# TASCAM MX-2424 Compatibility Release Notes

## Castlewood Orb Disk Drive

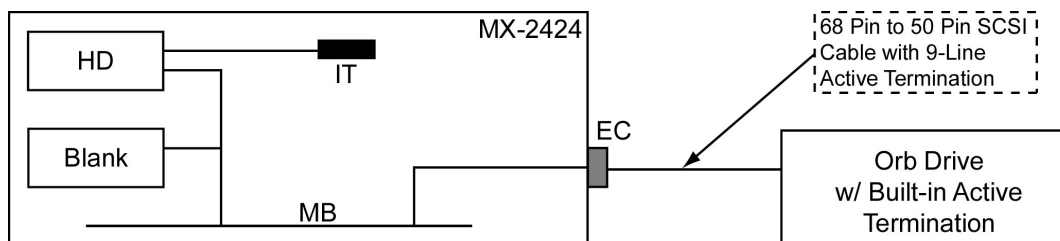*(Note: For External SCSI Orb Drive Only)*

The Orb Drive makes a fast backup solution for the TASCAM MX-2424 recorder.  Please read all of the documentation below so that you may enjoy a trouble-free backup system.
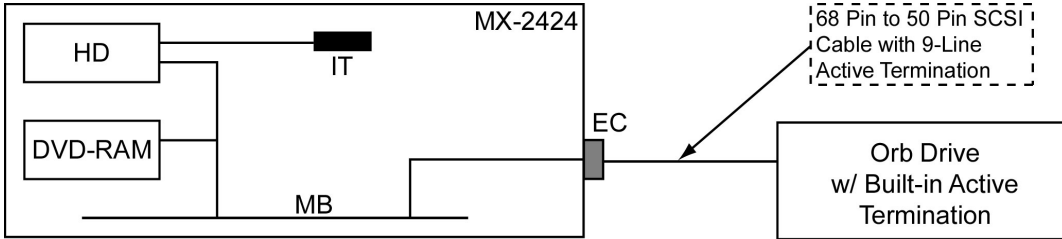
## *Hardware Setup*

Always Connect SCSI peripherals while the MX-2424 and Orb are powered off.

- **SCSI Cables** - The Orb drive **requires** a 9-Line Active Termination High Density 68-Pin to High Density 50-Pin SCSI cable.  A simple, non 9-Line Active Terminated, HD-50 Pin to HD-68 Pin will not work.  The proper cable can be found at http://www.scsi-cables.com

- **Termination** - The Orb has a built-in, automatic active SCSI terminator.  You do not need to attach an extra terminator to it.

- **SCSI IDs** - The Orb can only be set to SCSI ID 0, 4, 5, or 6.  Note that the internal fixed drive in the MX is set to 0.  Each device on the same SCSI bus must have a unique ID.

- **Supported Configurations** - The External Orb drive has been tested in the following supported configurations:
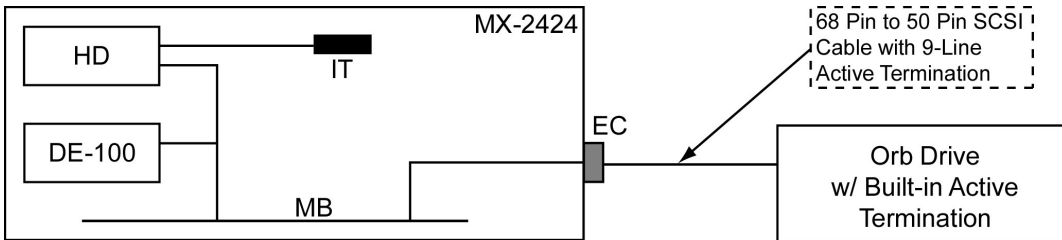
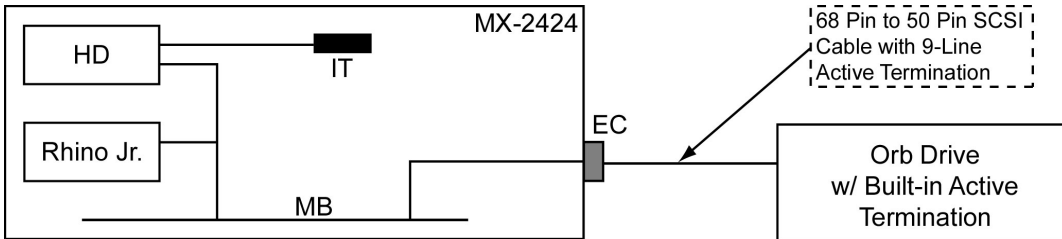1.  MX-2424 with stock internal hard drive and external Orb Drive:

2. MX-2424 with stock internal hard drive, DVD-RAM or Travan in the option bay, and external Orb Drive:

```
┌──────────────────────────────────────────┐              ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│                                  MX-2424   │              ¦68 Pin to 50 Pin SCSI¦
│  ┌─────────┐        ████                   │              ¦Cable with 9-Line    ¦
│  │   HD    │         IT                    │              ¦Active Termination   ¦
│  └─────────┘                               │              └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
│                                        EC  │          ╱
│  ┌─────────┐                          ▓    │        ╱      ┌──────────────────────┐
│  │ DVD-RAM │                          ▓────┼──────◀        │     Orb Drive        │
│  └─────────┘                               │              │  w/ Built-in Active   │
│              MB                            │              │     Termination       │
└──────────────────────────────────────────┘              └──────────────────────┘
```

3. MX-2424 with stock internal hard drive, Data Express (Ultra2) in the option bay, and external Orb Drive:

```
┌──────────────────────────────────────────┐              ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│                                  MX-2424   │              ¦68 Pin to 50 Pin SCSI¦
│  ┌─────────┐        ████                   │              ¦Cable with 9-Line    ¦
│  │   HD    │         IT                    │              ¦Active Termination   ¦
│  └─────────┘                               │              └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
│                                        EC  │          ╱
│  ┌─────────┐                          ▓    │        ╱      ┌──────────────────────┐
│  │ DE-100  │                          ▓────┼──────◀        │     Orb Drive        │
│  └─────────┘                               │              │  w/ Built-in Active   │
│              MB                            │              │     Termination       │
└──────────────────────────────────────────┘              └──────────────────────┘
```

4. MX-2424 with stock internal hard drive, Rhino Jr. in the option bay, and external Orb Drive:

```
┌──────────────────────────────────────────┐              ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│                                  MX-2424   │              ¦68 Pin to 50 Pin SCSI¦
│  ┌─────────┐        ████                   │              ¦Cable with 9-Line    ¦
│  │   HD    │         IT                    │              ¦Active Termination   ¦
│  └─────────┘                               │              └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
│                                        EC  │          ╱
│  ┌──────────┐                         ▓    │        ╱      ┌──────────────────────┐
│  │Rhino Jr. │                         ▓────┼──────◀        │     Orb Drive        │
│  └──────────┘                              │              │  w/ Built-in Active   │
│              MB                            │              │     Termination       │
└──────────────────────────────────────────┘              └──────────────────────┘
```

### *Mounting, Unmounting, and Re-Mounting Orb Disks*

The Orb takes much longer than a hard drive to mount, unmount, and re-mount. Please keep this in mind whenever using the Orb.  Always unmount disks before turning the MX-2424 off.

- **Mounting a disk**  - *When the MX-2424 is powered off.* Place an Orb disk in the Orb Drive and power it up first. Wait for the disk to completely spin up so that the disk activity light on the Orb appears green.  If you do not wait, the MX-2424 SCSI bus may freeze during "mounting volumes".  At this point you may power up the MX-2424 and the Orb will mount.

- **Unmounting and Re-mounting a disk** - *When the MX-2424 is powered on.* You must perform an Unmount (Shift+Unmount on the MX-2424 front panel) first before removing a disk from the Orb drive.  To re-mount an Orb disk onto the MX-2424, while it is powered on, you must first place the disk in the Orb drive. Do not close the door on the Orb drive or the disk may not spin up. Let the Orb close the door and wait until the drive spins up completely. Press the mount button on the MX-2424 front panel to proceed.

### *Disk Utilities: Initializing and Low-Level Formatting*

Performing a Disk Initialize will take a few minutes on the Orb, much longer than a regular hard disk.  It may look as if the Orb and the MX-2424 are frozen. However, after several minutes, the disk will be initialized.  Remember to press mount after this! Orb disks can be initialized as Mac HFS or FAT-32 under menu 710.

A Low-level Format should not be performed on an Orb drive using the MX-2424. The MX-2424 also will not perform a backup erase or backup disk spanning on an Orb disk.  An  Orb disk is treated like an initialized hard drive by the MX-2424 which does not use the BU format.

### *Mounting Orb disks on the PC or Mac*

There are utilities provided with the Orb drive that will allow you to mount and unmount Orb disks on a Mac or PC. Macintosh users: install Orb Tools 1.4.2 and an Orb Disk that has been initialized on the MX-2424 will automatically show up on the desktop.

### *Operational Issues*

The Orb drive is approved for backup purposes only. You may, however, load and preview songs from the Orb dirve before restoring them. The Orb does not have the performance required for reliable recording of 24-tracks.

- **Performing Smart Copies:** Smart Copies and TapeMode Converts are quite fast with the Orb drive. However, sessions with a lot of audio files and edits may take several minutes before the percentage counter begins to increment (menu 740).  Be patient, the Orb is not very fast with small files.

- **Cueing Up Smart Copies:** Queuing up backups is not supported on the Orb drive. Let each smart copy complete before starting the next one. Spanning of Orb disks is not supported since and Orb disk is seen by the MX-2424 as an initialized hard drive, not a BU volume.

**Note: Orb media is very fragile, treat it like a hard drive.  If it is dropped, you may loose your data. Always keep disks in their protective cases, backup your data, and store copies in a cool, dry place.**