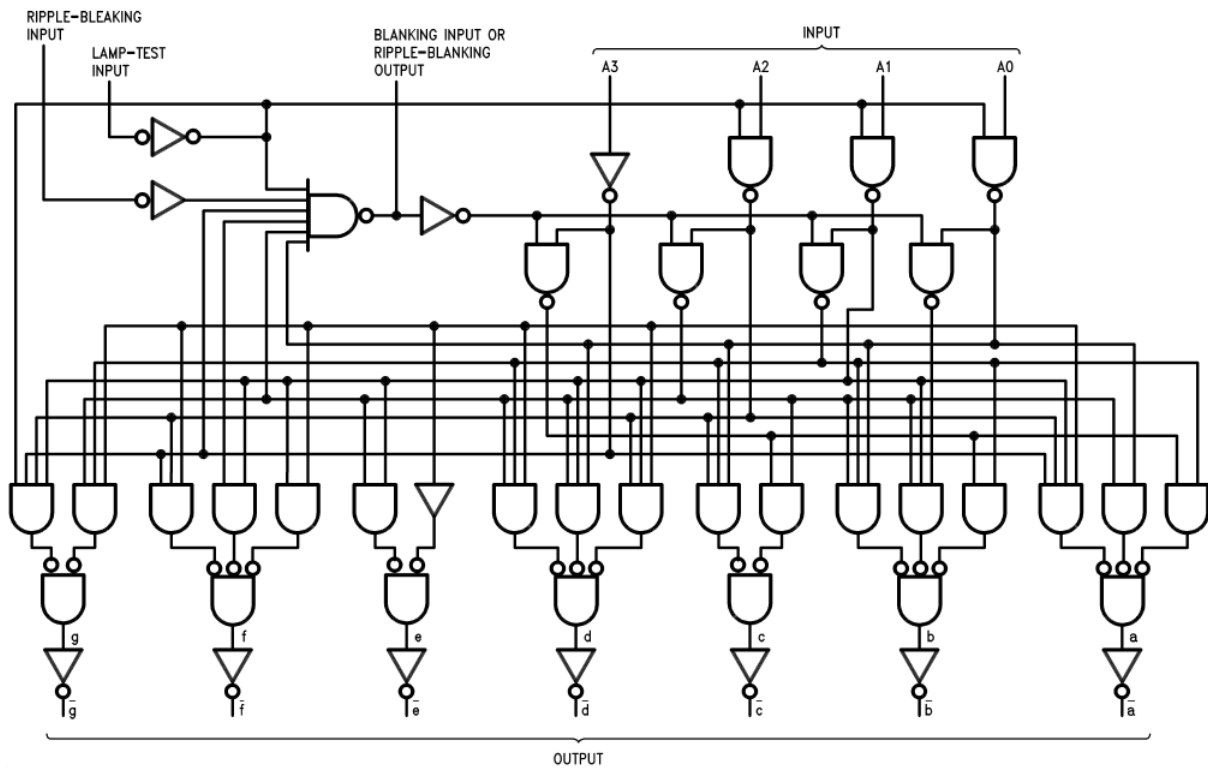
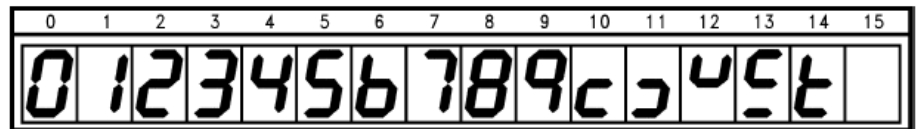


Logic Diagram



DS009817-3

Numerical Designations—Resultant Displays



DS009817-4

Truth Table

Decimal or Function	Inputs							Outputs							Note
	LT	RBI	A3	A2	A1	A0	BI/RBO	a	b	c	d	e	f	g	
0	H	H	L	L	L	L	H	L	L	L	L	L	L	H	(Note 7)
1	H	X	L	L	L	H	H	H	L	L	H	H	H	H	(Note 7)
2	H	X	L	L	H	L	H	L	L	H	L	L	H	L	
3	H	X	L	L	H	H	H	H	L	L	L	L	H	H	
4	H	X	L	H	L	L	H	H	L	L	H	H	L	L	
5	H	X	L	H	L	H	H	H	L	H	L	L	H	L	
6	H	X	L	H	H	L	H	H	H	H	L	L	L	L	
7	H	X	L	H	H	H	H	H	L	L	L	H	H	H	
8	H	X	H	L	L	L	H	H	L	L	L	L	L	L	
9	H	X	H	L	L	H	H	H	L	L	L	H	H	L	
10	H	X	H	L	H	L	H	H	H	H	L	L	L	H	
11	H	X	H	L	H	H	H	H	H	H	L	L	H	H	
12	H	X	H	H	L	L	H	H	H	L	H	H	H	L	
13	H	X	H	H	L	H	H	H	L	H	H	L	H	L	
14	H	X	H	H	H	L	H	H	H	H	L	L	L	L	
15	H	X	H	H	H	H	H	H	H	H	H	H	H	H	
BI	X	X	X	X	X	X	L	H	H	H	H	H	H	H	(Note 8)
RBI	H	L	L	L	L	L	L	H	H	H	H	H	H	H	(Note 9)
LT	L	X	X	X	X	X	H	L	L	L	L	L	L	L	(Note 10)

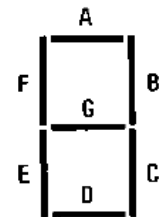
Note 7: BI/RBO is wire-AND logic serving as blanking input (BI) and/or ripple-blanking output (RBO). The blanking out (BI) must be open or held at a HIGH level when output functions 0 through 15 are desired, and ripple-blanking input (RBI) must be open or at a HIGH level if blanking or a decimal 0 is not desired. X = input may be HIGH or LOW.

Note 8: When a LOW level is applied to the blanking input (forced condition) all segment outputs go to a HIGH level regardless of the state of any other input condition.

Note 9: When ripple-blanking input (RBI) and inputs A0, A1, A2 and A3 are LOW level, with the lamp test input at HIGH level, all segment outputs go to a HIGH level and the ripple-blanking output (RBO) goes to a LOW level (response condition).

Note 10: When the blanking input/ripple-blanking output (BI/RBO) is open or held at a HIGH level, and a LOW level is applied to lamp test input, all segment outputs go to a LOW level.

Segment Identification



Sources: Fairchild DM74LS47 data sheet, MM74C48 BCD-to-7 Segment Decoder data sheet