

# **CORNELL MODEL NC-102D – CALIBRATION PROCEDURE**

## **WHEN SHOULD CALIBRATION BE PERFORMED?:**

- A. **NEW SYSTEM INSTALLATIONS:**  
Cornell recommends that the Calibration procedure should be performed for new systems, regardless of the equipment used in the system.
- B. **IDLE CURRENT ON S, F, OR P:**  
The NC-102D will require calibration when there will be any idle current on any of the Current-Sensing Outputs “P”, “F”, or “S”, with no calls entered into the system.  
  
An example of idle current is when one or more Cornell Z-103 zone lights are installed in the system. (The circuitry within the Z-103 draws current, even when no lights are illuminated.)
- C. **ADDITIONS / CHANGES TO AN EXISTING SYSTEM:**  
If Z-103 Zone Lights, or other idle current devices are added to an existing system or removed, or if the NC-102D replaces an older model controller, re-calibration will be necessary.

## **WHAT SWITCHES ARE USED IN THE CALIBRATION PROCEDURE?:**

The following descriptions assume that the NC-102D is mounted with:

- 14-Position Terminal Strip – at Bottom
- Large Integrated Circuit Chip – at Top

The following two switches will be utilized:

- S1 = Sliding “CAL” switch - located at Top Center of circuit board
- S2 = Small Momentary Pushbutton “RST” – located at Top Left of circuit board (Near jumper block)

## **CALIBRATION PROCEDURE:**

Follow the following steps EXACTLY, in order to calibrate the NC-102D Controller:

1. **CHECK SYSTEM FOR ACTIVE CALLS**  
Make sure there are no active calls in the system.
2. **SET S1:**  
Move the sliding switch (S1, labeled “CAL”) to the right (AWAY from the adjacent Red LED).
3. **PRESS AND RELEASE S2 –** Momentarily press the system reset switch (S2, labeled “RST”).
4. **OBSERVE RED DIAGNOSTIC LED “DS2”** (located adjacent to Switch S1):  
After Switch S2 is released, LED “DS2” should perform the following sequence of events:
  - Initially, it will illuminate in a Steady manner for a few seconds
  - It will start blinking rapidly (you will clearly see the on/off flashing) – this flashing indicates that system calibration is complete.
5. **TURN CALIBRATION SWITCH “S1” OFF:**  
Move the sliding switch (S1, labeled “CAL”) to the Left (TOWARDS the adjacent Red LED).
6. **OBSERVE RED DIAGNOSTIC LED “DS2”** (Same Red LED as before):  
After Switch S1 is turned off, this LED should also turn off.

END OF PROCEDURE - The NC102D system is now ready for operation.