STANDARD FULL TRAVEL KEYBOARD WITH ENCODER

FEATURES:
- ASCII code
- 66 key positions
- 2-Key rollover
- High reliability
- Negative strobe
- Key life of 100 million
- 5 releagendable key positions
- 5 blank key positions
- Full travel mechanical key switches
- Sculptured key tops

ASCII

Contact SMK for other standard and custom keyboards.
J-M9031 KEYBOARD SPECIFICATIONS

Circuit Board
Switches: SMK J-M0404 series, mechanical contacts
Pre-Travel: 0.060" ± 0.028" (1.50mm ± 0.7mm)
Full Travel: 0.120" ± 0.017" (3.00mm ± 0.4mm)
Operation Force: 90 grams ± 20%
Temperature: 0° to 50°C operating, -20° to 60°C non-operating
Humidity: 95% RH, non-condensing
Electrical: SMC KR-3600-PRD encoder, standard TTL
(No EP-ROM is provided; See note #1)
Power Requirement: -12VDC ± 20mA/standard
+5VDC ± 150mA (optional); See note #2
Connector: 20 pin Connector (Molex P/N 3024-20A)

Output Pin Assignment

<table>
<thead>
<tr>
<th>Pin</th>
<th>Voltage</th>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-01</td>
<td>+5V</td>
<td>P-11</td>
<td>Data Bit 6</td>
</tr>
<tr>
<td>P-02</td>
<td>NC</td>
<td>P-12</td>
<td>Data Bit 7</td>
</tr>
<tr>
<td>P-03</td>
<td>-12V</td>
<td>P-13</td>
<td>Data Bit 8</td>
</tr>
<tr>
<td>P-04</td>
<td>GND</td>
<td>P-14</td>
<td>Strobe</td>
</tr>
<tr>
<td>P-05</td>
<td>GND</td>
<td>P-15</td>
<td>Reset</td>
</tr>
<tr>
<td>P-06</td>
<td>Data Bit 1</td>
<td>P-16</td>
<td>S1</td>
</tr>
<tr>
<td>P-07</td>
<td>Data Bit 2</td>
<td>P-17</td>
<td>S2</td>
</tr>
<tr>
<td>P-08</td>
<td>Data Bit 3</td>
<td>P-18</td>
<td>S3</td>
</tr>
<tr>
<td>P-09</td>
<td>Data Bit 4</td>
<td>P-19</td>
<td>S4</td>
</tr>
<tr>
<td>P-10</td>
<td>Data Bit 5</td>
<td>P-20</td>
<td>S5</td>
</tr>
</tbody>
</table>

CIRCUIT SPECIFICATION

Power supply: Available input: DC ± 5V (150 mA)
DC ± 12V (20 mA)
Circuit composition: LSI (SMC KR-3600-PRD) encoder, standard TTL
Operation characteristic: 2-key roll over
Output code: 8 bit output, using EP-ROM change encoder LSI output into 8 bit output.
K/B is delivered without EP-ROM. So, K/B should be used after assembling of EP-ROM.
Strobe signal: Strobe, negative logic pulse signal (around 45 μs).

Note 1: Recommended EP-ROM: Intel 2716
Note 2: Optional Power (+5VDC ± 150 mA)
Requires installation of: TDK CB-3811 converter
47 μF electrolytic capacitor (Position C9 on Keyboard P.C.B.)
68 μF electrolytic capacitor (Position C10 on Keyboard P.C.B.)

KEYSWITCH SPECIFICATION

Operation force: 90 ± 30 g.
Stroke: 3.0 ± 0.4 mm (full stroke)
1.5 ± 0.7 mm (on stroke)
Life: more than 100 M
Option: Power, it is possible to assemble DC-DC converter (TDK-CB-3811) on this K/B. If DC-12V not available, it is possible to operate the K/B by using DC +5V only.
At that time it is recommended to assemble electrolytic capacitor of C5 (47 μF), C6 (68 μF).

SMK Electronics Corporation
1901 Nancita Circle, Placentia, California 92670, U.S.A. Phone: (714) 996-0960 Telex 183081 SMK ANH

Transparent Cap
Key No. 15, 30, 45, 59, 66 are relegendable keytops.

It is possible to put various labels (colors and legends) on the keytop by removing the transparent cap. Label Size: 12.6 × 0.2 mm.