

DATE 5/23/61

SH. 1 OF 5

COMPILED BY  
Paul Stein

# TMC SPECIFICATION NO. S-576

TITLE: Conversion of AFC-1 and AFC-1A to AFC-1B

JOB

APPROVED 

1. Remove the following components:

- |        |   |
|--------|---|
| a. C37 | m. C29                                    |
| b. R61 | n. R38                                    |
| c. C28 | o. R39                                    |
| d. R64 | p. C17                                    |
| e. C31 | q. C8                                     |
| f. C27 | r. R31 and lead near<br>chassis.          |
| g. R60 | s. R30                                    |
| h. R29 | t. C18                                    |
| i. R63 | u. R66(Place jumper across<br>terminals.) |
| j. C38 |   |
| k. R62 |   |
| l. R69 |   |

2. Remove 100 K resistor between C11 and R20 and replace with jumper.
3. Remove R35 and replace with 470K resistor.
4. Remove Z3 and replace with new Z3.
5. Remove wire going from pin 2 to pin 4 of Z1.
6. Replace wire from pin 2 of Z1 to ground lug of V1.
7. Remove leads from lug marked R30.
8. Change R43 to 470K and remove lead from lug near chassis of R43.
9. Insert 2" Bus Bar into same lug and solder the other end of wire to lug C13.
10. Remove jumpers from bottom lugs near chassis between R29 and R30, R30 and R28, R28 and C18.

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11. Place jumper on lugs near chassis marked C18 and R30.
12. Place jumper near chassis marked R28 and R29.
13. Place jumper from lug R30 to lug near chassis of C14.
14. Remove lead between C17 and U3.
15. Remove green lead from R39.
16. Remove blue lead from C32.
17. Remove yellow lead and jumper from R69 and C29.
18. Remove jumper from C32 and R38 lugs near chassis.
19. Remove green wires from terminal R62.
20. Remove maroon wire from terminal C38 going to XY1.
21. Remove XY1.
22. Remove blue leads from R63.
23. Remove red jumper from R60.
24. Remove green wire and jumper from C28 and R61.
25. Remove blue wire from terminal lug near chassis of C28.
26. Remove maroon wires from C37.
27. Remove maroon wire from terminal 1 of T3.
28. Remove yellow lead from C27 and jumper near chassis on R63 and R60.
29. Replace C18, 25 mfd 50 vdc capacitor in place of original C18. (Put Positive side on terminal nearest chassis.)
30. Do the same for R30 (Now C17).
31. Across C8, place a 5 mmfd capacitor, now C8.
32. Remove green leads from pin 9 of V4.
33. Change green lead from pin 2 to pin 9 on V4.
34. On C22 terminal, insert two pieces of bus bar; one about 3" long, the other about 9" long.

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35. The short lead goes to pin 2 of V4.
36. The long lead goes to pin 2 of T3.
37. From pin 8 of V9, connect lead to terminal of C32 near chassis. From this terminal connect lead to terminal of R69.
38. On terminal lug R24, connect a 25 mfd 50 vdc capacitor, C28, positive end towards the number R24.
39. Across R40, put a 25 mfd 50 VDC capacitor, positive end towards the number R40.
40. Remove blue lead from pin 1 of V9. Place a standoff on the 4-40 screw protruding from the saddle.
41. Connect a wire from this point to pin 3 of Z3.
42. Connect R30, 120 ohm resistor from standoff to pin 1 of V9.
43. Connect a lead from pin 2 of Z3 to lug C31.
44. Connect pin 2 of V9 to R62.
45. Remove ground lead from pin 3 and green lead from pin 7 of V9.
46. From pin 3 of V9 to pin 7 of V9, put a 47 ohm resistor, R38.
47. From pin 7 of V9, to ground terminal of V9, put a 560 ohm resistor, R31.
48. Across R69, place a 2.2K resistor.
49. From terminal near chassis, of R38, add a wire to terminal nearest chassis of R42.
50. Across R39, put a .1 mfd capacitor, C45.

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51. From pin 6 of V9, connect one of the blue leads to R38 and remove other blue leads.
52. Across R29, put a 470K resistor.
53. Across R38, place a 470 ohm resistor.
54. Remove short red lead and connect a 4.7 K resistor across R64.
55. Across C31, add a .2 mfd capacitor (2 x .1).
56. Add a lead from C28 to U3.
57. From C28 terminal near chassis, connect a lead to pin 1 of T3.
58. Across terminal marked C28, add a 100K resistor, R39.
59. Remove blue lead from drift adjust pot R36.
60. From this lug on R36, connect lead to R63.
61. From blue lead removed from R36, add length of wire and connect to R63 terminal near chassis.
62. From the terminal nearest chassis of R63, connect to the teflon terminal near lug 1 of Z3 (Red dot).
63. Across R63, connect a 1.8 K, 1 watt resistor.
64. From the terminal nearest chassis of C13, add a lead to the teflon terminal near pin 3 of Z3 (Yellow Dot).
65. Across R62, add a 100K resistor in parallel with a .01 mfd mica capacitor, C41.
66. From terminal C38 to terminal 1 of Z3, add a 1000mmfd capacitor, C38, and jumper from C38 to R62.
67. Change V9 to 12 AT7.

If this modification has not been done, add the following:

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- 68. Remove R68 and replace with 1.5 K, 10 watt resistor.
- 69. Remove R67 and replace with 750 ohm, 10 watt resistor.