

DiskPart Tutorial — Windows Disk & Volume Management

DiskPart is a low-level command-line tool used to manage disks, partitions, and volumes. It is commonly used in recovery environments, server troubleshooting, and OS deployment.

? **Warning:** DiskPart can permanently destroy data. Always confirm disk numbers before making changes.

When to Use DiskPart

- Windows won't boot
- Disk or volume not visible
- Partition repair or cleanup
- Formatting drives
- Preparing disks for OS install
- Checking RAID / NVMe detection

Launching DiskPart

```
diskpart
```

You'll see:

```
DISKPART>
```

Basic Navigation Commands

List all disks

```
list disk
```

Shows all physical disks detected by the system.

Select a disk

```
select disk 0
```

Replace `0` with the correct disk number.

View disk details

```
detail disk
```

Working with Volumes

List volumes

```
list volume
```

Displays partitions and drive letters.

Select a volume

```
select volume 2
```

View volume details

```
detail volume
```

Assign or Change Drive Letter

```
assign letter=D
```

Useful when Windows Recovery doesn't mount drives correctly.

Rescan Storage Devices

```
rescan
```

Forces DiskPart to re-detect disks. Useful after loading drivers.

Clear Read-Only Disk State

```
attributes disk clear readonly
```

Fixes disks stuck in read-only mode.

Create New Partition (Dangerous)

? Erases existing partition layout.

```
clean  
create partition primary  
format fs=ntfs quick  
assign
```

Only use when preparing a disk for fresh installation.

Repair Scenario — Disk Visible but No Volume

1. Run `list disk`
2. Select disk
3. Run `detail disk`
4. Run `rescan`
5. Check volumes again

If volumes still missing, partition table may be corrupted. Stop and switch to recovery tools.

Exit DiskPart

```
exit
```

Common Mistakes to Avoid

- Running `clean` on wrong disk
- Formatting system disk accidentally
- Assuming disk numbers are same as BIOS
- Ignoring read-only attributes
- Writing new partitions before recovery attempt

Recovery Best Practice

- Always document disk numbers first
- Never modify disk until data is backed up
- Use read-only inspection before repair
- If unsure — stop and escalate

Summary

- DiskPart is powerful and dangerous
- Use it for inspection first, repair second
- Always confirm disk identity
- Never rush destructive commands

DiskPart is a surgical tool — treat it like one.

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