iNS2: "iNS" iNavigator 2-Wire Push Button Station

The "iNS" iNavigator 2-Wire Push Button Station (iNS2 PBS) is the pedestrian interface to the iNavigator Accessible Pedestrian System. A system consists of a Control Unit (PN iCCU-S2, iCCU-C2, iCCU-S, or iCCU-C) and a Push Button Station. The iNS2 PBS is an MUTCD compliant PBS and provides valuable information and cues via both a vibrating arrow button and audible sounds, making the intersection accessible for all pedestrians. All sounds emanate from the front and back of the unit. A sunlight-visible red LED latches "ON" along with a tactile feedback "bounce" to confirm the button has been pushed. The vandal-resistant design of the iNS2 PBS includes the body, which houses the ADA compliant push button (shown), a faceplate (5X7 sign shown), and mounting hardware.
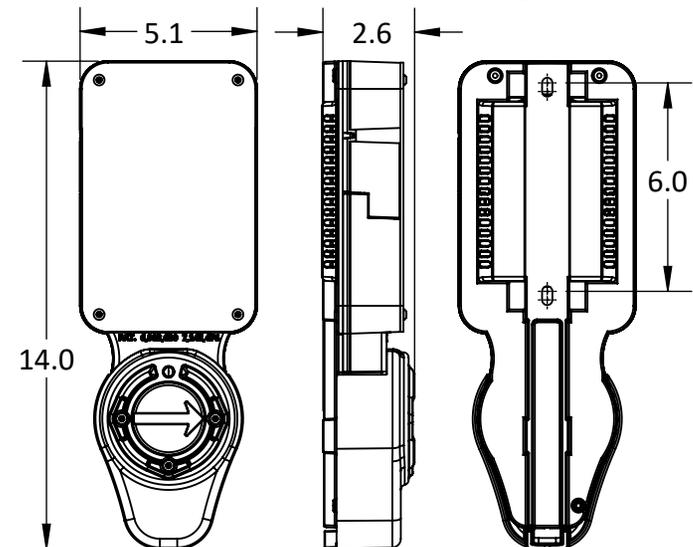
By interfacing with the Central Control Unit (CCU) that installs in the Traffic Cabinet, the iNS2 PBS can provide the following standard features:

- Operates over a single pair of wires
- All PBS wired in parallel, individually assignable to any phase
- 16 buttons can operate on a single iCCU (dependent on power requirements and wire runs)
- All sounds are synchronized
- 4 Locate Tone selectable options
- 13 Walk Sound selectable options, 3 of them custom options
- 7 Clearance Sound selectable options
- Walk, Clearance, and Don't Walk sounds automatically adjust to ambient
- Separate ambient response settings for Locate Tone (for quiet ambient conditions)
- Most sounds have independent Min/Max settable limits
- Button vibrates during Walk
- Button push confirmed by latching LED, tactile bounce, and audible "wait" sound
- Extended button push can boost volume for next Walk and Clearance
- Direction of travel message with extended button push, capable
- Extended Push Priority: mutes all but selected crosswalk, capable
- Extended Push activation settings: 0-6 second range, 0.5 second increments
- Beaconing and Ping Pong features available
- Select audio messages, change settings, and perform firmware updates wirelessly using iOS (9.0+) or Android (5.0+) devices, or a Windows PC with Polara's Bluetooth Dongle (PN iN-DGL, purchased separately)
- Built in health/event logging feature, up to 1000 events
- False walk detection: four independent checks
- External speaker option at time of order
- External button input for bike lanes, horses, etc.
- Warranty: 3 year limited

An iNS2 PBS can operate as an iNS3 (Ped-Head Based System). It comes with a 3-position terminal block to connect to a Ped-Head Control Unit. See iNS3 Quick Start Guide for more information.

For optimum functionality, Polara recommends a dedicated pair of wires be routed to each PBS. Using IMSA 50-2 Cable is an ideal choice. The ground shield does not need to be connected.

Dimensions are in inches. iNS25BN0-Y unit shown.

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Operating Specifications

Parameter	Rating
Operating Temp. Range	-34°C to +74°C (-30°F to +165°F)
Storage Temp. Range	-45°C to +85°C (-50°F to +185°F)
Operating Force	3.0 lbs max, option of 3 adjustable programmed forces
Switch Operating Life	Greater than 20 million operations
Max. Volume	100 dB @ 1 meter

Design Compliance

Functionality Test Type	Compliance
Temperature and Humidity	MUTCD 2009-4E
Transient Voltage Protection	NEMA TS2
Transient Suppression	NEMA TS2
Mechanical Shock and Vibration	NEMA TS2
iNS3 PBS Enclosure	NEMA 250 Type 4X
Electrical Reliability	NEMA TS2

Notes:
1. Lab tested to applicable sections of referenced standards
2. All specifications are subject to change without notice
3. All specifications are typical unless otherwise specified

Termination View: iNS2 Operating as iNS3 PBS

Ped Call Terminal on left. 3-position terminal block on right (for operating as iNS3)

Dimensions are in inches.

iNS2 5 A N 0 - B - BD-ES

Additional Options
Button Options
NA - No Arrow
BD - Bi-Directional Arrow
Other Options
WPC - With pole cap
ES - External Speaker option

Button Cover Color
Back plate is always black.
B - Black
G - Green
Y - Yellow

Audio Message Option
0 - Standard messages
1 - Custom Messages

Braille
N - No braille on faceplate
B - Braille on faceplate

Faceplate

MUTCD Compliant	Non-MUTCD Compliant
V - 9x12 R10-3	A - 5x7- International
U - 9X12 R10-3b	B - 5x7- International
T - 9x15 R10-3e	C - 9X12- Countdown
	D - 5X7 or 9x12- International
	O - No Faceplate

Size of Front Plate Adapter
5 - 5" x 7"
9 - 9" x 12"
3 - 9" x 15"

Navigator Family
iNS2 - iNavigator S 2-Wire Push Button