



DECADE ENGINEERING

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BNAB-GP Rev. 2 Documentation ~ April 16, 2001

BNAB-GP is a version of the BOB-II host board that is intended for General-Purpose applications. A number of special-purpose assembly options on the BNAB PCB are not populated. BNAB-GP accepts standard BOB-II or BOB-II Pro modules, in NTSC or PAL versions.

These comments, taken together with the BNAB schematic drawing and BOB-II module release documents, will serve as preliminary documentation for BNAB-GP until a formal product release is available.

Installation:

BNAB-GP provides a 'true' RS-232 interface at P1. The pinout is suitable for direct connection to the 9-pin COM port of a PC. The hookup cable should be male/female with all pins wired straight through (modem style).

J9 is a jumper platform for BOB-II configuration. The splat sign (*) denotes pin #1. **No shunts should be installed here if BOB-II firmware is version 1.1 or earlier.** For BOB-II version 1.2 firmware, shunt options select baud rates other than 9600bps (see BOB-II V1.2 manual). Pins 5~6 control BOB-II pin 12. Pins 3~4 control BOB-II pin 13. The possible settings are:

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |

| Baud Rate: | Shunt J9 pins: |
|------------|----------------|
| 2400 | 3~4 and 5~6 |
| 4800 | 3~4 only |
| 9600 | None |
| 19,200 | 5~6 only |

JP1 must have a shunt installed on pins 1~2 for standard BOB-II modules. The splat sign (*) denotes pin #1. Move the shunt to pins 2~3 if you're using a BOB-II-Pro module (future product).

RCA style Video In/Out connectors are prominently labeled on the board. J2 and J3 connect directly to the BOB-II module socket. An optional video I/O connector footprint is provided at J8. Any standard .025" square post header with .100" pin spacing may be installed.

The power connector (J6) accepts a standard coaxial DC power plug with 2.1mm ID and 5.5mm OD. Part number 910-0902 from *RadioShack.com* is suitable. **Center pin is V+12, sleeve is ground.** Power consumption is less than 100mA, including RS-232 interface supply current. Decade

Engineering suggests a power supply with substantially higher current rating to prevent voltage sag at turn-on time, which could result in a poor BOB-II reset.

BNAB is designed to fit a Hammond 1598B series molded plastic cabinet. Custom front & back panels are not available at this writing.

The three trimmers along the front of the board **may** be made accessible to the equipment operator through small holes in the panel of your final assembly. In general, it's unwise to make these controls available to non-expert personnel. Read the BOB-II FAQ for additional help with this decision.

BOB-II modules are supplied with tin-plated contacts. A contact treatment is recommended to enhance contact performance. Several commercial preparations are suitable.

Operation:

BOB-II modules are almost entirely controlled via commands and printable text sent through the serial port.

Slide the power switch (SW1) right to power up this system. An LED at D3 is provided to indicate power supply status. Slide SW1 left to turn power off.

The LED at D1 lights up if video is not present at the video input jack. Special versions of the BOB-II module may not support this feature, or may use D1 to report some other condition.

VR2 adjusts character level, and VR3 adjusts background level, but only if your application program has sent the necessary command to enable them. Normal settings are near the center of rotation.

VR1 provides character transparency adjustment. Operation of VR1 does not depend on application programming. The normal setting is full clockwise, for maximum character visibility. Some caveats apply to the use of this control, and there's one case where it may be desirable to remove VR1 from the board. See the BOB-II manual or latest BOB-II FAQ.