

Techincal Bulletin

#1999-0001

Models Affected: 500 Series

Part No: 5371-1101

Common Name: 100 board

Previous Part Number: 5371-100

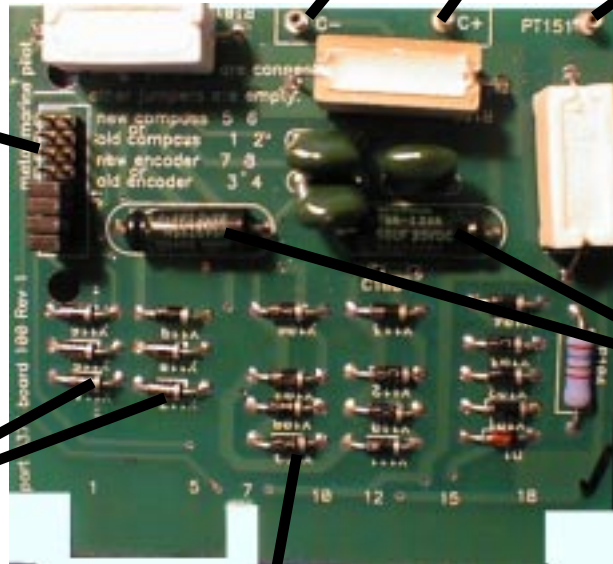
Test Points

C-

C+

151

Selection Jumpers



Note 1

Note 2

Note 1- The 3 diodes may be replaced with a single zenor diode on some versions of the board

Note 3

Note 3 - These 4 diodes may be eliminated from some versions of the board.

Note 2 - There may be only one capacitor of different value on some versions of the board.

ACTION:

We are now shipping a new style 100 board for installation in all Model 500 Autopilots. Part number for this new board is 5371-1101.

FUNCTION:

This board provides the necessary outputs to operate all Model 500 Autopilot installations.

The new board differs from previous models in several ways, the most obvious being: different component layout, the presence of a set of jumpers and 3 test point terminals.

New component layout eliminates heat concentration in one area of the board by separating the 5-watt resistors from each other.

Jumpers allow this 100 board to power a Model 500 Autopilot with the standard compass and encoder sensors or one with new style compass and encoder sensors. It can also power a Model 500 Autopilot with any combination of old and new sensors. (Refer to Tech Bulletin 1999-3 Dated 2-25-99)

Test points allow centering of the 200 & 400 boards, and encoder & compass sensors according to past procedures and also allow a similar procedure and function on new style compass and encoder sensors and amplifiers. The Test Points have been moved to the outer edge of the board to facilitate servicing.

SETUP AND TESTING:

Page 1 of this Bulletin shows the board from the component side.

Jumpers: A row of jumper pins and jumpers is located on the left side. Jumper pairs are numbered from bottom to top (1-8). A table showing jumper position for various components is located just to the right of the jumper pins. Jumper pair 1 & 2 is used with old style compasses. Jumper pair 3 & 4 is used with old style encoders. Jumper pair 5 & 6 is used with new style compasses. Jumper pair 7 & 8 is used with new style encoders. No more than 2 jumper pairs are ever used at the same time. Any combination of old and new style compass and encoder sensors can be used.

Test Points: Test points labeled "PT151", "C-" and "C+" are located along the top edge of the board. Test point "PT151" is the same reference point as was used on previous 100 boards for centering of 200 & 400 boards and compass and encoder sensors when using a voltmeter. Test points labeled "C-" and "C+" are used when centering new style compass and encoder amplifier boards and sensors and as a alternate point for checking any 500's "C" voltage level (11 to 14vdc).

Test Procedures: We recommend completing 200 & 400 board, Compass and Encoder centering procedures when ever any of those components are replaced. WOOD FREEMAN Field Test Meter board centering procedure and results do not change from those stated in the Trouble Shooting - Service 2 Instructions when using the new 5371-1101 board and *original* style Compass and/or Encoder. Detailed alignment procedures will accompany the new amplifier boards and sensors when shipment begins.