

# AA11A,B,C

SCOPE CONTROL  
MD-11-DZAAB-A

EP-DZAAB-A-DL-A  
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IDENTIFICATION

MODEL CODE      PART NO. 11-2220-4  
 MODEL            21-4, B. C. SCOPE CONTROL TEST  
 DATE             21-1-76  
 MANUFACTURER    CIRCOR'S GROUP

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TEST OR ADDRESS AND ERASE TEST. THE PROGRAM WILL HALT. ~~RESTART~~  
D WILL CONTAIN EXPECTED VALUE OF DAC.

TO RESUME TESTING PRESS CONTINUE. IF IT IS DESIRED TO  
LOOP ON THE TEST THE FAILS REPLACE THE HALT INSTRUCTION WITH A  
END (NOP).

NO ERROR CONDITIONS ARE GIVEN DURING OTHER TESTS.

#### RESTRICTIONS

NONE

#### MISCELLANEOUS

#### EXECUTION TIME

DSR TEST - THE TELETYPE BEZEL WILL RING AFTER EVERY 100 PASSES  
WHICH IS APPROXIMATELY EVERY 30 SECONDS

ADDRESS AND ERASE TEST - IT TAKES APPROXIMATELY 2 MINUTES  
15 SECONDS TO COMPLETE ONE PASS WHILE THE TEST

ALL OTHER TESTS - N/A.

#### PROGRAM DESCRIPTION

#### COMMAND AND STATUS REGISTER TEST

TEST DESCRIPTION  
THESE TESTS EXERCISES THE X AND Y DAC'S TO MAKE CERTAIN  
THAT ALL BITS MAY BE SET, CLEARED AND READ BACK.

TEST THAT WAIT CLEARED THE FOLLOWING CSR BITS:  
LIGHTPEN FLAG (15), DISPLAY INTERRUPT ENABLE (6),  
LIGHTPEN INTERRUPT ENABLE (5), MODE (4-3), INTENSITY (2),  
AND SET READY (7).

TEST DISPLAY INTERRUPT ENABLE (6) MAY BE SET AND CLEARED

TEST LIGHTPEN INTERRUPT ENABLE (5) MAY BE SET AND CLEARED.

TEST MODE CONTROL (4-3) MAY BE SET AND CLEARED.

TEST INTENSITY (2) MAY BE SET AND CLEARED

TEST THAT READY (7) IS CLEARED WHEN X DAC IS LOADED  
WITH MODE 01.

TEST THAT READY (7) IS CLEARED WHEN Y DAC IS LOADED  
WITH MODE 10.

TEST THAT READY (7) WILL RETURN SET AFTER IT HAS  
BEEN CLEARED BY INTENSITY.

TEST THAT DISPLAY INTERRUPT ENABLE (6) WILL ALWAYS  
READY (7) INTERRUPT TO VECTOR ADDRESS IN THE  
PROCESSOR MEMORY LEVEL 3.

TEST THAT DISPLAY DOES NOT INTERRUPT WITH PROCESSOR  
MEMORY LEVEL 4

9.2 DISPLAY HORIZONTAL LINE STORAGE AND NON-STORAGE

A HORIZONTAL LINE IS DISPLAYED ON THE SCOPE BY INITIALLY SETTING THE X AND Y VALUES TO ZERO AND THEN INCREMENTING THE X VALUE WHILE HOLDING THE Y VALUE AT ZERO. POINTS ARE DISPLAYED USING THE DISPLAY INTERRUPT ENABLED.

9.3 DISPLAY VERTICAL LINE (STORAGE AND NON-STORAGE)

A VERTICAL LINE IS DISPLAYED ON THE SCOPE IN THE SAME MANNER AS FOR A HORIZONTAL LINE (REF 9.2), EXCEPT NOW THE Y VALUE IS INCREMENTED WHILE HOLDING THE X VALUE AT ZERO.

9.4 DISPLAY SQUARE (STORAGE AND NON-STORAGE)

A SQUARE IS DISPLAYED BY INITIALLY SETTING THE X AND Y VALUES TO NEGATIVE FULL SCALE. THEN X IS INCREMENTED TO POSITIVE FULL SCALE (BOTTOM LINE); THEN Y IS INCREMENTED TO POSITIVE FULL SCALE (RIGHT LINE); THEN X IS DECREMENTED TO NEGATIVE FULL SCALE (TOP LINE); AND FINALLY Y IS DECREMENTED TO NEGATIVE FULL SCALE (LEFT LINE). MODE 01 (INTENSIFY ON LOADING X) AND MODE 10 (INTENSIFY ON LOADING Y) ARE USED.

9.5 DISPLAY X (STORAGE AND NON-STORAGE)

AN X IS DISPLAYED BY INITIALLY SETTING THE X AND Y VALUES TO NEGATIVE FULL SCALE AND THEN INCREMENTING BOTH TO POSITIVE FULL SCALE (LOWER LEFT TO UPPER RIGHT DIAGONAL); THEN X IS RESET TO NEGATIVE FULL SCALE, Y REMAINS AT POSITIVE FULL SCALE AND THEN X IS INCREMENTED WHILE Y IS DECREMENTED UNTIL BOTH REACH FULL SCALE AGAIN (UPPER LEFT TO LOWER RIGHT DIAGONAL). MODE 01 (INTENSIFY ON LOADING Y) IS USED.

9.6 DISPLAY LOW AND HIGH INTENSITY (NON-STORAGE ONLY)

THE TEXT "LOW INTENSITY" IS DISPLAYED IN LOW INTENSITY; THE TEXT "HI INTENSITY" IS DISPLAYED IN HIGH INTENSITY.

9.7 DISPLAY ALPHANUMERIC CHARACTER SET (STORAGE AND NON-STORAGE)

THE ALPHABET AND NUMBERS 1 THRU 9 ARE DISPLAYED.

9.8 POSITION AND ERASE TEST (STORAGE ONLY)

EVERY SECOND POINT ON THE FACE OF THE SCOPE IS INTENSIFIED IN STORE MODE AND THEN THE PROGRAM WILL HALT. THIS WILL ALLOW THE OPERATOR TO INSPECT THE POSITION COATING ON THE CRT FOR DAMAGE. AFTER BEING SATISFIED WITH THE POSITION COATING ON THE OPERATOR PLUS PRESS "CONTINUE". NOW THE FOLLOWING TESTS WILL BE MADE:

- 1. WILL INTENSIFY (0) CAUSE READY ? TO CLEAR WITH STORE MODE
- 2. READY RETURN AFTER BEING CLEARED?
- 3. DOES ERASE 1 CLEAR READY ?

AFTER COMPLETION OF THESE TESTS THE SEQUENCE WILL REPEAT. THE OPERATOR IS RESPONSIBLE FOR DETERMINING IF ERASE ACTUALLY ERASES THE SCOPE.























1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

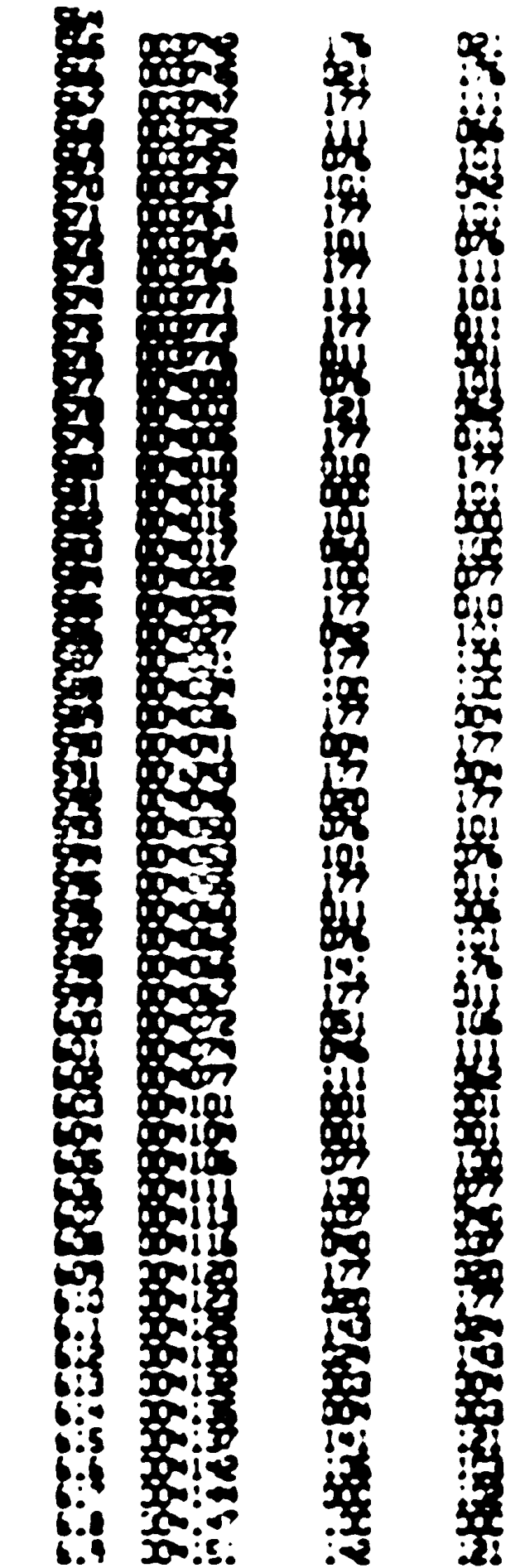








221 a: .BYTE 176,21,21,21,176  
 111 b: .BYTE 177,111,111,111,66  
 101 c: .BYTE 76,101,101,101,66  
 121 d: .BYTE 177,101,101,101,76  
 111 e: .BYTE 177,111,111,111,101  
 011 f: .BYTE 177,11,11,11,1  
 121 g: .BYTE 76,101,121,121,62  
 010 h: .BYTE 177,10,10,10,177  
 177 i: .BYTE 9,101,177,101,0  
 100 j: .BYTE 60,100,100,100,77  
 077 k: .BYTE 177,10,29,6,101  
 100 l: .BYTE 177,120,100,100,100  
 010 m: .BYTE 177,9,10,9,177  
 010 n: .BYTE 177,9,10,20,177  
 101 o: .BYTE 76,101,101,101,76  
 011 p: .BYTE 177,1,11  
 121 q: .BYTE 76,101,121,121,176  
 001 r: .BYTE 177,11,21,51,106  
 111 s: .BYTE 6,111,111,111,62  
 177 t: .BYTE 1,1,177,1,1  
 100 u: .BYTE 77,100,100,100,77  
 100 v: .BYTE 27,60,100,60,27  
 010 w: .BYTE 177,20,10,20,177  
 010 x: .BYTE 140,29,10,29,140  
 170 y: .BYTE 3,9,170,9,3  
 111 z: .BYTE 141,121,111,106,120  
 177 aa: .BYTE 0,122,177,100,0  
 111 ab: .BYTE 142,121,111,106,122







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2:2 R

3:2 L

4:2 R

5:2 R

6:2 R

7:2 R

8:2 R

9:2 R

10:2 R

11:2 R

12:2 R

13:2 R

14:2 R

15:2 R

16:2 R

17:2 R





IDENTIFICATION

MODEL CODE: RA-1000-11-02000-A  
 MODEL: RA-11-A.B.C SCOPE CONTROL TEST  
 DATE: 21.1.76  
 MAINTAINER: DIAGNOSTIC GROUP

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SUPPLEMENT 1 TO RA-11-A.B.C SCOPE CONTROL TEST

N02

Spooler routine 3 Records, 10 1/2", 27 dot code, 3 dot, 1/2", 27 1/2"

