

SERVICE LETTER October 14, 1980 H 20 E - 1A page 1 (6)

This Service Letter supersede Service Letter H20E-1 (May 25,1980)

REASON Saving battery power when soaring.

EFFECTIVITY PIK-20 E serial numbers 20213, 20214,
20217 - 20265, 20267 - 20293.

DESCRIPTION Due to the high consumption of current of the
connecting relais, the battery is loaded
unnecessary when soaring.
This can also affect the starting of the
engine after a long day of soaring.
The relais are connected when the main switch
is on.
The consumption of current can be reduced by
changing the electrical system so that the
electrical instruments required for soaring
are functioning also when the main relay is
disconnected.

COMPLIANCE Recommended to be done at next maintenance.

INSTRUCTIONS See wiring diagrams 1 and 2

1. Mark the wires connected to the emergency
 relay, the main relay and the main switch.
2. Remove the wires from the emergency relay
 and remove the relay.

NOTE! items 4, 5, 7, 8 and 9: The wires connected
to the new main relay must have new fittings due
to the changed size of the terminals.

3. Install a new main relay.

4. Connect the wires, from battery and to the starter relay, to proper terminals of the new main relay.
5. Connect the wire leading to the old emergency relay terminal 86 to the terminal C of the new main relay.
6. Remove the wire connecting main relay terminal 85 and old emergency relay terminal 85.
7. Disconnect the wire, coming from the battery, from the main relay terminal 87 and connect it to the new main relay terminal D.
8. Disconnect the wire, coming from the alternator, from the old main relay terminal 87 and connect it to the new main relay terminal B.
9. Disconnect the wire from the old main relay terminal 30 and connect it to the new main relay terminal A.
10. Remove the wire to the terminal 86 of the old main relay and remove the old main relay.
11. Remove the wires from the old main switch and remove the switch. Install a new three position two pole main switch.
12. Connect a fuse holder, using a short wire, to the battery positive terminal (fuse max 5A).
13. Install a wire from the fuse holder to the instrument panel and connect it to the terminal 5 of the main switch.

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14. Remove the wires which are coming from flight instruments (1A) and radio (5A) fuses from main bus. Connect these wires to the terminal 6 of the main switch (see wiring diagram 2).
 15. Connect a diode between soaring and engine side of the circuit (see wiring diagram 2).
 16. Connect the wires of the old main switch to terminals 2 and 3 of the new main switch.
 17. Mark the positions of the main switch; down OFF, middle soaring position and up ON.
 18. Paint the toggle of the main switch with red paint.
 19. Correct the Flight Manual:
 - page I-7 correct according to wiring diagram 2
 - I-15 Main switch markings
 - I-21 Add as last line off the page
Main switch.....SOAR
 - I-22 Add as a sixth line
Main switch.....ON
 - I-31 Add as last line of part 5.17
Main switch should be in SOAR-position to conserve energy.

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RECOMMENDED NORMAL

PROCEDURES

When using engine the main switch must be ON,
up-position.

When soaring switch to soaring position (middle).

MATERIALS

- Three-position twopole switch 12V, 6A
(resistive load) type ON-ON-ON
E.g.: APR Brevete SGDG 644 NP/2
Honeywell 2TL1-10
- Fuseholder
E.g.: Schurter FEB 031.1401
- 5A Fuse
- Wire
MIL-W-5086-A type II-16 or
MIL-W-81044/12-16
- Diode, min 10A, e.g. Philips BYX98-300
- Main relay Prestolite SAS 4201 or SAS 9201
or Bosch 0 333 006 004
- Fittings

WEIGHT AND

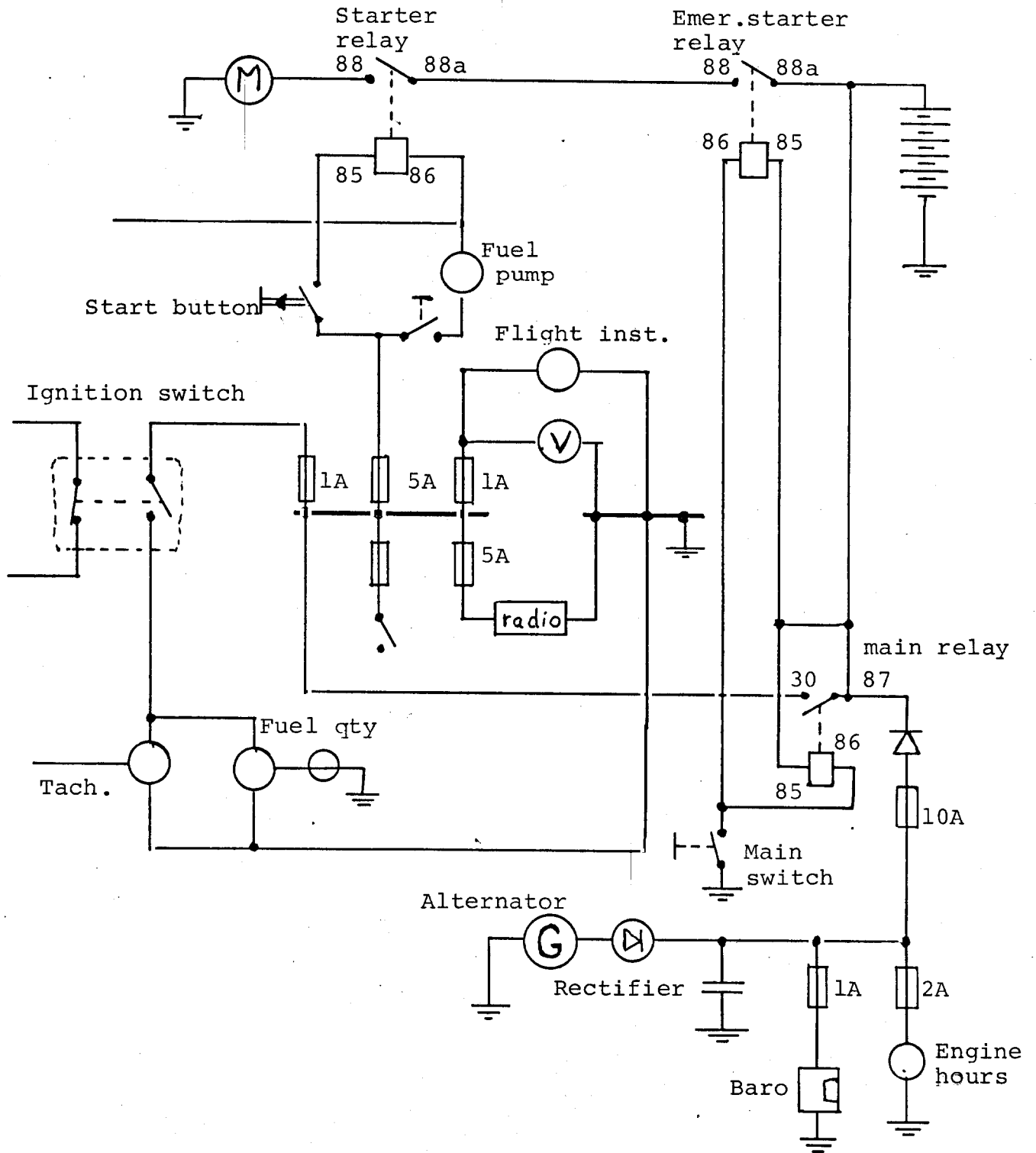
BALANCE

No effect.

APPROVED BY THE
NATIONAL BOARD OF AVIATION
IN FINLAND

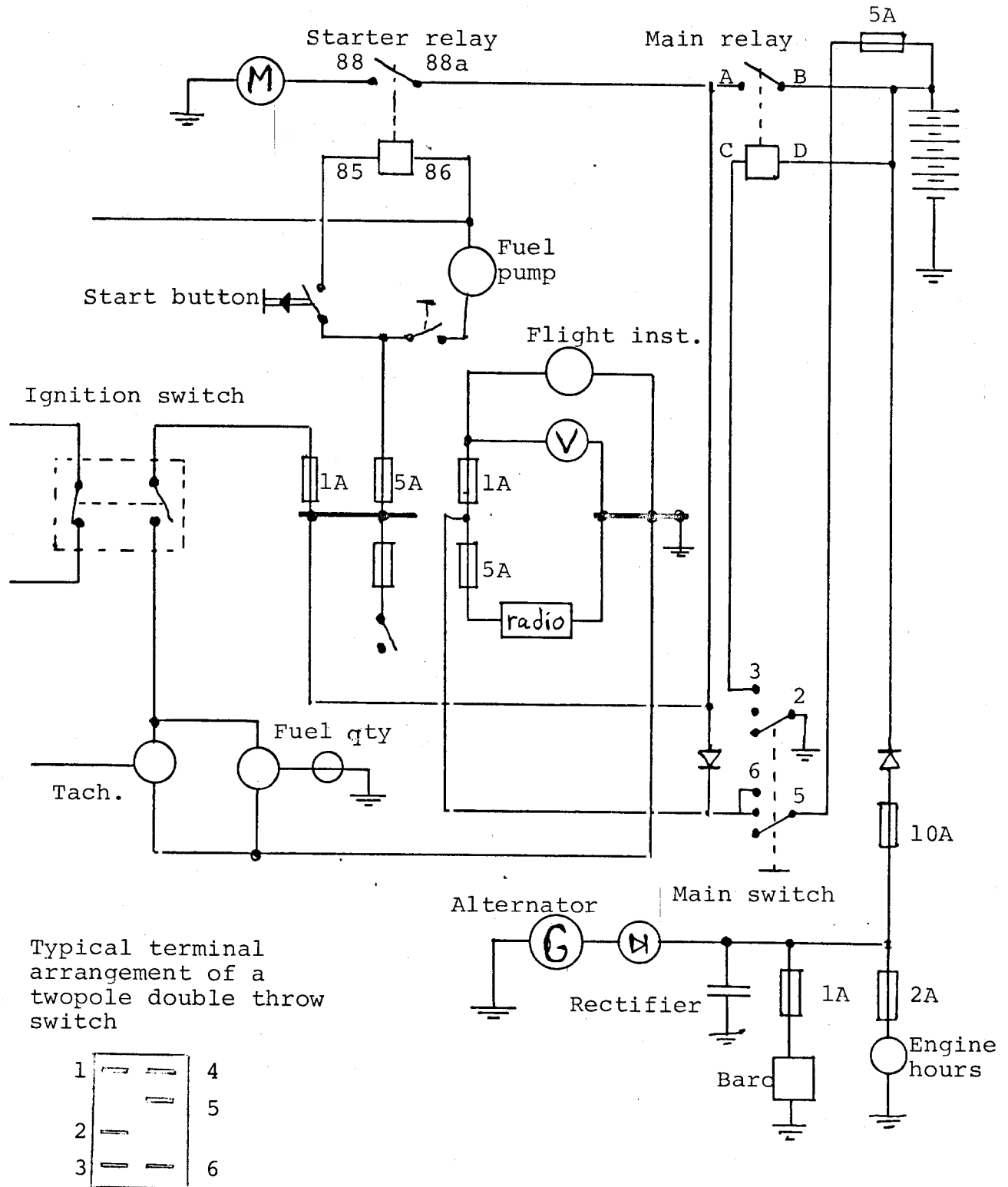
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ORIGINAL



Wiring diagram 1.

NEW SYSTEM



Wiring diagram 2.