KV Board Installation

1. Introduction

The kV board may need to be replaced when the system triggers incorrectly or kV output is incorrect.

2. Specifications

The following is a list of specifications.

KV Board

Max input voltage:	25 Vdc
Nominal voltage:	24 Vdc
Input control:	0–10 V 4–20 mA with a 470 ohm resistor
Output to multiplier:	6–21 V
Current limiting uA feedback:	100 uA
Fuse:	1 A; 125 V

Multiplier

The kV board can be used with two multipliers:

Sure Coat	95 kV scaling; 100 uA; 8 V
Versa-Spray	100 kV scaling; 100 uA; 6 V

PLC Control

4–20 mA; 470 ohm resistor across pins 3 and 4; for 0–10 V control, the resistor needs to be removed.

Connector J1 Description

See Figure 1. Table 1 provides a description of the pin-outs for connector J1 on the kV board.

CAUTION: Pin 9 must be connected to chassis ground or damage to the components may occur.

Table 1 Connector J1 Description

Pin No.	Description
1	+24 Vdc
2	Ground
3	Control input (negative)
4	Control input (positive)
5	Output voltage (current out — uA feedback) 8 V; 100 uA (Sure Coat) 6 V; 150 uA (Versa-Spray)
6	N/C
7	Trigger signal (reference ground)
8	Output voltage (6–21 Vdc)
9	Ground chassis
10	Gun feedback voltage

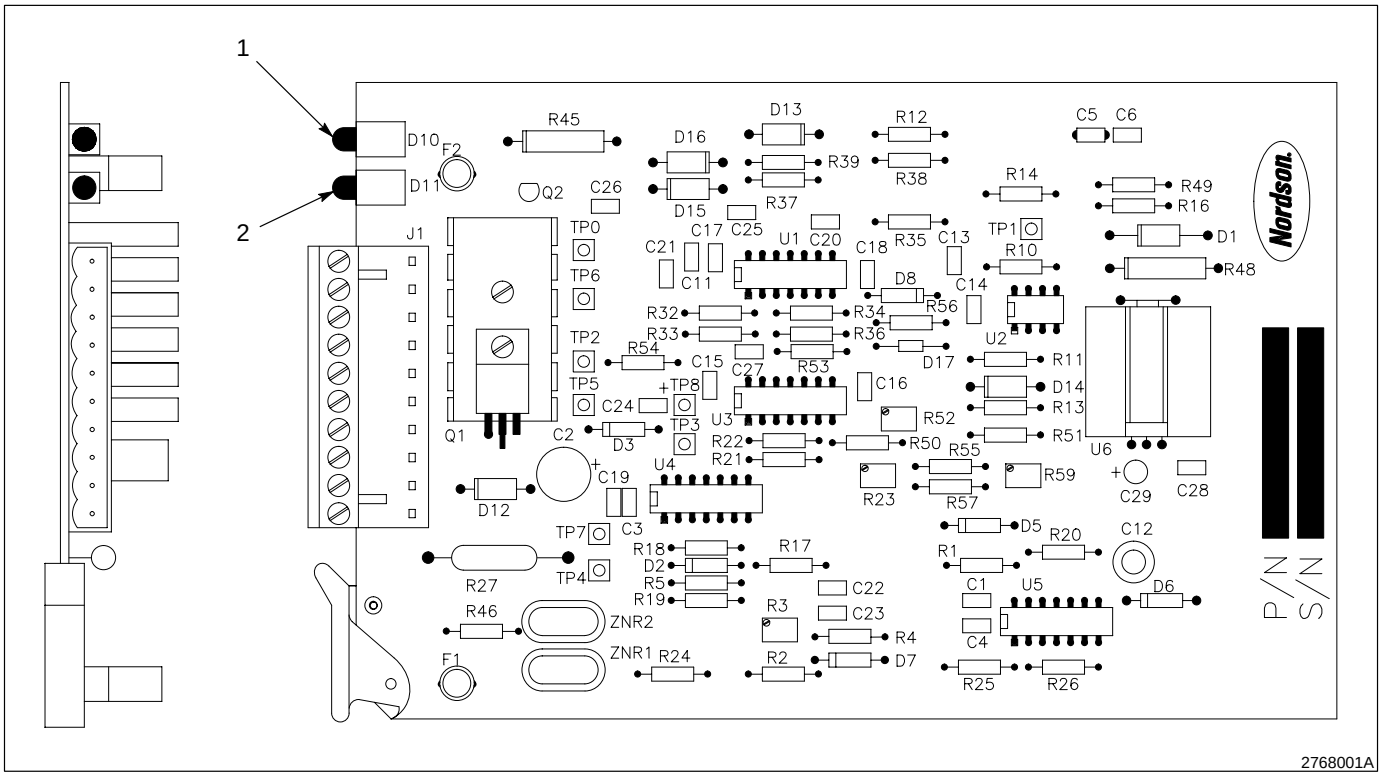

Fig. 1 KV Board Layout

1. Green LED — power
2. Amber LED — trigger

3. Installation

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

KV Board

Remove the kV board as follows:

1. Make sure that power is turned off to the kV board.
2. Disconnect the cable from J1 on the kV board.
3. Remove the kV board from the cabinet or panel.

   NOTE: The kV board's location is dependent on your system's configuration. Typical mounting is on a panel or in a cabinet.
4. Install the new kV board.
5. Connect the cable to J1 on the kV board.
6. Power on the kV board.
7. See Figure 1. Verify that the green LED (1) is on and the amber LED is off.
8. Trigger an application that corresponds to the kV board and verify that the amber LED (2) is on.
9. Check for a kV output at the applicator.

4. Troubleshooting

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

If no kV output is present, perform the following procedures.

1. See Figure 1. Check if the green LED (1) is lit.
2. Check fuses.
3. Trigger the system and check that the amber LED (2) is lit. Check that kV is present at applicator.
4. Check for a 0–10 V or 4–20 mA signal. Depends on your control input on pins 3 and 4.
5. Check the output for 6–21 Vdc on pin 5 and ground.

5. Parts

Refer to the following parts list for kV board information.

Part	Description	Quantity
327 604	Circuit board, kV control, 95 kV	1
329 739	Cable, circuit board, 95 kV	1
287 058	Fuse, 1 amp, 250 volts	2

6. Circuit Diagram

Use Figure 2 for reference.

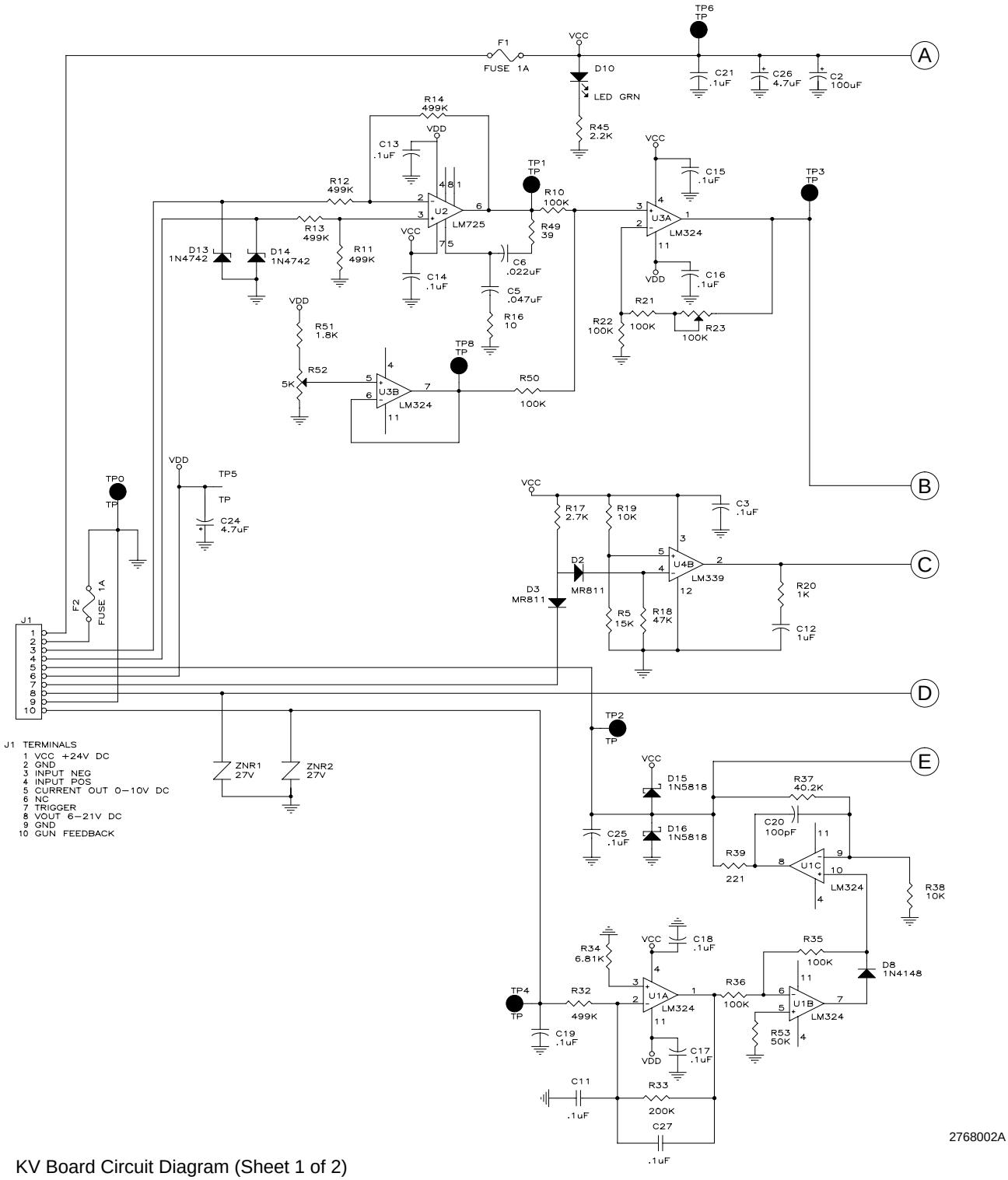

Fig. 2 KV Board Circuit Diagram (Sheet 1 of 2)

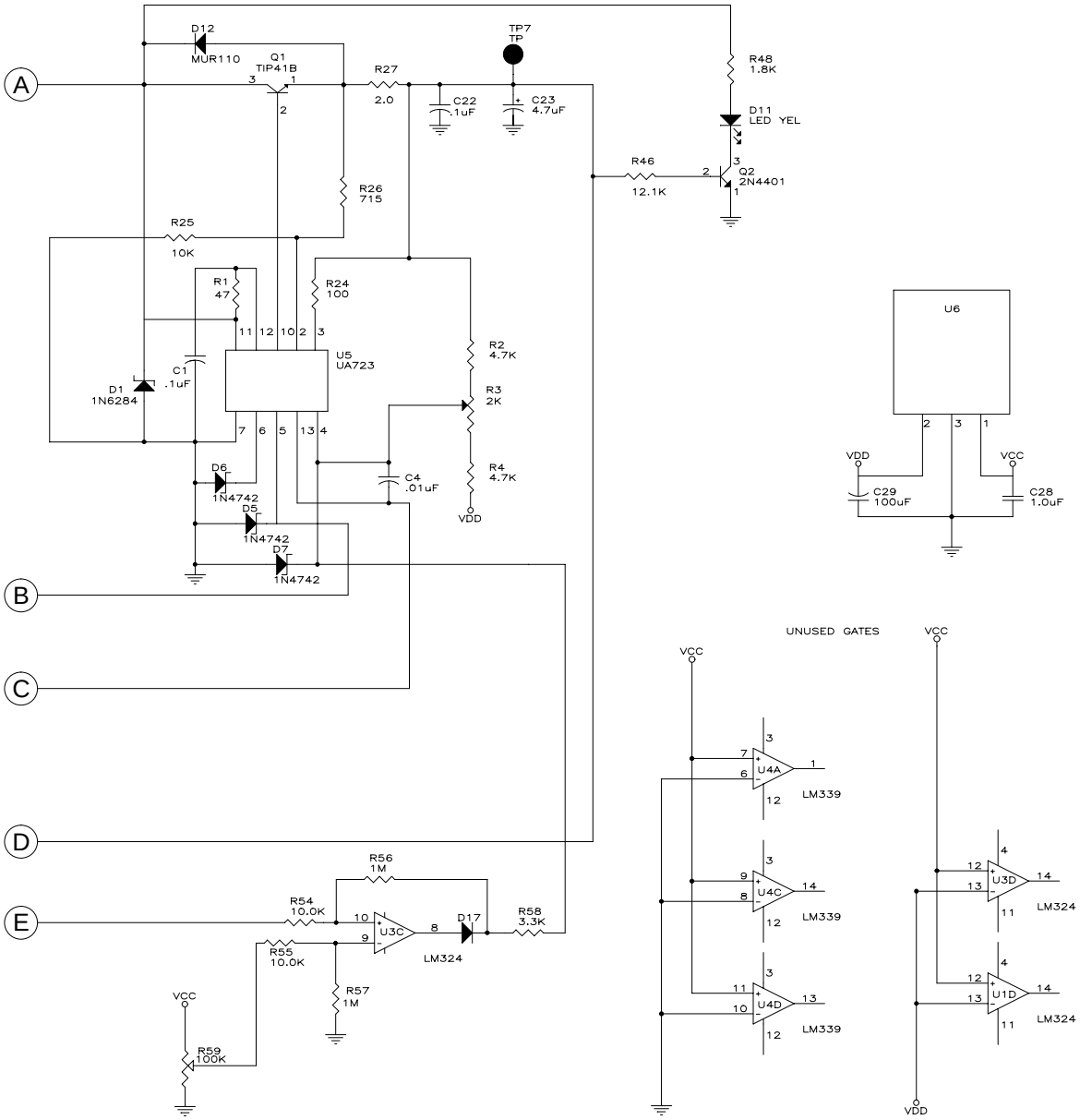

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Fig. 3 KV Board Circuit Diagram (Sheet 2 of 2)