

## FAQ Note

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### FA-6 Error Code

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**Problem:**

The instrument shows “FA 6” on the display and the output is frozen at full scale.

**Explanation:**

The FA 6 error code indicates that the instrument is using the Non-Linear conversion table, but the measured value can not be converted, because it is either too low or too high. The non-linear table consists of up to 100 data point pairs, “X” and “Y”. The “X” is a measured value, and the “Y” is the converted value for that X. When the instrument measures a value that is lower than the lowest “X” or higher than the highest “Y” then it can not make a conversion, and the “FA 6” error is put on the display. The measured value is outside the realm of the conversion table.

**Solution:**

There are two solutions to the FA 6 problem:

- 1 - Make the realm of the conversion table larger by adding one or two new data point pairs with Lower and Higher X values, as needed to include the lowest and highest possible measured values.
- 2 - Find out why the measured value is outside the realm of the existing table. This usually means that a calibration function was not performed correctly. Repeat the following steps for the appropriate model:

1271:

1. Enter the programming mode by momentarily jumping terminals 3 & 4, the display will read “run”.
2. Scroll up to “InFAC” and press the SET button.
3. In the InFAC menu scroll up to “ALIGn” and press the SET button.
4. Enter the value of the PRESENT POSITION of MAGNET #1 (closest to the head of the linear sensor), making sure that the sign and decimal place are correct. This number must be within the realm of the non-linear table. Press the SET button.
5. Press the ZERO button until the display reads “run” then press the SET button.
6. The display should be reading a number and not the FA 6 error code.

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## 1511-Z:

1. Enter the programming mode by momentarily jumping terminals 3 & 4, the display will read “run”.
2. Scroll up to “COnFI” and press the SET button.
3. Scroll up to “SYCAL” and press the SET button. The display should read “00000” with the first “0” flashing.
4. Input a known signal stimulus to the instrument, from the sensor, that is near the LOW end of its signal range, such as a 4.00mA signal.
5. Enter the corresponding display value for this input signal. Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the SET button.
6. The display should read “00000” with the first “0” flashing.
7. Input a known signal stimulus to the instrument, from the sensor, that is near the HIGH end of its signal range, such as a 20.00mA signal.
8. Enter the corresponding display value for this input signal. Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the SET button.
9. Press the ZERO button until the display reads “run” then press the SET button.
10. The display should be reading a number and not the FA 6 error code.

## 1511-LTC: (See document #000-1107, perform steps 1.2 through 1.10.)

1. (See Step 1.2) Enter the programming mode by momentarily jumping terminals 3 & 4, the display will read “run”.
2. (See Step 1.3) Scroll up to “COnFI” and press the SET button. Scroll up to “SYCAL” and press the SET button. The display should read “00000” with the first “0” flashing.
3. (See Step 1.4 & 1.5) Disconnect the field wiring from terminal A. Connect terminal A to terminal E on the 1511-LTC with a separate jumper wire. This will provide the same signal to the 1511-LTC input as the LTC would provide at its lowest tap position.
4. (See Step 1.6) Enter the value of the lowest tap on the LTC, locate the decimal point properly, and select the proper sign (e.g. Lowered Tap 16 = “**16.000, nEg**”). Press the SET key. The display should read “**00000**” with the first “0” flashing.
5. (See Step 1.7 & 1.8) Remove jumper from terminal E, leaving it connected to terminal A. Connect this jumper wire to terminal F. This will provide the same signal to the 1511-LTC input as the LTC would provide at its highest tap position.
6. (See Step 1.9) Enter the value of the highest tap on the LTC, locate the decimal point properly, and select the proper sign (e.g. Raised Tap 16 = “**16.000, POS**”). Press the SET key. The display should read “SYCAL”.
7. (See Step 1.10) Remove the connection described in step 5(step 1.8): Remove jumper wire completely from terminals A and F. Re-connect the field wiring to terminal A.
8. Press the ZERO button until the display reads “run” then press the SET button.
9. The display should be reading a number and not the FA 6 error code.

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1810:

1. Enter the programming mode by momentarily jumping terminals 3 & 4, the display will read “run”.
2. Scroll up to “COOnFI” and press the ENTER button.
3. Scroll up to “HGcAL” and press the ENTER button. The display should read “00000” with the first “0” flashing.
4. Input a known signal stimulus to the instrument, from the sensor, that is near the LOW end of its signal range, such as a 4.00mA signal.
5. Enter the corresponding display value for this input signal. Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the ENTER button.
6. The display should read “00000” with the first “0” flashing.
7. Input a known signal stimulus to the instrument, from the sensor, that is near the HIGH end of its signal range, such as a 20.00mA signal.
8. Enter the corresponding display value for this input signal. Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the ENTER button.
9. Press the CANCEL button until the display reads “run” then press the ENTER button.
10. The display should be reading a number and not the FA 6 error code.

1872:

1. Enter the programming mode by momentarily jumping terminals 3 & 4, the display will read “run”.
2. Scroll up to “COOnFI” and press the ENTER button.
3. Scroll up to “FLO1” and press the ENTER button.
4. Scroll up to “Ht” and press the ENTER button. The display should read “00000” with the first “0” flashing.
5. Enter the corresponding display value for the PRESENT POSITION of FLOAT 1 (closest to the head of the level sensor). Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the ENTER button. The display should read “Ht”.
6. Press the CANCEL button once, the display should read “FLO1”.
7. If there is a second float on the level sensor, scroll up to “FLO2” and press the ENTER button. If there is only one float, skip to step #11.
8. Scroll up to “Ht” and press the ENTER button. The display should read “00000” with the first “0” flashing.
9. Enter the corresponding display value for the PRESENT POSITION of FLOAT 2 (closest to the tip of the level sensor). Make sure the decimal place and sign are correct. This number must be within the realm of the non-linear table. Press the ENTER button. The display should read “Ht”.
10. Press the CANCEL button once, the display should read “FLO1”.
11. Press the CANCEL button until the display reads “run”.
12. The display should be reading a number and not the FA 6 error code.