



**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



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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

