



CWR-424

CD Duplicator

USER'S MANUAL

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System Overview

The CWR-424 is a professional, high-speed CD recordable duplicator engineered for the rackmount environment. Microboards Technology has applied their expertise in tower CD duplication to develop this sleek, black rackmount system to meet the demands of the Pro Audio user and information systems professional alike. The CWR-424 automatically detects the format of the master CD and the four recorders write at a blazing 24x speed to allow for high volume duplication. Features of the CWR-424 include a recording simulation mode to ensure your master can be copied safely. A simple, two-button interface allows the recording speed to be adjusted to slower speeds for use with media not certified for high-speed duplication. Taiyo Yuden media is suggested for high-speed 24x duplication.

Advanced Features:

- 4 (24x) CD recorders for high output
 - One touch start for CD to CD duplication
 - Selectable recording speeds up to 24x for recording stability
 - Easy to read LED interface for copy status and error reporting
 - Simulation mode to ensure recording stability
 - Black 4U rackmount enclosure for aesthetic integration with current equipment
- Updates easily installed through CD reader

Unpacking your system

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

- CWR-424 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 CWR-424 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.

Setting up the CWR-424 duplicator

Set up the CWR-424 duplicator with the following conditions:

- 19" Rack mount position or
- On a level and stable surface
- In a well ventilated location
- Temperature and humidity:
 - Temperature: 5-40° C
 - Humidity: 20-80%RH (no dew formation)

Do not locate the CWR-424 duplicator:

- Under direct sunlight (If the machine is exposed to sunlight, the light should be blocked by a curtain or blind.)
- In a place where there is a lot of vibration
- Near open flame
- In a place where the temperature and humidity change drastically
- Near a heating device such as a heater or furnace
- In a location where air from an air conditioner blows directly onto the unit
- Near a container filled with water such as a vase
- In a dusty location
 - Dust and dirt can decrease the productivity of the duplicator dramatically. It is very important to keep the system in a clean and dust free environment.

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.

Copy Process

The advantage of the CWR-424 is the quick and easy operation to burn CD information.

You can burn CD-R's by pressing the button only once with the CWR-424 as follows;

- Turn on CWR-424, and it begins to initialize.
 - The LED's turn on, one at a time and then go off, leaving the 1st mode light on.
 - Insert a Master disc into the Master drive and blank discs into writers.
 - Wait for ten seconds until the drives are ready.
 - Press the 'START' button (press it once).
 - The copy process begins.

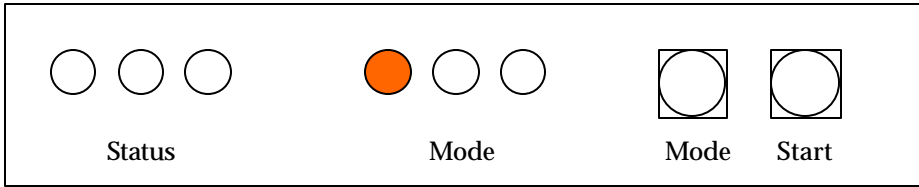
Refer to the "LED's Status" and "Copy Mode Process" sections for details.

Using Audio Masters:

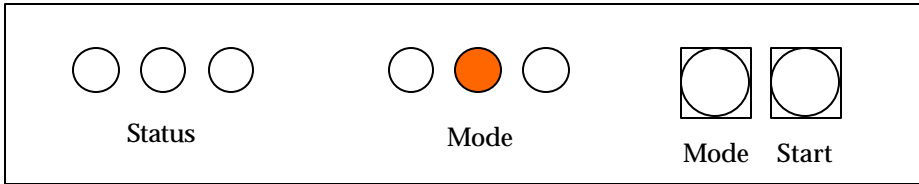
When copying Audio masters with a large number of tracks, the system can take 3 to 5 minutes to analyze the master. The reader drive will blink slowly during this process.

Write Speeds:

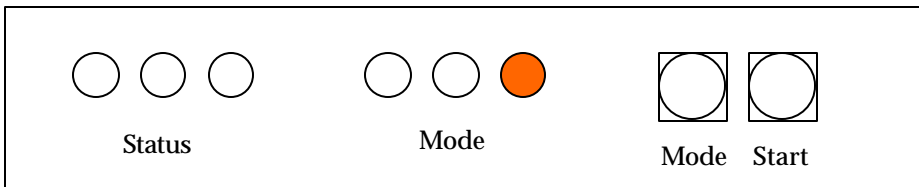
- FAST – It copies at maximum speed of 24x*.



- MEDIUM – It copies at 8x*.



- SLOW - It copies at 4x*.



*See table below for record speed limitations

Speed Table

	CD-ROM Mode 1	CD-DA Audio	CD-ROM XA
CD to CD Copy	Fast = 24x Medium = 8x Slow = 4x	Fast = 24x Medium = 8x Slow = 4x	Fast = 8x Medium = 4x Slow = 4x

CD-ROM XA format includes CD ROM XA Form1 and Form 2, CD Extra, Video CD

Copy Job Completes

The CWR-424 automatically ejects the drive trays after the copy finishes successfully. The Master disc does not eject. You can use any or all of the four recorders to make copies.

The CWR-424 ALARMS (beeps) when an error occurs with the media and/or drive. Discs will not be ejected and the error alarm beeps until you press the open tray button on the drive(s) that have failed. The drives that record correctly will eject the disc when completed.

The display will show the error code. Once the trays are opened manually after the error, the error code is cleared.


Changing Process Mode

CWR-424 has two process modes.

- 1) "Copy" mode: Copies the data from the Master CD to the blank CD-R disc(s). Refer to the "Copy Process" section (page 4) for operations.
- 2) "Test copy" mode: Simulates copying the data from the Master CD to the blank disc(s). No data is actually written to the CD-R media. After the "test copy" has completed, the system returns to "Copy" mode.

How to change the process mode:

Press the start button

- 
- 1) "Actual copy" with single "short beep".
Press the Start button and after one beep release the button. The unit will start the copy process. Status LED solid.
 - 2) "Test-copy" with two "short beeps".
Hold down the Start button until the system beeps twice. There will be a single beep, a pause, then 2 beeps. Release the Start button after the 2 beeps and the system will start the test copy. Status LED blinks.
 - Holding down the Start button until the system beeps a single time again, will put the system back in "Copy" mode .

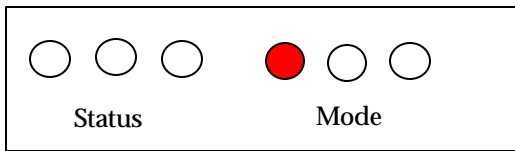
Meaning of LED's

Listed below are the different states of the Status LED's These indicate the status of the CWR-424 system.

-  Light off
-  Light on
-  Slow blink
-  Quick blink

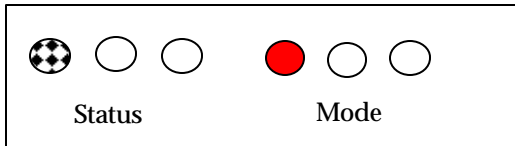
Copy Mode Process

1.



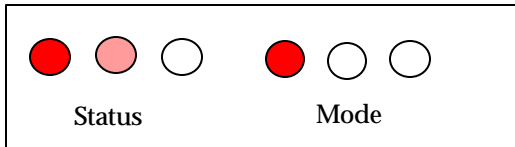
Ready to copy (Fast Speed).

2.



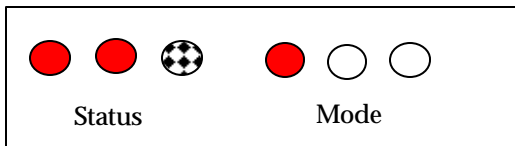
Copying process is between 0%~30% complete.

3.



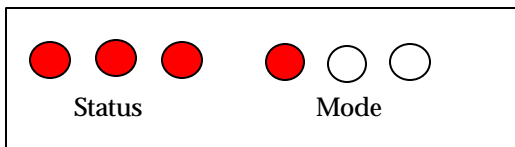
Copying process is between 31%~60% complete.

4.



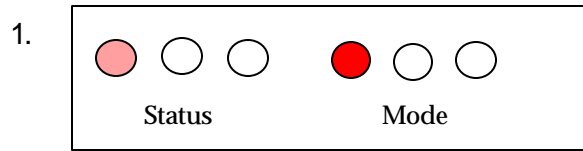
Copying process is between 61%~100% complete.

5.

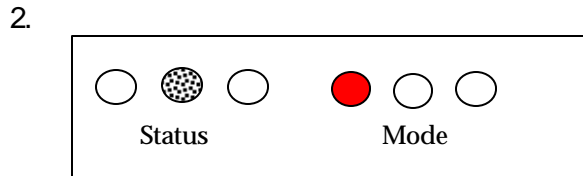


A single "short beep" indicates the copying process is complete. It returns to the display 1., after ten seconds.

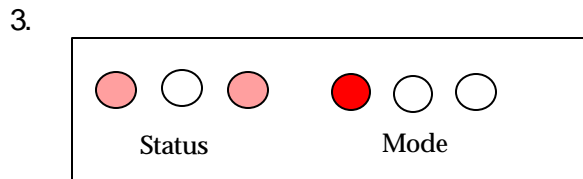
Error Display during Copying



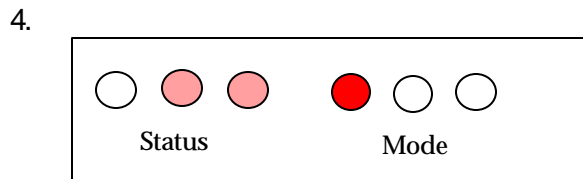
A repeating “long beep”, indicates an error reading the Master disc. The Master disc is unreadable. Try using another master disc.



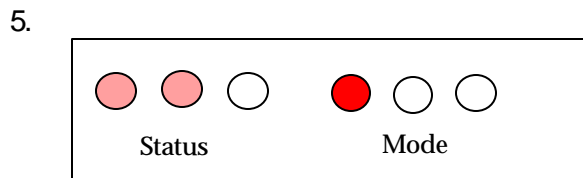
A repeating “long beep”, indicates the CD-R disc in the recorder drive is not blank. Try using a different blank disc.



A repeating “long beep”, indicates an error reading the master disc or a write error writing to the CD-R media. Try using a different blank disc or different master disc.



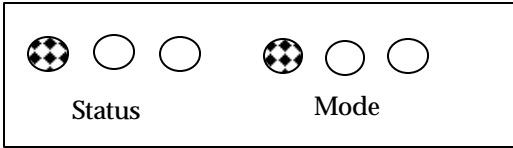
A repeating “long beep”, indicates a write error. Writing to the CD-R disc failed. Try using another blank disc.



A repeating “long beep”, indicates a write error. Writing to the CD-R disc failed due to a buffer underrun. Try using a different master disc. The reader drive could also be the cause of the error.

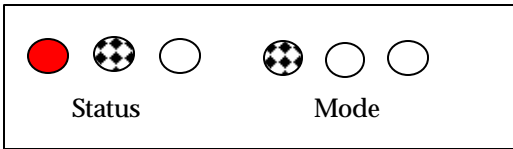
Test Copy Mode Process

1.



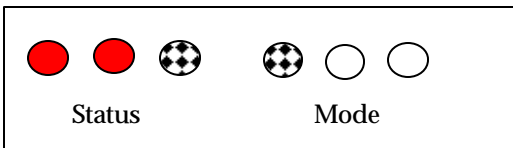
Test copying process between 0%~30% complete (fast speed).

2.



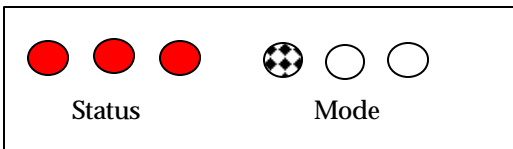
Test copying process between 31%~60% complete.

3.



Test copying process between 61%~100% complete.

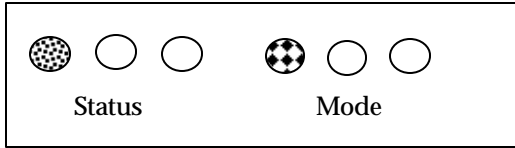
4.



Test copy complete. A single "short beep" indicates the test is complete. The controller returns to the status shown in figure 1 on page 7.

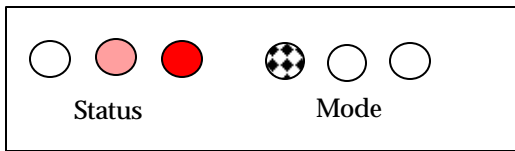
Error Display during Test Copying

1.



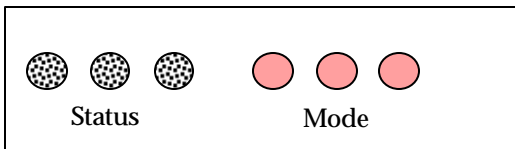
A repeating “long beep”, indicates an error reading the master disc. Try using another master disc.

2.



A repeating “long beep”, indicates an error with the blank CD-R disc. Try using another CD-R disc in the recorder.

Error Display in Additional System Modes



System error.

Specifications:

CD Recorder Drive:	Teac 24x CD-RW speed selectable drive
Power Source:	115V/230V 50-60Hz switchable power supply
Weight:	42 pounds
Dimensions:	19" (W) x 18" (D) x 7" (H)
Power supply:	250W
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)

Firmware Update

Occasionally it may be necessary to load new or updated firmware on to the CWR-424 duplicator. You will be sent a CD containing the firmware program. Please follow these steps to load the disc.

- Hold down the YES button and turn on power to the system.
- The system will beep once.
- Release the YES button.
- The Reader drive will eject.
- Please the firmware CD into the Reader drive and close the tray.
- The Status lights will blink as the firmware program is being loaded.
- Once the firmware is loaded, the Reader drive will eject the disc.
- Remove the firmware disc from theReader and close the tray.
- The CWR-424 duplicator will now reboot and be ready for use with the new firmware program running.

Contact Information

For technical questions or support issues, please contact your dealer. You may also reach Microboards Technology technical support at PH: 952-556-1639, FAX: 952-556-1620, by email at or on the web at <http://www.microboards.com>