



03-014B
2 May, 2007

SUPPRESSION DIODE INSTALLATION ON THE V/F BOARD (00514)

I. PURPOSE:

To inform our customers on the installation of the suppression diodes on the V/F PCA board, p/n 00514. The addition of these diodes helps to protect the DAC's on the V/F board from lightning strikes and fluctuations in AC line voltage.

II. TOOLS:

Phillips head screwdriver #8 and #4
Flat head screwdriver
Needle nose pliers
Diagonal Cutters
Soldering iron

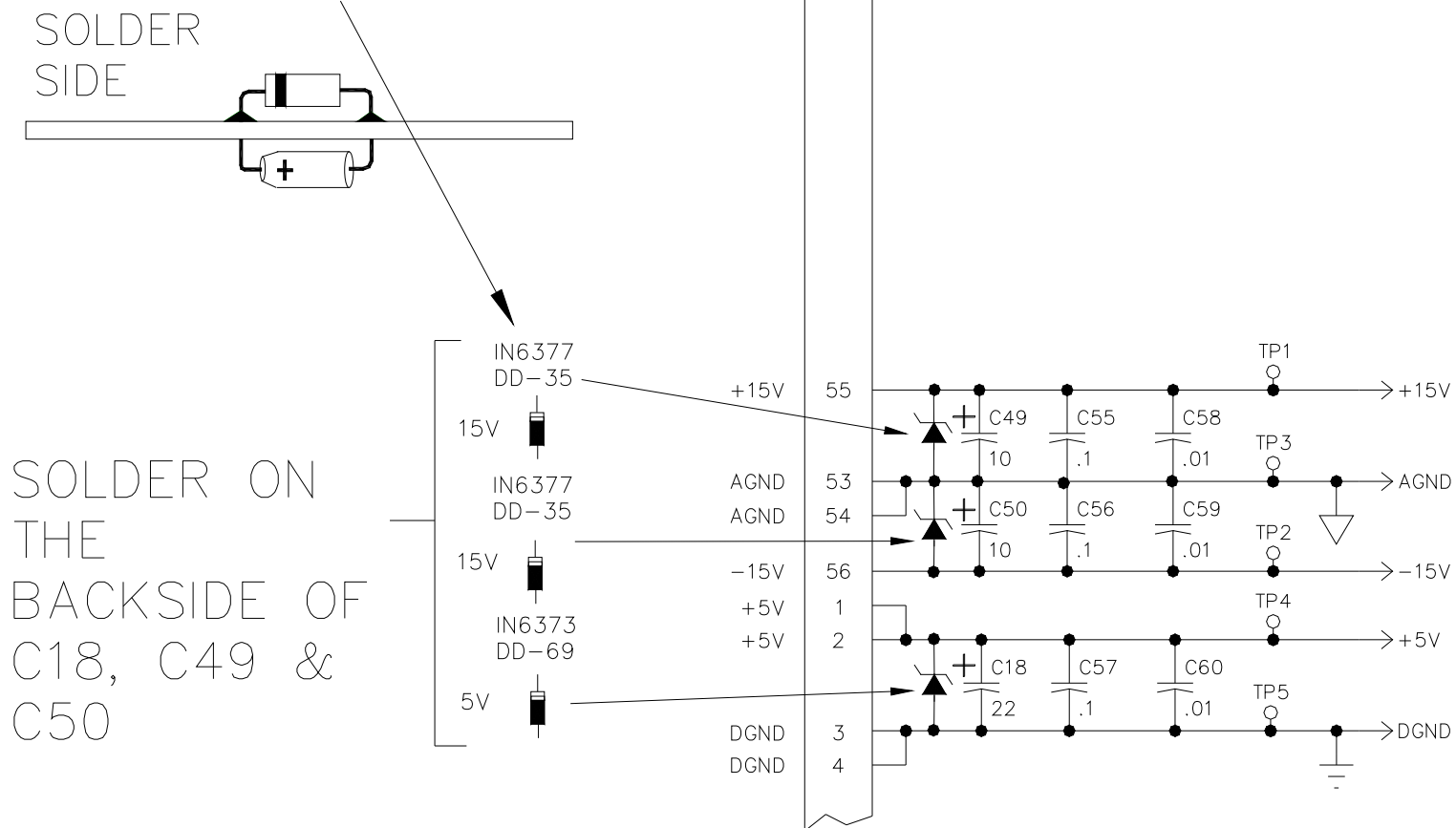
III. PARTS:

DD0000035 diodes	1N6377 15V	X2 per board
DD0000069 diodes	1N6373 5V	X1 per board

IV. PROCEDURE:

1. Power down the analyzer and remove the power cord.
2. Remove the Phillips head screws on the sides of the analyzer and loosen the middle captive screw on the back of the analyzer (if installed) and lift off the cover.
3. Attach a wrist grounding strap to bare metal in the instrument to ensure ESD protection.
4. Loosen the thumbscrew on the bar that is holding the PCA cards in place, and swing the bar out from on top of the boards. Loosen the captive screw that is located on the back-plane that is holding the CPU and V/F boards in place.
5. Remove any power or ribbon cables that are attached to the boards and pull the V/F and CPU board out of the Motherboard.
6. Remove the spacer and the Phillips head screw that is holding the CPU and the V/F board together. Remove the V/F board from the back-plane.
7. Locate C18 (see fig. 2) on the V/F board and note the Polarity of the capacitor. Solder the 5V Suppression Diode (DD000069 1N6373) in parallel with C18 on the solder side of the board. Make sure to note the polarity of the Diode, the bar side of the diode should be connected to the +Positive side of the capacitor (see fig 3).
8. Trim any extra lead from the diode to prevent shorts, and push the diode against the board.
9. Locate C50 (see fig 2) and repeat steps 7 and 8 with the 15V suppression diode (DD000035 1N6377).
10. Locate C49 (see fig 2) and repeat steps 7 and 8 with the 15V suppression diode (DD000035 1N6377).
11. Follow steps 2 through 6 in reverse order to put analyzer back together.
12. Apply power to the analyzer.
13. Test the analog output using the analog output test in the DIAG menu.
14. The analyzer is now ready for use.

V/F SCHEMATIC



2. CAPACITANCE IS IN MICROFARADS
 1. RESISTANCE IS ON OHMS.
 NOTES: UNLESS OTHERWISE SPECIFIED

Figure 1

Suppression Diode Installation on the V/F Board
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V/F BOARD LAYOUT

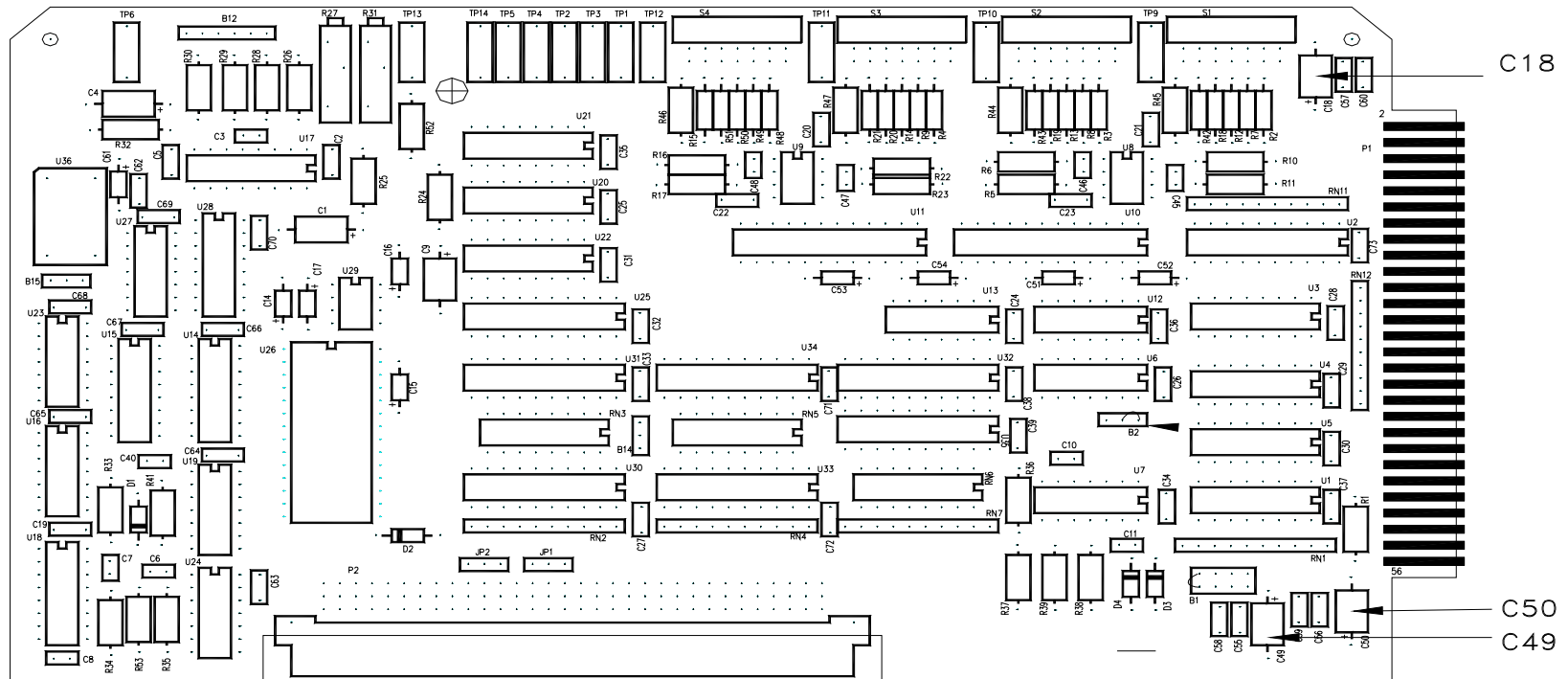


Figure 2

Suppression Diode Installation on the V/F Board

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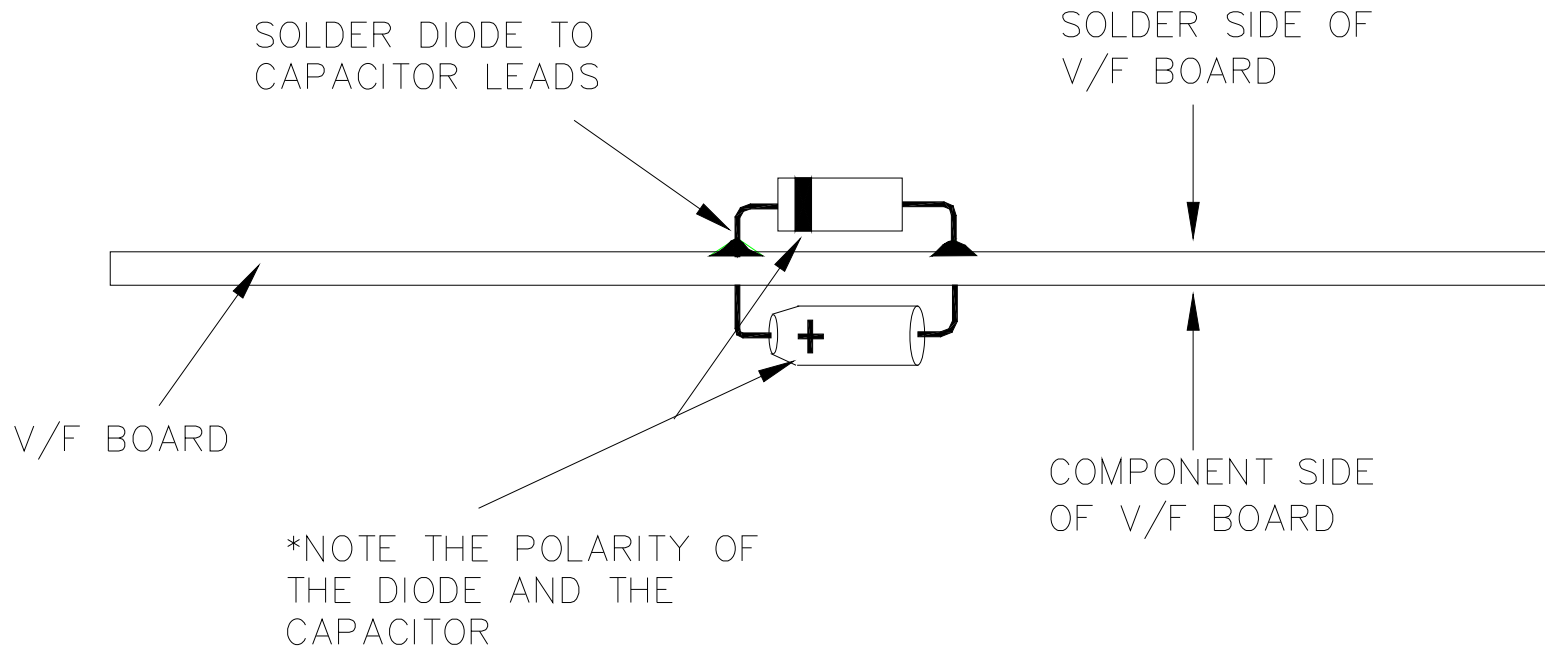


Figure 3

Suppression Diode Installation on the V/F Board

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