

**Spectroscopy Amplifier  
Model 2026X-2**

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**User's Manual**  
CSERF 5393

# Addendum to the 2026 Manual for the 2026X-2

The Model 2026X-2 Spectroscopy Amplifier is as described in the Model 2026 manual except for the Shaping Times, which have been doubled to provide shapings of 1, 2, 4, 8, 12 and 24  $\mu$ s.

## CSERF 5393

### 1. Manual PUR Threshold

Provisions have been added to set the PUR Threshold manually in addition to the normal automatic function.

In some cases, you may want to set the PUR Threshold manually. For best performance, set the PUR THRES just above the system noise level.

- a. Remove the right side cover and move jumper plug W3 from the AUTO position (1/2) to the manual position (2/3). Jumper plug W3 is located between ICs A19 and A32 at the bottom, right corner of the PC board near the NIM power connector.
- b. Set the Amplifier Gain and Shaping as required.
- c. Remove all excitation sources from the vicinity of the detector.
- d. Make sure the C1514 cable is installed between the 2026 and host ADC to enable PUR/LTC.
- e. The following step is to optimize the discriminator sensitivity to insure the threshold is at its lowest setting, just above the system noise level.

Adjust the 2026 PUR THRES control fully counter clockwise (CCW). The PUR ACCEPT/REJECT LED indicator continuously glows red. The discriminator is now set into the noise.

Next, adjust the PUR THRES control clockwise (CW) until the ACCEPT/REJECT LED indicator begins to occasionally blink green. The PUR THRES is now just above the noise threshold and is properly set.

NOTE: With manual PUR THRES selected, the PUR THRES must be rechecked and adjusted if the Detector/Preamplifier or the Amplifier Gain or Shaping are changed.

### 2. Fast Discriminator Shaping Time

The fast discriminator time constant has been changed from 43 ns to 1  $\mu$ s.