



Tools Library

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## 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.

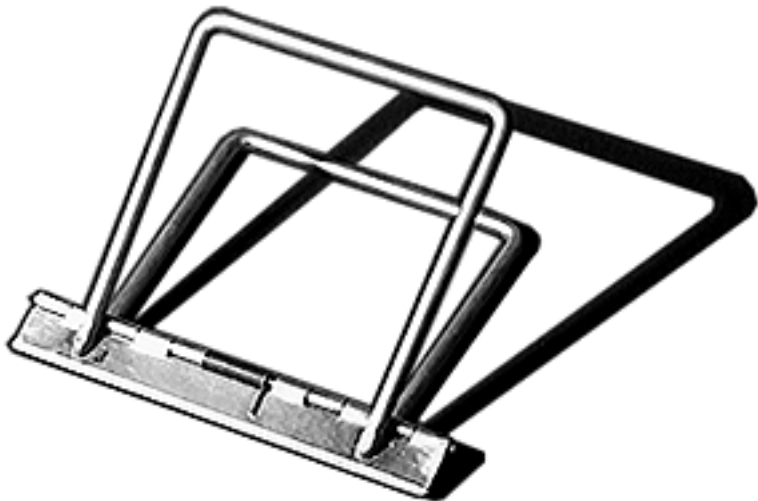




## **Macintosh Pull-Apart Tool**

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.

