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# StarLink™ SLE Commercial FirstNet FNI Series Dual-Path Alarm Communicators INSTALLATION INSTRUCTIONS



WI2394LF 10/20

## INTRODUCTION

The StarLink™ LTE Series Dual-Path Commercial / Residential Fire alarm capture radio IP communicators are fully supervised, wireless digital two-way subscriber units. All models are compatible with most 12/24VDC alarm control panels (always adhere to the documentation provided by the control panel manufacturer). These communicators are for use as the primary means of communication with the central station and do not have backup mode capability. No POTS (Telco Line) connection permitted. Dual Path Communicators can also be utilized as a Sole Path Cell Communicator. **See WI2140 for programming information.**

The following models are available:

**SLE-FNI-CFB-PS:** Commercial / Residential Fire LTE Radio-TCP/IP Communicator in red metal housing with SLE-ULPS-R power supply and 16.5V / 20VA transformer mounted inside housing

**SLE-FNI-CFB:** Commercial / Residential Fire LTE Radio-TCP/IP Communicator in red metal housing. Powered directly from control panel Aux/Remote Fire Power (no power supply, no transformer, rated nominal 12/24VDC input)

The following features are included with models that include a SLE-ULPS-R power supply:

- Power limited output to the StarLink radio PC board 12V input terminals
- Battery connection red and black flying leads
- Monitored battery charging and Active battery test circuits
- StarLink radio trouble input (from StarLink radio PC board **PGM1** terminal to detect StarLink radio trouble)
- Requires a sealed lead acid min 4AH / max 7AH battery for minimum 24-hour standby time (max charge current 200mA).
- Trouble relay output (**C**, **N/O** and **N/C** terminals) to wire to a panel zone dedicated to "Radio Trouble" (dry contacts). Remove jumper "**J2**" isolate relay OUT1 common from ground
- Green **AC ON** LED visible from the exterior housing
- Yellow **TROUBLE** LED "**D4**" on PC board. Flashes signify:
  - One flash: AC fail / brownout
  - Two flashes: Low battery
  - Three flashes: Charging circuit trouble
  - Four flashes: StarLink radio trouble

The housing-mounted transformer (when provided) is mounted inside its own housing compartment with a replaceable UL Listed .5A fast blow primary fuse. 120VAC connections are to be made by a licensed electrician using suitable connectors, in accordance with N.E.C. and local code requirements.

## ADDITIONAL COMPONENTS

In addition to the models listed above, the following sub-assemblies are available:

**SLE-ULPS-R** - Power Supply. Required for installations where the control panel cannot provide the Auxiliary power required to operate the StarLink radio. Uses a standard 4AH / 12V minimum (7AH maximum, required with optional Wi-Fi Module) rechargeable battery to provide radio standby power. Requires connection to either the model NAPCO TRF12/T123 (16.5V / 20VA) external plug-in transformer or the chassis-mounted 16.5VAC / 20VA transformer affixed inside the housing (see wiring diagrams further in this manual). **Note:** For models without the SLE-ULPS-R, connect the radio terminals 1 and 2 to the control panel Aux Power terminals (observing polarity).

**SLE-WIFI-MODULE** - Allows your Napco StarLink™ device to connect to the Internet by means of a wireless (Wi-Fi) link, eliminating a wired Ethernet cable connection. **Note:** 7AH battery required when using the **SLE-WIFI-MODULE**. For more information, see WI2191.

**SLE-DLCBL** - Download Cable, 6 feet

**SLE-ANTEXT30** - Extended antenna with 30 feet of cable

**SLE-ANTEXT50** - Extended antenna with 50 feet of cable

**SLE-ANTEXT75** - Extended antenna with 75 feet of cable

**SLE-ANTEXT100** - Extended antenna with 100 feet of cable  
 (Any suitable external cellular antenna is permitted by UL). Always follow the manufacturer's installation instructions. **Note:** Antennas are not Listed by UL.

**GEM-Tamperkit** - Tamper switches and screws to protect metal housing (see page 14).

## SPECIFICATIONS

The following specifications apply to all StarLink radio models unless otherwise stated:

**Electrical Ratings for 120VAC, 60Hz  
 For Models with Power Supply**

- Input Voltage: 120VAC nominal

## AGENCY LISTINGS



- UL 864 Standard For Control Units and Accessories For Fire Alarm Systems, 10th Edition
- UL 1610 Standard For Central-Station Burglar-Alarm Units
- UL 985 Standard For Household Fire Warning System Units
- UL 1023 Standard For Household Burglar-Alarm System Units
- UL 1076 APOU Proprietary Alarm Systems
- UL 365 APAW Police Connect

- Input Current: 200mA maximum
- Maximum Charging Current: 200mA

### Electrical Ratings for +12V / 24V For Models without Power Supply†

- Input Voltage: 10-25VDC regulated (power-limited output from Listed control panel Aux/Remote Fire Power).
- Input Current:
  - 10VDC standby: 162mA
  - 12VDC standby: 125mA
  - 15VDC standby: 110mA
  - 24VDC standby: 100mA
  - 25VDC standby: 100mA
- **Wi-Fi Module:** (Optional) Add 40mA to the above. (With peak RF transmission current of 325mA).

### Electrical Ratings for the IN 1 Fire Input:

- Input Voltage: 9-25VDC.
- Maximum Input Current: Up to 2mA from FACP NAC circuit

### Electrical Ratings for IN 2, IN 3, IN 4, and IN 5: (Inputs IN 2, IN 3, IN 4, and IN 5 are Class B)

- Maximum Loop Voltage: 25VDC.
- Maximum Loop Current: 1.2mA
- End of Line Resistor (EOLR) Value: 10K (2 req'd)

### Electrical Ratings for PGM3 Output:

- Open Collector Output: Maximum Voltage 3V when active; 25V maximum when not active.
- Maximum PGM Sink Current: 50mA (up to 15VDC), 25mA (15.1VDC - 25VDC)

### Physical (W x H x D)

- Metal Housing: 11½ x 9½ x 3½" (29.2 x 24.1 x 8.9cm)
- Mounting: Metal housing includes two keyhole slots for wall mounting (see measurements on page 7)

### Environmental

- Operating Temperature: 0°C - 49°C (32°F - 120°F)
- Humidity: Maximum 93% Non-Condensing
- Indoor / dry location use only

## TERMINAL DESCRIPTIONS

Configure all inputs and outputs using the Management Center screen (located at [www.NapcoNOC.com](http://www.NapcoNOC.com)). Located at the bottom of the StarLink radio PC board, the 17 terminals are described as follows:

- TB1: PWR (+10 - 25VDC)**  
(Refer to section "STEP 4: APPLY POWER")
- TB2: PWR GND (-)**  
(Refer to section "STEP 4: APPLY POWER")
- TB3: PGM3 (-):** Open collector output. PGM3 is normally on (active low). When it is triggered (for example, a trouble is detected) it becomes open collector/high. To have a zone dedicated to an StarLink radio trouble, insert one side of the end of line resistor into this PGM3 terminal, and wire the other side of the resistor to the positive terminal of the zone.
- TB4: IN 1 (+):** Smart Channel input. Active high input for wiring to the control panel bell output. When this input detects a pulsing temporal 3 high, it sends a Fire alarm; a pulsing temporal 4 (CO Alarm), a CO alarm is sent. When used, these conductors must be run in conduit (max 20 feet for Commercial Fire, and 3 feet for Residential Fire). For this input to report to a central station, the StarLink radio must be configured with the central station telephone number and correct reporting formats and codes. For more information, see WI2140 located at [www.NapcoNOC.com](http://www.NapcoNOC.com).
- TB5: IN 2 (+):** Fire Trouble input\*\*. Wire to FACP trouble relay N/O with parallel 10K EOLR at FACP.  
**Note:** Inputs IN 2, IN 3, IN 4 and IN 5 can be supervised end-of-line resistor inputs that can be triggered with N/O or N/C relay contacts.
- TB6: IN 2 (-):** See TB5, above.
- TB7: IN 3 (+):** Fire Alarm input\*\*. Wire to FACP Fire Alarm relay N/O with parallel 10K EOLR at FACP.
- TB8: IN 3 (-):** See TB5 and TB7, above.

**Secondary Telephone:** RJ-45 socket for FACP DACT connection.

**Primary Telephone:** RJ-45 socket for FACP DACT connection.

**TB9: IN 4 (+):** Supervisory Alarm input\*\*. Wire to FACP Supervisory relay N/O with parallel 10K EOLR at FACP.

**TB10: IN 4 (-):** See TB5 and TB9, above.

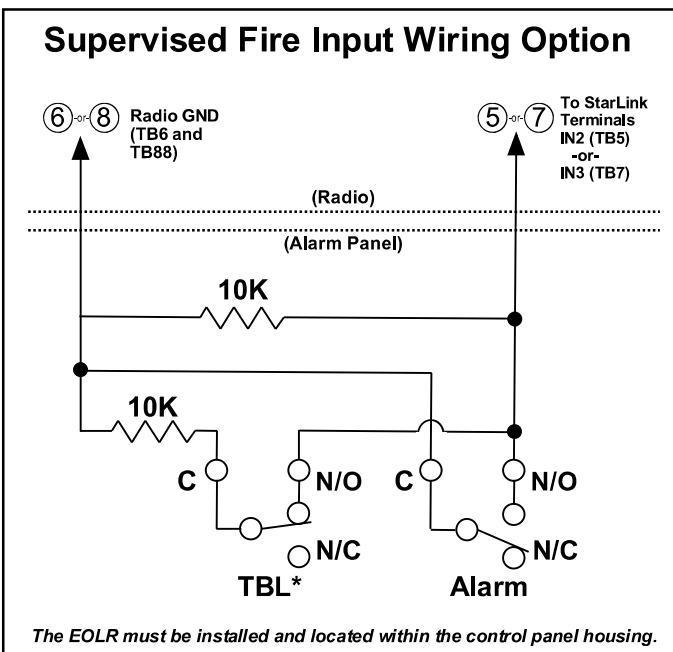
**TB11: IN 5 (+):** Water Flow Alarm input\*\*. Wire to FACP Water Flow relay with parallel 10K EOLR at FACP.

**TB12: IN 5 (-):** See TB5 and TB11, above.

**TB13: GND:** Earth ground terminal.

**Ethernet:** Connect the SLE Dual-Path radio communicator to your broadband modem, router or switch.  
**Note:** The cable modem/router and switch (if any) at the premises requires standby power, therefore a UL 1481 / UL 864 or UL Listed ITE (Information Technology Equipment) UPS must be used at the premises to power these devices for a minimum of 24 hours.

**TB19: N/O OUT1:** Normally open. Dry contact Form C



†For Commercial Fire installations, a UL Listed Fire Alarm regulated power supply or FACP regulated auxiliary output is required.

\*Reverse polarity / energized state.

\*\*Factory default programmed options; may be changed at the NOC website ([www.NapcoNOC.com](http://www.NapcoNOC.com)).