

BEAR BONES CUB EXPANDER

DESCRIPTION

The ICM-IO-XX Cub expander is a complete auxiliary sub-system for the Bear Bones controller, see data sheet 7809-26. You need only plug it into the Bear Bones controller.

TABLE 1

	IN	OUT	GROUP(Table 2)
ICM-IO-30	5	5	1
ICM-IO-31	5	0	
ICM-IO-32	0	5	2
ICM-IO-33	5	5	
ICM-IO-34	5	0	3
ICM-IO-35	0	5	
ICM-IO-36	5	5	
ICM-IO-37	5	0	
ICM-IO-38	0	5	

SPECIFICATIONS

INPUTS	See Table 2
OUTPUTS	See Table 2
POWER	5VDC at 25°C 1MADC all I/O Off 90 MADC all I/O On
TEMPERATURE RANGE	0 to 60°C
DIMENSIONS	6"H x 5"W x 1.5"D
FIELD TERMINATIONS	14 AWG maximum wire size, with or without lugs

APPLICATION

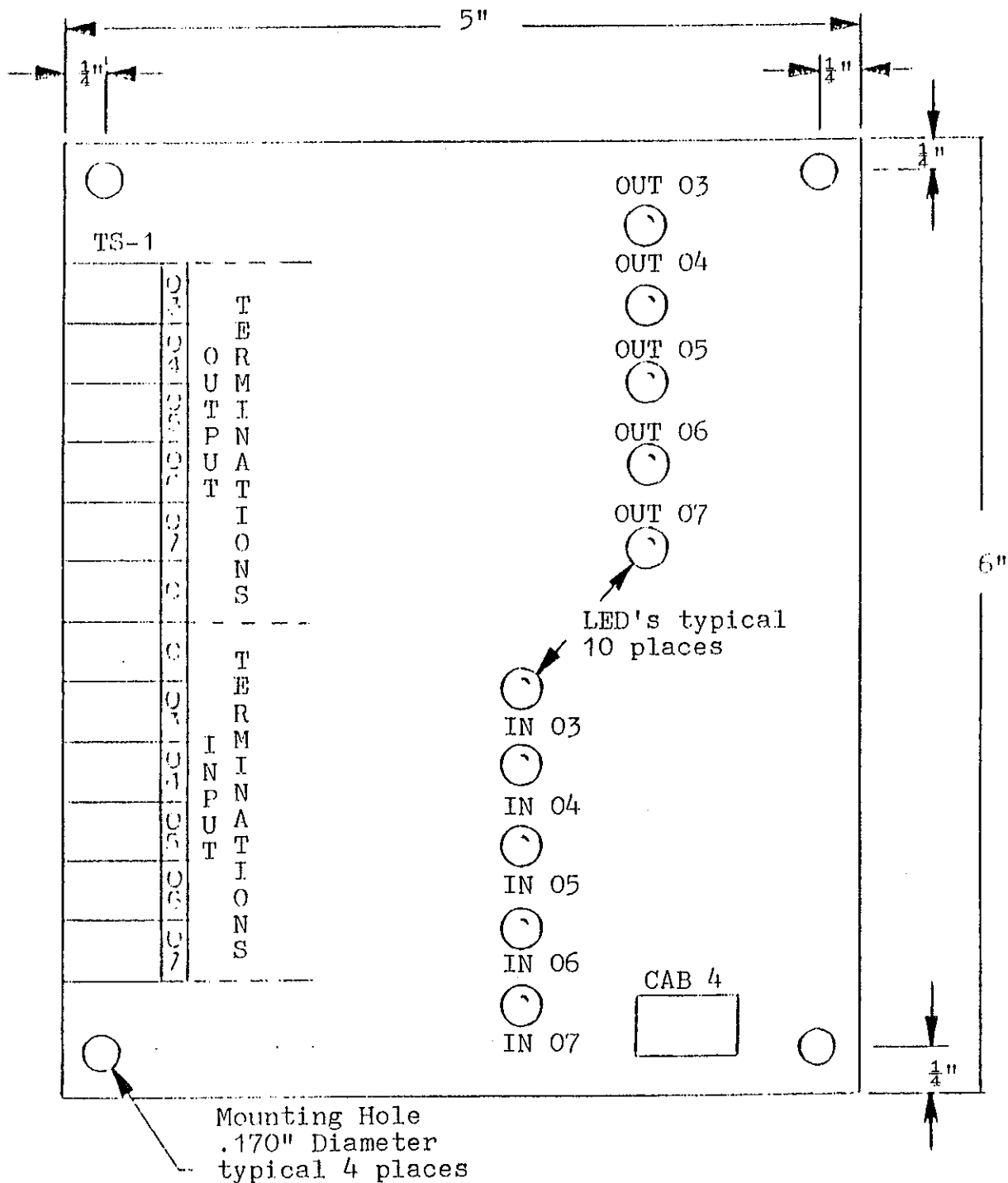
This Cub expander needs no additional components. You need only plug it into your Bear Bones controller. This Cub expander is dedicated to page 1 I/O 3 through 7. You may use only one Cub expander per Bear Bones. This expander contains all the hardware for real world inputs and real world outputs. It receives its logic power from the Bear Bones. It receives instructions from and transmits data to the Bear Bones via cable 4, see Fig. 1.

OPERATION

This expander operates on the instructions from the Bear Bones controller and must be connected to it.

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FIGURE 1 (Not to Scale)



Note: This Cub expander is dedicated to page 1, I/O 3-7. The page and I/O selection cannot be changed.

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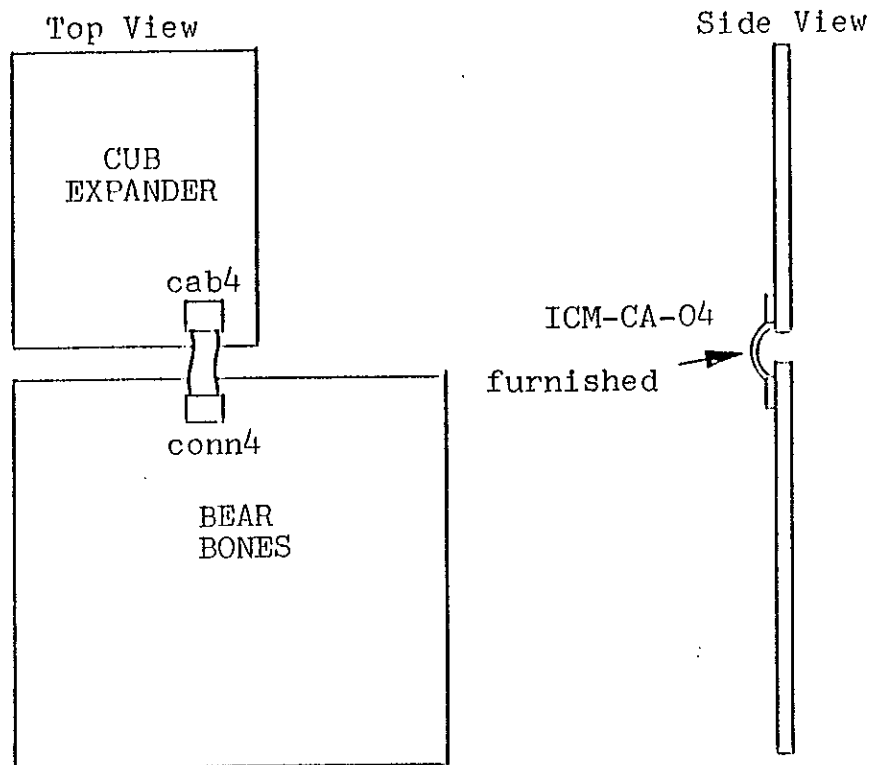
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CABLE AND CONNECTOR 4

Interfaces this expander to the Bear Bones controller.

Pin	
1	Card Ground
2	Page 1, Input 2
3	Page 1, Input 3
4	Page 1, Input 4
5	Page 1, Input 5
6	Page 1, Input 6
7	Page 1, Input 7
8	Card Ground
9	Page 1, Output 3
10	Page 1, Output 4
11	Page 1, Output 5
12	Page 1, Output 6
13	Page 1, Output 7
14	+5VDC Logic Power

FIGURE 2 (Not to Scale)



Note: Pin 2 carries Page 1 Input 2. This is an external clock option, refer to data sheet 7809-26 clock jumper.



INPUTS									
GROUP	SIGNAL LEVEL	POWER	FUSE	TURN ON/OFF	ISOLATION	LED	OPTO		
1	90-130VAC	1.2W	1AMP	25MS MAX	1500V	Y	Y		
2	7-32VDC	1.3W	1AMP	10/25 MS MAX	1500V	Y	Y		
3	10-40VAC	1.2W	1AMP	10/25 MS MAX	1500V	Y	Y		
4	90-260VAC	2.4W	1AMP	25MS MAX	1500V	Y	Y		
OUTPUTS									
GROUP	SIGNAL LEVEL	POWER	FUSE	TURN ON/OFF	OVER VOLT.	Ø X	ISOLATION	LED	OPTO
1&3	12-130VAC; 1-2A	240W	2AMP	1/2 CYCLE	400 PEAK	Y	7500V	Y	Y
2	7-32VDC; .1-2A	64W	2AMP	5 MS MAX	80VDC	N/A	1500V	Y	Y
4	35-260VAC; .1-2A	240W	1AMP	1/2 Cycle	600 PEAK	Y	7500V	Y	Y

NOTE: Groups 1,2,4 connect ACC to Common. Group 2 connect DC- to Common.

TABLE 2

INPUT/OUTPUT SPECIFICATIONS

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