

## Instructions for using DRI-DYE® Check Strips to assure quality performance of your microplate reader

1. If your instrument is able to read in both 1-12 and A-H read directions, choose the 1-12 direction and place the strip in row A1-A12 of the strip tray provided, with the tab end at well A12.

If your reader can read only in the A-H direction, carefully break the strip between wells 8 and 9 (counting from the non-tab end), then place the first 8 wells in positions A1-H1 of the strip tray and the last 4 wells in positions A2-D2, with well #9 in position A2.

To assure proper placement, verify that the tab end of the strip is at position A12 if reading 1-12, or D2 if reading A-H. Press the strip firmly into the tray.

2. After placing the strip in the strip tray, prepare the Dri-Dye® Check Strip according to the package insert. Insure that the plate reader has been turned on and warmed up according to its instruction manual when you are ready to read the strip.
3. Load the strip tray into the reader so that position A1 is the first well to be read. Well A1 contains the blank material, and the second well (A2 for 1-12 reading, B1 for A-H reading) contains the standard material.
4. If you are using a Stat Fax® 2100 or similar model, select the Single Calibrator mode by pressing the STND or CAL key. Blanking occurs automatically on well A1 and standardization on the second well. For other readers, set up a concentration calculation based on a single standard located in the second well with a blank in well A1.
5. Select the appropriate wavelengths for the check strip you are using. The acceptance criteria provided in this check set are based on bichromatic reading. Any available wavelength between 600-650nm may be used as the differential wavelength.
6. Select a concentration value of 50 for the calibrator/standard, and set up the instrument to read the calibrator and all samples singly, NOT in duplicate.
7. For Stat Fax® 2100 and similar models, press the END key. The display will show "Where is Last well?" The instrument will first ask for the plate number (1-9), then the row letter (A-H), and finally the well number (1-12). To stop the plate reader after reading the Dri-Dye® Check Strip in the 1-12 direction, enter the plate number (1), the row (A), and the well number (12). To stop after reading in the A-H direction, enter the plate number (1), the row (D), and the well number (2).
8. Read the strip, then repeat the reading to allow repeatability calculations. If you are using the END function, select plate number 2 and the same row and well locations as before.
9. If the instrument has only 1 optical system, such as the Stat Fax® 2100, readings are only required in 1 position. For instruments that perform 8 simultaneous readings, the check strip must be read in each of the 8 possible positions (A-H) to assure quality performance in all of the 8 optical channels. Move the strip from row A to row B, read again, and repeat until the strip has been read in all positions.
10. For alignment checks of the Stat Fax® 2100 or similar model, select the Absorbance Mode (ABS key), choose your wavelengths, press the blank key, then read the first strip (use END). Then, reverse the strip holder so the strip is contained in the H row, with well 12 in well H-1. Press READ to read the strip again without re-blanking. The well-to-well repeatability comparisons should read within the specifications on the Repeatability Chart from the test kit. Consult the manufacturer of your microplate reader for further advise on positional checking. The strip can be read in as many positions as desired, and all results should fall within the acceptability criteria for a single read position.