



# NORTHSTAR CONTROLS, LLC

Vehicle Detection, Systems & Accessories



## ES+

NOW AVAILABLE

## NP2 ES PLUS | ACCESS CONTROL

Single Channel Dual Output Plugin Vehicle Detector



Plug-in Compatible with Today's Operators



Digital Display & EZ Tune Technology



Digital Bar Graph for Loop Diagnosis



10 Sensitivity & 4 Frequency Settings



Our Facility  
Sarasota, Florida



Learn more  
[northstarcontrols.com](http://northstarcontrols.com)



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941.926.2454

Built in America, by an American

### Controls

The NP2-ES+ has three front-panel pushbutton switches

- UP / Sensitivity Programming Mode.  
Press and hold for 3 seconds to enter sensitivity mode.  
UP and DOWN buttons may be used to step through sensitivity levels.
- DOWN / Frequency Programming Mode.  
Press and hold for 3 seconds to enter frequency mode.  
UP and DOWN buttons may be used to step through the frequency selections.
- Reset – front panel reset performs a hard reset of the detector and resumes operation using the last programmed settings.

A six position DIP switch on the side of the unit allows the selection of additional operational modes:

Switch No.	OFF	ON
1	Normal	2 Second Delay
2	Normal	5 Second Extend
3	Secondary O/P Pulse on Leaving	Secondary O/P Pulse on Entry
4	Fail Secure Output	Fail Safe Output
5	60 Minute Presence	Permanent Presence
6		Option A ON

### Indications

Single digit 7 Segment Multifunction Display

- In normal operation this display shows the current sensitivity level.
- In Sensitivity Programming Mode, the decimal point flashes and the displayed sensitivity may be changed by manipulating the UP/DOWN pushbuttons.
- In Frequency Programming Mode, the decimal point flashes and the frequency of the loop oscillator in kHz is displayed. This may be changed by manipulating the UP/DOWN pushbuttons. The display alternates digits to show the 'tens' digit, then the 'ones' digit and then a pause.
- When the detector is in fault, the display shows 'OC' for open circuit loop or 'SC' for short-circuited loop.
- When delaying a signal, the display will show 'dL' and when extending a signal 'En' will be displayed.

6 Segment Bar Graph

- 2 red, 2 yellow and 2 green segments.  
In Sensitivity Programming mode, this shows depth of detection as vehicle pass over detection area. A single red led remains lit.  
In Frequency Programming Mode this shows level of interference from adjacent loops. A single green led remains lit.

Detect Led

- Detect led shows a steady blue when in the detect condition.

Additional Indications

- When the detector is in fault, two yellow leds will be illuminated.
- When the detector is tuning to the loop, a green led will be illuminated.

### Outputs

The NP2-ES+ has two outputs, a primary output for normal detection operation and a secondary for additional pulse functionality.

### Output Rating

Solid State both Detect and Fail. 30mA Maximum current sink. Outputs are protected from over-voltage or polarity reversal.

### Supply Voltage

10 to 30 volts DC, 20-25mA nominal.

Note: incorrect voltage supplied to the unit will not result in damage, the unit will simply not operate until correct voltage is supplied. No fuses need to be reset.

### Inductance Range

20uH to 1500uH.

### Temperature Range

-30°F to +180°F

### Lead-In Length

up to 2500 ft. with proper lead-in and loop.

### Mechanical

2.4" H x 2.25" D x 0.8" W.

### Connector

10 position Molex Type 09-48-1104

Pin #	Function
1	Loop
2	Loop
3	Power – 10 to 30 V DC
4	Not used
5	Not used
6	Fail output
7	Fail output
8	Detect output
9	Power – 10 to 30 V DC
10	Power common

