTRACT THE  
Trk?

If you try to extract a track which is not CD-DA, the track number does not display properly, but “—”. And “YES” button is invalid even if you press it.

2. When total time of extracted audio tracks is over 80 minutes:

EXTRACT THE  
Trk?

If the total time of extracted audio tracks is over 80 minutes, CopyWriter PRO displays “OVER” and “YES” button is invalid even if you press it.

**Setup Menu**

1. At the COPY START? (Disc to Disc) menu, press the NO key until the display shows SETUP? (MODE CHANGE)

SETUP? (MODE CHANGE)
-------------------------

2. Press the Yes button
3. The first setup option is Mode Select, followed by Write Speed, Session Mode, Drive Inquiry, Firmware Version and Exit.
4. Pressing the No key will allow you to move from menu to menu.
5. Pressing the Yes button will allow you to view or change the configuration of the system.
6. Please follow the flow chart on page 7 to navigate through the different menus.

Here is a description of each setup menu item:

**Mode Select:**

- COPY - Duplication from master disc to blank disc, or HDD to blank disc if master data is registered.
- VERIFY - It compares a copied data with a master data in bit per bit. The CD-DA, CD-ROM XA Form2, and CD-EXTRA formats cannot be verified.
- COPY+V - Copying in the COPY+VERIFY mode

**Write Speed:**

FAST? – It copies at maximum speed of 52x.  
 MEDIUM? – It copies at 40x.  
 SLOW? - It copies at 8x.

**Copy Quantity:**

Set up the number of disc you want to copy.  
 YES: Moves the cursor position to the next place value  
 NO: Select the number from 9 to 0 for each place value

**Session Mode**

AUTO? – Automatically detects the type of master you are using.  
 CLOSE? – It closes a session after copy.  
 OPEN? – If the master disc is an open session disc, the copies will remain open.

**Drive Inquiry**

It shows an inquiry of each drive connected. You can check the model & firmware version of each drive.

**F/W Version**

It shows CopyWriter PRO firmware version.

**H/W Info**

It shows a revision of CopyWriter PRO main board.

## Error Messages

If any failure occurs during operations, an error message on LCD and a beep indicate as it is the error. It beeps every two seconds which keep beeping until it stops. Opening a tray of drive having the error stops beeping.

Descriptions for each error message are as follows:

ERROR MASTER	: Error during COPY/ VERIFY/ READ CHECK with Master Drive
ERROR TARGET XX	: Error during COPY/ VERIFY/ READ CHECK with Target Drive No. XX.
CODE XXXX	: ATAPI error code XXXX occurred.
MASTER ANALYZE	: Error while analyzing a master disc
VERIFY DATA	: Error during VERIFY
CANNOT VERIFY	: CD-DA or CD-ROM XA is tried to VERIFY.
DISC TYPE	: Unable to analyze a format of master data, or not available format
USER STOP	: Cancel by an user, or unable to proceed an operation any more
DATA SIZE	: No match in capacities between a master disc and copied disc (s) during VERIFY
TIME OUT	: Time out error
SYSTEM ERROR	: Failed to boot up
MASTER NOT FOUND	: Master Drive not connected, or not recognized
PROGRAM SUM	: Problem with the copy program in Flash ROM
PROGRAM DISC	: Not proper firmware disc for DSR-2300
VERSION UP ERROR	: Failed to load firmware
ATAPI BUS	: Problem with response from drive



**Error Codes****Read**

ASC	ASCQ	Description
00	00	NO ADDITIONAL SENSE INFORMATION
00	06	I/O PROCESS TERMINATED, PLAY OPERATION ABORTED
00	11	AUDIO PLAY OPERATION IN PROGRESS
00	12	AUDIO PLAY OPERATION PAUSE
00	13	AUDIO PLAY OPERATION SUCCESSFULLY COMPLETED
00	14	AUDIO PLAY OPERATION STOPPED DUE TO ERROR
00	15	NO CURRENT AUDIO STATUS TO RETURN
00	17	CLEANINF REQUESTED
01	00	NO INDEX/SECTOR SIGNAL
02	00	NO SEEK COMPLETE
04	00	LOGICAL UNIT NOT READY, CAUSE NOT REPORTABLE
04	01	LOGICAL UNIT IS IN PROCESS OF BECOMING READY
04	02	LOGICAL UNIT NOT READY, INITIALIZING CMD. REQUESTED
04	03	LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED
04	07	LOGICAL UNIT NOT READY, OPERATION IN PROGRESS
05	00	LOGICAL UNIT DOES NOT RESPOND TO SELECTION
06	00	NO REFERENCE POSITION FOUND (medium may be upside down)
08	00	LOGICAL UNIT COMMUNICATION FAILURE
08	01	LOGICAL UNIT COMMUNICATION TIME-OUT
08	02	LOGICAL UNIT COMMUNICATION PARITY ERROR
08	03	LOGICAL UNIT COMMUNICATION CRC ERROR (ULTRA-DMA/32)
09	00	TRACK FOLLOWING ERROR
09	01	TRACKING SERVO FAILURE
09	02	FOCUS SERVO FAILURE
09	03	SPINDLE SERVO FAILURE
0A	00	ERROR LOG OVERFLOW
0B	00	WARNING
0B	01	WARNING-SPECIFIED TEMPERATURE EXCEEDED
0B	02	WARNING-ENCLOSURE DEGRADED
10	00	ID CRC OR ECC ERROR
11	01	UNRECOVERED READ ERROR
11	02	ERROR TOO LONG TO CORRECT
11	05	L-EC UNCORRECTABLE ERROR
11	06	CIRC UNRECOVERED ERROR
11	0F	ERROR READING UPC/EAN NUMBER
11	10	ERROR – LOSS PF STREAMING
12	00	ADDRESS MARK NOT FOUND FOR ID FIELD
13	00	ADDRESS MARK NOT FOUND FOR DATA FIELD
14	01	RECORD NOT FOUND
14	05	RECORD NOT FOUND – RECOMMEND REASSIGNMENT
14	06	RECORD NOT FOUND – DATA AUTO – REALLOCATED
15	00	RANDOM POSITIONING ERROR
15	01	MECHANICAL POSITIONING ERROR
15	02	POSITIONING ERROR DETECTED BY READ OF MEDIUM
17	00	RECOVERED DATA WITH NO EOR CORRECTION APPLIED
17	01	RECOVERED DATA WITH RETRIES
17	02	RECOVERED DATA WITH POSITIVE HEAD OFFSET
17	03	RECOVERED DATA WITH NEGATIVE HEAD OFFSET
17	04	RECOVERED DATA WITH RETRIES AND/OR CIRC APPLIED

17	05	RECOVERED DATA USING PREVIOUS SECTOR ID
18	00	RECOVERED DATA WITH ERROR CORRECTION APPLIED
18	01	RECOVERED DATA WITH ERROR CORP. & RETRIES APPLIED
18	03	RECOVERED DATA WITH CIRC
18	04	RECOVERED DATA WITH L-EC
1A	00	PARAMETER LIST LENGTH ERROR
1B	00	SYNCHRONOUS DATA TRANSFER ERROR
1E	00	RECOVERED ID WITH ECC CORRECTION
20	00	INVALID COMMAND OPERATION CODE
21	00	LOGICAL BLOCK ADDRESS OUT OF RANGE
24	00	INVALID FIELD IN CDB
25	00	LOGICAL UNIT NOT SUPPORTED
26	00	INVALID FIELD IN PARAMETER LIST
26	01	PARAMETER NOT SUPPORTED
26	02	PARAMETER VALUE INVALID
26	03	THRESHOLD PARAMETERS NOT SUPPORTED
26	04	INVALID RELEASE OF ACTIVE PERSISTENT RESERVATION
28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED
29	01	POWER ON OCCURRED
29	02	SCSI BUS RESET OCCURRED
29	03	BUS DEVICE RESET FUNCTION OCCURRED
29	04	DEVICE INTERNAL RESET
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2A	02	LOG PARAMETERS CHANGED
2A	03	RESERVATIONS PREEMPTED
2B	00	COPY CANNOT EXECUTE SINCE HOST CANNOT DISCONNECT
2C	00	COMMAND SEQUENCE ERROR
2C	05	PERSISTENT PREVENT CONFLICT
2F	00	COMMANDS CLEARED BY ANOTHER INITIATOR
30	00	INCOMPATIBLE MEDIUM INSTALLED
30	01	CANNOT READ MEDIUM - UNKNOWN FORMAT
30	02	CANNOT READ MEDIUM - INCOMPATIBLE FORMAT
30	03	CLEANSING CARTRIDGE INSTALLED
35	00	ENCLOSURE SERVICES FAILURE
35	01	UNSUPPORTED ENCLOSURE FUNCTION
35	02	ENCLOSURE SERVICES UNAVAILABLE
35	03	ENCLOSURE SERVICES TRANSFER FAILURE
35	04	ENCLOSURE SERVICES TRANSFER REFUSED
39	00	SAVING PARAMETERS NOT SUPPORTED
3A	00	MEDIUM NOT PRESENT
3A	01	MEDIUM NOT PRESENT-TRAY CLOSED
3A	02	MEDIUM NOT PRESENT-TRAY OPEN
3B	0F	END OF MEDIUM REACHED
3B	11	MEDIUM MAGAZINE NOT ACCESSIBLE
3B	12	MEDIUM MAGAZINE REMOVED
3B	13	MEDIUM MAGAZINE INSERTED
3B	14	MEDIUM MAGAZINE LOCKED
3B	15	MEDIUM MAGAZINE UNLOCKED
3B	16	MECHANICAL POSITIONING OR CHANGER ERROR
3D	00	INVALID BITS IN IDENTIFY MESSAGE

3E	00	LOGICAL UNIT HAS NOT SELF-CONFIGURED YET
3E	01	LOGOCAL UNIT FAILURE
3E	02	TIMEOUT ON LOGICAL UNIT
3F	00	TARGET OPERATING CONDITIONS HAVE CHANGED
3F	01	MICROCODE HAS BEEN CHANGED
3F	02	CHANGED OPERATING DEFINITION
3F	03	INQUIRY DATA HAS CHANGED
40	NN	DIAGNOSTIC FAILURE ON COMPONENT NN (80H-FFH)
43	00	MESSAGE ERROR
44	00	INTERNAL TARGET FAILURE
45	00	SELECT OR RESELECT FAILURE
46	00	UNSUCCESSFUL SOFT RESET
47	00	SCSI PARITY ERROR
48	00	INITIATOR DETECTED ERROR MESSAGE RECEIVED
49	00	INVALID MESSAGE ERROR
4A	00	COMMAND PHASE ERROR
4B	00	DATA PHASE ERROR
4C	00	LOGICAL UNIT FAILED SELF-CONFIGURATION
4D	NN	TAGGED OVERLAPPED COMMANDS (NN=QUEUE TAG)
4E	00	OVAERLAPPED COMMANDS ATTEMPTED
53	00	MEDIA LOAD OR EJECTED FAILED
53	02	MEDIUM REMOVAL PREVENTED
55	00	SYSTEM RESOURCE FAILURE
57	00	UNABLE TO RECOVER TABLE-OF-CONTENTS
5A	00	OPERATOR REQUEST OR STATE CHANGE INPUT
5A	01	OPERATOR MEDIUM REMOVAL REQUEST
5B	00	LOG EXCEPTION
5B	01	THRESHOLD CONDITION MET
5B	02	LOG COUNTER AT MAXIMUM
5B	03	LOG LIST CODES EXHAUSTED
5D	00	FAILURE PREDICTION THRESHOLD
5D	01	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Media Failure
5D	FF	FAILURE PREDICTION THRESHOLD EXCEEDED (FALSE)
5E	00	LOW POWER CONDITION ON
5E	01	IDLE CONDITION ACTIVATED BY TIMER
5E	02	STANDBY CONDITION ACTIVATED BY COMMAND
5E	03	IDLE CONDITION ACTIVATED BY COMMAND
5E	04	STANDBY CONDITION ACTIVATED BY COMMAND
63	00	END OF USER AREA ENCOUNTERED ON THIS TRACK
63	01	PACKET DOES NOT FIT IN AVAILABLE SPACE
64	00	ILLEGAL MODE FOR THIS TRACK
65	00	VOLTAGE FAULT
73	00	CD CONTROL ERROR
80	xx	VENDOR SPECIFIC

## Write

ASC	ASCQ	Description
00	00	NO ADDITIONAL SENSE INFORMATION
00	06	I/O PROCESS TERMINATED, PLAY OPERATION ABORTED
00	11	AUDIO PLAY OPERATION IN PROGRESS
00	12	AUDIO PLAY OPERATION PAUSED
00	13	AUDIO PLAY OPERATION SUCCESSFULLY
00	14	AUDIO PLAY OPERATION STOPPED DUE TO ERRPOR
00	15	NO CURRENT AUDIO STATUS TO RETURN
02	00	NO SEEK COMPLETE
04	00	LOGICAL UNIT NOT READY, CAUSE NOT REPORTABLE
04	01	LOGICAL UNIT IS IN PROCESS OF BECOMING READY
04	02	LOGICAL UNIT NOT READY, INITIALIZING CMD. REQUIRED
04	03	LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED
04	04	LOGICAL UNIT NOT READY, FORMAT IN PROGRESS
04	07	LOGICAL UNIT NOT READY, OPERATION IN PROGRESS
04	08	LOGICAL UNIT NOT READY, LONG WRITE IN PROGRESS
05	00	LOGICAL UNIT DOES NOT RESPOND TO SELECTION
06	00	NO REFERENCE POSITION FOUND
08	00	LOGICAL UNIT COMMUNICATION FAILURE
08	01	LOGICAL UNIT COMUUNICATION TIME-OUT
08	02	LOGICAL UNIT COMMUNICATION PARITY ERROR
08	03	LOGICAL UNIT COMMUNICATION CRC ERROR (ULTRA-DMA/32)
09	00	TRACK FOLLOWING ERROR
09	01	TRACKING SERVO FAILURE
09	02	FOCUS SERVO FAILURE
09	03	SPINDLE SERVO FAILURE
0A	00	ERROR LOG OVERFLOW
0B	00	WARNING
0B	01	WARNING-SPECIFIED TEMPERATURE EXCEEDED
0B	02	WARNING-ENCLOSURE DEGRADED
0C	00	WRITE ERROR
0C	02	WRITE ERROR-RECOVERED WITH AUTO REALLOCATION
0C	03	WRITE ERROR-RECOMMEND REASSIGNMENT
0C	07	WRITE ERROR-RECOVERY NEEDED
0C	08	WRITE ERROR-RECOVERY FAILED
0C	09	WRITE ERROR-LOSS OF STREAMING
0C	0A	WRITE ERROR-PADDING BLOCKS ADDED
11	00	UNRECOVERED READ ERROR
11	06	CIRC UNRECOVERED ERROR
15	00	RANDOM POSITIONING ERROR
15	01	MECHANICAL POSITIONING ERROR
15	02	POSITIONING ERROR DETECTED BY READ OF MEDIUM
16	00	DATA SYNCHRONIZATION MARK ERROR
16	01	DATA SYNC ERROR-DATA REWRITTEN
16	02	DATA SYNC ERROR-RECOMMEND REWRITE
16	03	DATA SYNC ERROR-DATA ATUO-REALLOCATED
16	04	DATA SYNC ERROR-RECOMMEND REASSIGNMENT
17	00	RECOVERED DATA WITH NO ERROR CORRECTION APPLIED
17	01	RECOVERED DATA WITH RETRIES
17	02	RECOVERED DATA WITH POSITIVE HEAD OFFSET
17	03	RECOVERED DATA WITH NEGATIVE HEAD OFFSET
17	04	RECOVERED DATA WITH RETRIES AND/OR CIRC APPLIED
17	05	RECOVERED DATA USING PREVIOUS SECTOR ID

17	06	RECOVERED DATA WITHOUT ECC - DATA AUTO-REALLOCATED
17	07	RECOVERED DATA WITHOUT ECC - RECOMMEND REASSIGNMENT
17	08	RECOVERED DATA WITHOUT ECC - RECOMMEND REWRITE
17	09	RECOVERED DATA WITHOUT ECC - DATA REWRITTEN
18	00	RECOVERED DATA WITH ERROR CORRECTION APPLIED
18	01	RECOVERED DATA WITH ERROR CORR. & RETRIES APPLIED
18	02	RECOVERED DATA - DATA AUTO-REALLOCATED
18	03	RECOVERED DATA WITH CIRC
18	04	RECOVERED DATA WITH L-EC
18	05	RECOVERED DATA - RECOMMEND REASSIGNMENT
18	06	RECOVERED DATA - RECOMMEND REWRITE
18	07	RECOVERED DATA WITH ECC - DATA REWRITTEN
19	00	DEFECT LIST NOT ERROR
19	01	DEFECT LIST NOT AVAILABLE
19	02	DEFECT LIST ERROR IN PRIMARY LIST
19	03	DEFECT LIST ERROR IN GROWN LIST
1A	00	PARAMETER LIST LENGTH ERROR
1B	00	SYNCHRONOUS DATA TRANSFER ERROR
1C	00	DEFECT LIST NOT FOUND
1C	01	PRIMARY DEFECT LIST NOT FOUND
1C	02	GROWN DEFECT LIST NOT FOUND
1D	00	MISCOMPARE DURING VERIFY OPERATION
20	00	INVALID COMMAND OPERATION CODE
21	00	LOGICAL BLOCK ADDRESS OUT OF RANGE
21	02	INVALID ADDRESS FOR WRITE
24	00	INVALID FIELD IN CDB
25	00	LOGICAL UNIT NOT SUPPORTED
26	00	INVALID FIELD IN PARAMETER LIST
26	01	PARAMETER NOT SUPPORTED
26	02	PARAMETER VALUE INVALID
26	03	THRESHOLD PARAMETERS NOT SUPPORTED
26	04	INVALID RELEASE OF ACTIVE PERSISTENT RESERVATION
27	00	WRITE PROTECTED
27	01	HARDWARE WRITE PROTECTED
27	02	LOGICAL UNIT SOFTWARE WRITE PROTECTED
27	03	ASSOCIATED WRITE PROTECT
27	04	PERSISTENT WRITE PROTECT
27	05	PERSISTENT WRITE PROTECT
27	06	CONDITIONAL WRITE PROTECT
28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED
29	01	POWER ON OCCURRED
29	02	SCSI BUS RESET OCCURRED
29	03	BUS DEVICE RESET FUNCTION OCCURRED
29	04	DEVICE INTERNAL RESET
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2A	02	LOG PARAMETERS CHANGED
2A	03	RESERVATIONS PREEMPTED
2B	00	COPY CANNOT EXECUTE SINCE HOST CANNOT DISCONNECT
2C	00	COMMAND SEQUENCE ERROR

28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2C	00	COMMAND SEQUENCE ERROR
2C	03	CURRENT PROGRAM AREA IS NOT EMPTY
2C	04	CURRENT PROGRAM AREA IS EMPTY
2C	05	PERSISTENT PREVENT CONFLICT
2E	00	INSUFFICIENT TIME FOR OPERATION
2F	00	COMMANDS CLEARED BY ANOTHER INITIATOR
30	00	INCOMPATIBLE MEDIUM INSTALLED
30	01	CANNOT READ MEDIUM - UNKNOWN FORMAT
30	02	CANNOT READ MEDIUM - INCOMPATIBLE FORMAT
30	05	CANNOT WRITE MEDIUM - INCOMPATIBLE FORMAT
30	06	CANNOT FORMAT MEDIUM - INCOMPATIBLE MEDIUM
30	08	CANNOT WRITE - APPLICATION CODE MISMATCH
30	09	CURRENT SESSION NOT FIXATED FOR APPEND
31	00	MEDIUM FORMAT CORRUPTED
31	01	FORMAT COMMAND FAILED
32	00	NO DEFECT SPARE LOCATION AVAILABLE
32	01	DEFECT LIST UPDATE FAILURE
35	00	ENCLOSURE SERVICES FAILURE
35	01	UNSUPPORTED ENCLOSURE FUNCTION
35	02	ENCLOSURE SERVICES UNAVAILABLE
35	03	ENCLOSURE SERVICES TRANSFER FAILURE
35	04	ENCLOSURE SERVICES TRANSFER REFUSED
37	00	ROUNDED PARAMETER
39	00	SAVING PARAMETERS NOT SUPPORTED
3A	00	MEDIUM NOT PRESENT
3A	01	MEDIUM NOT PRESENT - TRAY CLOSED
3A	02	MEDIUM NOT PRESENT - TRAY OPEN
3D	00	INVALID BITS IN IDENTIFY MESSAGE
3E	00	LOGICAL UNIT HAS NOT SELF-CONFIGURED YET
3E	01	LOGICAL UNIT FAILURE
3E	02	TIMEOUT ON LOGICAL UNIT
3F	00	TARGET OPERATING CONDITIONS HAVE CHANGED
3F	01	MICROCODE HAS BEEN CHANGED
3F	02	CHANGED OPERATING DEFINITION
3F	03	INQUIRY DATA HAS CHANGED
40	NN	DIAGNOSTIC FAILURE ON COMPONENT NN (80H-FFH)
43	00	MESSAGE ERROR
44	00	INTERNAL TARGET FAILURE
45	00	SELECT OR RESELECT FAILURE
46	00	UNSUCCESSFUL SOFT RESET
47	00	SCSI PARITY ERROR
48	00	INITIATOR DETECTED ERROR MESSAGE RECEIVED
49	00	INVALID MESSAGE ERROR
4A	00	COMMAND PHASE ERROR
4B	00	DATA PHASE ERROR
4C	00	LOGICAL UNIT FAILED SELF-CONFIGURATION
4D	NN	TAGGED OVERLAPPED COMMANDS (NN=QUEUE TAG)
4E	00	OVAERLAPPED COMMANDS ATTEMPTED

51	00	ERASE FAILURE
51	01	ERASE FAILURE - Incomplete erase operation detected
53	00	MEDIA LOAD OR EJECT FAILED
53	02	MEDIUM REMOVAL PREVENTED
55	00	SYSTEM RESOURCE FAILURE
57	00	UNABLE TO RECOVER TABLE-OF-CONTENTS
5A	00	OPERATOR REQUEST OR STATE CHANGE INPUT
5A	01	OPERATOR MEDIUM REMOVAL REQUEST
5A	02	OPERATOR SELECTED WRITE PROTECT
5A	03	OPERATOR SELECTED WRITE PERMIT
5B	00	LOG EXCEPTION
5B	01	THRESHOLD CONDITION MET
5B	02	LOG COUNTER AT MAXIMUM
5B	03	LOG LIST CODES EXHAUSTED
5D	00	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Logical Unit Failure
5D	01	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Media Failure
5D	03	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Spare Area Exhaustion
5D	FF	FAILURE PREDICTION THRESHOLD EXCEEDED (FALSE)
5E	00	LOW POWER CONDITION ON
5E	01	IDLE CONDITION ACTIVATED BY TIMER
5E	02	STANDBY CONDITION ACTIVATED BY COMMAND
5E	03	IDLE CONDITION ACTIVATED BY COMMAND
5E	04	STANDBY CONDITION ACTIVATED BY COMMAND
63	00	END OF USER AREA ENCOUNTERED ON THIS TRACK
64	00	ILLEGAL MODE FOR THIS TRACK
64	01	INVALID PACKET SIZE
65	00	VOLTAGE FAULT
72	00	SESSION FIXATION ERROR
72	01	SESSION FIXATION ERROR WRITING LEAD-IN
72	02	SESSION FIXATION ERROR WRITING LEAD-OUT
72	03	SESSION FIXATION ERROR - INCOMPATIBLE TRACK IN SESSION
72	04	EMPTY OR PARTIALLY WRITTEN RESERVED TRACK
72	05	NO MORE RZONE RESERVATIONS ARE ALLOWED
73	00	CD CONTROL ERROR
73	01	POWER CALIBRATION AREA ALMOST FULL
73	02	POWER CALIBRATION AREA IS FULL
73	03	POWER CALIBRATION AREA ERROR
73	04	PROGRAM MEMORY AREA UPDATE FAILURE
73	05	PROGRAM MEMORY AREA/RMA IS FULL
73	06	PROGRAM MEMORY AREA/RMA IS (almost) FULL
B6	00	MEDIA LOAD/EJECT MECHANISM FAILED
B9	00	PLAY OPERATION ABORTED
80	FF	VENDOR SPECIFIC

**Specifications:**

CD Recorder Drive:	52x CD-RW speed selectable drive
Power Source:	115V/230V 50-60Hz switchable power supply
Weight:	48 pounds
Dimensions:	7.48" (W) x 17.91" (D) x 17.13" (H)
Power supply:	300W
Environment:	Temperature: 40°C (104°F) / 5°C (41°F) Humidity: 20% - 80%

**Supported Formats:**

CD-DA, Mixed Mode, ISO9660, Hybrid, CD-ROM Mode1/Mode2, CD-I, CD-ROM XA Form1/form2, HFS, UFS, CD-EXTRA (CD-PLUS), CD+G (Karaoke)

**Firmware Updates**

Occasionally it may be necessary to load updated firmware on to the CopyWriter Pro duplicator. You will be sent a disc containing the firmware program. Please follow these steps to load the disc.

- Hold down the YES button and turn on power to the tower.
- The display will read "Please Wait" and the system will beep once.
- Release the YES button.
- The Reader drive will eject and the display will read "Insert Program Disc".
- Place the firmware disc into the Reader drive and close the tray.
- The display will read "Updating" as the new firmware is being loaded.
- Once the firmware is loaded, the Reader drive will eject the disc.
- Remove the firmware disc from the Reader and close the tray.
- The CopyWriter Pro tower will now reboot and be ready for use with the new firmware program running.

**Contact Information**

For technical questions or support issues, please contact Microboards Technology technical support at PH: 952-556-1639, FAX: 952-556-1628, by email at [support@microboards.com](mailto:support@microboards.com) or on the web at <http://www.microboards.com>.