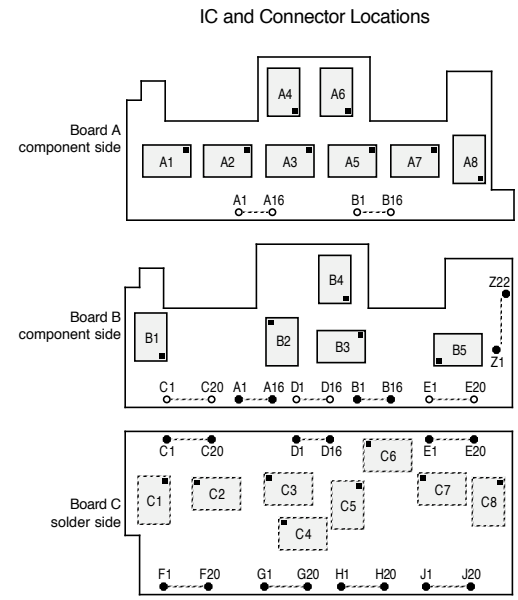
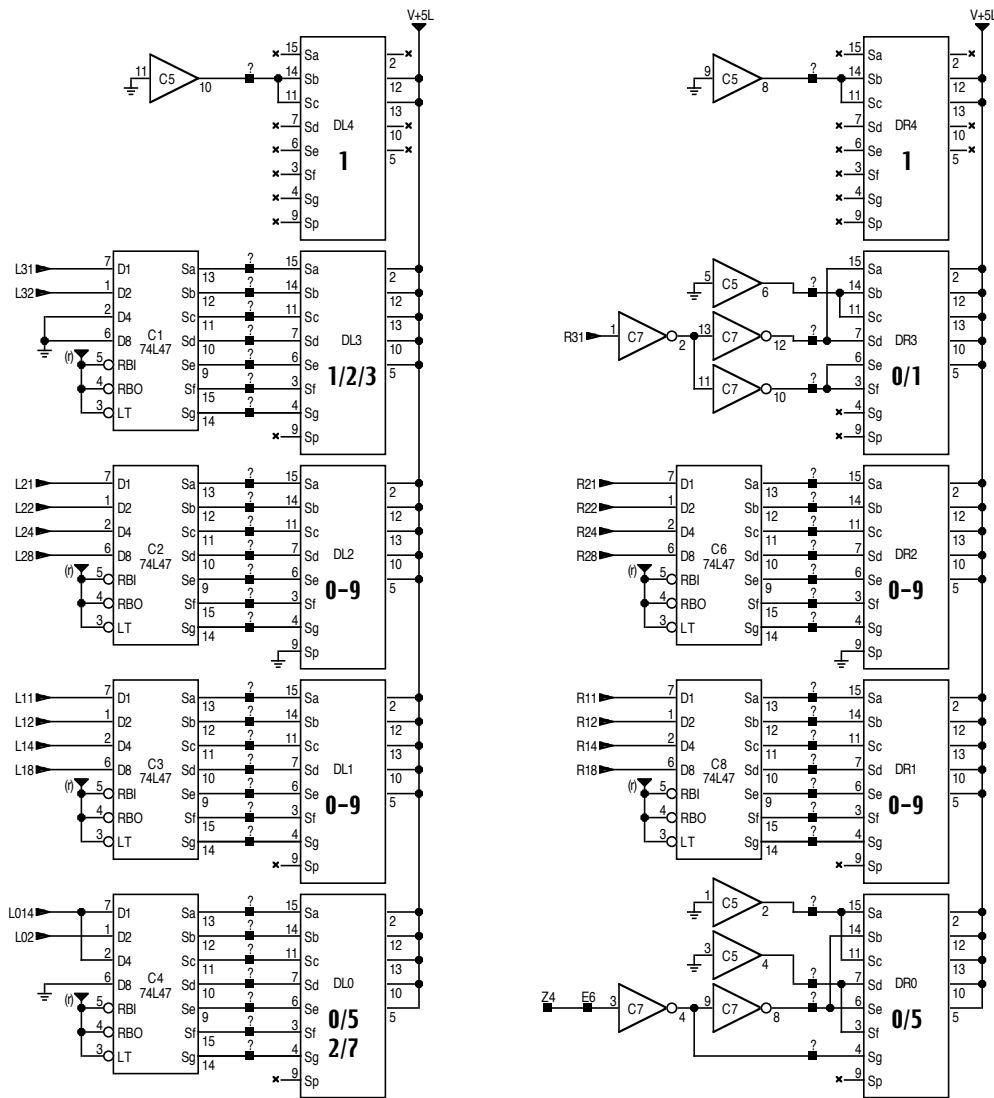


## Avionics Tuner 4004 Module

Section: Microprocessor System

Page: 1

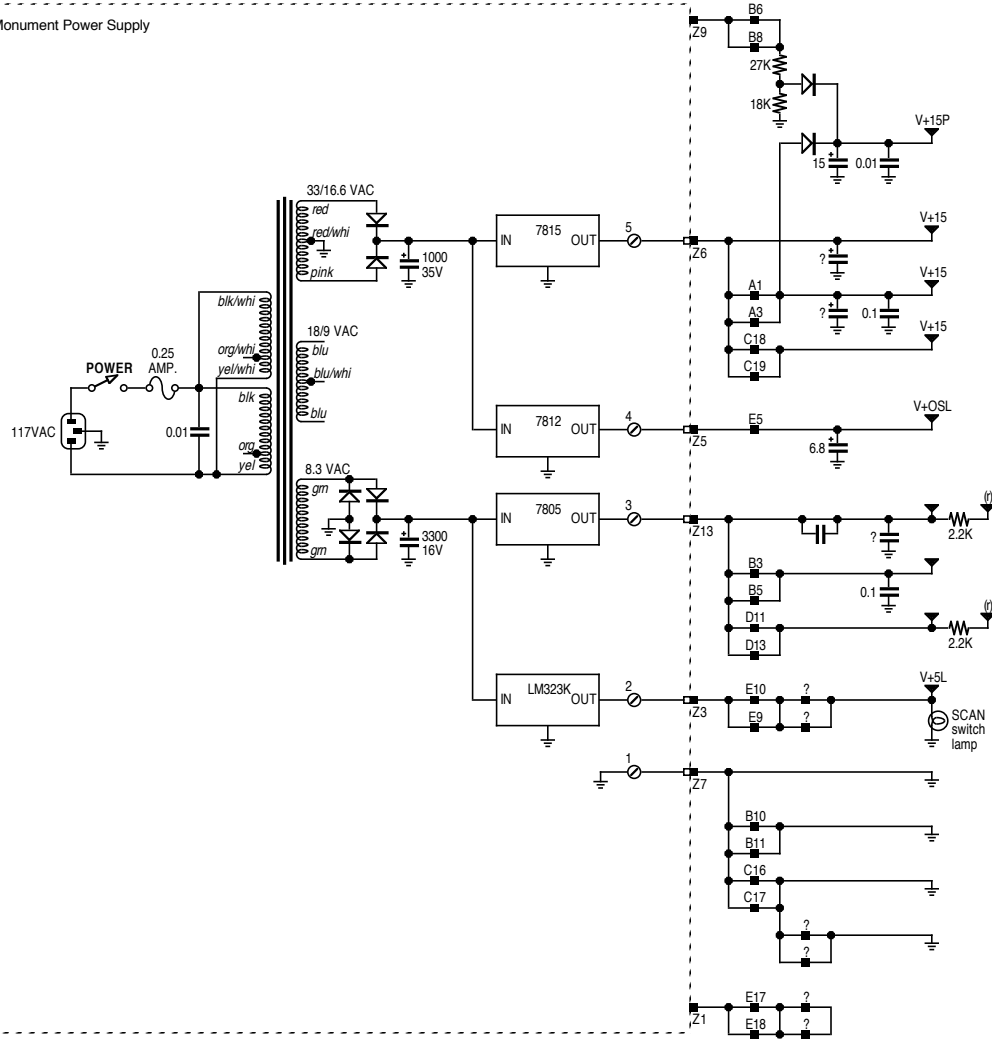
Printed: 2018 Aug 31



Connector Z

	1	not in use
digit right-0	4	3
	4	3
V+5L	6	5
	6	5
V+15	8	7
	8	7
data R21	10	9
	10	9
left lamp	12	11
	12	11
right lamp	14	13
	14	13
right clock	16	15
	16	15
data R22	18	17
	18	17
data R24	20	19
	20	19
data	22	21
	22	21
data L02		

Monument Power Supply



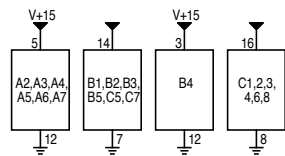
permanent to hold memory

+15V MOS logic supply (110mA)

+12V opto-sensor lamps (144mA with 12V@35mA lamps) (original lamps were 24V@22mA)

+5V TTL logic supply (260mA)

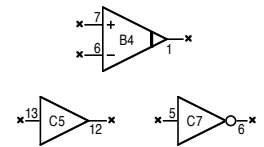
+5V display lamps (~1A max., 911mA with "128.00 108.95")



Integrated Circuit Types

A1:	4201	MCS-4 System clock/reset generator
A2:	4002	MCS-4 System RAM
A3-A6:	4001	MCS-4 System ROM
A7:	4004	MCS-4 System CPU
A8:	4562	CMOS 128-bit shift register
B1-B3, B5:	74LS164	8-bit shift register
B4:	3302	quad comparator
C1-C4, C6, C8:	74L47	BCD-to-7-segment decoder
C5:	7407	hex buffer
C7:	7406	hex inverter

Unused Gates



• Capacitance in microfarads unless otherwise indicated.  
 • 2003 Jun 27: Initial drawing / bhlipert.  
 • 2018 Aug 31: Converted to single document for PDF output/ bh.