

# **FIRE-LINK® II**

## **DEMO KIT LITE USER'S GUIDE**



## 1.0 Introduction to Demo Kit Lite

The Demo Kit Lite is a miniature version of the Fire-Link® II Demo Kit. It consists of an NMC Lite (NMCL) and up to three (3) off-the-shelf ISD-2501 Horns or Horn/Strobe units. The NMCL is an ISD with special programming to emulate certain communication and supervisory functions normally conducted by an NMC. The NMCL performs many of the same functions that an NMC does such as:

- Enroll and unenroll ISDs
- Supervise ISDs
- Indicate ISD troubles
- Put ISDs into and out of alarm

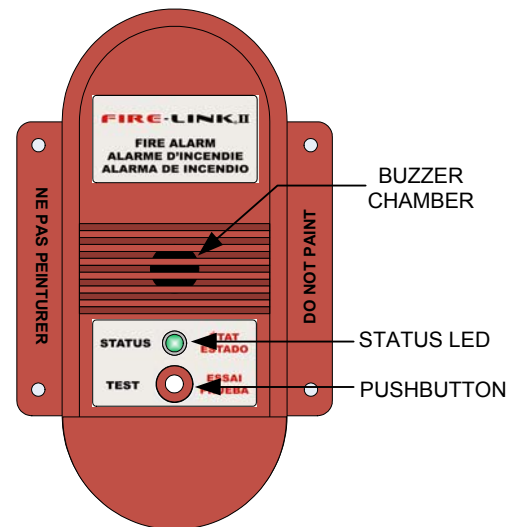
The intent of the Demo Kit Lite is to demonstrate the Fire-Link® II System's ability to communicate and supervise ISDs over the power line as well as demonstrate the functions of the ISDs. It is simple to use and requires virtually no set-up.

## 2.0 General Overview

The user interface of the NMCL consists of one (1) pushbutton, one (1) status LED and the piezo (buzzer). The pushbutton performs certain operations depending on the current state of the NMCL and/or how long the pushbutton is depressed. The Status LED indicates certain states of the NMCL or the status of the ISDs. The buzzer indicates the number of ISDs in the NMCL device list.

The NMCL can be instructed to perform the following with any ISD-2501 Horn or ISD-2501 Horn/Strobe:

- Search for un-enrolled ISDs and add them to its device list
  - up to a maximum of three (3) ISDs
- Enroll the ISDs into its device list
  - Retains its device list after being powered down
  - Re-enrolment of ISDs is not required
- Clear its device list
  - To permit the enrollment of different ISDs
- Put ISDs into and out of alarm
  - The ISD's buzzer will sound the temporal pattern
  - The ISD's strobe will flash if an ISD Horn/Strobe unit is used
  - The ISDs' Horns and Strobes will be synchronized
- Supervise ISDs and indicate the following ISD troubles
  - ISD Missing
  - ISD AC Fail
  - ISD Battery Fault



### \*\*\* IMPORTANT \*\*\*

The NMCL will only work with Fire-Link® II ISD-2501 Horn and ISD-2501S Horn/Strobe, 160kHz Units

## 3.0 Operation

### 3.1 NMCL and ISD Power-Up States

**ISD without Fault:** When any ISD is powered up, it powers up in an un-enrolled state. The Status LED will blink amber until it is enrolled. Once enrolled, the Status LED will be steady green.

### 3.1 (Continued)

**ISD with Fault:** If an ISD is powered up and it detects a fault during its initial diagnostics, such as a missing battery, buzzer or strobe fault or AC power fault, the Status LED will rapidly blink (flash) amber. It will still power up in an un-enrolled state. Once it has been enrolled, the Status LED will change from flashing amber to steady amber.

**NMCL without Device List (Un-Configured):** When an NMCL is powered up and has no device list, it is Un-Configured. An Un-Configured NMCL's Status LED will blink amber, the buzzer will not beep and it will remain in that state until the **Capture Devices** operation is initiated.

**NMCL with Device List (Configured):** When an NMCL is powered up and has a device list, it is Configured. A Configured NMCL's Status LED will initially be steady amber and the buzzer will beep for each device configured in its device list. It will then automatically attempt to enroll each of the devices in its device list. When all of the devices in the device list have been enrolled, the Status LED will be steady green.

### 3.2 Operation of the NMCL and ISDs

**\*\*\* IMPORTANT \*\*\***

The NMCL **MUST** have the ISDs in its device list **AND** the NMCL **MUST** enroll the ISDs for proper operation.

**NOTE:** When an NMCL is shipped from the factory, it is Un-Configured (it has no devices in its device list).

**To Configure NMCL (Capture Devices):**

1. Ensure the ISDs to be demonstrated are completely powered down.
2. Plug in the ISDs and ensure the ISDs' Status LED is blinking amber.
3. Plug in the NMCL, ensure the Status LED is blinking amber.
4. **Capture Devices:** Press and hold the NMCL's pushbutton until the Status LED changes to red/green alternately (4 seconds), then release the pushbutton. Observe the ISDs' Status LED as they will turn to steady green when enrolled. At the end of this operation, the NMCL's Status LED will turn to steady green and the buzzer will beep once for each ISD it found. The NMCL is now Configured and performing normal ISD supervision.

**Note:** If an ISD fails to enroll, ensure that the ISD is blinking amber and repeat step 4 above.

**Note:** The NMCL will retain its device list indefinitely, even after being powered down. To change the ISDs in the device list, the **Clear Device List** operation must be initiated.

**Note:** It is recommended that an Un-Configured NMCL and its ISDs be configured prior to product demonstration.

**To Power Down the NMCL:**

1. Unplug or disconnect the AC power to the NMCL.
2. Press and hold the NMCL's pushbutton until the unit turns off (4 seconds)

**To Power Down the ISD(s):**

1. Unplug or disconnect the AC power to the ISD.
2. Wait approximately 4 minutes then press the ISD's pushbutton. Verify the ISD powers down (LED off).

**To Power Up:**

1. Ensure the Configured NMCL and ISDs are completely powered down.
2. Plug in the ISDs **FIRST**. Verify their Status LEDs are blinking amber.
3. Plug in the NMCL. The NMCL beep once for every ISD in its device list and will automatically begin enrolling the ISDs. Its Status LED will blink amber/green alternately until the operation is complete. When completed, the Status LEDs of the NMCL and ISDs should be steady green. This process should take less than 1 minute.

**NOTE:** If the NMCL fails to enroll all of the devices in its device list, the Status LED will continue to blink amber/green longer than 1 minute and the ISD will continue to blink amber. Relocate the un-enrolled ISD or power down all devices and repeat the steps above.

### 3.2 (Continued)

**To Set ISD Alarm:**

1. Ensure the NMCL is Normal (Steady Green) or Trouble (Steady Amber).
2. Momentarily press and release the NMCL's pushbutton. The NMCL will turn Steady red and the ISDs will go into alarm. The ISDs' buzzer will sound and strobes (if equipped) will flash. The NMCL's buzzer will not sound during alarm.

**To Clear ISD Alarm:**

1. Ensure the NMCL's Status LED is red.
2. Momentarily press and release the NMCL's pushbutton. The NMCL and ISDs will return to their previous states (Trouble or Normal).

**To Demonstrate Supervision (ISD Missing):**

1. Remove the ISD from its receptacle.
2. Return the ISD to the receptacle to clear trouble.

**To Demonstrate ISD AC Fault:**

1. This demonstration works best if a power bar or power cord is used. Remove ISD from receptacle and place it in very close proximity to power cord. Place the ISD such that the power cord is between the AC blades if possible.
2. The ISD is still capable of going into alarm. Initiate **Set ISD Alarm** if desired. Initiate **Clear ISD Alarm** to clear.
3. Return the ISD to the Receptacle to clear trouble.














**Note:** The NMCL does not differentiate between the ISD troubles. A steady amber Status LED indicates any of the ISD Troubles for any one or number of ISDs. The NMCL's buzzer will not sound and troubles will be indicated within 30 seconds. When all troubles are cleared, the Status LED will return to steady green.

**To Clear the NMCL Device List:**

Clear the NMCL device list and Configure (**Capture Devices**) the NMCL if ISDs (or the number of ISDs) to be demonstrated is different than what the NMCL was previously configured.

1. Press and hold the NMCL's pushbutton until **after** the Status LED turns red/green and starts blinking amber (10 seconds), then release.
2. Initiate the **Capture Devices** operation to Configure with new ISDs.

Table A

Fire-Link® II		Demo Kit Lite Operation		
Operation	Pushbutton Activation	NMCL LED		Comments
Capture Devices	Press and Hold for 3 Seconds		Alternately	Searches for Un-Enrolled ISDs – Buzzer Beeps For Each Device
Alarm On	Momentary Press and Release		Steady	Must be in Normal or ISD Trouble
Alarm Off	Momentary Press and Release		Steady	Must be in Alarm
Clear Device List	Press and Hold for 10 Seconds		Blinking	Deletes ALL Devices from Device List
NMCL LED	NMCL State	Comments		
 Alternately	Device Enrollment	Automatically Commences on Power-Up if Configured – Buzzer Beeps For Each Device in Device List		
 Blinking	Device List Empty	Occurs at Power-Up if Un-Configured or After <b>Clear Device List</b> Operation		
 Steady	Normal	Normal Supervision, No ISD Troubles		
 Steady	Alarm	Fire Alarm: ISD Buzzers Sounding and Strobes (If Equipped) Flashing		
 Steady	Trouble	ISD Trouble: ISD Missing, ISD AC Power Fault, ISD Battery Fault, ISD Buzzer or Strobe Fault		
ISD LED	ISD State	Comments		
 Blinking	Un-Enrolled	Always Occurs at Power-Up		
 Steady	Normal	Normal, No ISD Troubles		
 Steady	Alarm	Fire Alarm: Buzzer Sounding and Strobe (If Equipped) Flashing		
 Steady	Trouble	Fault: AC Power Fault, Battery Fault, Buzzer or Strobe Fault, Loss of Communications		