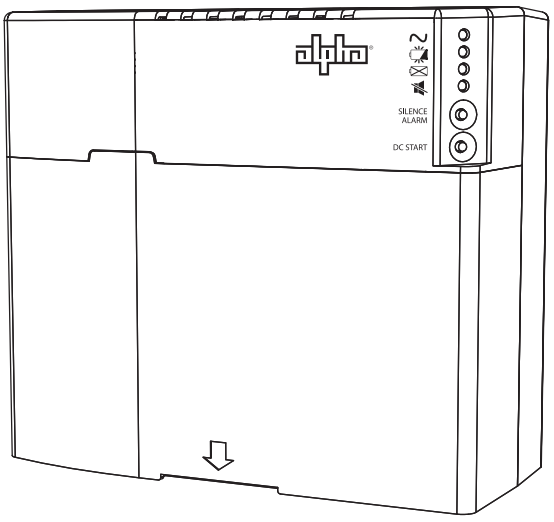
FlexPoint™ Series UPS

Technical Manual

FlexPoint Series Indoor UPS

Effective: October, 2014



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Power

Safety Notes

Review the drawings and illustrations contained in this manual before proceeding. If there are any questions regarding the safe installation or operation of the system, contact Alpha Technologies or the nearest Alpha representative. Save this document for future reference.

To reduce the risk of injury or death and to ensure the continued safe operation of this product, the following symbols have been placed throughout this manual. Where these symbols appear, use extra care and attention.

WARNING! ELECTRICAL HAZARD

ELECTRICAL HAZARD WARNING provides electrical safety information to PREVENT INJURY OR DEATH to the technician or user.

WARNING! FUMES HAZARD

FUMES HAZARD WARNING provides fumes safety information to PREVENT INJURY OR DEATH to the technician or user.

WARNING! FIRE HAZARD

FIRE HAZARD WARNING provides flammability safety information to PREVENT INJURY OR DEATH to the technician or user.

There may be multiple warnings associated with the call out. Example:

WARNING! FIRE & ELECTRICAL HAZARD

This WARNING provides safety information for both Electrical AND Fire Hazards

CAUTION!

CAUTION provides safety information intended to PREVENT DAMAGE to material or equipment.

***NOTICE*:**

NOTICE provides additional information to help complete a specific task or procedure.

ATTENTION:

ATTENTION provides specific regulatory/code requirements that may affect the placement of equipment and/or installation procedures.

The following sections contain important safety information that must be followed during the installation and maintenance of the equipment and batteries. Read all of the instructions before installing or operating the equipment, and save this manual for future reference.

FlexPoint 1208F, 1215, 1232 and 1250 Series

Technical Manual

010-353-B0-001 Rev. A1

Effective Date: October, 2014

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Disclaimer

Images contained in this manual are for illustrative purposes only. These images may not match every installation.

Operator is cautioned to review the drawings and illustrations contained in this manual before proceeding. If there are questions regarding the safe operation of this powering system, please contact Alpha Technologies or the nearest Alpha representative.

Alpha shall not be held liable for any damage or injury involving its enclosures, power supplies, generators, batteries or other hardware if used or operated in any manner or subject to any condition not consistent with its intended purpose or is installed or operated in an unapproved manner or improperly maintained.

Contact Information

Sales information and customer service in USA (7AM to 5PM, Pacific Time):	1 800 863 3930
Complete technical support in USA (7AM to 5PM, Pacific Time or 24/7 emergency support):	1 800 863 3364
Sales information and technical support in Canada:	1 800 667 8743
Website:	www.alpha.com

Table of Contents

Figures and Tables

FlexPoint Safety & Compliance Notes

Review the drawings and illustrations contained in this manual before proceeding. If there are any questions regarding the safe installation or operation of the system, contact Alpha Technologies or the nearest Alpha representative. Save this document for future reference.

To reduce the risk of injury or death, and to ensure the continued safe operation of this product, the following symbols have been placed throughout this manual. Where these symbols appear, use extra care and attention.

CAUTION!

Follow all safety information within this manual. If there are any questions regarding the proper installation of the FlexPoint unit, contact Alpha Technologies, 1 800 863 3364.

***NOTICE*:**

Confirm all FlexPoint Unit inventory items are present before beginning the installation process, see **Section 1.5, FlexPoint 1215/32/50 or 1208F Inventory**.

ATTENTION: FCC CLASS B Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the equipment and the receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced radio/TV technician for help.**

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

Battery Safety Guidelines

- Follow all battery manufacturer's storage and maintenance instructions.
- Always replace batteries with those of an identical type and rating. Never install untested batteries.
- Spent or damaged batteries are environmentally unsafe. Always recycle used batteries. Refer to local codes for proper disposal of batteries.

1.0 Introduction

1.1 List of Terms

Terms used in this document:

EOD	End of Discharge
FP1215/32/50	FlexPoint Series Indoor 15W/32W/50W UPS with 7-position connector
FP1208F	FlexPoint Series Indoor RFoG power supply
FTTH/FTTx	Fiber To The Home/House/etc.
RFoG	Radio Frequency over Glass
ONT	Optical Network Terminal
ONT-PPS	ONT Primary Power Supply
PFS	Product Functional Specification
PON	Passive Optical Network
PSTN	Public Switched Telephone Network
SOC	State of Charge @25°C: 100% SOC i.e. fully charged battery @ 13.6V 0% SOC i.e. fully charged battery @ 10.5V
SFU: ONT	Single Family Unit Optical Network Terminal; for this document ONT
UPS	Uninterruptible Power Supply

Table 1-1, Term Definitions

NOTICE:

- The FlexPoint 1215, 1232 and 1250 power supplies utilize a 7-position connector and cable for the output connection to the ONT.
- The FlexPoint 1208F power supply utilizes a Type F Coaxial connector and cable for the output connection to the ONT.

1.2 Theory of Operation

The FlexPoint 1215, 1232 and 1250 units are optical network terminal (ONT) power supplies providing 15W, 32W and 50W (respectively), and 12Vdc primary and standby power to optical network terminals.

The FlexPoint 1208F (FP1208F) unit is an RFoG power supply providing 8W of 12Vdc primary and standby power.

A customer-provided 90Vac to 264Vac, 50/60Hz power receptacle provides primary power to the input of the unit. The AC voltage is then converted to a usable 12Vdc output. The power supply is to be installed within 8' (2.4 m) of an AC receptacle.

Backup power and batteries are user friendly with features including, but not limited to, long life, ease of replacement, purchase, installation and disposal. Power status is provided to the customer via audible alarms and visual indicators.

Upon loss of AC service, the duration of standby power is determined by the battery installed in the unit.

1.3 System Features

- A robust power system which provides either 15W, 32W or 50W of 12Vdc primary and standby power for FTTx activity or 8W of 12Vdc UPS power for Radio Frequency over Glass (RFoG) applications.
- 5.1, 7.2, 8.0Ah battery options available for FP1215, 1232 and FP1250.
- All models have customer replaceable hot-swappable battery.
- Battery management system engineered to provide optimum service life and runtime.
- Local visual and audible status indicators.
- Remote status alarms.

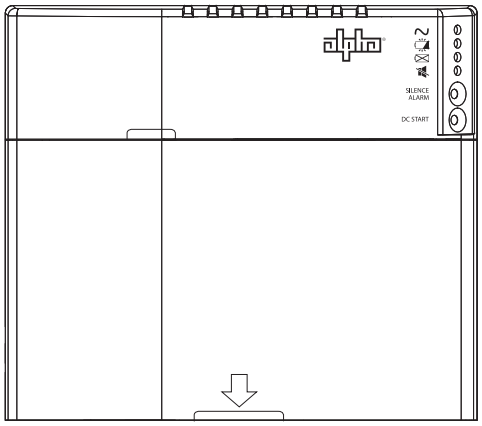


Fig. 1-1, FlexPoint Front View

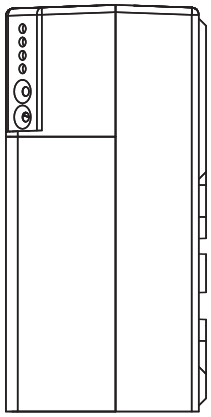


Fig. 1-2, Side View of FlexPoint

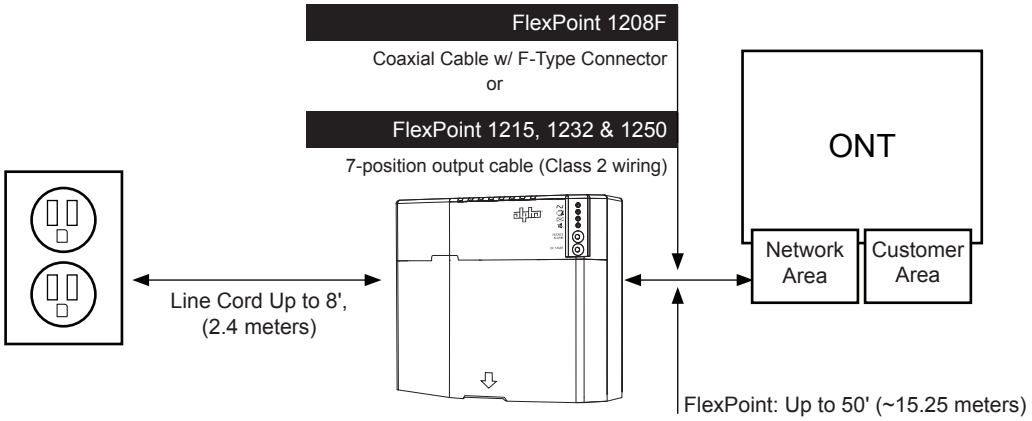


Fig. 1-3, System Block Diagram

1.4 Options

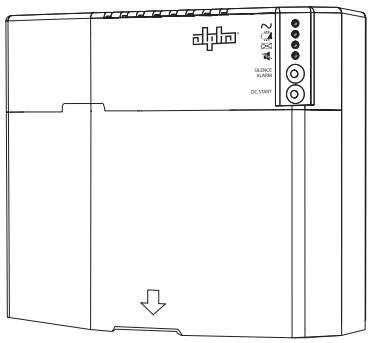
The FlexPoint units have multiple battery and warranty options.

Battery Options	
AX-STDBAT-5	Battery 5.1 Ah AGM, 1-year Warranty
AX-STDBAT-7	Battery 7.2 Ah AGM, 1-year Warranty
AX-LONGBAT-7	Battery 7.2 Ah AGM, 3-year Warranty
AX-LONGBAT-8	Battery 8 Ah AGM, 3-year Warranty
FTTH-CBL	ONT hook-up cable, 2x16 AWG and 5x24 AWG, CMX UL listed
Optional Battery Strap	Alpha p/n 660-112-10

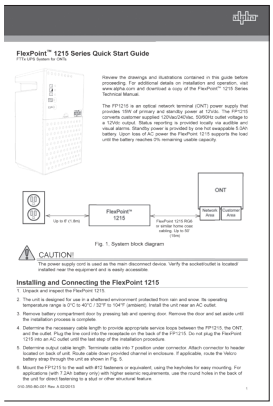
Table 1-2, FlexPoint Battery Options Table

1.5 FlexPoint 1215/32/50 or 1208F Inventory

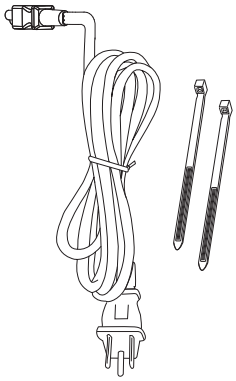
Verify the following items are included with each unit.



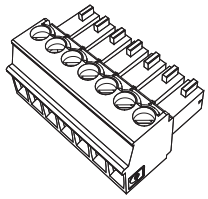
FlexPoint Unit



FlexPoint 1215/32/50
Quick Start Guide
Alpha p/n 010-353-B1
or
FlexPoint 1208F
Quick Start Guide
Alpha p/n 010-353-B8



AC Line Cord
and Cable Ties



7-Position Screw
Terminal Block
(for FP1215/32/50 only)

Fig. 1-4, FlexPoint Unit Inventory

1.6 FlexPoint Dimensions

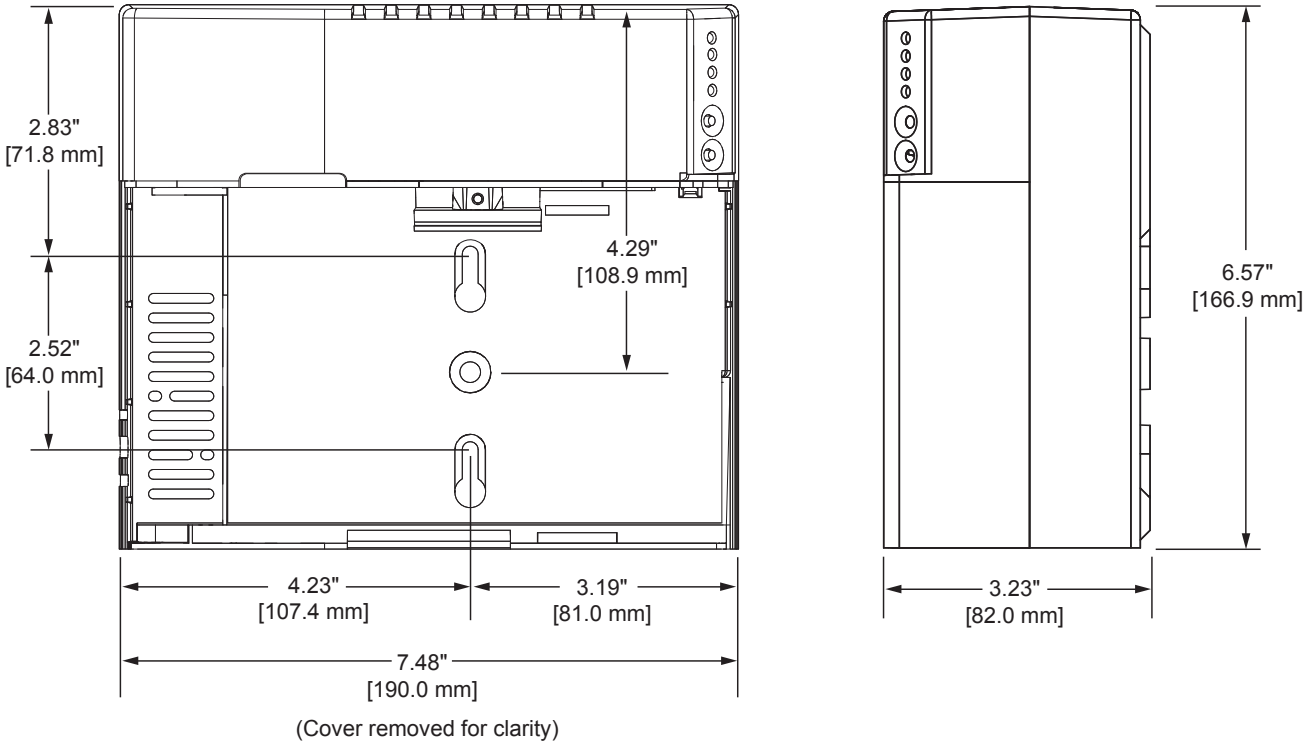


Fig. 1-5, Unit Dimensions (in/[mm]), FlexPoint Unit

2.0 Installation

2.1 Installation and Connection

CAUTION!

- Observe wiring harness polarity. Improperly connecting these wires can cause faulty operation of the unit, cause equipment damage, and void the warranty.
- The power supply cord is used as the main disconnect device. Verify that the equipment is installed near the AC receptacle and that the cord is easily accessible.
- Always mount the unit in a vertical orientation with 6" (15.2 cm) of space above and below, 2–4" (5–10 cm) in front and 2" (5 cm) of space on both sides to provide adequate thermal ventilation.

1. Unpack and inspect the unit.
2. The unit is designed for use in an indoor environment with a maximum ambient temperature of 45° C/113° F. Install the unit within 8' (2.4 m) of an AC receptacle.
3. Remove battery compartment cover by pressing the finger tab underneath the middle of the unit (1) and pull the cover bottom away from the unit (2) and down (3).

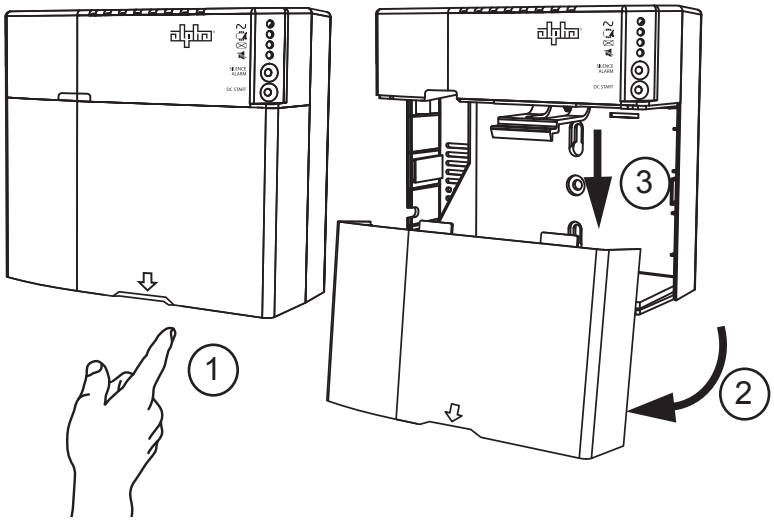


Fig. 2-1, Removing the FlexPoint Cover

***NOTICE*:**

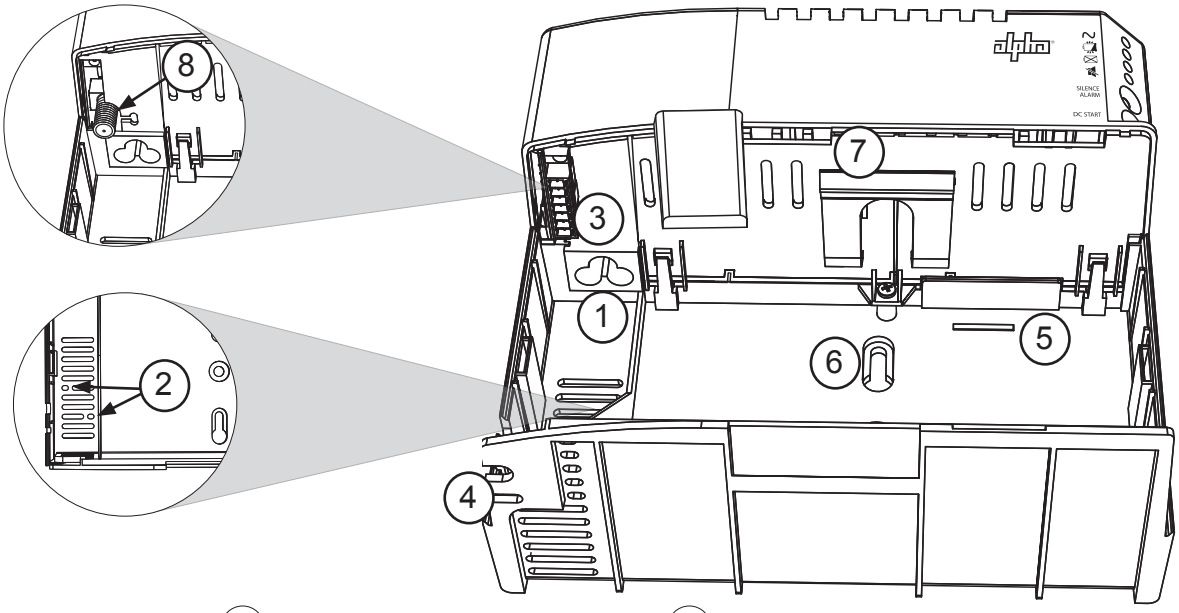
The following procedures will differ slightly for 1208F and 1215/32/50 applications. For 1208F applications sizing cable lengths and attaching connectors should not be necessary.

2.0 Installation

2.1 Installation and Connection, continued

4. Determine the necessary cable length to provide appropriate service loops between the unit, the ONT, and the AC receptacle. Plug the line cord into the receptacle in the unit. (1) Secure line cord at one of the cable tie holes (2) with one included cable tie. DO NOT plug the unit into an AC receptacle until the last step of the installation procedure.

5. Connect the output cable to the 12Vdc output connection (3) and secure in cable dressing holes (4) . Secure output cable at one of the cable tie holes with one of the included cable ties.



(1) AC Line Cord Connection
(2) Cable Tie Holes
(3) Output Cable Connection
(4) Cable Dressing Holes
(5) Optional Battery Strap Slot (1 of 2)
(6) Mounting Holes
(7) Battery Clip
(8) F-Type Connector for FP1208F Models

Fig. 2-2, FlexPoint Connections and Components

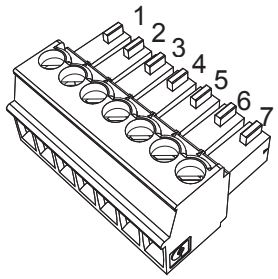


Fig. 2-3, 12Vdc Output Connector Pin Numbers

Pin	Connection	Wire Gauge
1	Positive (+)	16AWG
2	Negative (-)	16AWG
3	Signal Return	24AWG
4	AC FAILURE	24AWG
5	REPLACE BATTERY	24AWG
6	BATTERY MISSING	24AWG
7	BATTERY LOW	24AWG

Table 2-1, 12Vdc Output Connector Pin Connections

6. If required install the battery strap in the battery strap slots (5).

7. Mount to the wall with #12 fasteners or equivalent, using the keyholes (6) for easy mounting. For applications with higher seismic requirements, use the round hole in the back of the unit for direct fastening to a stud or other structural feature.

2.2 Installing the Battery

***NOTICE*:**

- Battery installation is similar for the FP1208F, FP1215, 1232 and 1250.

1. Open the battery cover, see Fig. 2-4.
2. If applicable, ensure the optional battery strap is installed through the two battery strap slots, see item (5) in Fig. 2-2.

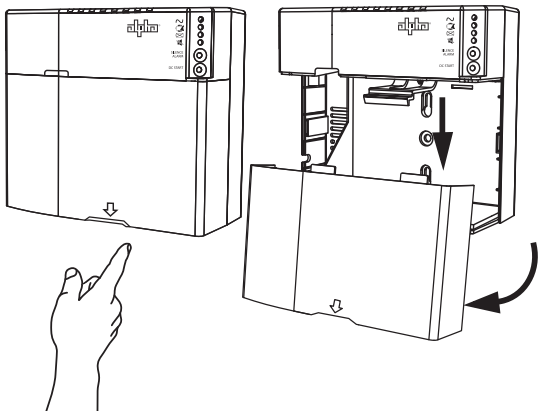


Fig. 2-4, Removing the Battery Cover

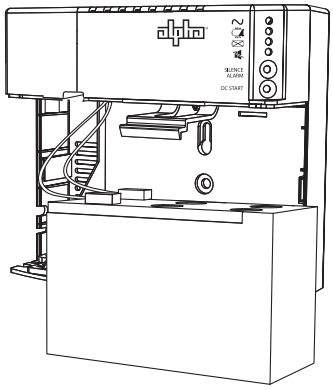


Fig. 2-5, Connecting the Battery Wires

***NOTICE*:**

Ensure the polarity clip is installed to the negative (-) battery terminal.

3. Connect the battery wires to the battery terminals (see Fig. 2-5). The battery polarity clip ensures correct wire connections.
4. Install the battery into the compartment ensuring the battery retaining clip secures the battery for batteries up to 8Ah. When applicable, use the hook and loop strap to retain the battery (see Fig. 2-6). For 5 to 8Ah batteries the hook and loop strap is optional.
5. Replace the battery cover (see Fig. 2-7).

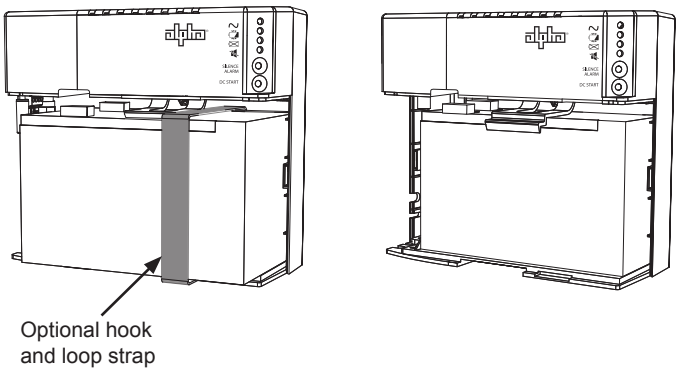


Fig. 2-6, FlexPoint Battery Securing Options

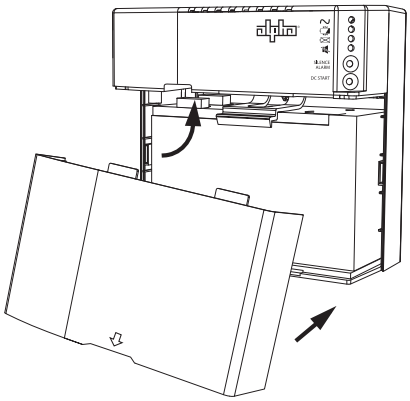
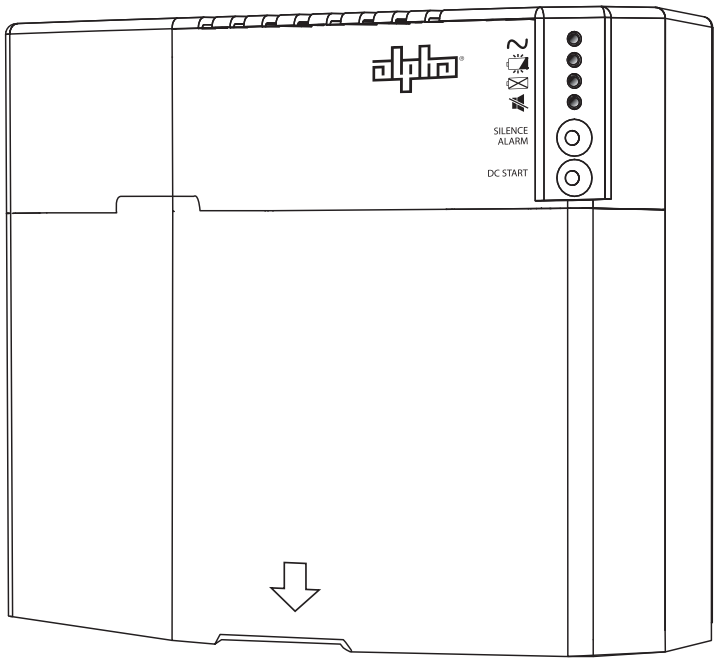


Fig. 2-7, FlexPoint Battery Cover Installation

3.0 Operation

3.1 Power On

1. Plug the unit into AC Power (if no AC power is present and if the battery is installed, press DC start button for 2 seconds to run the unit using battery power).
2. The AC PRESENT LED (GREEN) should light. Additional LEDs on the front panel of the FlexPoint indicate the state of the system (see Fig. 3-1).



	Green LED:	AC Present
	Green LED:	On battery/Low battery
	Red LED:	Battery missing/Replace battery
	Green LED:	Silence Alarm Button has been pushed
SILENCE ALARM	Button:	Press for at least 1 second when unit is on to silence audible alarms until power is cycled
DC START	Button:	Press for at least 2 seconds when unit is off to start on battery without AC present.

Fig. 3-1, Front Panel Displays (FP1208F and FP1215/32/50)

3. Verify proper function by unplugging the AC line cord from the AC receptacle. Within approximately 30 seconds the alarm should sound for 1 second (it may take longer to trigger this alarm if the load is very light or not connected). AC mode LED (Green) will display then turn off and the ON-BATTERY LED (Green) will illuminate.
4. Reconnect the unit to an AC receptacle. The unit is ready to be placed into service.

3.2 Audible Alarms and Visual Indicators

The table below details the audible alarms and visual indicators of the FlexPoint unit.

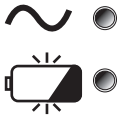
Condition	Status LED		Audible Alarm	Description
AC PRESENT		LED (GREEN) steady ON	N/A	Condition normal; AC powers load, charges battery.
ON BATTERY		LED (GREEN) steady ON	1 second beep on loss of AC	Input fails; battery powers load. On Battery LED will be OFF when AC is present.
LOW BATTERY		LED (GREEN) flashing	1 beep every 15 seconds	Alarm is triggered when AC fails and battery is running low (<11.7 V).
REPLACE POWER SUPPLY		LEDs (GREEN) flashing	N/A	If both GREEN LEDs are flashing, Power Supply needs to be replaced
REPLACE BATT		LED (RED) steady ON	2 beeps, every 15 minutes	The unit automatically initiates a battery test every 180 days. If the unit fails the test, this alarm is triggered.
BATT MISSING		LED (RED) steady ON	N/A	The alarm is triggered when the battery is not installed or not connected.
MUTE		LED (GREEN) steady ON	N/A	Green LED is lit when Silence Alarm button is pressed.

Table 3-1, Audible Alarms and Visual Indicators

3.3 Battery

Battery construction varies significantly between manufacturers. Alpha Technologies recommends the use of Alpha batteries or qualified batteries only.

Battery Options	
Part	**Description**
AX-STDBAT-5	Battery 5.1Ah AGM, 1-year Warranty
AX-STDBAT-7	Battery 7.2Ah AGM, 1-year Warranty
AX-LONGBAT-7	Battery 7.2Ah AGM, 3-year Warranty
AX-LONGBAT-8	Battery 8Ah AGM, 3-year Warranty

Table 3-2, FlexPoint Battery Options Table

NOTICE:

For complete Technical Support call 1-800-863-3364, or for Canada call 1-888-462-7487.

3.4 Operational Modes

3.4.1 Normal Mode

This mode is defined as a state where the load is being supplied from AC input, and the battery is floating, charging or in the process of being tested.

When the unit is initially powered up, or whenever the input supply has been restored after an outage, the unit operates in charge mode. Once the battery voltage has reached the full charge voltage, the unit switches to float mode. If the input voltage is less than the minimum AC input, the system switches to operating in back-up mode.

After approximately 180 days of operation, the battery is automatically tested to determine whether it has adequate capacity. It is tested when the following conditions are met:

1. The battery is operating in float mode for 24 hours; and,
2. The battery is fully charged in the temperature between 5° C to 35° C / 40° to 95°F for 24 hours.
3. No Replace battery alarm due to excessive charging is active. (in accept mode for 1 hour with the battery below 10.5V).
4. Power module over voltage is not active (power module output is higher than the target by 500mV for 75seconds).

If the two conditions are not met when the test becomes due, the test is postponed until those conditions are met. If the AC input is lost, or the unit is overloaded during the battery test, it will be aborted and postponed until conditions are valid.

Once a battery test has been successfully executed, another test will be automatically scheduled to occur in 180 days, without regard to the test results.

3.4.2 Back-Up Mode

The load is being supplied from the battery while the battery voltage is greater than 10.5 Vdc. When the battery falls below this, it is disconnected.

3.4.3 Charging Mode

This maintains the battery at 100% capacity. After an AC outage, when AC is present, the charger continues charging until one of the following occurs:

- Battery has reached 100% capacity. Charging is reduced to float charge level. Normal charge current is approximately 800 mA. When in ACCEPT MODE the current falls below 150 mA, the mode changes to float. In the event the current does not reduce, the software triggers the mode change after 48 hours in ACCEPT
- Another power failure occurs requiring battery support.

No special action is required to restore normal operation once primary power is restored.

3.4.4 Mute Mode

Pressing the Silence Alarm button puts the unit into Mute mode. In this mode the green Mute LED will illuminate and remain illuminated until Silence Alarm is pressed again. Audible Alarm indicators will be silenced, but all other alarm functionality remains the same, see Table 3-1.

4.0 Specifications

4.1 Flexpoint 1215 Specifications

Models	Power Line Cords (Alpha p/n)	
FP1215-5A:	120Vac 3-Conductor NEMA 5-15 power cord (010-354-20-001)	
FP1215-5B:	230Vac 3-Conductor Schuko input power cord (010-354-21-001)	
FP1215-5C:	230Vac 3-Conductor United Kingdom input power cord (010-354-22-001)	
FP1215-5D:	240Vac 3-Conductor Australia/New Zealand input power cord (010-354-23-001)	
FP1215-5E:	250Vac 3-Conductor Brazilian 14136 input power cord (010-354-24-001)	
FP1215-5F	230Vac 3-Conductor Indian input power cord (010-354-25-001)	
Input		
AC Input Voltage:	90Vac–264Vac	
AC Input Frequency:	50/60Hz	
Connection:	IEC 320-C6 3-Prong with cable ties to prevent accidental removal of the line cord.	
Surge Protection:	Standards	Level
	Telcordia GR-1089 ANSI/IEEE C62.41 IEC 61000-4-5	1.2x50us combination wave at 2kV
Output		
Operational Output Power (ONT Load):	15W max. continuous	
Output Voltage:	12Vdc nominal	
Connection:	7-position connector	
Mechanical Dimensions		
Unit Dimensions for 5,7.2 or 8Ah Battery L x W x D (in/mm):	6.6 x 7.5 x 3.2 / 167.6 x 190.5 x 81.3	
Unit Weight without Battery (lb/kg):	1.2 / 0.54	
5.1Ah Battery Weight (lb/kg):	3.9 / 1.8	
7.2Ah Battery Weight (lb/kg):	5.7 / 2.6	
8.0Ah Battery Weight (lb/kg):	5.73 / 2.6	
Estimated Battery Runtimes	7.5W Load	15W Load
5.1Ah Battery (Hrs):	6.3	2.8
7.2Ah Battery (Hrs):	9.9	4.2
8.0Ah Battery (Hrs):	11.2	5.0
Battery Type:	Maintenance free, leak-proof, sealed VRLA (valve regulated lead acid)	
Visual Indicators		
AC Power:	Green LED on: AC power present and powering the ONT	
Battery:	Green LED on: Battery powering ONT during AC loss Green Flashing: Battery powering ONT during AC loss and running low	
Replace Battery:	Red LED off: Battery present and working correctly Red LED on: Replace battery / battery missing	
Mute	Green LED on: Lit when Silence Alarm button is pressed.	
Audible Status Indicators		
Loss of Input Power:	Single, one second chirp	
Low Battery:	Single chirp every 15 second	
Replace Battery:	Double chirp every fifteen minutes	
Push Buttons		
DC Start:	Press and hold when unit is off to start up on battery without AC present	
Silence Alarm:	When any audible alarm is on, press this button for at least 1 second and release to silence the audible alarm until power is cycled	

4.0 Specifications

4.2 Flexpoint 1232 Specifications

Models	Power Line Cords (Alpha p/n)	
FP1232-8A:	120Vac 3-Conductor NEMA 5-15 power cord (875-698-19)	
FP1232-8B:	230Vac 3-Conductor Schuko input power cord (876-042-19)	
FP1232-8C:	230Vac 3-Conductor United Kingdom input power cord (876-046-19)	
FP1232-8D:	240Vac 3-Conductor Australia/New Zealand input power cord (876-043-19)	
FP1232-8E:	250Vac 3-Conductor Brazilian 14136 input power cord (876-044-19)	
FP1232-8-6C:	120Vac 3-Conductor NEMA 5-15 power cord with BC cable (875-698-19)	
FP1232-8F	230Vac 3-Conductor Indian input power cord (876-045-19)	
Input		
AC Input Voltage:	90Vac–264Vac	
AC Input Frequency:	50/60Hz	
Connection:	IEC 320-C6 3-Prong with cable ties to prevent accidental removal of the line cord.	
Surge Protection:	Standards	Level
	Telcordia GR-1089 ANSI/IEEE C62.41 IEC 61000-4-5	1.2x50us combination wave at 2kV
Output		
Operational Output Power (ONT Load):	32W max. continuous	
Output Voltage:	12Vdc nominal	
Connection:	7-position connector	
Mechanical Dimensions		
Unit Dimensions for 5, 7.2 or 8Ah Battery L x W x D (in/mm):	6.6 x 7.5 x 3.2 / 167.6 x 190.5 x 81.3	
Unit Weight without Battery (lb/kg):	1.3 / 0.59	
5.1Ah Battery Weight (lb/kg):	3.9 / 1.8	
7.2Ah Battery Weight (lb/kg):	5.7 / 2.6	
8.0Ah Battery Weight (lb/kg):	5.7 / 2.6	
Estimated Battery Runtimes	16W Load	32W Load
5.1Ah Battery (Hrs):	2.5	1.1
7.2Ah Battery (Hrs):	3.9	1.6
8.0Ah Battery (Hrs):	4.7	2.0
Battery Type:	Maintenance free, leak-proof, sealed VRLA (valve regulated lead acid)	
Visual Indicators		
AC Power:	Green LED on: AC power present and powering the ONT	
Battery:	Green LED on: Battery powering ONT during AC loss Green Flashing: Battery powering ONT during AC loss and running low	
Replace Battery:	Red LED off: Battery present and working correctly Red LED on: Replace battery / battery missing	
Mute	Green LED on: Lit when Silence Alarm button is pressed.	
Audible Status Indicators		
Loss of Input Power:	Single, one second chirp	
Low Battery:	Single chirp every 15 seconds	
Replace Battery:	Double chirp every fifteen minutes	
Push Buttons		
DC Start:	Press for at least 1 second when unit is off to start up on battery without AC present	
Silence Alarm:	When any audible alarm is on, press this button for at least 1 second and release to silence the audible alarm until power is cycled	

4.0 Specifications

4.3 Flexpoint 1250 Specifications

Models	Power Line Cords	
FP1250-8A:	120Vac 3-Conductor NEMA 5-15 power cord (875-698-19)	
FP1250-8B:	230Vac 3-Conductor Schuko input power cord (876-042-19)	
FP1250-8C:	230Vac 3-Conductor United Kingdom input power cord (876-046-19)	
FP1250-8D:	240Vac 3-Conductor Australia/New Zealand input power cord (876-043-19)	
FP1250-8E:	250Vac 3-Conductor Brazilian 14136 input power cord (876-044-19)	
FP1250-8-6C:	120Vac 3-Conductor NEMA 5-15 power cord with BC cable (875-698-19)	
FP1250-8F:	230Vac 3-Conductor India input power cord (876-045-19)	
Input		
AC Input Voltage:	90Vac–264Vac	
AC Input Frequency:	50/60Hz	
Connection:	IEC 320-C6 3-Prong with cable ties to prevent accidental removal of the line cord.	
Surge Protection:	Standards	Level
	Telcordia GR-1089 ANSI/IEEE C62.41 IEC 61000-4-5	1.2x50us combination wave at 2kV
Output		
Operational Output Power (ONT Load):	50W max. continuous	
Output Voltage:	12Vdc nominal	
Connection:	7-position connector	
Mechanical Dimensions		
Unit Dimensions for 5, 7.2 or 8Ah Battery L x W x D (in/mm):	6.6 x 7.5 x 3.2 / 167.6 x 190.5 x 81.3	
Unit Weight without Battery (lb/kg):	1.4 / 0.64	
5.1Ah Battery Weight (lb/kg):	3.9 / 1.8	
7.2Ah Battery Weight (lb/kg):	5.7 / 2.6	
8.0Ah Battery Weight (lb/kg):	5.73 / 2.6	
Estimated Battery Runtimes	36W Load	50W Load
5.1Ah Battery (Hrs):	0.9	0.7
7.2Ah Battery (Hrs):	1.4	1.0
8.0Ah Battery (Hrs):	1.7	1.1
Battery Type:	Maintenance free, leak-proof, sealed VRLA (valve regulated lead acid)	
Visual Indicators		
AC Power:	Green LED on: AC power present and powering the ONT	
Battery:	Green LED on: Battery powering ONT during AC loss Green Flashing: Battery powering ONT during AC loss and running low	
Replace Battery:	Red LED off: Battery present and working correctly Red LED on: Replace battery / battery missing	
Mute	Green LED on: Lit when Silence Alarm button is pressed.	
Audible Status Indicators		
Loss of Input Power:	Single, one second chirp	
Low Battery:	Single chirp every 15 seconds	
Replace Battery:	Double chirp every fifteen minutes	
Push Buttons		
DC Start:	Press for at least 1 second when unit is off to start up on battery without AC present	
Silence Alarm:	When any audible alarm is on, press this button for at least 1 second and release to silence the audible alarm until power is cycled.	

4.0 Specifications

4.4 FlexPoint 1208F Specifications

Models	Power Line Cords	
FP1208F-5A:	120Vac 3-Conductor NEMA 5-15 power cord (875-698-19)	
FP1208F-5B:	240Vac 3-Conductor Schuko input power cord (876-042-19)	
FP1208F-5C:	240Vac 3-Conductor United Kingdom input power cord (876-046-19)	
FP1208F-5D:	240Vac 3-Conductor Australia/New Zealand input power cord (876-043-19)	
FP1208F-5E	250Vac 3-Conductor Brazilian 14136 input power cord (876-044-19)	
Input		
AC Input Voltage:	90Vac–264Vac	
AC Input Frequency:	50/60Hz	
Connection:	IEC 320-C6 3-Prong with cable ties to prevent accidental removal of the line cord.	
Surge Protection:	Standards	Level
	Telcordia GR-1089 ANSI/IEEE C62.41 IEC 61000-4-5	1.2x50us combination wave, 2kV
Output		
Operational Output Power (ONT Load):	15W max. continuous	
Output Voltage:	12Vdc nominal	
Connection:	RF Connector	
Mechanical Dimensions		
Unit Dimensions for 5, 7.2 or 8Ah Battery L x W x D (in/mm):	6.6 x 7.5 x 3.2 / 167.6 x 190.5 x 81.3	
Unit Weight without Battery (lb/kg):	1.2 / 0.54	
5.1Ah Battery Weight (lb/kg):	3.9 / 1.8	
7.2Ah Battery Weight (lb/kg):	5.7 / 2.6	
8.0Ah Battery Weight (lb/kg):	5.73 / 2.76	
Estimated Battery Runtimes	1.5W Load	4W Load
5.1Ah Battery (Hrs):	34.2	12.7
7.2Ah Battery (Hrs):	54.4	20.0
8.0Ah Battery (Hrs):	60.7	22.4
Battery Type:	Maintenance free, leak-proof, sealed VRLA (valve regulated lead acid)	
Visual Indicators		
AC Power:	Green LED on: AC power present and powering the ONT	
Battery:	Green LED on: Battery powering ONT during AC loss Green Flashing: Battery powering ONT during AC loss and running low	
Replace Battery:	Red LED off: Battery present and working correctly Red LED on: Replace battery / battery missing	
Mute	Green LED on: Lit when Silence Alarm button is pressed.	
Audible Status Indicators		
Loss of Input Power:	Single, one second chirp	
Low Battery:	Single chirp every 15 second	
Replace Battery:	Double chirp every fifteen minutes	
Push Buttons		
DC Start:	Press and hold when unit is off to start up on battery without AC present	
Silence Alarm:	When any audible alarm is on, press this button for at least 1 second and release to silence the audible alarm until power is cycled	

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