DESCRIPTION

The Baby Bear Bones Expander allows you to expand your Baby Bear Bones by adding 8 inputs and 8 outputs. It is a single board designed to fit into industry standard break-away plastic relay track or mount with standard Bear Bones Hardware Kits. It is cable connected to the Baby Bear Bones. The inputs are self supplying - no external voltage is required. You may furnish plug in relays or timers for the output sockets.

FEATURES

Easy plug-in cable connector to the Baby Bear Bones self-supplied inputs. Plug in relays, timers, setpoint comparators, analog timers.

96 hour burn-in at the factory.

Compact and rugged.

APPLICATION

This expander enhances the capabilities of your Baby Bear Bones by adding 8 inputs and 8 output sockets. The inputs and outputs that are available are addressed 1/08 through 1/15. See Data Sheet 7809-43 to review the Baby Bear Bones.

PROGRAMMING

All program instructions originate in the Baby Bear Bones, see Data Sheet 7809-43.

STANDARD OPTIONS

Timer Module - See Data Sheet 7809-45.

Timers or Comparators - See Data Sheets 7809-32,40,41,35 (See Note 1, Page 6 and connector 4, Sheet 5.

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ON BOARD OPTIONS Must be configured like the Baby Bear Bones (7809-43).

See figure 2 page 3 for the location of the Option Pads and how to configure them to your needs.

OPTION 1 - INPUT SOURCE The expander when connected to the Baby Bear Bones will furnish 12VDC to your inputs. You may change this to 5VDC.

OPTION 2 - FUTURE

SPECIFICATIONS

INPUTS: Qty. 8	3	Sensitivity Turn On	Turn Off	Turn On	Turn Off
	Voltage	Resistance	Resistance	Current	Current
on board	5	1.5K	3.5K	.8mA	.3mA
selectable	12	10K	15K	.8mA	.3mA
user supply	24	25K	35K	.8mA	.3mA
			Respon	se	
	. 1	<i>l</i> oltage	Turn On		Turn Off
	•	+5	2mS ma	x.	15mS max.
		+12	2mS ma	x.	15mS max.
+24			2mS ma	x.	2mS max.

Isolation: 1500V

Field termination: #14AWG max. wire size per location. No lugs. Optional quick-disconnect.

OUTPUTS: Qty. up to 8

N.O. Relay contacts - isolated from each other.

RElay module contacts rated 2AMP at 120VAC or 28VDC resistive.

Contacts are shunted with snubber circuitry to help surpress turn on transcients.

For inductive loads you may wish to connect a varistory across the coil of the load.

OPTIONAL OUTPUTS

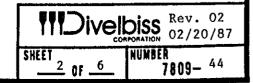
Adjustable time delay module(s). IVM-TM-05,06,07,08,09,10. Ranges .1 to 6 sec. or 1 to 120 seconds. Refer to data sheet #7809-45.

Operating Temp. Range: 0-60°C

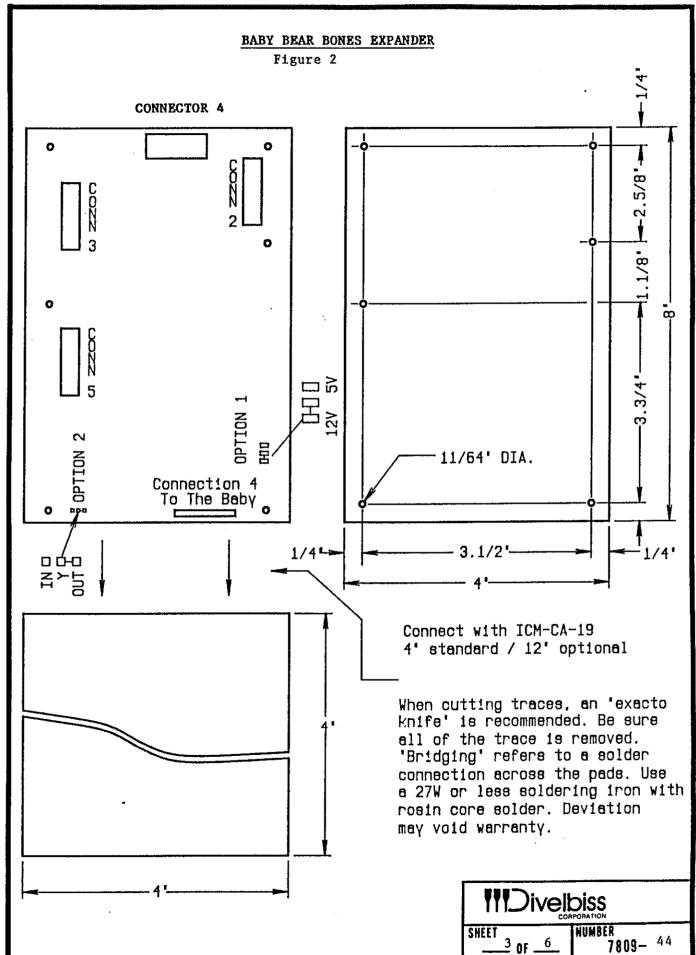
Dimensions: 4.0 x 8.75", vertical clearance 2"

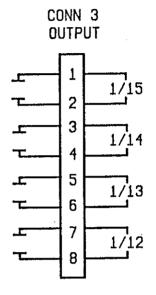
Weight: 0.4# less transformer

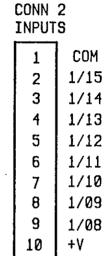
NOTE: Specifications subject to change without notice.

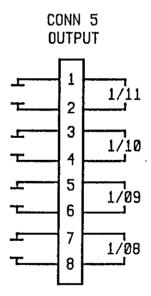














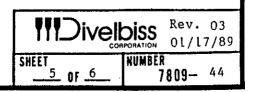
CONNECTOR - Used with 5 function timers, or comparators. \mathbf{A}

	1	14	1	Card Ground	8	Card Ground
	2	13	2	Not connected	9	Output #11
	3	12	3	Input #11	10	Output #12
	4	11	4	Input #12	11	Output #13
	5	10	5	Input #13	12	Output #14
	6	9	6	Input #14	13	Output #15
-	7	8	7	Input #15	. 14	+5VDC Logic Supply

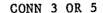
Should you use the 5 function timer or counter you would sacrifice inputs and outputs 11 thru 15.

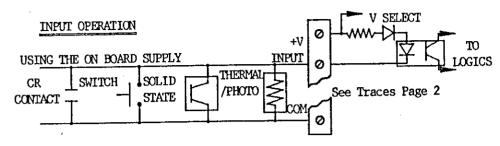
CONNECTION 4 - Receptacle for BABY BEAR BONES.

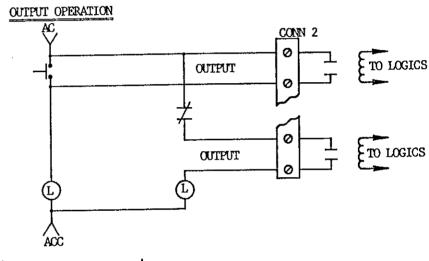
	_	•
1	}	+5VDC out
2		+12VDC out
3		•
4		Word bit Ø out
5		Word bit 1 out
6		Card common
7		
8		Word Bit 2 out
9		Input data channel
10		Output data channel
11		Write out
12		Word bit 3 out
13		System clock out
14		Reset out
15		Page 1 enable
	•	

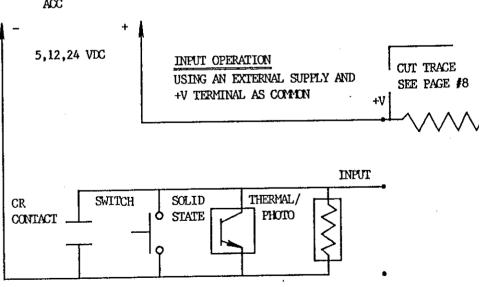












WARNING

The Baby Bear Bones Expander, as with other solid state controls, must not be used in applications which would be hazardous to personnel in the event of failure of the controller. Precautions must be taken to provide mechanical Rev. 01 elbiss 02/20/87

and/or electrical safeguards external to the controller.

SHEET 6 OF 6

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