### Circuit Diagram

```
<table>
<thead>
<tr>
<th>Rear</th>
<th>Encoder -&gt; Keyboard</th>
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<tbody>
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- **Gnd**: Ground
- **-12V**: Negative 12V
- **+5V**: Positive 5V

- **a -> d**: Signal a connected to d
- **+12V -> 2.1 V**: Positive 12V connected to 2.1V
- **D26 -> t**: Signal D26 connected to t
- **D34 -> Z**: Signal D34 connected to Z
- **D55**: Signal D55
- **D70**: Signal D70
- **D71**: Signal D71

- **D72 -> t**: Signal D72 connected to t
- **D73 -> t**: Signal D73 connected to t
- **D74 -> t**: Signal D74 connected to t

- **+5V**: Positive 5V
- **-12V**: Negative 12V
- **Gnd**: Ground

- **+5V**: Positive 5V
- **-12V**: Negative 12V
- **Gnd**: Ground
```

### LED Connections

- **CarLED**: Car LED
- ** RookieLED**: Rookie LED
- **PromLED**: Promotion LED
- **KeylogLED**: Keylog LED
- **LED3**: LED 3

### Additional Information

- **1** to **5**: Connections 1 to 5
- **R0**: Connection R0
- **R1**: Connection R1
- **R2**: Connection R2
- **R3**: Connection R3
- **C0**: Connection C0
- **C1**: Connection C1
- **C2**: Connection C2
- **C3**: Connection C3
- **C4**: Connection C4
- **C5**: Connection C5
- **C6**: Connection C6
- **C7**: Connection C7
- **C8**: Connection C8
- **C9**: Connection C9
- **C10**: Connection C10
- **C11**: Connection C11
- **C12**: Connection C12
- **C13**: Connection C13
- **C14**: Connection C14
- **C15**: Connection C15
- **C16**: Connection C16
- **C17**: Connection C17
- **C18**: Connection C18
- **C19**: Connection C19
- **C20**: Connection C20
- **C21**: Connection C21
- **C22**: Connection C22
- **C23**: Connection C23
- **C24**: Connection C24
- **C25**: Connection C25
- **C26**: Connection C26
- **C27**: Connection C27
- **C28**: Connection C28
- **C29**: Connection C29
- **C30**: Connection C30
- **C31**: Connection C31
- **C32**: Connection C32
- **C33**: Connection C33
- **C34**: Connection C34
- **C35**: Connection C35
- **C36**: Connection C36
LHS

R3 → DX C6 = B, \sigma (C)
R1 → DX C6 = A, O
R0 → DX C6 = \frac{C}{E}
R2 → DX C7 = H, J
R3 → DX C1 = F, \frac{1}{2}
R1 → DX C7 = L, N
R0 → DX C7 = M, O
R2 → DX C5 = K, Set Flag
R2 → DX C1 = G, Δ
R2 → DX C6 = \frac{I}{j}, \text{int}(x)
R3 → DX C5 = K, Pause
R0 → DX C6 = Y \rightarrow ( ), \text{Step}
R1 → DX C1 = a, x^2
R0 → DX C3 = X^{1/2}, \text{square}
R2 → DX C2 = \frac{1}{y}, \text{y}^{-1}( )
R1 → DX C2 = \text{Roll} \rightarrow x \rightarrow ( )
R3 → DX C2 = \wedge, \text{Enter Exp}
R0 → DX C0 = 0, \frac{1}{j}
R2 → DX C0 = 4, \frac{5}{j}
R2 → DX C3 = \vdots
R3 → DX C7 = \sqrt{x}, \text{SUB, Return}
R1 → DX C3 = \pm, \text{Change Sign}
R3 → DX C8 = X, \text{Clear X}
R0 → DX C1 = 8, \frac{4}{j}
R7 → DX C0 = 6, 7
R1 → DX C0 = 2, 3
R0 → DX C2 = Clear, 0
R3 → DX C4 = End, ContVar
R2 → DX C4 = Goto Y, \text{Print}
R1 → DX C4 = \text{1Fxy, LOAD}
R0 → DX C5 = 1Fxy, Labe1
R → DX C5 = \text{IF x<y, IF x>y}
R0 → DX C8 = Bash Step, Step Prgm
R1 → DX C8 = Load, Record
R2 → DX C8 = List, Keyby Keyby
R3 → DX C8 = Run, Prgm
R0 → DX C9 = Float, \text{F.x(1)}
U1-U4: HP 512x8 ROMs.