These are the pin assignments for the signals on the PCjr Color Display, and the corresponding pins on a PC Color/Graphics Display output connector.

The PCjr Color Display uses a 18 pin 2 row "Berg" connector, with pins on 0.1 inch centers. The color/graphics adapter uses a 9 pin "D" connector.

In order to be able to use the PCjr display with a regular PC, it is necessary to provide an adapter cable, having a male 18 pin Berg connector at one end, and a male 9 pin D connector at the other. I made such a cable, and have successfully used my PCjr display with an IBM Portable personal computer. Sure eliminates eyestrain!

PCjr RGB output is:		PC C/G Adpt output pin is:
A01	- TV vert drive	n/a
A02	gnd	1
A03	- TV horz drive	n/a
A04	blue	5
A05	red	3
A06	inten	6
A07	green	4
A08	- comp sync drive	n/a
A09	audio out	n/a
B01	+ vert drive out	9
B02		
B03	+ horz drive out	8
B04	gnd	
B05	gnd	2
B06	gnd	
B07	gnd	
B08	gnd	
B09	gnd - frame	

It is not too obvious just which pin is which, especially on the PCjr's connector. So...here is the pin layout as you look into the holes on the CGA and the Display's connector:

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1  o          1-A2        letter "D" stamped on top
     o 6      2-B5
2  o          3-A5              9 8 7 6 5 4 3 2 1
     o 7      4-A7
3  o          5-A4          A  o o o o o o o o o
     o 8      6-A6          B  o o o o o o o o o
4  o          7-unused
     o 9      8-B3
5  o          9-B1
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To make the cable, you will need an 18 (or 16) pin "header". The easiest place to obtain one of these is your neighborhood Radio Shack. They have a "Header Assortment", Part #276-1658, for $1.98. Select an assortment that has at least one connector that has two rows of either 8 or 9 pins. I have not been able to find any that have 9 pins, but one that has two rows of 8 is acceptable, because pins A9 and B9 will not be used in making the cable. The header connectors are really intended for use with printed circuit boards, and the 'wiring' side of the connector has pins which have a right-angle bend to facilitate soldering them to the circuit board.

Cut the free end of the bent pins just above the bend. You will be soldering to these pins.

The other connector you will need is a 9 pin male "D" connector, Radio Shack Part # 276-1537 ($1.99). You will also want a hood for this connector....Part #276-1539 ($1.99) Also needed: about 30 inches of #22 or smaller thermoplastic insulated hookup wire, some plastic electrical tape, and a tube of either Dow-Corning (RTV) or G.E. silicone rubber adhesive.

Tools needed: a small (30 watt maximum) soldering iron, fine (.0625" diameter) rosin core solder, small long nose pliers, wire cutter & stripper, and a small (1/8" blade) screwdriver.

Cut eight 3-inch pieces of hookup wire, and strip 1/4 inch of insulation off each end. Solder these wires as follows:

D connector pin 1 to header pin A1
D connector pin 2 to header pin B5
D connector pin 3 to header pin A5
D connector pin 4 to header pin A7
D connector pin 5 to header pin A4
D connector pin 6 to header pin A6
D connector pin 8 to header pin B3
D connector pin 9 to header pin B1

Check all connections carefully. You can bunch the wires together and wrap them with electrical tape after checking the finished cable. Now for the test.....since you are probably using an 8 pin header, remember which end is pins 1, (easy, because both #1 pins have wires on them) and which is the A side of the connector (the one with the most wires). With the A side up, and the pins facing you, pin 1 is to the left. Plug the header into the PCjr display cable....the A side of the cable connector is the one having the "D" on the metal shell. Make sure that pin 1 of the header mates with pin 1 of the display cable connector. Plug the D connector into the mating connector on the C/G adapter card on your PC. Turn on the power....if you did everything right, your jr display should work like a champ!

If all is ok, remove the adapter cable, and complete the job: You can now make a compact bundle of the wires between the two connectors. Wrap carefully with plastic tape. Using a popsicle stick or something similar as a modeling tool, fill the space around the pins on the wire side of the header with silicone adhesive, leaving no exposed metal. The silicone rubber is an excellent insulator, and will substitute for a hood over the exposed pins. Install the hood on the "D" connector, and the job is done! Total cost, less than $7.00

Good luck!

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