



DATE: September 20, 2018

TO: Brenda J. Billingsley, Director, Purchasing Division

THRU:

FROM: Scott Brunner, P.E., Director, Traffic Engineering Division

PROJECT TITLE: Polara Engineering Inc. Two - Wire Accessible Pedestrian Signals (APS)

REQUISITION NO.

### SOLE SOURCE/SOLE BRAND REQUEST

I. REQUEST: Provide a description of the features of the product/service or Scope of Work.

The Broward County Traffic Engineering Division (BCTED) is requesting Sole Source procurement for the Polara Two-Wire Accessible Pedestrian Signals (APS) equipment, including the purchase of certified replacement parts and components required for Accessible Pedestrian Signals systems already installed and in use throughout the County at signalized intersections as part of various roadway construction projects, newly constructed traffic signals, signal reconstructions, and private developer transportation projects authorized by Broward County, the Florida Department of Transportation (FDOT), and local municipalities. Accessible pedestrian signals such as the Polara APS system are required to meet Chapter 1 of the ADA accessibility standards as applicable to new signal construction, upgrades to existing traffic signals, or where otherwise requested by the public and can be reasonably accommodated. The Polara Two-Wire Accessible Pedestrian Signals system is presently one of three FDOT approved 2-Wire Accessible Pedestrian Signals systems. The sole source standardization is to include the Polara Audible/Tactile Pedestrian Detector with Countdown Sign, Street Name and Pole Spacers, Cabinet Communications Unit (CCU), Cabinet Control Unit, Interconnect Board and related hardware and Configuration Tool. The sole source standardization relates directly to the proprietary Two-Wire audible / Tactile Pedestrian Detector and its proprietary replacement parts that are required to maintain and repair any aspect of the complete Two-Wire APS systems installed at Broward County maintained signalized intersections, and does not in any way sole source Polara Engineering Inc. as the only Two-Wire Accessible Pedestrian Signals system that can be procured and installed by Broward County; other FDOT-qualified APS systems meeting Broward County technical requirements, and compatible with existing Broward County equipment can also be procured.

II. JUSTIFICATION: Please check all boxes that describe your reason(s) for determining that only one source or brand is reasonably available.

#### Only Sole Source/ Uniqueness

- Proprietary Item - this vendor/source has the only rights to provide this service or commodity. A letter from the manufacturer or authorizing entity is included in this request.
- Technology Improvements - updates or upgrades to an existing system, software, software as a service (SaaS), hardware purchases.
- Engineering Direction - engineering drawing or specification identifies product; "no substitutes or equivalents will be acceptable."
- Only qualified supplier - reliability and maintainability of the product or service would be degraded unless specified supplier is used; may void warranty. This request includes a copy of the current warranty information.
- Other/or Additional information - the County requires this sole source, sole brand purchase for the following reasons:

Florida Statutes 316.0745, and other supporting regulations require that FDOT develop specifications for traffic control devices, including audible / tactile pedestrian detectors (the group of devices that APS systems fall under), before they can be used in the state. FDOT establishes the criteria for equipment testing and approval through their Approved Products List (APL) program that ensures FDOT technical standards and specifications are met. Broward County, through an inter-agency joint participation agreement with FDOT, operates and maintains all FDOT traffic signals on the State Highway System, and therefore can only legally install FDOT APL approved audible / tactile pedestrian detector systems. The Polara Engineering Audible / Tactile Pedestrian Detector equipment has been approved on the FDOT Approved Product Listing (APL Certification Numbers 665-004-004 and 665-004-008). The various individual components of each type of APS systems on Broward County roadways are not interchangeable across the different manufacturer's APS systems. Each manufacturer has unique operating characteristics, hardware, and software which is typically customized, patented and incompatible with other systems. The system manufacturers have designed, tested and certified their systems to function as a complete unified system, and the system's performance is not guaranteed when other non-approved or untested components are substituted into the system.

**Business Case (One/Most Reasonable Source or One/Most Reasonable Brand)**

- Operational Compatibility - replacement parts from alternate suppliers are not interchangeable with original part and causes equipment incompatibility. Previous findings and/or documentation is included with this request.
- Ease of Maintenance - maintenance or retooling prohibits competition. Section III, Comparative Market Research includes estimated costs associated with changing current source and/or brand.
- Follow-On - potential for continued development or enhancement with same supplier and eliminates costs incurred by using different supplier. Section III, Comparative Market Research includes estimated costs for replacing current or existing system.
- Complies with existing community and safety standards, and/or laws, rules, and regulations.
- Exempted from the Procurement Code - per Section 21.18 of Broward County Administrative Code.
- Other/or additional information - using this sole source, sole brand purchase benefits the County for the following reasons:

The safe and efficient operation of the County's traffic signal system relies on the proper operation of the audible/tactile pedestrian pushbutton signal systems as required by the Americans with Disabilities Act (ADA). These systems are critical for the safety of persons with visual disabilities who have to utilize the signalized intersections, and are required by federal law in accordance with governing ADA standards. Therefore, they represent a life-safety feature as well as an efficiency feature to all transportation users. County staff must maintain a surplus stock of the Polara Accessible Pedestrian Signals system equipment and replacement parts available at all times to make immediate repairs to the systems if they were to fail due to damage or impact, vandalism, environmental conditions or end-of-life factors.

III. COMPARATIVE MARKET RESEARCH: Provide a detailed source or market analysis for justification of sole source/brand or most reasonable source (attach extra sheets as needed).

Estimated project value: \$665,230                      Contract length (if applicable): 3 years

Expenses to date: None

Has this commodity or service been previously provided to the County?  Yes     No

If yes, when and by whom? Per above question: BCTED maintains existing systems provided by FDOT

How was item/service procured? N/A

What is the current contract (MA) or purchase order number? N/A

If this is a sole brand, is there an "authorized" dealers list?  Yes     No

Cost/Benefit Analysis: What would the cost be to utilize an alternate vendor or source? This explanation should include the savings and/or additional costs to the County by not using the preferred vendor or source. Attach additional sheets if needed.

Temple, Inc. has been designated as the sole source approved distributor for the Polara Accessible Pedestrian Signals system, through the Sole Brand manufacturer, Polara Engineering Inc. There is currently no alternate vendor or source available as an authorized replacement for this pedestrian detection system. As explained above, the Polara Engineering Audible / Tactile Pedestrian Detector equipment has been approved on the FDOT Approved Product Listing (APL Certification Numbers 665-004-004 and 665-004-008). The only other alternative would be to replace the approximately 240 Polara Audible/Tactile Pedestrian Detector Units at the existing 30 intersections. This would cost approximately \$7,000 to \$8,000 per intersection, or a total cost of \$210,000 to \$240,000. This would represent a highly unnecessary expenditure of taxpayer funds with no actual additional benefit to the system users. Again, it should be restated that the scope of this Sole Source/Sole Brand request does not necessarily prevent the use of other FDOT-qualified APS systems being used for new installations should they meet the project specifications.

CERTIFICATION: I have thoroughly researched the sole source or sole brand justification and fully understand the implications of Section 838.22 of the Florida Statutes:

(2) "It is unlawful for a public servant, with corrupt intent to obtain a benefit for any person or to cause unlawful harm to another, to circumvent a competitive bidding process required by law or rule by using a sole source contract for commodities or services."

(5) "Any person who violates this section commits a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084"

Scott Brunner, P.E., Director	<b>Scott Brunner</b> <small>Digitally signed by Scott Brunner Date: 2018.06.29 17:06:32 -04'00'</small>	June 29, 2018
REQUESTOR/EVALUATOR (PRINT)	REQUESTOR/EVALUATOR (SIGN)	DATE
Scott Brunner, P.E., Director	<b>Scott Brunner</b> <small>Digitally signed by Scott Brunner Date: 2018.06.29 17:07:13 -04'00'</small>	June 29, 2018
DEPT/DIV DIRECTOR OR DESIGNEE (PRINT)	DEPT/DIV DIRECTOR OR DESIGNEE (SIGN)	DATE

The Purchasing Agent has reviewed the request and has completed the required due diligence per the Procurement Code Section(s) 21.34 and 21.35. The Purchasing Agent recommends the following:

Sole Source     Sole Brand     Reasonable Source     RFI attached     Rejected  
 Request Authorization to Negotiate

Additional Information:

A Request for Information (RFI) was posted from August 17, 2018 to August 24, 2018. A sole response was received from Temple, Inc. exclusive distributor in the State of Florida per letter from Polara Engineering, Inc. (supplier/manufacturer) for the required FDOT approved ADA compliant Accessible Pedestrian Signals (APS). The Purchasing Agent affirms the required due diligence has been performed through communication with Polara Engineering, Inc. (sole brand manufacturer) who confirms that various component parts for each type of FDOT approved system on the APL product listing is neither interchangeable nor compatible within any of the approved different systems, even from the same manufacturer. The sole source is Temple, Inc. as the exclusive distributor in the State of Florida of the Polara Engineering, Inc.'s Navigator-brand Accessible Pedestrian Signal system. Upon approval of the sole brand/sole source designation, Board approval is required to issue a contract for replacement repair and component parts due to vandalism, damage and other factors.  
Copies of the RFI response, vendor letter and FDOT APL product listing are attached herewith.

Purchasing Agent Signature: **ALICIA KALISH**  
Digitally signed by ALICIA KALISH  
DN: dc=cty, dc=broward, dc=bc, ou=Organization, ou=BCC, ou=PU, ou=Users, cn=ALICIA KALISH  
Date: 2018.10.18 10:58:17 -04'00'      Date: October 18, 2018

Purchasing Manager Review: CHRISTINE CALHOUN

**APPROVAL AUTHORITY**

REASON/SUGGESTED ACTION (IF DISAPPROVED):

Signature: **BRENDA BILLINGSLEY**  
Digitally signed by BRENDA BILLINGSLEY  
DN: dc=cty, dc=broward, dc=bc, ou=Organization, ou=BCC, ou=PU, ou=Users, cn=BRENDA BILLINGSLEY  
Date: 2018.10.30 17:30:20 -04'00'      Date:

## Bid #OPN2117338F1 - Polara Two Wire Accessible Pedestrian Signal (APS)

Creation Date **Aug 17, 2018** End Date **Aug 24, 2018 5:00:00 PM EDT**  
 Start Date **Aug 17, 2018 1:33:56 PM EDT** Awarded Date **Not Yet Awarded**

OPN2117338F1--01-01 Polara Two Wire Accessible Pedestrian Signals					
Supplier	Unit Price	Qty/Unit	Total Price	Attch.	Docs
Temple, Inc. [Ad]	First Offer - \$6,274.00	1 / each	\$6,274.00	Y	
Product Code: Agency Notes:			Supplier Product Code: Supplier Notes:		

### Supplier Totals

f Temple, Inc. [Ad]			\$6,274.00		
Bid Contact <b>Keith Frasier</b>	Address <b>305 Bank St</b>				
<b>keith.frasier@temple-inc.com</b>	<b>Decatur, AL 35601</b>				
<b>Ph 256-353-3820</b>					
<b>Fax 256-353-4578</b>					
Agency Notes:	Supplier Notes:		Head Attch:		

\*\*

**Temple, Inc.**

Bid Contact **Keith Frasier**  
**keith.frasier@temple-inc.com**  
**Ph 256-353-3820**  
**Fax 256-353-4578**

Address **305 Bank St**  
**Decatur, AL 35601**

Item #	Line Item	Notes	Unit Price	Qty/Unit	Attch. Docs
OPN2117338F1--01-01	Polara Two Wire Accessible Pedestrian Signals	<b>Supplier Product Code:</b>	<b>First Offer - \$6,274.00</b>	1 / each	<b>\$6,274.00</b> Y

Supplier Total **\$6,274.00**

Temple, Inc.

Item: **Polara Two Wire Accessible Pedestrian Signals**

Attachments

Submittal - Broward Co - Navigator APS .pdf

SoleSource Polara.pdf

**21-Aug-18  
Submittal Data  
Broward County  
RFP # OPN2117338F1**

<u>Pay Item Number</u>	<u>Description</u>	<u>FL Cert Number</u>	<u>Manufacturer</u>
665-1-12	<p><b>Audible/Tactile Pedestrian Detector</b>                      Model # Navigator EZ Communicator System, c/o Navigator, EN28TN1-B-CT, APS w/ sign w/ recorded voice message                      Navigator CCU2EN 2-wire control unit                      Navigator Configurator</p> <p>EN2 = Navigator 2-wire system                      8 = 9x18 frame                      T = 9x18 Pedestrian push button sign                      N = No Braille                      1 = Special voice messages                      B = Black painted                      CT = Custom Text</p>	665-004-004	Polara Engineering
665-1-12	<p><b>Audible/Tactile Pedestrian Detector</b>                      Model # iN2 Intelligent Navigator 2-wire APS, c/o Navigator, iN28TN1-B-CT, APS w/ sign w/ recorded voice message                      # iCCU-S, 2-wire shelf mount control unit                      # 850-217, Std cable harness, 50-pin connector                      # iN2-ICB, Interconnect board                      # iN2-SDLC-Cable                      # iN-DGL, iNAV Bluetooth Dongle</p> <p>iN2 = Navigator 2-wire Intelligent Navigator                      8 = 9x18 frame                      T = 9x18 Pedestrian push button sign                      N = No Braille                      1 = Special voice messages                      B = Black painted                      CT = Custom Text</p>	665-004-008	Polara Engineering



# Polara Engineering, Audible/Tactile Pedestrian Detector

by Polara Engineering, Inc. (Manufacturer Website)

**Model: NAVIGATOR EZ COMMUNICATOR SYSTEM**

## Active API Certifications

665-004-004 (Approval Date: 6/2/2011)

Previous Certification Numbers

- 66513952018041

## Product Types

- Audible/Tactile Pedestrian Detector

## Limitations

There are no items to display.

## Documents

There are no items to display.

## Comments

(MODELS EN2XXXX-B and CCU2EN, V1.10, 2-Wire) evaluated with optional Ped Station Monitor (Model PSM2, v1.00). Verified internal monitoring working with EZCOM Conflict Tester

## Contacts

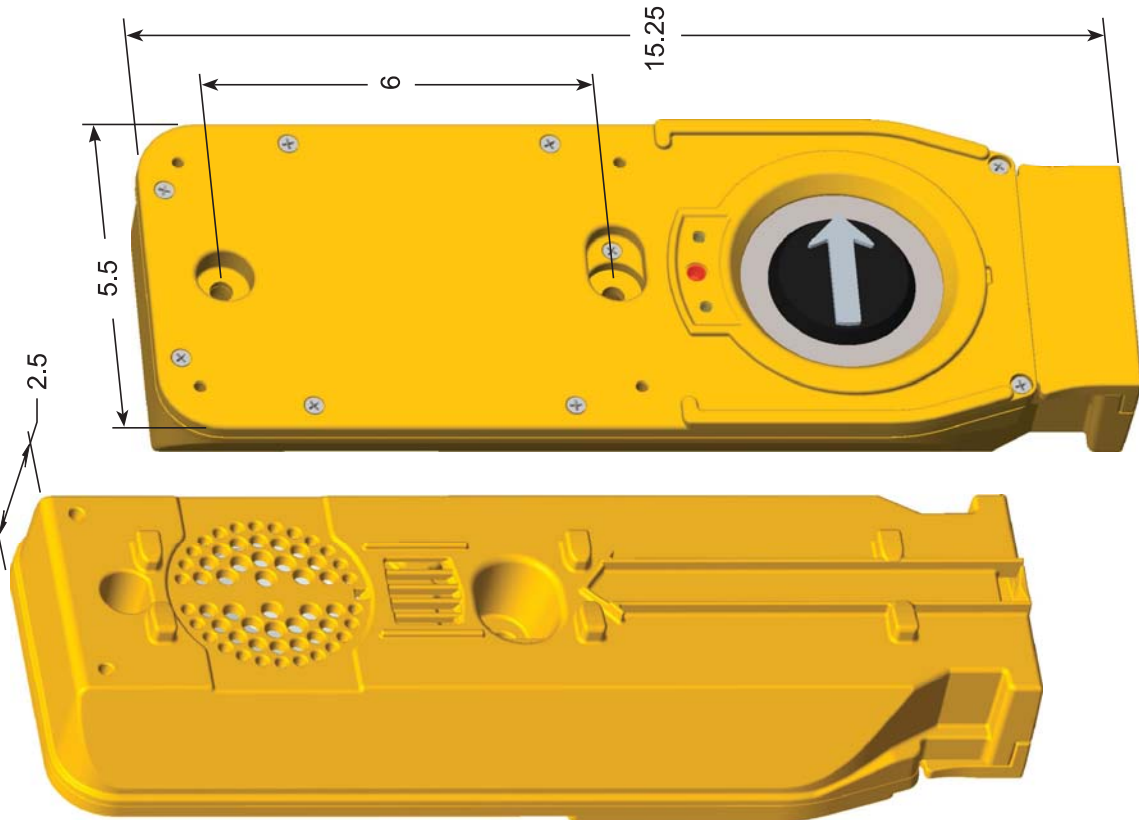
Matthew Baker  
9153 Stellar Court  
Corona, CA 92883  
(714) 521-0900  
mbaker@polaraent.com

### EN2 – EZ Communicator Navigator 2 Wire Push Button Station

The EZ Communicator Navigator 2 Wire Push Button Station (EN2 PBS) is the pedestrian interface to the EZ Communicator Navigator Accessible Pedestrian System. A system includes a Central Control Unit (CCU2EN), an E-Configurator, and up to 16 Push Button Station (4 maximum per channel). The EN2 PBS 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 back of the unit. A sunlight-visible red LED latches "ON" to confirm the button has been pushed. The EN2 PBS includes the body (shown), sign, ADA compliant push button and mounting hardware.

By interfacing with the CCU2EN that installs in the traffic control cabinet, the EN2 PBS can provide the following standard features:

- Confirmation of button push via latching LED, sound, and tactile bounce
- Direction of travel (with extended button push)
- Standard locating tone during Don't Walk (and Clearance if desired)
- Cuckoo, Chirp, Rapid Tick, Verbal, or user customized voice messages during walk. A total of 10 walk sound options are included with an additional 2 locations for custom voice messages / walk sounds
- Vibrating button during walk
- Choice of 4 locating tones, custom sound, or verbal countdown during PED clearance
- All sounds automatically adjust to ambient over 60dB range
- Most sounds have a minimum and maximum volume independently set
- Sounds are synchronized across all PBSs
- Extended button push can turn on, boost volumes, and/or mute all sounds except those on the activated crosswalk
- Can provide pre-configured special messages played throughout the entire intersection upon a central system activated signal (preemption)
- Custom audio messages easily changed via USB port
- Firmware updates provided through USB port
- Independent ambient adjustment setting for the locate tone which allows fine adjustments for low ambient conditions
- Two separate program configurations with all options available which can be switched via external input



All yellow color unit shown for clarity. Standard unit has Black base.  
© 2014 Polara Engineering, Inc. Doc. EN2 Rev. C-24160 06/03/14 Page 1 of 2

**Operating Specifications**

Parameter	Rating
Operating Temperature Range	-34°C to +74°C (-30°F to +165°F)
Storage Temperature Range	-45°C to +85°C (-50°F to +185°F)
Operating Force	3.0 lbs Maximum
MTBF	3,000,000 hours
Switch Operating Life	Greater than 20 Million Operations
Maximum Volume	100 dB @ 1 meter
Minimum Ambient Sound	37 dBA
Audio Quality	3% THD plus Noise @ 1 kHz

**Design Compliance**

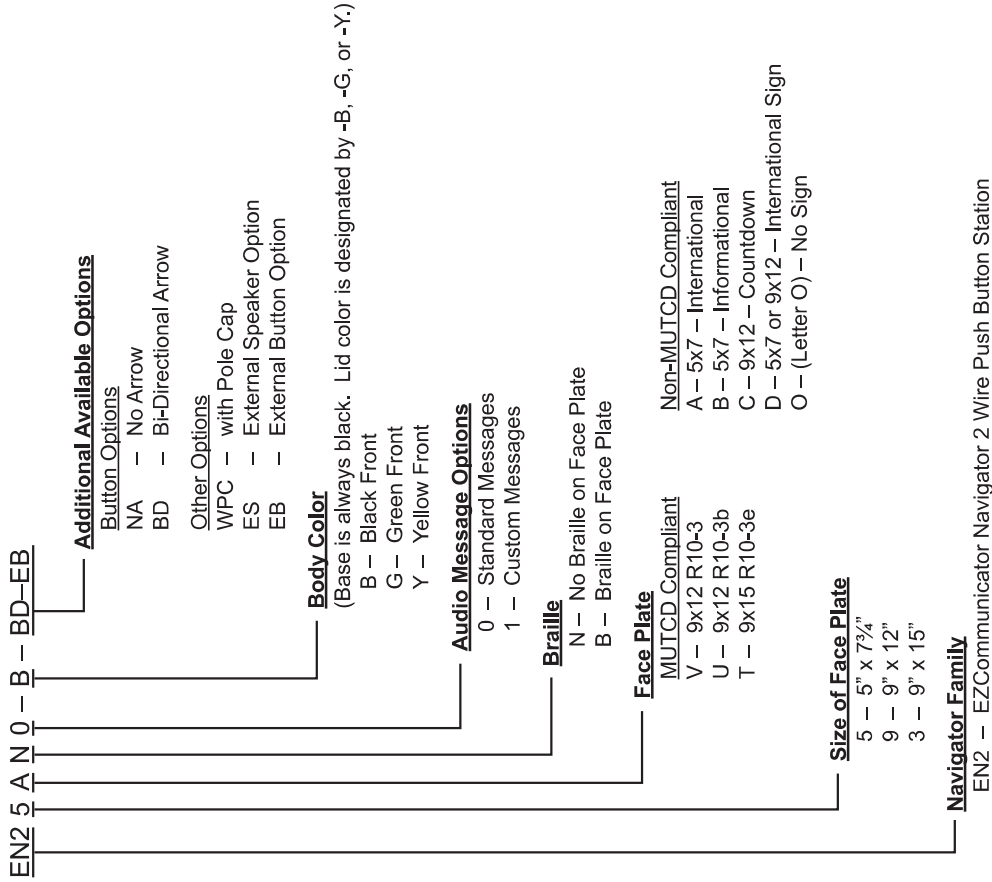
Test Type	Compliance
Functionality	MUTCD 2009 - 4E
Temperature and Humidity	NEMA TS 2
Transient Voltage Protection	NEMA TS 2
Transient Suppression	IEC 61000-4-4, IEC 61000-4-5
Electronic Noise	FCC Title 47, Part 15, Class A
Mechanical Shock and Vibration	NEMA TS 2
EN2 PBS Enclosure	NEMA 250 - Type 4X
Electrical Reliability	NEMA TS 4

Notes:

1. Applicable sections only of reference standards.
2. All specifications are subject to change without notice.
3. All specifications are Typical unless otherwise specified.

The 2 Wire Navigator's preferred field wiring is to have a pair of wires (+ and -/common) for each CCU2EN channel with from one to a maximum of four Push Button Stations per channel. Polara cannot guarantee a 2 wire system will work properly in all instances, especially if a single common to the buttons and signal lighting is shared. Each case will have to be tried and proven because it depends on the condition of the wires, splices, etc... In the event the 2 Wire system does not work, Polara will swap it out for a 4 Wire system as long as there is no damage to the units.

Terminal screws on each EN2 PBS include washers (clamping plates) intended for bare wire. Crimp Terminals are not recommended.



### CCU2EN - EZCOMMUNICATOR CENTRAL CONTROL UNIT WITH ETHERNET

The CCU2EN is to be installed inside the Traffic Cabinet and is powered by the AC supply mains (115 VAC). The CCU2EN is the power supply and signaling interface between the existing intersection Traffic Control Unit and Navigator Push Button Stations (PBS) which are located in the field. One CCU2EN can control up to 16 EN2 Push Button Stations, 4 maximum per channel. The CCU2EN controls up to four Pedestrian Channels, receiving its timing from the Walk and Don't Walk signals. Additional advanced configurations can be obtained by utilizing its general purpose inputs. All inputs and outputs have full optical isolation and include transient voltage protection.

The CCU2EN has two built-in conflict monitoring systems. The CCU2EN monitors the PBS and Ped-Head lights and powers off the channel upon a conflict. Each processor monitors each other and resets the CCU2EN upon loss of internal communication.

The CCU2EN is backward compatible with older 2-Wire Navigator N2 PBSS (v1.12 or newer). There is an option switch on the back of the CCU2EN which specifies N2 or EN2. If **all** PBSSs are EN2 PBSSs, the EN2 position is used. If **any** of the PBSSs are older 2-Wire N2 PBSSs then the N2 position must be used.

The Ethernet port adds a connection to an on-board web server which provides information on PBS status, Event Log and remote Configuration of EN2 PBS options.

**Ped Walk / Don't Walk Inputs:**

Optically isolated 80 – 150 Volts AC/DC, 5mA max.

**Ped Outputs:**

Optically Isolated 36 Volts AC/DC peak  
300mA Solid State Fused Contact Closure

**Fault Output:**

Normally Open Relay Contacts 125 Volts AC/DC, 1A max.

**A, B, C, D PBS Power Output:**

Nominal 18-22 Volts DC, Short Circuit Protected - Auto Recovering

**General Purpose Inputs:**

10 – 36 Volts AC/DC peak, 10mA max, Optically Isolated

**Environmental:**

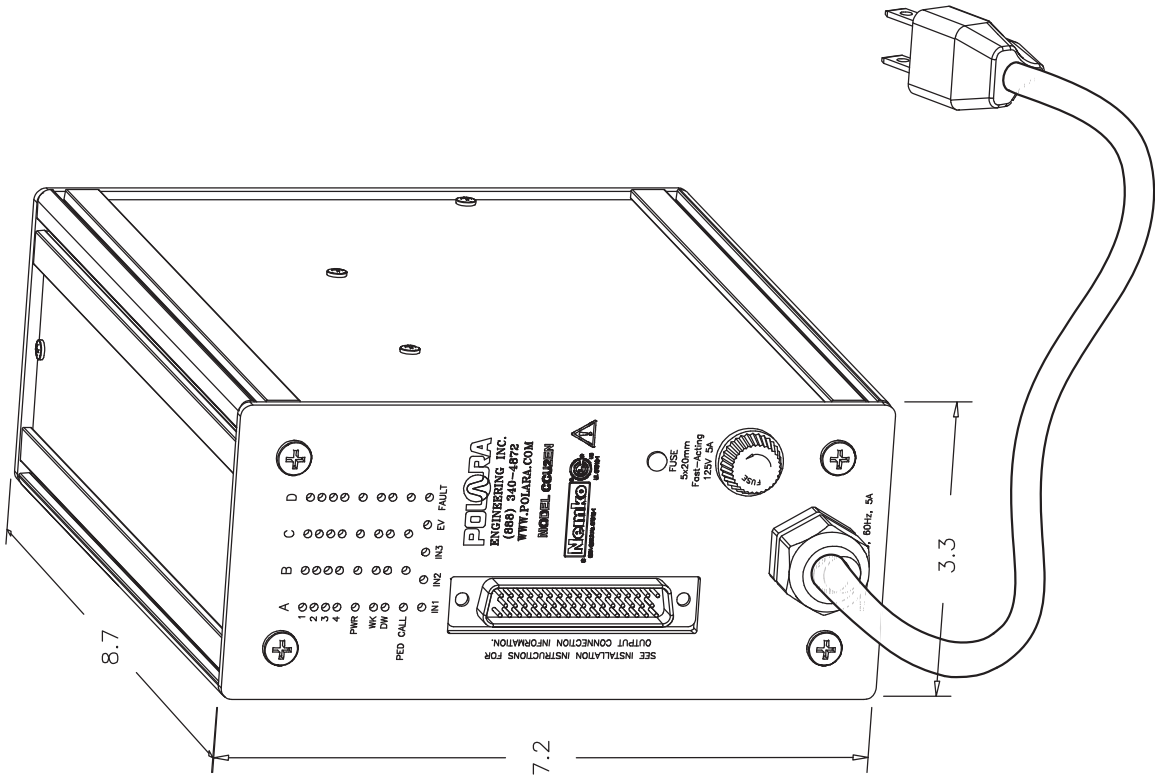
Operating: -34°C (-30°F) to +74°C (+165°F)

Storage: -45°C (-50°F) to +85°C (+185°F)

**Hardware Kit:**

CCU2ENHK: Standard 8 Foot Cables included with each CCU2ENHK.

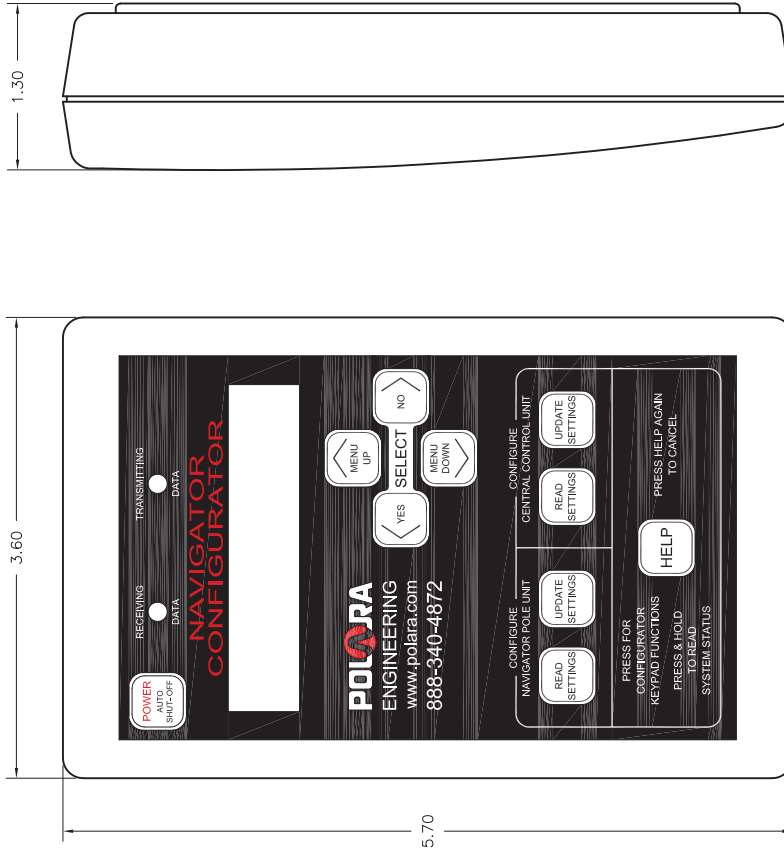
CCU2ENHK-12: 12 Foot Cable can be ordered instead of 8 Foot Cable at an extra charge.





9153 STELLAR CT., CORONA, CA 92883 (888) 340-4872

## ECONFIG - EZCOMMUNICATOR NAVIGATOR CONFIGURATOR



The EZCommunicator Navigator Configurator (ECONFIG) is a handheld remote used for configuring a Navigator 2 Wire System or individual 4 Wire Navigator Push Button Stations (PBS). Just stand a few feet in front of a PBS, point the Configurator at the PBS, turn it on and select your options. The Configurator communicates via infrared with the PBS (and CCU of 2 Wire system). The Econfig is compatible with the N2 and N4 Navigator systems as well as the new EZCommunicator EN2 and EN4 Navigator systems. One Configurator is all you need for maintaining multiple intersections. All of the configuration options in the CCU and PBS are set with the Configurator. The beauty of the Navigator system is its interactive operation. For example, if you select one of the optional Locate Sounds, you hear your choice as you select it. When adjusting volume levels, you hear the level you select. After configuring the features you want, you can upload your choices to just that PBS or to all of the PBSs on the entire intersection with a single button push. The Econfig also has the capability of saving 4 user defined configuration sets and has 3 factory-default configuration sets. (Access is password protected to prevent unauthorized changes.)

**Display:** 2 Line x 16 Character  
LCD with backlight, adjustable contrast

**Power:** 4 x AA 1.5v Cell, Low battery warning  
Auto or Manual Shut-off

**Case Color:** Grey

**Operating Temp:** 0°C to 50°C

See the operation and instruction manuals for 2 Wire and 4 Wire Products for more details.

# Polara Engineering, Audible/Tactile Pedestrian Detector

by Polara Engineering, Inc. (Manufacturer Website)

**Model: iN2**

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## Active API Certifications

**665-004-008** Approval Date: 5/31/2017)

## Product Types

- Audible/Tactile Pedestrian Detector

## Limitations

There are no items to display.

## Documents

There are no items to display.

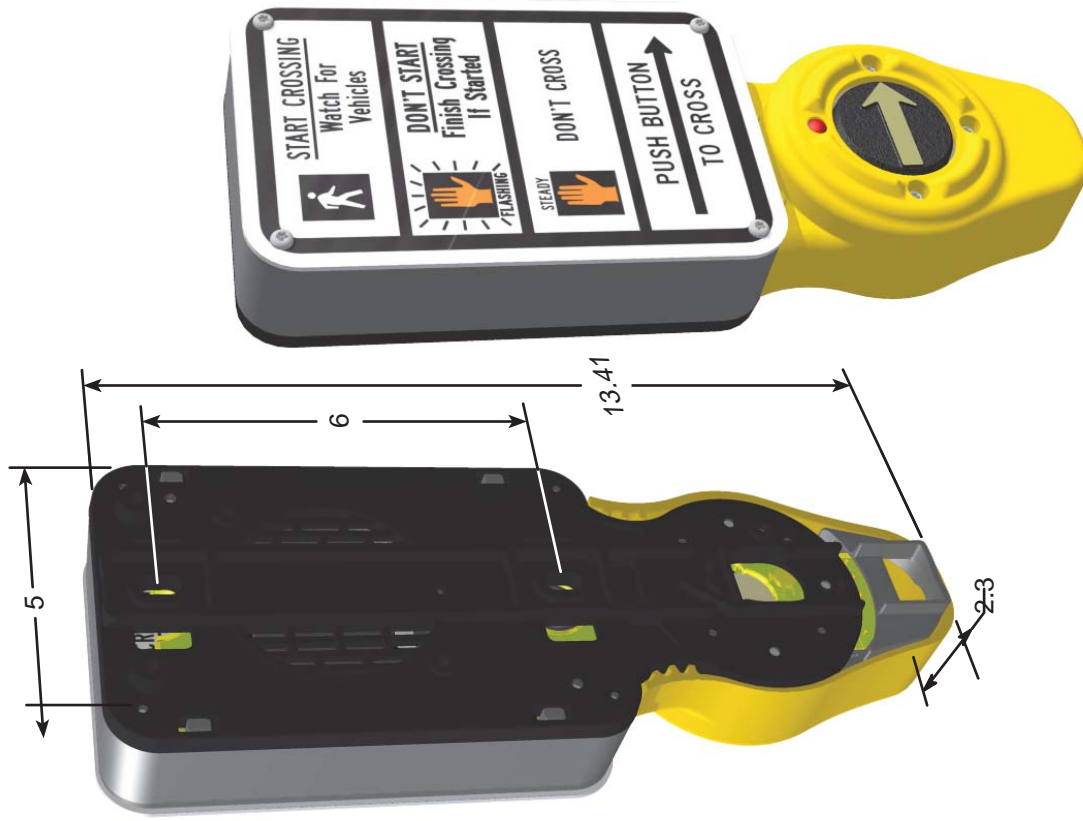
## Comments

There are no items to display.

## Contacts

Matthew Baker  
9153 Stellar Court  
Corona, CA 92883  
(714) 521-0900  
mbaker@polaraent.com

## iN2 – iNavigator 2-Wire Push Button Station



The iN2 Navigator 2-Wire Push Button Station (iN2 PBS) is the pedestrian interface to the iNavigator Accessible Pedestrian System. Main components of a system consists of a Control Unit (P/N: iCCU-S or iCCU-C) and two or more Push Button Stations. The iN2 is an MUTCD compliant PBS, providing valuable information and cues via both a vibrating arrow button and audible sounds, making the intersection accessible for all pedestrians. All sounds emanate from both the front and the 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 designed iN2 PBS includes the body which houses the ADA compliant push button (shown), a faceplate (sign), and mounting hardware.

By interfacing with the Control Unit that installs in the Traffic Signal Control Cabinet, the iN2 PBS can provide the following standard features:

- Operates over a single pair of wires
- All push button stations wired in parallel, individually assignable to any phase
- 16+ buttons can operate with a single Control Unit\*
- All sounds are synchronized
- 4 Locate Tone selectable options
- 14 Walk Sound selectable options, 3 of them custom options
- 7 Clearance Sound selectable options
- Walk, Clearance and Don't Walk sounds adjust automatically 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, .5 second increments
- Beacons and Ping Pong features available
- Select audio messages, change settings, and perform firmware updates wirelessly using iOS devices, or a Windows PC with Polara's Bluetooth Dongle (P/N: iN-DGL)
- Built in Health/Event logging feature, up to 300 events
- False Walk Detection: Four independent checks
- External Speaker-Option at time of order
- External Button Input for bike lane, horses, etc.

iN25BN0-Y unit shown. Dimensions are in inches. All dimensions are reference only and subject to change without notice.

\* Dependent on/limited by power requirements and wire runs

**Operating Specifications**

Parameter	Rating
Operating Temperature Range	-34°C to +74°C (-30°F to +165°F)
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)
Operating Force	3.0 lbs Maximum, three adjustable programmed forces are optional
Switch Operating Life	Greater than 20 Million Operations
Maximum Volume	100 dB @ 1 meter

**Design Compliance**

Test Type	Compliance
Functionality	MUTCD 2009 - 4E
Temperature and Humidity	NEMA TS 2*
Transient Voltage Protection	NEMA TS 2*
Transient Suppression	IEC 61000-4-4, IEC 61000-4-5*
Electronic Noise (Bluetooth Radio)	FCC Title 47, Part 15, Class A*
Mechanical Shock and Vibration	NEMA TS 2*
iN2 PBS Enclosure	NEMA 250 - Type 4X*
Electrical Reliability	NEMA TS 4

Notes:  
 1. Applicable sections only of reference standards.  
 2. All specifications are subject to change without notice.  
 3. All specifications are Typical unless otherwise specified.  
 \* Tested and Certified by independent 3rd party laboratory.

iN2 5 A N 0 - B - BD-ES

**Additional Available 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 and Body is always black. Button Cover color is designated by -B, -G, or -Y.)  
 B - Black Button Cover  
 G - Green Button Cover  
 Y - Yellow Button Cover

**Audio Message Options**

- 0 - Standard Messages  
 1 - Custom Messages

**Braille**

- N - No Braille on Face Plate  
 B - Braille on Face Plate

**Faceplate**

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

**Size of Front Plate Adapter**

(Also chooses size of Faceplate, when present)  
 5 - 5" x 7 3/4"  
 9 - 9" x 12"  
 3 - 9" x 15"

**Navigator Family**

- iN2 - iNavigator 2-Wire Push Button Station



## ICCU-S – INTELLIGENT CENTRAL CONTROL UNIT FOR SHELF MOUNT

The iCCU-S is designed to work in all style cabinets as the intelligent control unit for Polara's iN2 accessible push button stations (PBS) when the 50 pin harness is used. The system includes a small interconnect panel (PN: iN2-ICB) to allow connection to 16+ PBSs. Each iN2 PBS connects with two wires. All PBS connect in parallel and do not have a polarity requirement.

This model also supports SDLC communication in TS1 and TS2 cabinets when a TS2 controller operating in TS2 mode, with an MMU, is utilized (**There must be an MMU**). If **just** PED Walk / Don't Walk interval information is communicated by SDLC, the 50 pin harness is still needed. If both PED interval information and call placements are communicated, the 50 pin harness is not needed, unless preemption is also required.

The iCCU-S front panel includes a backlit LCD for displaying system status information. Front panel buttons are used during setup, placing test calls, and to enable Wi-Fi. All setup functions can be performed via Ethernet or Wi-Fi using a PC. Setup is also supported using an iPhone or iPad via Wi-Fi. In addition, configuration via Bluetooth is supported by pairing with any connected iN2 PBS using a PC, iPhone, or iPad. All of the connection options provide full access to setup and configuration options of both the iCCU-S and all connected iN2 PBSs. Polara provides free apps for both Windows PCs (Win 7+) and iOS (8.0+) devices.

Multiple configurations are supported, with the ability to change operational features based on time of day. General purpose inputs are available for options such as a voice message on emergency vehicle preemption. The system has internal conflict monitoring and health log data capture that is both downloadable and contains extensive status/fault reporting. Remote Monitoring can be done over Ethernet.

### Optional SDLC:

- P/N: iN2-SDLC-YCABLE for 4 ft. "Y" Cable (order separately if needed)
- P/N: iN2-SDLC-CABLE for Straight Cable (order separately if needed)

Ped Walk / Don't Walk Inputs (from load switches, via 50 pin harness):

Optically Isolated 80 – 150 Volts AC/DC, 5mA max.

Ped Call Outputs (to traffic controller, via 50 pin harness):

Optically Isolated 36 Volts AC/DC peak

300mA Solid State Fused Contact Closure

PBS Power Output:

Nominal 24 Volts DC, Short Circuit Protected - Auto Recovering

General Purpose Inputs:

10 – 36 Volts AC/DC peak, 10mA max, Optically Isolated

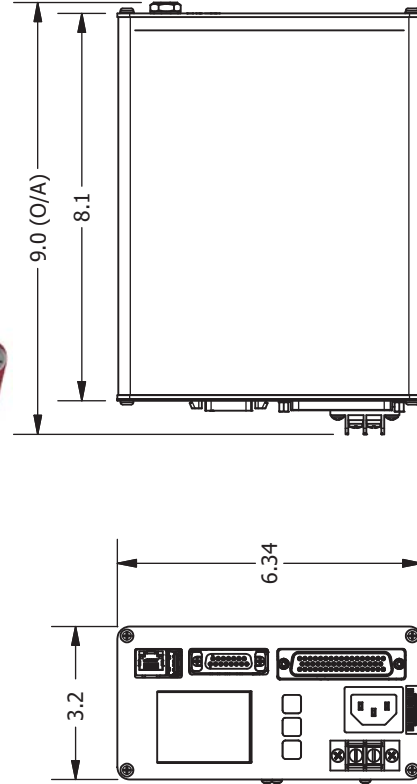
Environmental:

Operating: -34°C (-30°F) to +74°C (+165°F)\*

Storage: -45°C (-50°F) to +85°C (+185°F)

Warranty: 3 year limited

\*The LCD temperature range is limited to -20°C to +70°C operational.



Dimensions are in inches. All dimensions are reference only and subject to change without notice.

## iNavigator Bluetooth Dongle

The iNavigator Bluetooth Dongle (iN-DGL) was designed to enable any PC running Windows 7 or later to communicate with Polara's iNavigator. The Dongle plugs into any USB port on your PC and utilizes Polara's Intelligent Config PC App for communication.

The Intelligent Config PC App can only communicate with iNavigator devices by utilizing the Dongle. The driver for the Dongle is included in the installer for the Intelligent Config PC App. You can obtain the Intelligent Config PC App by contacting your distributor.

### Product Ordering Information

iN-DGL - iNavigator Bluetooth Dongle





May 17, 2018

To Whom It May Concern:

This letter is to serve as notification that Temple, Inc. is Polara Enterprises, LLCs exclusive distributor for the territory states of Louisiana, Arkansas, Mississippi, Tennessee, Alabama, Florida, Georgia, South Carolina, and North Carolina. Polara products that they distribute are the Navigator Accessible Pedestrian Signal System, the BullDog push button and the Model X crosswalk activation system.

If you have any questions, please feel free to give me a call.

Sincerely,

*Ashlie Rusch*

"Quality is Our Top Priority and It Starts with Me!"

## **Solicitation OPN2117338F1**

### **Polara Two Wire Accessible Pedestrian Signal (APS)**

#### **Bid Designation: Public**



**Broward County Board of County Commissioners**

## Bid OPN2117338F1 Polara Two Wire Accessible Pedestrian Signal (APS)

Bid Number      OPN2117338F1  
Bid Title        Polara Two Wire Accessible Pedestrian Signal (APS)

Bid Start Date    In Held  
Bid End Date      Aug 24, 2018 5:00:00 PM EDT  
Question &  
Answer End Date   Aug 22, 2018 5:00:00 PM EDT

Bid Contact        Delanor Nurse  
                         Purchasing Agent  
                         Purchasing  
                         954-357-6286  
                         dnurse@broward.org

Contract Duration   **Not Applicable**  
Contract Renewal    Not Applicable  
Prices Good for      **Not Applicable**

Bid Comments      This Request for Information (RFI) is intended to ascertain whether the product specified below is currently available from multiple vendors/authorized distributors. This is not a request for pricing or a commitment to purchase.

Broward County Traffic Engineering Division (BCTED) is seeking a contractor to provide Polara Two-Wire Accessible Pedestrian Signals (APS) equipment, including the purchase of certified replacement parts and components required for Accessible Pedestrian Signals systems already installed and in use throughout the County at signalized intersections as part of various roadway construction projects, newly constructed traffic signals, signal reconstructions, and private developer transportation projects.

Accessible pedestrian signals such as the Polara APS system are required to meet Chapter 1 of the ADA accessibility standards as applicable to new signal construction, upgrades to existing traffic signals, or where otherwise requested by the public and can be reasonably accommodated. The Polara Engineering Audible / Tactile Pedestrian Detector equipment has been approved on the FDOT Approved Product Listing (APL Certification Numbers 665-004-004 and 665-004-008). The various individual components of each type of APS systems on Broward County roadways are not interchangeable across the different manufacturer's APS systems.

Respondents to this Request For Information (RFI) should provide information offering the product to meet the needs of the County.

This RFI will remain posted until the due date and time indicated. Vendors should submit response electronically through BidSync. Vendor should upload any supporting information in BidSync, including vendor's contact information, capabilities and experience (including length of time providing these services).

### Item Response Form

Item                    **OPN2117338F1-01-01 - Polara Two Wire Accessible Pedestrian Signals**  
Quantity             **1 each**  
Unit Price              
Delivery Location   **Broward County Board of County Commissioners**  
                          No Location Specified

Qty 1

**Description**

Polara Two Wire Accessible Pedestrian Signals.



## Question and Answers for Bid #OPN2117338F1 - Polara Two Wire Accessible Pedestrian Signal (APS)

### Overall Bid Questions

There are no questions associated with this bid.



## Product Type - Audible/Tactile Pedestrian Detector

Specifications / 665: Pedestrian Detector Assemblies / 004: Audible/Tactile Pedestrian Detector

Sort: Product Name Ascending

### 6 Product Results



#### Campbell Company, Audible/Tactile Pedestrian Detector

Supplier: Campbell Company

- **Model Number:** AGPS
- **APL Certification Number:** 665-004-006
- **Comment:** #N/A || Advisor Guide Pedestrian Signal (AGPS): 4 Wire Signal Power Interface (SPI) and APS Base Station || Previous Certification Number: 66513950432011

#### Pelco Products, Audible/Tactile Pedestrian Detector

Supplier: Pelco Products, Inc.

- **Model Number:** IntelliCross
- **APL Certification Number:** 665-004-009
- **Comment:** SP-1115-FL

#### Polara Engineering, Audible/Tactile Pedestrian Detector

Supplier: Polara Engineering, Inc.

- **Model Number:** NAVIGATOR EZ COMMUNICATOR SYSTEM
- **APL Certification Number:** 665-004-004
- **Comment:** (MODELS EN2XXXX-B and CCU2EN, V1.10, 2-Wire) evaluated with optional Ped Station Monitor (Model PSM2, v1.00). Verified internal monitoring working with EZCOM Conflict Tester

#### Polara Engineering, Audible/Tactile Pedestrian Detector

Supplier: Polara Engineering, Inc.

- **Model Number:** EN4 4 Wire APS
- **APL Certification Number:** 665-004-005



## Polara Engineering, Audible/Tactile Pedestrian Detector

Supplier: Polara Engineering, Inc.

- **Model Number:** iN3
- **APL Certification Number:** 665-004-007
- **Comment:** Reviewed with Firmware Version: V3.149

## Polara Engineering, Audible/Tactile Pedestrian Detector

Supplier: Polara Engineering, Inc.

- **Model Number:** iN2
- **APL Certification Number:** 665-004-008
- **Comment:** (4/18/2018) Re-evaluated new firmware 3.82 with SDLC Operation for TS2 Types 1 & 2 Cabinets.