

DATA SHEET FOR:

Basic Omni-port Adaptor



Info Release Date:07/31/09

Product: BOA-1.1



Product Description:

The BOA (Basic Omni port Adapter) has been designed to provide a convenient way to transfer part programs to and from older CNC controls that do not support USB or SD memory cards. This product has been tested with most CNC controls in the shape cutting industry and found to work reliably on those platforms. It is impossible to test this product with every type and brand of memory module however; every effort has been made to make sure that most memory manufacturers products function with this device. .

Start up and new installations:

When you initially receive your BOA the box will contain a small power supply, the BOA box itself, and ,depending on the control type specified when ordering, one or two cables. The BOA operates at a fixed baud rate of 2400 and uses 8 data bits, no parity, and 1 stop bit. The power supply included offers many different adaptors depending on your specific primary power outlet requirements. Locate the proper primary power configuration and install the adapter on the power supply. Plug in a USB memory stick to the BOA, hook up the serial cable to the control and the BOA then apply power (plug in the power supply to the BOA), the LED on the BOA should be lit. Setup the CNC control according to the specifications listed above and try to up load a program to the BOA. If all has went well, there should be no problems with the upload. You can now check that the program is on the memory stick by using a standard PC. The same program can be downloaded back into the CNC control to verify proper download operation. Please refer to the section in this data sheet for control specific installation instructions. If your control is not listed please call the factory for installation guidelines and setup help.

Burny Products:

Some Burny controls had factory installed short haul modems. These modems use a high drive voltage and current that can damage the BOA. If you don't know if you have a short haul modem installed in your control, please STOP and call the factory at the number listed below. If you want to try and determine on your own if there is a modem installed, open the back of the control and look on the drive interface card. If there is no board installed on top of the drive interface card, chances are you do not have an internal short haul modem. The BOA uses the following specifications with Burny products:

- 1.) 2400 Baud
- 2.) No Parity
- 3.) 8 data bits
- 4.) Burny CLINK protocol

Burny 2.5, 2.8, 2.8 Plus (Serial Def: 6125):

- 1.) Determine if there is a short haul modem installed, if so remove it.
- 2.) Install the BOA and plug it into the Serial port.
- 3.) Press the hidden service mode key in the upper right hand corner of the control. (Sometimes found under the B in the Burny logo).
- 4.) Press 1 0 ENTER
- 5.) Press 5 0 ENTER
- 6.) Enter 6125 then press ENTER
- 7.) Press the hidden key again
- 8.) Press 9 7 ENTER
- 9.) Press SHIFT
- 10.) The data should now be stored and this can be verified by cycling the power and checking to see if the data in SERVICE/10/51 is still set to 4125.
- 11.)If the Burny displays the "WAITING" message this indicates that the status in pin is not jumpered to 12VDC+.
- 12.)NOTE: Serial Definition of 4125 may also work.
- 13.)To use the BOA you must select LOAD FROM Serial Device.

NACS Inc. Basic Omni-port Adaptor

North American Cutting Systems Inc. 1115 South Blackstone Street Tulare CA 93274

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Burny 5 (Serial Definition 4152):

Set Parameter 41: 4152
 Set Parameter 42: 4152
 Set Parameter 43: 4152
 Set Parameter 47: 302152
 Use Serial Port A

Burny 3 (Serial Definition 6125):

Use serial port A.

Wescan Products (Linatrol):

Most Linatrol products work seamless with the BOA as long as you set the parameters to 2400 Baud, 8 data bits, no parity and X ON X OFF.

Lynx CNC:

- 1.) Hook up the BOA to the control. (Use the top port on the back of the Lynx (AI J1) and the supplied cable.)
- 2.) Install the flash memory that you want to use and power up the BOA.
- 3.) PRESS AUX key
- 4.) PRESS F1 SETUP
- 5.) PRESS 6 3 6 9 ENTER
- 6.) PRESS F1 (Setup)
- 7.) Set DNC Time out = 10
- 8.) Set ASCII Rewind = 8
- 9.) Set Dialog Start = 33
- 10.)Set Dialog Done = 42
- 11.)Set Dialog Prompt = 3
- 12.)Set Dialog Acknowledge = 62
- 13.)PRESS Done
- 14.)Set Transmit Delay = 0
- 15.)Set Download Memory Cap as % = 50
- 16.)Set Auto Reload Point as % = 50
- 17.)PRESS Done
- 18.)Use shift key to select 2400 Baud
- 19.)PRESS ENTER
- 20.)Use shift key to select ASCII
- 21.)PRESS ENTER
- 22.)Use shift key to select IGNORE
- 23.)Press ENTER
- 24.)Scan for ctrl Z = NO
- 25.)PRESS ENTER
- 26.)Send EOT on download fail = NO
- 27.)PRESS ENTER
- 28.)PRESS DONE

29.)PRESS DONE

Now try to download a program. If you can not, see FAQ section or call the factory for help.

Picopath CNC:

- 1.) From the main screen, press F4 (Aux. Functions)
- 2.) Press F1 (Enter setup parameters)
- 3.) Enter password of 15732
- 4.) Press F3 (Link Setups)
- 5.) Set DNC Timeout = 5.00
- 6.) Set ASCII Rewind = 8
- 7.) Set Dialog Start = 33
- 8.) Set Dialog Done = 42
- 9.) Set Dialog Prompt = 3
- 10.)Set Dialog Acknowledge = 62
- 11.)Set Transmit delay = 0.00
- 12.)Set Scan for ctrl Z = OFF
- 13.)Set Send EOT upon fail = OFF
- 14.)Set Download mem cap = 80
- 15.)Set Autoreload = 75
- 16.)Set RS232 Baud rate = 2400
- 17.)Set Character Code = ASCII
- 18.)Set Parity = IGNORE
- 19.)Press DONE
- 20.)Press DONE
- 21.)Press DONE

Using the BOA with Picopath:

- 1.) From the main menu press F2 (Store/Retrieve)
- 2.) If you are downloading press F2
- 3.) Enter Kerf desired
- 4.) You should see Nacutting systems banner displayed. If not, check power input and RED LED on the BOA box.
- 5.) After a 2 sec. Delay, the system now shows 1.Enter name 2.List files 3.Exit
- 6.) Select 2 to list all files on the memory device, or 1 to enter a name directly. 3 exits. NOTE: If you select 3 the box returns to the main routine however you must wait for the picopath to time out before exiting the menu.

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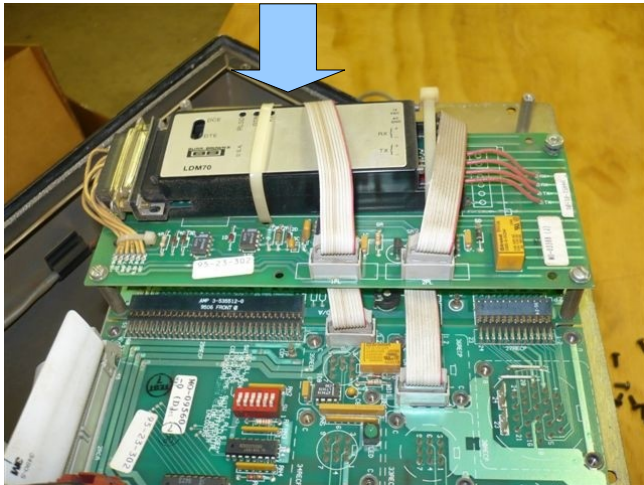
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FAQ / Errata:

- 1.) If an error occurred during download the power on the box must be cycled to clear it. The green light on the back of the unit near the power in plug will be light.
- 2.) The BOA will support any size USB memory however; it will only support 2 GB of SD memory
- 3.) On some burny products, it may be necessary to enter a serial definition of 0000 and require the operator to enter the required parameters during a download request. This is a known bug in the older burny 5 software and CMC has frozen the code on this product therefore a new patch will not be sent from CMC.
- 4.) Burny status screen says WAITING. The jumper in the burny end of the plug is not set correctly, refer to the product documentation for the burny and jumper +12 VDC to the status in pin.
- 5.) On burny products, if you get the message NOT INSTALLED, you need to call the factory for an unlock code for your burny.
- 6.) If you are having problems, try to upload a part program from the control to the box first. Take the program to a PC and see if there are any differences between it and what you are trying to download.
- 7.) For Burny products the file extension must be .CNC.
- 8.) LED functions on the BOA:
 1. RED LED = Power on
 2. GREEN LED = Program Error
 1. If system is in error you must cycle the power on the BOA to clear the fault.

Burny Short Haul Modem.



Note the small black box mounted on the drive interface card. This is a short haul modem and should be removed before installing the BOA. Remove the entire PCB not just the box. Unplug it from the back wall board and use Port A for the BOA.

