==== MB-6582 CS Parts List ====

| Part Name | Quantity | Notes | Supplier 1 | Supplier 2 |
|---|---|---|---|---|
| Pactec PT-10 | 1 | See Note 1 | Mouser | Pactec |
| 25mm M3 Countersunk Head Bolt | 4 | See Note 2 | | |
| M3 Nut | 8 | See Note 2 | Mouser | |
| M3 Flat Washer | 8 | See Note 2 | Mouser | |
| M3 Spring Washer | 8 | See Note 2 | Mouser | |
| 10mm M3 Threaded Spacer | 25 | See Note 3 | Mouser | |
| 6mm M3 Screws | 25 | See Note 3 | Mouser | |
| M3 Spring Washers | 25 | See Note 3 | Mouser | |
| JB Weld | 1 | See Note 4 | Mouser | |
| 13mm Tactile Switches (Alps) | 48 | See Note 5 | Mouser | |
| 4×20 Character LCD | 1 | See Note 6/7 | CrystalFontz | Divineo (Cheap!) |
| 3mm LEDs | 113 | See Note 8 | Mouser (Red) | SmashTV |
| 1N4148 Signal Diodes | 50 | See Note | Mouser | Voti.nl |
| Rotary Encoders | 15 | See Note 9 | Mouser | Voti.nl (Cheaper) |
| Knobs (Such as Albs) | 15 | See Note 10 | Albs.de | Check Forum Bulk Orders |
| 40mm Fan (Optional) | 1 | See Note | Mouser | Performance PC's |
| Front Panel & Back Panel | 1 | See Note | Schaeffer | Check Forum |

## GM5X5X5 Part list

| Part | Value | Count | Footprint/ lead spacing | Part # | Supplier |
|---|---|---|---|---|---|
| Crystal | 16Mhz | 1 | HC18/U | Q1 | Mouser |
| LED 3mm | - | 11 | - | LED1 – LED11 | RED GREEN |
| Diode | 1N4148 | 5 | - | D1 – D5 | Mouser |
| Optocoupler | 6N138 | 5 | DIP 8 | IC8 – IC12 | Mouser (White) |
| GM5 | GM5 | 1 | TQFP32 | IC1 | See Bulk Orders |
| **Hex inverter(*2)** | 74HC14 | 5 | DIP 14 | IC3 – IC7 | Mouser |
| USB Type B socket | - | 1 | - | J1 | Mouser |
| DIN 5 (MIDI) socket | - | 10 | MAB5SH | IN1 – IN5, OUT1 – OUT5 | Mouser |
| 3-pin SIL header | - | 10 | 100 mil | IN1 – IN5, OUT1 – OUT5 | |
| 2-pin SIL header | - | 5 | 100 mil | J2, J8, S1 – S3 | |
| EEPROM | 24C04 | 1 | DIP8 | IC2 | Mouser |
| Resistor | 220 Ohm | 15 | 0207 | R1 – R3, R6 – R8, R11 – R13, R16, R18, R31 – R33, R39 | Mouser |
| Resistor | **1k Ohm(*1)** | 18 | 0207 | R5, R10, R15, R17, R20 - R30, R35, R38, R40 | Mouser |
| Resistor | 27 Ohm | 2 | 0207 | R36, R37 | Mouser |
| Resistor | 4.7k Ohm | 5 | 0207 | R4, R9, R14, R19, R34 | Mouser |
| Polyfilm/Ceramic cap | 100nF | 6 | 200 mil | C2 – C7 | Mouser |
| Electrolytic capacitor | 10uF/16V | 1 | 100 mil | C1 | Mouser |
| Ceramic capacitor | 22pF | 2 | 100 mil | C8, C9 | Mouser |

| | | | | | |
|---|---|---|---|---|---|
| Ceramic capacitor | 1uF | 1 | 100/200 mil | C10 | Mouser |
| Jumper | - | 5 | 100 mil | - | Mouser |
| DIP8 IC Socket | 8 Pin | 6 | 7.62mm | IC2, IC8 - IC12 | Mouser |
| DIP14 IC Socket | 14 Pin | 5 | 7.62mm | IC3 - IC7 | Mouser |
| SIL Header | 16 Pins | - | - | | |

(*1) Note that 11 of the resistor listed as 1k in the above list (R21 - R30 and R40) are for the LEDs. The values for these resistors depends on the color of LEDs you plan to use and the brightness you wish to achieve. Suggested values:

| **LED color** | **Value** |
|---|---|
| red | 220-1k |
| yellow | 470-2k |
| green | 470-1k |
| blue | 1k-4.7k |

(*2) The inverters can be left out when no status LEDs are needed. Leaving them will require soldering some additional bridges which will be described in a section in this document later on.

**Don't forget to order 6 DIP8 and 5 DIP14 IC sockets and pin headers (16 pins total).**

From:
https://www.midibox.org/dokuwiki/ - **MIDIbox**

Permanent link:
**https://www.midibox.org/dokuwiki/doku.php?id=smithy&rev=1265226632**

Last update: **2010/02/03 19:50**