

Specifications - WS-10-250-AC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	223mm x 181mm x 44mm
Weight	2 kg
Power Input	210-230 & 110-120 VAC
Chassis Earth Ground Lug	YES
Max. Power Consumption	250 Watts
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	10 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports (2) SFP Ports
Passive PoE Configured Per Port via UI	24V .75A pins 4,5(+) 7,8(-) 48V .75A pins 4,5(+) 7,8(-) 24VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	24VH PoE Ports	48VH PoE Ports
Pins 4,5 (+) Pins 7,8 (-) .75A	Pins 4,5 (+) Pins 7,8 (-) .75A	Pins 1,2,4,5 (+) Pins 3,6,7,8 (-) 1.5A	Pins 1,2,4,5 (+) Pins 3,6,7,8 (-) 1.5A
Ports 01-08	Ports 01-08	Ports 01-02	Ports 01-02



Specifications - WS-8-250-DC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	223mm x 181mm x 44mm
Weight	2 kg
Power Input	9-60 VDC
Chassis Earth Ground Lug	YES
Max. Power Consumption	N/A
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	14 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports
Passive PoE Configured Per Port via UI	24V 0.75A pins 4,5(+) 7,8(-) 48V 0.75A pins 4,5(+) 7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A
Ports 01-08	Ports 01-08	Ports 01-02



Specifications - WS-8-250-AC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	223mm x 181mm x 44mm
Weight	2 kg
Power Input	210-230 & 110-120 VAC
Chassis Earth Ground Lug	YES
Max. Power Consumption	250 Watts
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	14 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports
Passive PoE Configured Per Port via UI	24V 0.75A pins 4,5(+) 7,8(-) 48V 0.75A pins 4,5(+) 7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A
Ports 01-08	Ports 01-08	Ports 01-02



Specifications - WS-8-150-DC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	191mm x 178mm x 44mm
Weight	2 kg
Power Input	9-72 VDC
Chassis Earth Ground Lug	YES
Max. Power Consumption	N/A
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	14 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports
Passive PoE Configured Per Port via UI	24V 0.75A pins 4,5(+) 7,8(-) 48V 0.75A pins 4,5(+) 7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A
Ports 01-06	Ports 01-06	Port 01



Specifications - WS-8-150-AC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	206mm x 165mm x 44mm
Weight	2 kg
Power Input	110-120 VAC
Chassis Earth Ground Lug	YES
Max. Power Consumption	250 Watts
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	14 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports
Passive PoE Configured Per Port via UI	24V 0.75A pins 4,5(+) 7,8(-) 48V 0.75A pins 4,5(+) 7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A
Ports 01-08	Ports 01-08	Port 01



Specifications - WS-6-MINI

Manufactured and Assembled	North America
Desktop / Wall mount	YES
Dimensions	127mm x 118mm x 32mm
Weight	1 kg
Power Input	37-53 VDC
Chassis Earth Ground Lug	YES
Max. Power Consumption	2A
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	6 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95% Non-Condensing
Ethernet Ports	(6) 10/100/1000 Ethernet Ports
Passive PoE Configured Per Port via UI	24V 0.75A pins 4,5(+) 7,8(-) 48V 0.75A pins 4,5(+) 7,8(-) 24VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	24VH PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A	1.5A
Ports 03-06	Ports 03-06	Port 02	Port 02

Port 1 PoE "IN" 37-53 VDC up to 2A using all 4 pairs.

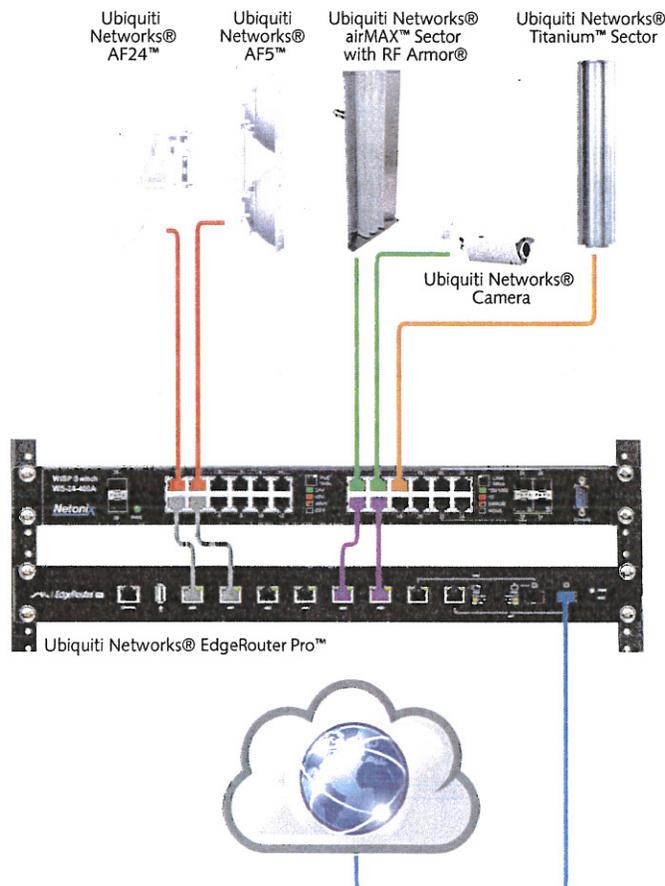


802.3af Standards A and B & Passive PoE

PINS	T568A Color	T568B Color	Passive PoE 24V 48V	Passive PoE 48VH	10/100 Mixed DC & Data (mode A)	1000 (1 Gigabit) DC & Bi-Data (mode B)	1000 (1 Gigabit) DC & Bi-Data (mode A)
1	white/green stripe	white/orange stripe		DC+	Rx+ DC+	TxRx A+	TxRx A+ DC+
2	green solid	orange solid		DC+	Rx- DC+	TxRx A-	TxRx A- DC+
3	white/orange stripe	white/green stripe		DC-	Tx + DC-	TxRx B+	TxRx B+ DC-
4	blue solid	blue solid	DC+	DC+	Unused	TxRx C+ DC+	TxRx C+
5	white/blue stripe	white/blue stripe	DC+	DC+	Unused	TxRx C- DC+	TxRx C-
6	orange solid	green solid		DC-	Tx - DC-	TxRx B-	TxRx B- DC-
7	white/brown stripe	white/brown stripe	DC-	DC-	Unused	TxRx D+ DC-	TxRx D+
8	brown solid	brown solid	DC-	DC-	Unused	TxRx D- DC-	TxRx D-

Sample Deployment

- Passive PoE 24V .75A/1A**
Pins 4,5 + 7,8 -
- Passive PoE 48V .75A/1A**
Pins 4,5 + 7,8 -
- Passive PoE 48V 1.5A/2A**
Pins 1,2,4,5 + 3,6,7,8 -
Ports configured with private VLANs working as Mid Span PoE injectors for airFiber™ units.
airFiber™ back hauls to OSPF Routed Interfaces on EdgeRouter™.
- 1Gbps FD**
- 2 Gbps Aggregated LACP 802.3ad**
This is the trunk for sector and camera VLANs.



All other trademarks mentioned are the property of their respective owners and are not associated with Netonix®.

Safety Notices

Read, follow, and keep these instructions.

Heed all warnings.

Only use attachments/accessories specified by Netonix®.

⚠ WARNING: Do not use this product near water.

⚠ WARNING: Avoid using this product during an electrical storm.
There may be a remote risk of electric shock, injury, or death from lightning.

Electrical Safety Information

Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.

There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.

This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.

Always connect an additional earth ground to the grounding lug at the back of the chassis.

Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.

The equipment requires the use of the ground wire as a part of the safety certification; modification or misuse can provide a shock hazard that can result in serious injury or death.

Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.

Protective earth ground is provided by Listed AC adapter. Building installation shall provide appropriate short-circuit backup protection.

Protective bonding must be installed in accordance with local and national wiring rules and regulations.

General Warranty

Netonix, LLC ("Netonix®") represents and warrants that the products furnished hereunder shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by Netonix® under normal use and operation. Netonix® sole and exclusive obligation under the foregoing warranty shall be to repair or replace, at its sole discretion, any defective product that fails during the warranty period.

The expense or removal and reinstallation of any item are not included in this warranty.

The warranty is exclusive and in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose and any warranties arising from a course of dealing, usage or trade practice with respect to the products. Repair or replacement in the manner provided herein shall be the sole and exclusive remedy of the buyer for breach of warranty and shall constitute fulfillment of all liabilities of Netonix with respect to the quality and performance of the products.

Netonix® reserves the right to inspect all defective products, which must be returned by buyer to Netonix® freight prepaid.

No products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from Netonix®. Products returned without an RMA number will not be processed and may be discarded.

Netonix® shall have no obligation to make repairs or replacement necessitated by catastrophe, fault, negligence, misuse, abuse, or accident by buyer, buyer's customers or any other parties.

The warranty period of any repaired or replaced product shall not extend beyond its original term.

Warranty Conditions

The warranty shall apply only if:

- The product has not been subjected to misuse, neglect or unusual physical, electrical or electromagnetic stress, or some other type of accident.
- No modification, alteration or addition has been made to the product by persons other than Netonix® authorized representatives or otherwise approved by Netonix®.
- The product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation.
- All Ethernet cabling runs use CAT5 (or above) and is shielded cabling with and ESD drain wire and ESD RJ-45 end/connector.

Returns

In the unlikely event a defect occurs, please work through the dealer or distributor from which this product was purchased.

Disclaimer:

Netonix® does not warrant that the operation of the products is error-free or that operation will be uninterrupted. In no event shall Netonix® be responsible for damages or claims of any nature or description relating to system performance, including coverage, buyer's selection of products for buyer's application and/or failure of products to meet government or regulatory requirements.

Compliance



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with **Part 15 of the FCC Rules**; operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a **Class A** digital device, pursuant to **Part 15 of the FCC Rules**. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to other radio electronic equipment. Operations of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

IC Industry Canada

This Class A digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.



Australia and New Zealand

Warning: This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

CE CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.



RoHS/WEEE Compliance Statement

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Declaration of Conformity

Cesky [Czech]

Netonix ® prohlašuje, tento přístroj je ve shodě se základními požadavky a příslušnými ustanoveními směrnice 1999/5/ES.

Dansk [Danish]

Netonix ® verklaart hierbij dit apparaat voldoet aan de essentiële eisen en de relevante bepalingen van richtlijn 1999/5/EG.

Nederlands [Dutch]

Netonix ® verklaart hierbij dit apparaat voldoet aan de essentiële eisen en de relevante bepalingen van richtlijn 1999/5/EG.

English

Netonix® hereby declares this device is in compliance with the essential requirements and relevant provisions of Directive 1999/5/EC.

Eesti [Estonian]

Netonix ® kinnitab selle seadme vastavust põhinõuetele ja asjakohastele direktiivi 1999/5/EÜ.

Suomi [Finnish]

Netonix ® vakuuttaa tämä laite on yhdenmukainen olennaisten vaatimusten ja sitä koskevien direktiivin 1999/5/EY.

Français [French]

Netonix ® déclare ce dispositif est conforme aux exigences essentielles et aux dispositions pertinentes de la directive 1999/5/CE.

Deutsch [German]

Netonix ® erklärt hiermit, dieses Gerät in Übereinstimmung mit den grundlegenden Anforderungen und relevanten Vorschriften der Richtlinie 1999/5/EG erfüllt.

ελληνικά [Greek]

Netonix ® δηλώνει αυτή η συσκευή είναι σύμφωνη με τις βασικές απαιτήσεις και τις σχετικές διατάξεις της οδηγίας 1999/5/EK.

Netonix ® δηλώνει αυτή η συσκευή είναι σύμφωνη με τις βασικές απαιτήσεις και τις σχετικές διατάξεις της οδηγίας 1999/5/EK.

Magyar [Hungarian]

Netonix ® ezúton kijelenti, ez a készülék megfelel az alapvető követelményeknek, valamint a vonatkozó 1999/5/EC irányelv.

Íslenska [Icelandic]

Netonix ® lýsir þetta tæki er í samræmi við grunnkröfur og viðeigandi ákvæði tilskipunar 1999/5/EB.

Italiano [Italian]

Netonix ® dichiara questo dispositivo è conforme ai requisiti essenziali e le disposizioni pertinenti della direttiva 1999/5/CE.

Latviski [Latvian]

Ar šo Netonix ® apliecina šī ierīce atbilst pamatprasībām un attiecīgajiem Direktīvas 1999/5/EK.

Lietuviškai [Lithuanian]

Netonix ® pareiškia, šis prietaisas yra laikomasi esminių reikalavimų ir atitinkamų Direktivos 1999/5/EB nuostatas.

Malti [Maltese]

Netonix ® hawnhekk tiddikjara dan l-apparat huwa konformi mar-rekwiżiti essenzjali u d-dispożizzjonijiet rilevanti tad-Direttiva 1999/5/KE.

Norsk [Norwegian]

Netonix ® erklærer herved denne enheten er i samsvar med de grunnleggende krav og relevante krav i direktiv 1999/5/EF.

Slovensky [Slovak]

Netonix ® prehlasuje, tento prístroj je v zhode so základnými požiadavkami a príslušnými ustanoveniami smernice 1999/5/ES.

Svenska [Swedish]

Netonix ® förklarar härmed denna enhet är i överensstämmelse med de grundläggande kraven och relevanta bestämmelser i direktiv 1999/5/EG.

Español [Spanish]

Netonix ® declara por este dispositivo cumple con los requisitos esenciales y las disposiciones relevantes de la Directiva 1999/5/CE.

Polski [Polish]

Netonix ® oświadcza, urządzenie to jest zgodne z zasadniczymi wymaganiami oraz odpowiednimi postanowieniami dyrektywy 1999/5/WE.

Português [Portuguese]

Netonix ® declara este dispositivo está em conformidade com os requisitos essenciais e as disposições da Directiva 1999/5/CE.

Româna [Romanian]

Netonix ® declară acest dispozitiv este în conformitate cu cerințele esențiale și dispozițiile relevante ale Directivei 1999/5/CE.

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All other trademarks mentioned are the property of their respective owners and are not associated with Netonix.



INTERCEPTOR series JUNCTION BOXES

Interceptor Series™ junction boxes

Our junction boxes are perfect for mounting on or near a communications tower, where cables enter or exit conduit, changing from hardline to flexible coax, or a waterproof enclosure is needed for switching or arrestors. Boxes are hand crafted one at a time and customized for your specific needs.

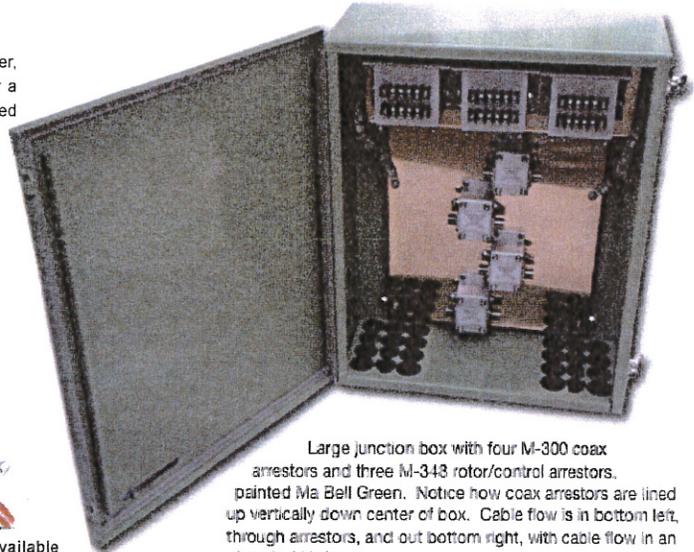
Common features of all Interceptor Series™ junction boxes:

- Made from 16 gauge galvanized steel
- Powdercoated your choice of many colors, seen below.
- Lockable latch padlocks available below.
- Gasketed and reinforced lid
- Copper mounting sheet
- Copper bridge holds up to three control line units.
- Bridge grounded to main copper sheet with two braided jumpers
- Slots on bottom for copper strap to enter and ground copper sheet
- Grommets on bottom for cables; extra holes can be plugged for future use.
- Larger cutouts for conduit in bottom also possible

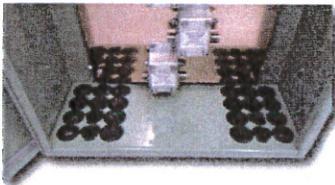
We also stock and install POLYPHASER, ALPHA DELTA and MORGAN MANUFACTURING surge protectors in our boxes! Arrestors can be pre-installed for a small charge, see "Optional Accessories" below to select this option.



Installation available



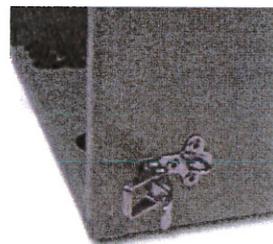
Large junction box with four M-300 coax arrestors and three M-348 rotor/control arrestors, painted Ma Bell Green. Notice how coax arrestors are lined up vertically down center of box. Cable flow is in bottom left, through arrestors, and out bottom right, with cable flow in an inverted U shape



Grommets can pass a standard PL-259 connector, and additional holes can be sealed with removable plastic plugs for future expansion.



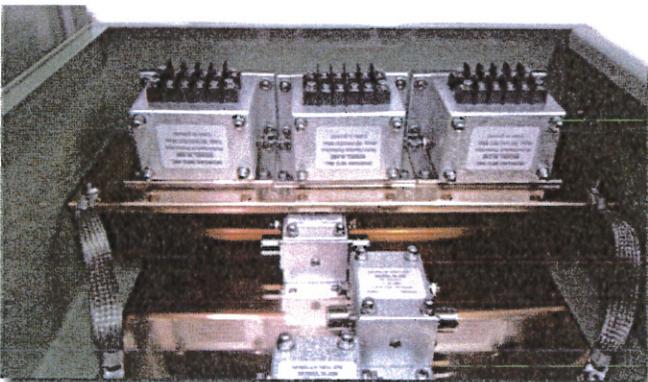
Grommets for cable entry/exit, or larger cutouts for conduit can be used



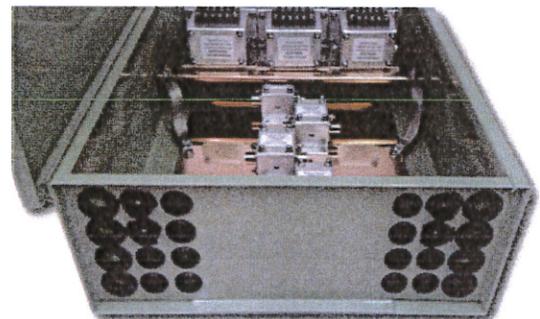
Lockable stainless steel latch.



Gasketed lid shown to keep out water, plus latch hasp and reinforced lid.

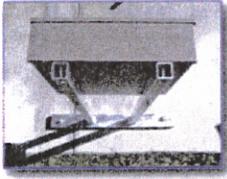


Detail of copper bridge: All Interceptor Series™ boxes feature a copper bridge mounted on stainless studs for easy removal or maintenance. The increased depth (6") of box allows coax arrestors to utilize entire area of main copper sheet, with rotor/control arrestors above to save space.

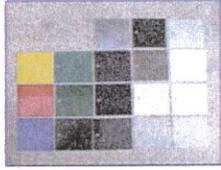


Grommets and plastic plugs as seen from bottom. Also note slots in bottom corners if grounding with flat copper strap is desired.

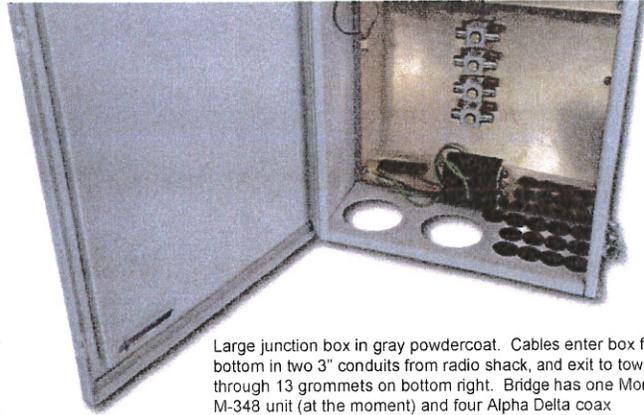




Boxes are easily mounted on concrete slab with our concrete mounting fixture (available in Optional Accessories below.)



Powdercoat paint color chart. Click for larger version. New colors not on chart: Ma Bell Green, Olive Drab, and Primer Gray.



Large junction box in gray powdercoat. Cables enter box from bottom in two 3" conduits from radio shack, and exit to tower through 13 grommets on bottom right. Bridge has one Morgan M-348 unit (at the moment) and four Alpha Delta coax arrestors Also seen at bottom are two ethernet units

To order:

- 1) Choose box size below. Adhere to notes below as to how many arrestors can fit in each size.
- 2) Pick a paint color from chart above and type it in.
- 3) Pick number of grommets and plugs needed. Remember each coax needs two grommets, in/out.
- 4) If conduit is desired, let me know the size you plan to use in the "notes" section at checkout OR send me an email. I will correspond with you before starting.
- 5) Pick out "Optional Accessories" below.



Questions? Want a custom size? Not sure what you need? We're here to help you succeed. Call or text anytime, 801-231-2658, or email Chris at KF7P dot com.

Medium (15"x15"x6") Models

Medium junction boxes come with all standard features as pictured and described above, including main copper sheet and bridge. Medium boxes can hold up to 5 Morgan units when staggered as seen above. If using Alpha Delta or Polyphaser units, up to 8 units will fit

15"x15"x6", 16 ga. galvanized steel box

Options:

Grommets (Specify quantity after adding to cart.)

Plastic plugs (Specify quantity after adding to cart.)

paint color:

\$210

[Add to Cart](#)

\$.50

[Add to Cart](#)

\$.25

[Add to Cart](#)

Large (18"x15"x6") Models

Large junction boxes come with all standard features as pictured and described above, including main copper sheet and bridge. Large boxes can hold up to 7 Morgan units when staggered as seen above. If using Alpha Delta or Polyphaser units, up to 10 units will fit.

15"x18"x6", 16 ga. galvanized steel box

Options:

Grommets (Specify quantity after adding to cart.)

Plastic plugs (Specify quantity after adding to cart.)

paint color:

\$250

[Add to Cart](#)

\$.50

[Add to Cart](#)

\$.25

[Add to Cart](#)

Extra Large (21"x15"x6") Models

Extra large junction boxes come with all standard features as pictured and described above, including main copper sheet and bridge. Extra large boxes can hold up to 8 Morgan units when staggered as seen above. If using Alpha Delta or Polyphaser units, up to 12 units will fit.

15"x21"x6", 16 ga. galvanized steel box

Options:

Grommets (Specify quantity after adding to cart.)

Plastic plugs (Specify quantity after adding to cart.)

paint color:

\$280

[Add to Cart](#)

\$.50

[Add to Cart](#)

\$.25

[Add to Cart](#)

Optional Accessories

Concrete mounting fixture for entry panel.



Terminal strip for rotor/control wire connections. 8 double terminals.



Copper split bolt for connecting two 4 gauge copper ground wires.



Package of 25 self drilling sheet metal screws for mounting Morgan arrestors to copper or aluminum sheet



Price \$45 plus \$20
oversize shipping
surcharge

[Add to Cart](#)

Keyed lock for all
boxes Installed
instead of lock hasp



Price: \$10

[Add to Cart](#)

Price: \$4

[Add to Cart](#)

Copper wire lug for
ground wire. 4-14
gauge and 2-14 gauge



4-14 ga. Price \$4

[Add to Cart](#)

2-14 ga. Price \$4.50

[Add to Cart](#)

Price: \$2.50

[Add to Cart](#)

Tinned copper ground
braid, 1/2" wide and
3/4" wide (Specify
number of feet after
adding to cart)



1/2" Price \$65/ft

[Add to Cart](#)

3/4" Price \$120/ft

[Add to Cart](#)

Price: \$4

[Add to Cart](#)

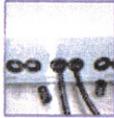
Master Lock, brass
lock with keys to
keep nosy kids out of
your entry panels.
Fits on all boxes that
come with new lid
catch.



Price: \$5.95

[Add to Cart](#)

NEW! Grommet to
cable seals. Round
foam tubing slides over
coax cables and seals
cable inside of rubber
grommet. Keeps
critters and cold air out
of your entry panel box



Price \$.50 ea

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Installation of
arrestors or other
items in entry panel
boxes, includes
hardware.



Price \$5/unit any
brand or model
Increase quantity after
adding to cart.

[Add to Cart](#)

Rubber grommets for
cable entry into
boxes. Get some
spares for later!
Specify quantity after
adding to cart



Price \$.50/ea

[Add to Cart](#)

Plastic plugs to seal
unused holes.
Specify quantity
after adding to cart.



Price \$.25/ea

[Add to Cart](#)

For Polyphaser
lightning arrestors, go
to our Polyphaser
products page.



90° mounting bracket
for M-348 units rotates
unit so terminal strip is
facing up. Makes
wiring duties much
easier with hardware



Price \$8

[Add to Cart](#)

For Morgan Mfg
lightning arrestors, go
to our Morgan Mfg
products page.



For Alpha Delta
lightning arrestors,
go to our Alpha Delta
products
page.



PolyPhaser
CORPORATION

Morgan Manufacturing

ALPHA DELTA COMMUNICATIONS, INC.

Penetrox-A anti-oxidant
connection grease. For all
aluminum to aluminum and
aluminum to copper
connections. Prevents
oxidation corrosion and
improves conductivity between
arrestors and copper (or
aluminum) sheet. Also great for
antenna element construction



2 oz Price \$4.95

[Add to Cart](#)

8 oz Price \$12.95

[Add to Cart](#)

Weatherproof cable glands for
large RG8, and smaller RG58/8x
cables. Note: Cables need to be
run through BEFORE adding
connectors. Cable glands useful
in keeping box water tight when
circumstances require cables
entering from sides or top of box.
For standard bottom fed cables
regular grommets are adequate.
Glands are black in color.



Large (RG8) Price \$2.95

[Add to Cart](#)

Small (RG58/8x) Price \$2.95

[Add to Cart](#)

User Reviews: What are other hams saying about these products?

[Leave Review Now](#)

- ★★★★★ Chris helped build my Interceptor Junction Box. Real good communications through out my build process. Had to switch to a darker blue which was ok, didn't know that he had other colors. Thanks so much for the hard work that went into this box. N1OND
- ★★★★★ Excellent Quality and customer service. Very pleased with my install! Chris made sound recommendations after quickly reviewing my order - I appreciate his feedback. Highly recommended! Pictures of my install at ko4gs.org
- ★★★★★ One of the best, if not the best, on-line buying experience of ham equipment I've had. Answered my initial questions on the same day; provided truly constructive advice on the diagrams I sent; built the unit and shipped within a week of my order. Materials, fit and finish well exceeded my expectations. My local builder was slow in completing my house and I managed to lock the box and lose the key before installing it on the exterior wall. I contacted Chris and he solved the problem immediately, repaired the box and shipped it back within a week. What a pleasant person to be working with! Can't say enough good things about buying from KF7P Metalwerks. Tom KJ4WQR
- ★★★★★ 9/1/2014 Best buying experience for HAM equipment. Amazing speed. Great for advice by email before buying (I asked many questions). And this entry panel (mid size thick steel, powder-coated) is built like a tank. I'm sorry to say I'm not used to high quality like that anymore, so I was amazed. This is freak... heavy :-). And shipping... I got it in less than a week. lightning arrestor already mounted inside... So a huge thank you. The build makes sense, from the way the pieces of metal go together so water does not go in, to the weather strip, the really cool nuts with integrated gripping 'thingy' (really cool, first time I see that). This screams quality all over it. If you have something I need, I'll buy it from you. Thanks a lot. Thierry KF7MXQ
- ★★★★★ Hi Chris,
I want to thank you for the excellent workmanship on my new entrance panel! I have seen similar panels by name brand manufacturers that cost hundreds of dollars more and did not exceed the quality of your products. Your attention to detail and design far outweighed my expectations. I certainly appreciate your availability by phone and email initially, and throughout the manufacturing process. I was also impressed with the fast turn around time from order to delivery, and the professional packing job. Customer service is what keeps a company alive and growing, and you are certainly on the right track. I have already referred several members of our local radio club to you, and will continue to do so.
Thanks again!
Bob Molczan KA7VPR
President, Oro Valley Amateur Radio Club

***** Hi Chris,
Received my order today, very fast turn around. You have just restored my faith in quality products made in the good ole USA. Your entrance box is beautiful - no sharp edges, gorgeous copper sheet, nice paint finish and everything just plain right. Packing was excellent with attention to detail to prevent any shipping damage. Thanks for all the plastic plugs. Wife ate all the candy! And to top it off, all at very reasonable price. Your efforts are appreciated.
Again, big thanks,
Jeff KK6DAQ

***** Hi Chris:
Thank you for reducing the shipping charge on my order. I appreciate you working with me. I will need other items from you to complete my installation, so will be ordering again as soon as I get squared away with what I have. It has taken me a lot longer than expected with the bad winter weather conditions, work and family obligations. Everything that I have ordered from you has worked out great especially the cable entrance panel, concrete mounting fixture and Morgan arrestors. If you ever want to use me as a reference for your products, please feel free to do so.
73, John, N2LD

***** Chris, I received my 16x20 panel yesterday, and it was packaged very securely, I opened the box and was immediately impressed with the powder coat. I pulled the unit out of the box, it was very sturdy and you could tell the craftsmanship that went into this product. I am really impressed with the quality and workmanship that goes into your products. I would definitely recommend your company to anyone.
KC7VX 

***** Entry Panel is very high quality and easy to setup and use. Chris has been very patient and helpful as I called and asked questions.
Mark KC3SL



Questions? Free consultation!
Call or text anytime, 801-231-2658,
or email Chris at KF7P dot com.



by Schneider Electric

Operation Manual

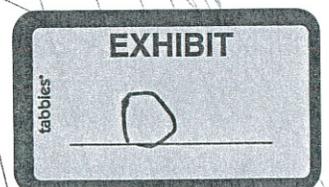
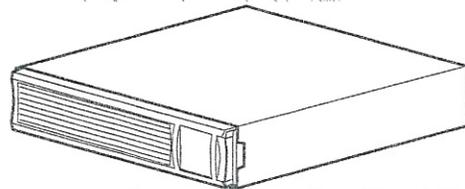
Smart-UPS™ Uninterruptible Power Supply

750/1000/1500 VA
120/230 Vac

2200 VA
120 Vac

3000 VA
100/120/208/230 Vac

Rack-Mount 2U



Overview

Product Description

The APC™ by Schneider Electric Smart-UPS™ product name is a high performance uninterruptible power supply (UPS). The UPS provides protection for electronic equipment from utility power blackouts, brownouts, sags, surges, small utility power fluctuations and large disturbances. The UPS also provides battery backup power for connected equipment until utility power returns to safe levels or the batteries are fully discharged.

This user manual is available on the enclosed CD and on the APC by Schneider Electric web site, www.apc.com.

Safety and General Information

Read the Safety Guide included in the package before installing the UPS.

This unit is intended for indoor use only.

Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.

Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.

The battery typically lasts for two to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent short duration discharges will shorten battery life.

Connect the Smart-UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.

The batteries are heavy. Remove the batteries prior to installing the UPS in a rack.

Always install the external battery packs (XLBPs) at the bottom of the rack. The UPS must be installed above the XLBPs.

Specifications

For additional specifications, refer to the APC by Schneider Electric web site at www.apc.com.

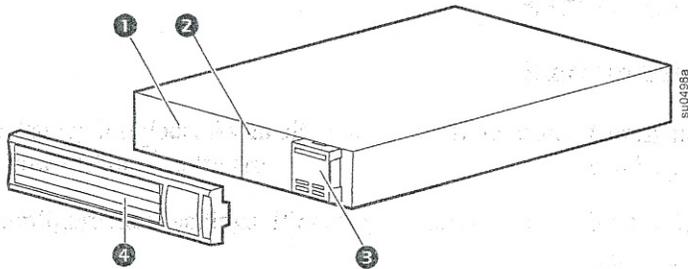
Environmental

Temperature	Operating	0° to 40° C (32° to 104° F)
	Storage	-15° to 45° C (5° to 113° F) charge UPS battery every six months
Maximum Elevation	Operating	3,000 m (10,000 ft)
	Storage	15,000 m (50,000 ft)
Humidity	0% to 95% relative humidity, non-condensing	

Product Overview

Front panel

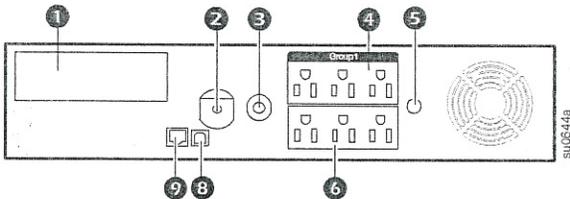
- ❶ Battery
- ❷ Battery connector
*This will vary by model.
- ❸ Display interface
- ❹ Bezel



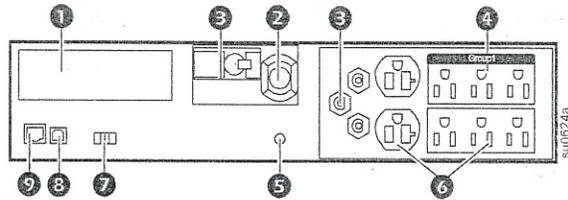
Rear panels

- ❶ SmartSlot for optional NMC accessory card
- ❷ UPS input
- ❸ Circuit breaker/Overload protection
- ❹ Controlled outlet group
- ❺ Chassis ground connection screw (TVSS GND)
- ❻ Outlets
- ❼ EPO connector
- ❽ USB port
- ❾ RJ45 connector - serial UPS monitoring port

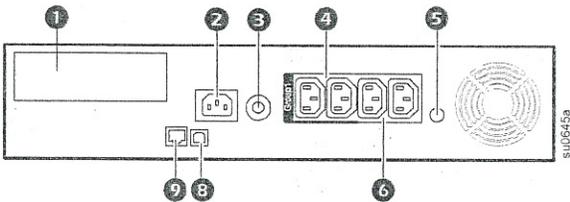
750/1000 VA 120 Vac
1500 VA 100/120 Vac



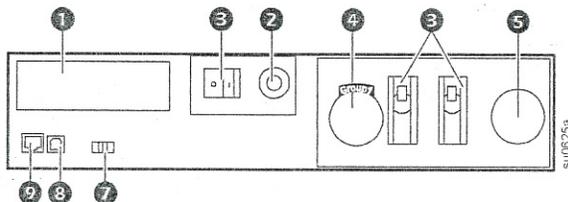
3000 VA 100/120 Vac



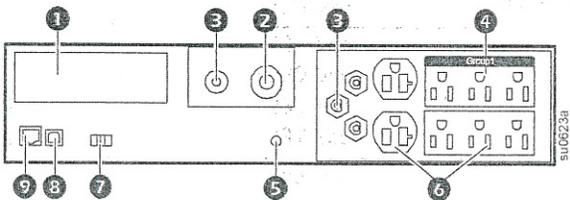
750/1000/1500 VA 230 Vac



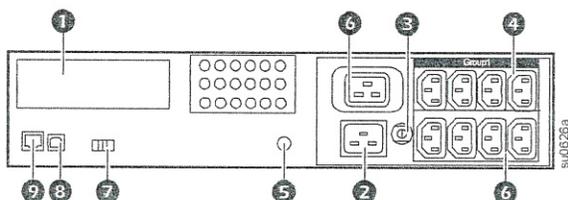
3000 VA 208 Vac



2200 VA 120 Vac



3000 VA 230 Vac



Installation

UPS

For UPS installation information, see the Smart-UPS Installation Guide that is included with the UPS. The guide is also available on the enclosed CD and the APC by Schneider Electric web site at www.apc.com.

Network Management Card

For installation information, see the user manual provided with the Network Management Card (NMC). The user manual is also available on the APC by Schneider Electric web site at www.apc.com.

Operation

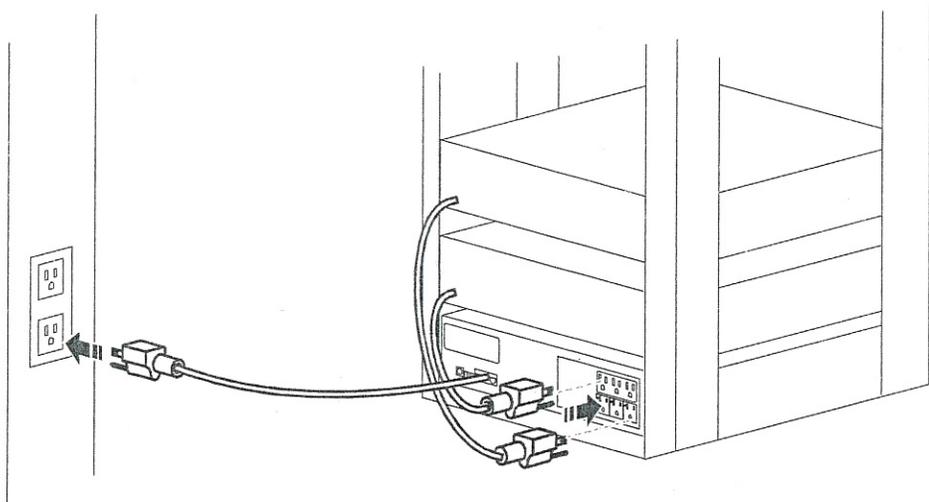
Connect Equipment to the UPS



Note: The UPS will charge to 90% capacity in the first three hours of normal operation. **Do not expect full battery runtime capability during this initial charge period.**

1. Connect equipment to the outlets on the rear panel of the UPS.
2. Connect the UPS to the building utility power. **Connect the UPS to a two-pole, three-wire, grounded source only.**
3. Press the ON/OFF button on the front panel of the UPS to power the unit and all connected equipment.
4. To use the UPS as a master on/off switch, turn on all the equipment that is connected to the UPS.

See “UPS Settings” on page 7 for information on how to configure the outlet groups.



Rear Panel Features



Serial port: Connect to a computer to use power management software.



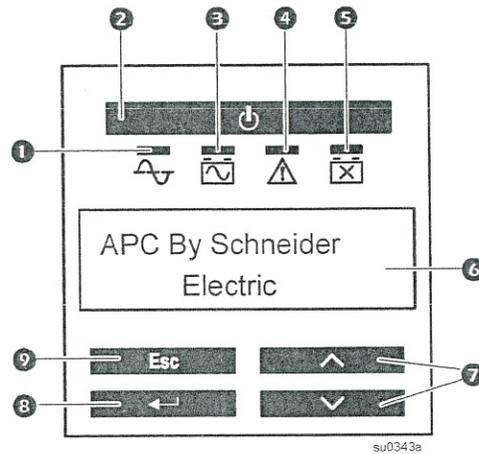
USB port: Connect to a computer to use power management software.



Ground Screw: Connect the ground leads on transient voltage devices to the chassis ground screw(s), located on the rear panel of the UPS.

Display Panel

- ① Online LED
- ② On Battery LED
- ③ UPS Output ON/OFF key
- ④ Fault LED
- ⑤ Replace Battery LED
- ⑥ Display screen
- ⑦ UP and DOWN keys
- ⑧ ENTER key
- ⑨ ESCAPE key



Using the display interface

Use the UP and DOWN keys to scroll through the main menu options. Press ENTER to view the sub-menus under each main menu option. Press ESCAPE to exit a sub-menu and return to a main menu.

Standard menus

The Standard menus are the most commonly used menus for the UPS.

Menu	General Functions
Status	View basic information about the UPS: <ul style="list-style-type: none"> • Operating mode • Efficiency of the UPS • Information about the load • Battery capacity • Estimated runtime • Input and output voltage and frequency • Information about the last transfer to battery power • Self-test results
Configuration	Configure the settings for the UPS: <ul style="list-style-type: none"> • Language • Local power quality: Good, Fair, Poor • Choose Standard or Advanced menus • UPS Test settings • Reset to Factory Defaults • Battery installation date • Display: Always On, Auto Off, Auto Dim
Test & Diags	Use the Test & Diags menu to have the UPS perform a Self-Test, UPS Alarms Test or Calibration Test
About	Display information about this unit: <ul style="list-style-type: none"> • Unit model number • Serial number • Battery information <ul style="list-style-type: none"> • Model number • Installation date • Suggested battery replacement date • UPS firmware version

Advanced menus

The Advanced menus provide additional options for the UPS and are available only if the display interface is configured to use the Advanced menus.

Menu	General Functions
Status	View detailed information about the UPS: <ul style="list-style-type: none">• Energy meter• Load current• Status of the Switched Outlet Group• Battery voltage• Operation mode• Efficiency• SmartSlot Card (if applicable)
Configuration	Configure advanced settings for the UPS: <ul style="list-style-type: none">• Main and Switched Outlet Group—delays and settings• High and lower transfer points• Sensitivity settings• Date of last battery replacement• Output voltage• Battery settings• Number of battery packs (not available on all models)• Reset energy meter• UPS test settings• Display: Always On, Auto Off, Auto Dim
Control	Control the Main and Switched Outlet Group to turn on, turn off, shutdown, or reboot.
Test & Diags	Perform UPS test and diagnostic functions such as user interface testing, battery tests, and battery calibration.
Log	View the event and error logs for information about any changes to the UPS and any faults.
About	View information about the unit: <ul style="list-style-type: none">• Hardware version• Software version• NMC information (if applicable)• SmartSlot Card information (if applicable)

Configuration

UPS Settings

Start-up Settings

Configure these settings at initial start-up, using the display interface. As an alternative, configuration can be performed using APC by Schneider Electric PowerChute™ software.

Note: During start-up, use the display interface to configure these settings. If nothing is selected, the unit will use the default settings.

Function	Factory Default	Options	Description
Language	English	<ul style="list-style-type: none"> • English • French* • German* • Spanish* • Italian* • Portuguese* • Japanese* 	<p>The language for the display interface.</p> <p>*Language options will vary by model.</p>
Local Power Quality	Good	<ul style="list-style-type: none"> • Good • Fair • Poor 	<p>Select the quality of input utility power.</p> <ul style="list-style-type: none"> • If Good is selected, the unit will go on battery power more often to provide the cleanest power supply to the connected equipment. • If Poor is selected, the UPS will tolerate more fluctuations in power and will go on battery power less often. <p>If unsure of the local power quality, select Good.</p>
Menu Type	Standard	Standard or Advanced	The Standard menus display a limited set of menus and options. The Advanced menus include all parameters.

General Settings

Configure these settings at any time, using the display interface or PowerChute software.

Function	Factory Default	Options	Description
High Transfer Point	100 Vac:	• 108 Vac	<p>To avoid unnecessary battery usage, set the transfer point higher if the utility voltage is chronically high and the connected equipment is known to work under this condition. The POWER QUALITY setting will automatically change this setting.</p> <p>Note: Use the Advanced Menus to configure this setting.</p>
	108 Vac	• 110 Vac	
		• 112 Vac	
		• 114 Vac	
	120 Vac:	• 127 Vac	
	127 Vac	• 130 Vac	
		• 133 Vac	
		• 136 Vac	
	208 Vac:	• 225 Vac	
	225 Vac	• 229 Vac	
		• 233 Vac	
		• 237 Vac	
	230 Vac:	• 253 Vac	
	253 Vac	• 257 Vac	
		• 261 Vac	
		• 265 Vac	