

Introduction to macOS Recovery

Objectives:

At the end of this episode, I will be able to:

1. Describe the purpose and function of the macOS Recovery partition.
2. Boot a system into recovery mode and access recovery tools.
3. Describe the tools available within the Recovery environment.

Additional resources used during the episode can be obtained using the download link on the overview episode.

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- Potential sources of errors
 - Failing RAM
 - Bad sectors on HDD
 - Bad memory blocks on SSD
 - Accidental deletion
 - Corrupt file system
 - Malware/Ransomware
 - Error Symptoms
 - Freezing during boot
 - Frequent spinning color wheels
 - Applications failing to run
 - Files becoming corrupt
 - System fails to boot
 - Operating system not found
 - Time Machine
 - Restore deleted/damaged files
 - Restore entire disk
 - Disk First Aid
 - Recover from disk errors
 - Reset file permissions
 - Reinstall macOS
 - Restore damage/missing OS files
 - Repair disk boot files
 - If it is a hardware issue, you have to fix the hardware first
 - Recovery volume
 - Stripped down version of macOS
 - Allows access to recovery tools independent of the installed OS
 - Allows re-installing macOS
 - Used to be on the installation media
 - Installation media is no longer included with a new Mac
 - Recovery volume is on the local disk
 - Hidden partition
 - Allows you to boot to recovery without installation media
 - Not particularly helpful if your HD fails
 - Alternative Recovery Locations

- USB install media
 - Follow [these instructions \(https://support.apple.com/en-us/HT201372\)](https://support.apple.com/en-us/HT201372) to create installation media
 - Time Machine backup disks
 - Internet Recovery
 - Added in OS X 10.9
 - Boot-time shortcuts
 - Option
 - Displays boot menu
 - Used when booting from USB, Time Machine or Internet Recovery
 - Command + R
 - Reinstall same version of macOS that was previously installed
 - Option + Command + R
 - Upgrade to the latest version of macOS supported
 - Shift + Option + Command + R
 - Install the version of macOS that shipped with your hardware
 - Using the internal recovery partition
 1. Power off the computer
 2. Power on the computer while holding Command + R
 3. Release Command + R when you see the Apple logo
 4. Select Reinstall OS X
 - Available Tools
 - Install OS X or Reinstall OS X
 - Get Help Online
 - Disk Utility
 - Startup Disk
 - Firmware Password Utility
 - Network Utility
 - Terminal
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External Resources:

During this episode, you can reference the following external resources for supplementary tools and information:

- [Creating macOS Installation Media \(https://support.apple.com/en-us/HT201372\)](https://support.apple.com/en-us/HT201372)