Tools Library

Service Tools and Their Uses

This document lists the common service tools required to work on Apple equipment. It provides the following information for each tool:

- Tool name
- Part number if Apple sells it
- Description of when or where to use it
- Picture

Alignment Tool

Part Number: 949-0233

Adjusts linearity of monitors that have small slotted potentiometers, such as the 21-inch monitors.

Apple IC Extractor

Part Number: 918-0017

Removes socketed DIP (Dual In-line Package) IC.

Battery Contact Alignment Tool

Part Number: 077-0085

Aligns battery contact terminals on the main logic board in Duos with battery contact points. Use the Duo battery contact alignment tool in these situations:

• Any time battery contact terminal screws are loosened, removed, or replaced.

- Whenever a PowerBook Duo logic board is installed or reassembled into a system.
- Whenever a PowerBook Duo with a known good battery shuts down unexpectedly (other than going to sleep), won't boot off the battery, or intermittently powers off when running off the battery.
- Any time a known good PowerBook Duo battery won't charge.

CRT Discharge Tool

Part Number: 076-0381

Removes the charge from a CRT, generated by the flyback transformer.

Ground/Polarity Checker

Identifies faults in 3-wire 120 VAC circuits. Though ground/polarity testers vary slightly in design, all are very easy to use. To use a tester, simply insert the three prongs of the tester into the three-pronged outlet. Most testers will display a light pattern that, when matched to the code on the tester, indicates whether the outlet has any wiring faults.

Note: Apple Computer does not sell this item.

Hex Nut Driver 3/16

Part Number: 077-0678

Removes hex nut from the
logic board of PowerBook
100 series computers.

High Voltage Probe

Part Number: 076-0392

Adjusts screen voltage on a 12-inch RGB video display. Perform this adjustment only if one or more of the following conditions apply:

- You have replaced the main deflection board.
- You have inadvertently altered the screen adjustment.
- You have replaced the CRT/yoke assembly with a different revision CRT/yoke assembly.

Note: This adjustment also requires a voltmeter.

Isolation Transformer

Protects against the reversal of neutral and hot leads (for example, a normally grounded monitor frame switched to hot). Touching the frame would give you a shock.

The isolation transformer creates a floating source that ties voltage coming from the transformer to earth ground. This prevents you from getting between the power source and ground to complete a circuit.

Note: Apple Computer does not sell this item.

IWM/SWIM IC Extraction Tool

Part Number: 076-0341

Removes IWM or SWIM disk controller chips from the logic board.

Laser Power Checker

Part Number: 076-0121

Measures power output of
the laser diode on the laser
unit of LaserWriters.

Lightmeter

Part Number: 076-0310

Measures screen brightness
and contrast.

Linearity Adjustment Tool

Part Number: 949-0235

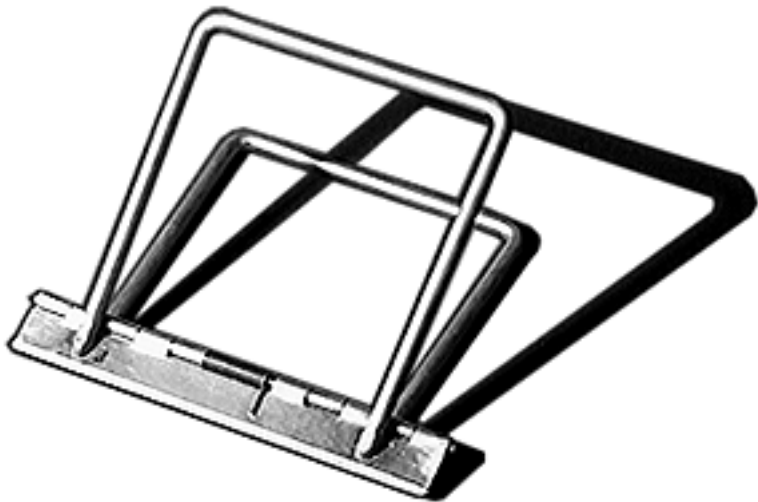Adjusts video potentiometer of the Two-Page Monochrome Monitor.

Macintosh Pull-Apart Tool

Part Number: 076-8059

Separates the cover from the computer base of a compact Macintosh.

Removal Tool , 68040 Processor

Part Number: 922-1236

Removes the 68040 microprocessor chip.

SIMM Removal Tool

Part Number: 076-8354

Removes SIMMs from
plastic sockets (don't have
metal removal clips).

Take-Apart Tool, Logic Board

Part Number: 077-0364

Separates the PowerBook daughterboard from the motherboard.

Torque Driver

Part Number: 076-0390

Prevents over torquing of the Phillips screws on the carrier to the 1-inch high HDA to ensure the screws are not tightened beyond 8 inch-pounds.

Torx Driver, T-6

Part Number: 077-0064

Removes torx screws from
PowerBooks.

Torx Driver, T-8

Part Number: 077-0677

Removes torx screws from
PowerBooks.

Torx Driver, T-10

Part Number: 077-0676

Removes torx screws from
PowerBooks.

Torx Driver, T-15

Part Number: 076-8053

Removes torx screws from compact Macintosh computers.

VGC IC Extraction Tool

Part Number: 076-0264

Removes Video Graphics Controller (VGC) IC chips from the Apple IIGS.

Note: Can use for removing the socketed math coprocessor from a Duo Dock 1, Macintosh Color Classic, Color Classic II, Performa 460, Performa 600, and anything that has a math coprocessor upgrade in it.

Video Adjustment 16"

Part Number: 949-0386

Adjusts 16-inch video
displays.

Ball-End 3/32 Balldriver Hex Tool

Removes the top cover from the ColorSync 20 Display

Available at hardware stores.

Caution: Do not use any tool other than the ball-end 3/32 balldriver hex tool. Using a standard hex tool or any other tools can damage the plastic housing.

Jumper

Part of kit, Part Number:
076-0529

Used to download setup
parameters from the
AppleVision 1710 Display
and the ColorSync 17
Display.

Important: Downloading
setup parameters is
necessary before replacing
the CRT/video board.