



**SCHEMATIC OF THE
HEATHKIT®
MODEL HD-8999
ULTRA PRO
CW KEYBOARD**

NOTES:

1. PARTS ARE NUMBERED IN THE FOLLOWING GROUPS:
 1-99 PARTS ON THE MAIN CIRCUIT BOARD.
 101-199 PARTS ON THE CHASSIS.
 201-299 PARTS ON THE DISPLAY CIRCUIT BOARD.
2. ALL RESISTORS ARE RATED AT 1/4-WATT AND HAVE A TOLERANCE OF 5%. RESISTOR VALUES ARE IN OHMS (K=1000).
3. ALL CAPACITOR VALUES ARE IN MICROFARADS.
4. ∇ THIS SYMBOL INDICATES CIRCUIT BOARD GROUND.
5. \perp THIS SYMBOL INDICATES CHASSIS GROUND.
6. \bigcirc THIS SYMBOL WITH A LETTER IN IT INDICATES A WIRE CONNECTED TO A CIRCUIT BOARD HOLE.
7. \Rightarrow THIS SYMBOL INDICATES A PLUG-IN CONNECTION.
8. \bigcirc THIS SYMBOL INDICATES A DC VOLTAGE TAKEN WITH A HIGH INPUT IMPEDANCE VTVM FROM THE POINT INDICATED TO CHASSIS GROUND (ALL VOLTAGES ARE $\pm 20\%$).
9. \ominus THIS SYMBOL INDICATES A COMPONENT DRAWN WITHIN THE CIRCUIT BOARD OUTLINE THAT IS ACTUALLY MOUNTED ON THE CHASSIS.