

# Apple II Technical Notes



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Developer Technical Support

## Apple II Miscellaneous

### #6: IWM Port Description

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November 1988  
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February 1986

This Technical Note documents the IWM port pin assignments on various machines.

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## Apple II GS Disk Port Pin Assignments

### Signal Name Disk Port Pins (DB-19)

Phase 0	11
Phase 1	12
Phase 2	13
Phase 3	14
/WReq	15
Dr1	17
Rd	18
Wr	19
Wrt Prot	10
Dr2	9
HeadSel	16
Gnd	1,2,3
3.5Disk	4
-12v	5

+5v	6
+12v	7,8

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## Apple IIe UniDisk 3.5 Controller Disk Port Pin Assignments

<b>Signal Name</b>	<b>Disk Port Pins (DB-19)</b>
Phase 0	11
Phase 1	12
Phase 2	13
Phase 3	14
/WrtReqII	15
/HstEnbl	17
Rd	18
Wr	19
Wrt Prot	10
No Connection	9,16
Gnd	1,2,3,4
-12v	5
+5v	6
+12v	7,8

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## Apple IIc Disk Port Pin Assignments

<b>Signal Name</b>	<b>Disk Port Pins (DB-19)</b>
Phase 0	11
Phase 1	12
Phase 2	13
Phase 3	14
/WrtReq	15
/Enbl 2	17
Rd	18
Wr	19
Wrt Prot	10
No Connection	16
Gnd	1,2,3,4
-12v	5
+5v	6
+12v	7,8
External Interrupt	9

**Note:** On the Apple IIc Plus, the disk port pins are driven by a custom ASIC instead of by the IWM chip.

## Macintosh Disk Port Pin Assignments

<b>Signal Name</b>	<b>Disk Port Pins (DB-19)</b>
Phase 0	11
Phase 1	12
Phase 2	13
Phase 3	14
/WrtReq	15

/Enbl 2	17
Rd	18
Wr	19
PWM	10
HdSel	16
GND	1,2,3,4
-12v	5
+5v	6
+12v	7,8

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