



DG-640 © 1980
 DG ELECTRONIC DEVELOPMENTS CO
 DENVER, TEXAS 75025
 4-80

PARTS LIST

MEMORY DEVICES	4118 (20Kx8)
U1, U2, U18	74LS240
U3	74LS125
U4	74LS132
U8	74LS139
U9	74LS154 (8T 125)
U10	74LS157
U11, U12, U20, U28	74LS138
U13	74LS157
U14	74LS259
U15, U25	74LS132
U16, U29	74LS138
U21, U22, U23	74LS138
U24	74LS157
U27	74LS132
U30	74LS132
U31	74LS132
U32	74LS132
U33	74LS132
U34	74LS132
U35	74LS132
U36	74LS132
U37	74LS132
U38	74LS132
U39	74LS132
U40	74LS132
U41	74LS132
U42	74LS132
U43	74LS132
U44	74LS132
U45	74LS132
U46	74LS132
U47	74LS132
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U86	74LS132
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U88	74LS132
U89	74LS132
U90	74LS132
U91	74LS132
U92	74LS132
U93	74LS132
U94	74LS132
U95	74LS132
U96	74LS132
U97	74LS132
U98	74LS132
U99	74LS132
U100	74LS132

DG-640 NOTES

1. () DENOTES PIN NUMBERS ON HEATSHIFTER BUS.
2. POWER SUPPLY PIN CONNECTIONS ARE AS FOLLOWS:

COMPONENTS	GROUND	+5V	+12V	-5V
74LS240, 74LS245, 74LS244, 74LS138	10	25	—	—
74LS139, 74LS151, 74LS239, 74LS238	10	25	—	—
74LS152, 74LS208, 74LS209, 74LS217	10	25	—	—
74LS138, 74LS139	7	14	—	—
74LS157	8	16	—	—
74LS175	12	5	—	—
MC1340	16	38	—	—
4118 (DG-640)	16	8	8	1
4317 (DG-640)	16	8	—	—
3. THE FOLLOWING COMPONENTS ARE NOT PRESENT ON THE DG-640: IC, CL, RL (Z2); U32 IS LM3407-12 FOR THE DG-640 AND A LM3407-9 FOR THE DG-640S.
4. THE FOLLOWING SIGNAL LINES WERE NOT MARKED ON THE SCHEMATIC IN THE INTEREST OF SPACE:
 DATA BUS BUFFER: U5
 ADDRESS BUFFERS AS THROUGH A7: U2
 A8 THROUGH A15: U1
 BUS INPUTS: U22
 BUFFER OUTPUTS: U23
 BUS INPUT: U24
 BUFFER OUTPUT: U25
 BUS INPUT: U26
 BUFFER OUTPUT: U27
 BUS INPUT: U28
 BUFFER OUTPUT: U29
 BUS INPUT: U30
 BUFFER OUTPUT: U31
 BUS INPUT: U32
 BUFFER OUTPUT: U33
 BUS INPUT: U34
 BUFFER OUTPUT: U35
 BUS INPUT: U36
 BUFFER OUTPUT: U37
 BUS INPUT: U38
 BUFFER OUTPUT: U39
 BUS INPUT: U40
 BUFFER OUTPUT: U41
 BUS INPUT: U42
 BUFFER OUTPUT: U43
 BUS INPUT: U44
 BUFFER OUTPUT: U45
 BUS INPUT: U46
 BUFFER OUTPUT: U47
 BUS INPUT: U48
 BUFFER OUTPUT: U49
 BUS INPUT: U50
 BUFFER OUTPUT: U51
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 BUFFER OUTPUT: U53
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 BUFFER OUTPUT: U55
 BUS INPUT: U56
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 BUFFER OUTPUT: U65
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 BUFFER OUTPUT: U67
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 BUFFER OUTPUT: U71
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 BUFFER OUTPUT: U73
 BUS INPUT: U74
 BUFFER OUTPUT: U75
 BUS INPUT: U76
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 BUFFER OUTPUT: U85
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 BUFFER OUTPUT: U87
 BUS INPUT: U88
 BUFFER OUTPUT: U89
 BUS INPUT: U90
 BUFFER OUTPUT: U91
 BUS INPUT: U92
 BUFFER OUTPUT: U93
 BUS INPUT: U94
 BUFFER OUTPUT: U95
 BUS INPUT: U96
 BUFFER OUTPUT: U97
 BUS INPUT: U98
 BUFFER OUTPUT: U99
 BUS INPUT: U100
 BUFFER OUTPUT: U101

5. THE FOLLOWING UNUSED TTL DEVICE INPUTS ARE PULLED-UP TO +5V:

INPUTS	PULL-UP
U28 pin 2, 4, 13	R5
U22 pin 4, 13	R6
U17 pin 1, 13	R0
U11 pin 13, 10	R2, R2

6. PIN-OUTS FOR THE MEMORY DEVICES USED ARE AS FOLLOWS:

4118				4317			
Pin	1x	16	Pin	Pin	16	Pin	Pin
1	16	16	16	1	16	16	16
2	15	15	15	2	15	15	15
3	14	14	14	3	14	14	14
4	13	13	13	4	13	13	13
5	12	12	12	5	12	12	12
6	11	11	11	6	11	11	11
7	10	10	10	7	10	10	10
8	9	9	9	8	9	9	9
9	8	8	8	9	8	8	8
10	7	7	7	10	7	7	7
11	6	6	6	11	6	6	6
12	5	5	5	12	5	5	5
13	4	4	4	13	4	4	4
14	3	3	3	14	3	3	3
15	2	2	2	15	2	2	2
16	1	1	1	16	1	1	1

WARNING: DO NOT ATTEMPT TO MIX 4118 DEVICES AND 4317 DEVICES ON THE SAME BOARD AS THE POWER SUPPLY REQUIREMENTS FOR THESE COMPONENTS ARE NOT THE SAME.

7. PIN-OUT OF THE MEMORY DEVICES AS FOLLOWS:

Pin	1x	16	Pin	Pin
1	16	16	1	16
2	15	15	2	15
3	14	14	3	14
4	13	13	4	13
5	12	12	5	12
6	11	11	6	11
7	10	10	7	10
8	9	9	8	9
9	8	8	9	8
10	7	7	10	7
11	6	6	11	6
12	5	5	12	5
13	4	4	13	4
14	3	3	14	3
15	2	2	15	2
16	1	1	16	1