



AMERICAN TOWER™
CORPORATION

EM-AMTOWER-064-0910160

October 14, 2009

RECEIVED
OCT 16 2009

CONNECTICUT
SITING COUNCIL

Daniel F Caruso, Chairman
CT Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: American Tower site #302468 Petro Lock; Request for Modification of Existing Telecommunications Facilities RCSA §16.50j-72(b) (2)

Dear Chairman Caruso:

American Tower owns the above existing tower facility located at 99 Meadow Street, Hartford, CT. At the request of the Federal Aviation Administration, FAA we would like your approval to add a dual lighting system to the tower that would flash medium white lights during the day and medium red lights at night. Currently, this tower does not have a lighting system. The existing equipment compound size is 50 x 50 for a total of 2500 square feet. The latitude and longitude are as follows:

Latitude: 41-44-35.51N NAD 83

Longitude: 72-40-03.14W

The height of the tower is 149 feet and will not be changing. There will be no antenna additions or changes to the ground equipment. The modification request is to install a lighting system to the tower at the request of the FAA.

The proposed modification complies with the conditions identified in RCSA §16-50j-72(b)(2) in that the changes will not increase the tower height, extend the boundaries of the tower site, increase noise levels at the tower site or add any additional radio frequency electromagnetic emissions to the tower. The proposed lighting addition does not constitute a substantial adverse environmental effect and therefore we would not need a Certificate of Environmental Compatibility and Public Need to be issued by the Council. The proposed lighting addition would not have any adverse environmental impact.

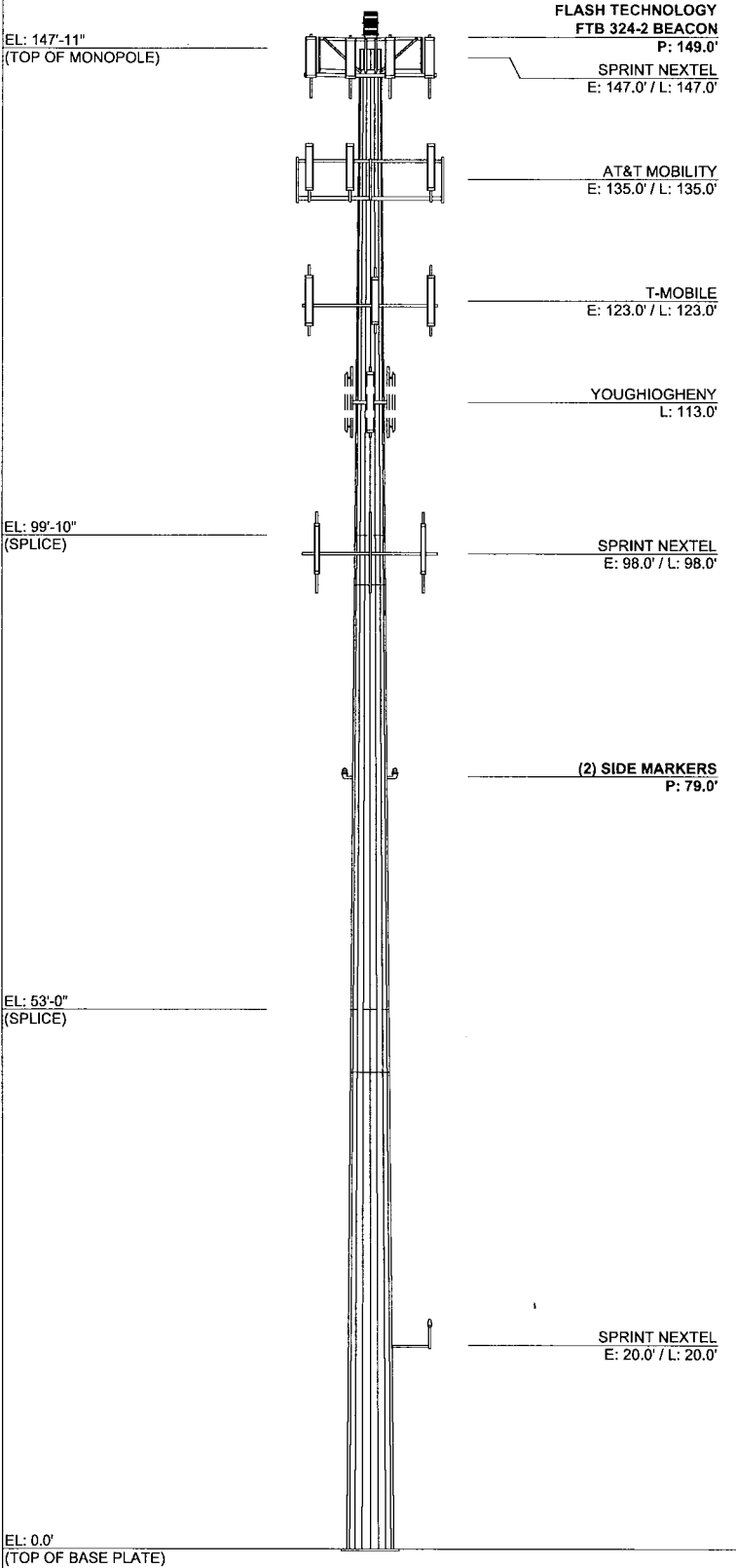
I have included the following documents for your review: engineering drawings that depict the facility and show the modifications along with the capability of the tower structure to accommodate the changes. Also included are materials pertaining to the lighting system. There will be no increased radio frequency emissions generated by the lighting so therefore a calculation of the power density would not be needed.

Please let me know if you have any questions regarding the proposal to modify the existing tower facility with the addition of a lighting system.

Sincerely,



Bonnie Belair
Zoning Attorney
American Tower
781 926-4637



TOWER ELEVATION

ANTENNA STATUS LEGEND		DWN	DATE	DESCRIPTION
A	ABANDONED	P	PROPOSED	PAT 10/13/09 CREATED TP, ADD LIGHTING
E	EXISTING	R	RESERVED	
I	INQUIRY	T	TEMPORARY	AMERICAN TOWER CORPORATION 400 REGENCY FOREST DRIVE CARY, NORTH CAROLINA 27518 PHONE: (919)468-0112 / FAX: (919)468-8414
TBR	TO BE REMOVED			
RECO	PROPOSED RECONFIGURATION			
GENERAL NOTES				
1. INSTALLATION SHALL NOT INTERFERE WITH OR DENY ACCESS TO OPERATIONAL AND SAFETY EQUIPMENT. 2. ANTENNA ARRAYS SHOWN AT EXISTING ELEVATIONS. 3. ALL COAX RUN INSIDE OF MONOPOLE.				
TITLE: TOWER PROFILE		PROJECT: 147'-11" FWT MONOPOLE		
SITE: PETRO LOCK, CT		DATE: 10/13/2009		
DWN:	PAT	SITE #:	302468	DWG #:
				TP

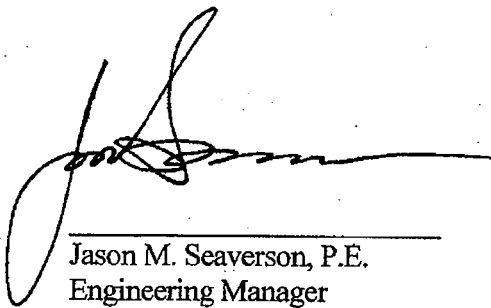


AMERICAN TOWER™
CORPORATION

ATC #302468 [Petro Lock, CT]
Tower Lighting Acceptance Letter
99 Meadow Street
Hartford, CT 06114
Hartford County

Date: *October 13, 2009*

ATC Engineering has reviewed the lighting requirements set forth by the jurisdiction to determine the structural effect of the increased loading has on the existing monopole structure. The additional loading includes a Flash Technology FTB 324-2 beacon located at the top of the tower, and (2) sidelights located at the 76' elevation. It has been determined that the structural capacity of the tower will not be effected substantially with this proposed additional load. The tower meets the strength requirements as set forth in ANSI/TIA-222-F and 2006 International Building Code and has sufficient strength capacity to carry the proposed lighting loads, as well as the contracted antenna loading that exists on the tower.



Jason M. Seaverson, P.E.
Engineering Manager
American Tower Corporation



10/13/09



Raphael I. Mohamed, P.E.
Engineering Manager
American Tower Corporation

Front Matter

Abstract

This manual contains information and instructions for installing, operating and maintaining the FTB 324-2 Medium Intensity Obstruction Lighting System.

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All trademarks and product names mentioned are properties of their respective companies, and are recognized and acknowledged as such by Flash Technology.

Applicable Specifications

This equipment meets or exceeds requirements for an FAA Type L-864 and L-865.

Disclaimer

While every effort has been made to ensure that the information in this manual is complete, accurate and up-to-date, Flash Technology assumes no liability for damages resulting from any errors or omissions in this manual, or from the use of the information contained herein. Flash Technology reserves the right to revise this manual without obligation to notify any person or organization of the revision.

In no event will Flash Technology be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of or the inability to use this manual.

Warranty

Flash Technology warrants all components, under normal operating conditions, for 2 years.

Parts Replacement

The use of parts or components, in this equipment, not manufactured or supplied by Flash Technology voids the warranty and invalidates the third party testing laboratory certification which ensures compliance with FAA Advisory Circulars 150/5345-43E, 150/5345-51 and 150/4345-53B. The certification is valid as long as the system is maintained in accordance with FAA guidelines (FR doc. 04-13718 filed 6-16-04).

Section 1 – Introduction and Operation

System

Each single FTB 324-2 System consists of a FH 324 Flashhead, a PC 324-2 Power Converter, a PEC 510 Photocell, and a connecting cable from the power converter to the flashhead.

The power converter supplies the controlling circuitry to convert main AC power to the required voltages for internal operation and the discharge energy for the flashhead. It also controls the flash rate.

The photocell senses changes in lighting conditions from day to night and from night to day thus signaling the power converter to change its operation appropriately. Also, a manual intensity switch can override the photocell if required.

NOTE

FTB 324-2 System consists of a FH 324-3 Flashhead. If an older flashhead is used, please call Flash Technology for upgrades. See Figure 4-4 for Retrofit Kits and Safety Support Tool.

Specifications

Physical

PC 324-2 (H x W x D, Weight)	
14.00 x 16.75 x 8.44 in., 51 lbs.	
355.6 x 425.5 x 214.4 mm, 23 kg.	
FH 324 (H x Diameter, Weight)	
29.5 x 18.25 in., 28 lbs.	
749 x 463 mm, 12.7 kg.	
PEC 510 Photocell (H x W x Depth)	
3.06 x 2.58 x 1.02 in.	
77.7 x 65.5 x 2.59 mm	
Aerodynamic Wind Area	
Flashhead	2.59 ft ² , 0.241 m ²
Power Converter	1.63 ft ² , 0.15 m ²

Environmental

Complies with FAA specifications in AC 150/5345-43.

Performance Characteristics

Application - L-865 and L-864

Flash Intensity (nominal):

Day (White)	20,000 ± 25% ECD
Night (Red)	2,000 ± 25% ECD
White Backup	2,000 ± 25% ECD
Beam Spread	Horizontal: 360° Vertical: 5°

Flash Rate

Day (White)	40 flashes per min.
Night (Red)	20 flashes per min.
White backup	40 flashes per min.

Electrical (PC 324-2)

AC Voltage	120 or 240V, 60 Hz 110 or 230V, 50 Hz 208-240V 50 Hz
Volt-Amperes	250 peak
Day (White)	130W
Night (Red)	145W
White Backup	55W

Operation

The PC 324-2 Power Converter operates a FH 324. It monitors flashhead operation and signals an alarm if a failure occurs. The flashhead begins to operate as soon as power is applied. A photocell controls intensity for the system.

In daylight, lights flash white at a rate of 40 flashes per minute (FPM) at an intensity of 20,000 candelas. At night the light flashes red at a rate of 20 FPM at an intensity of 2,000 candelas.

Obstructions over 350 feet above ground level require several interconnected PC 324-2 power converters (typically three) operating the corresponding number of flashheads. A master/slave control line (two-wire) at terminals TB1-4 and TB1-5 at the front panel interconnects the units. A sync pulse on the line flashes all the lights in unison and at the same rate.

Section 2 - Mounting, and Installation

Unpacking

Inspect shipping cartons for signs of damage before opening them. Check package contents against the packing list and inspect each item for visible damage. Report damage claims promptly to the freight handler.

Tools

Although no special tools are necessary, Flash Technology suggests the following hand tools for installation and maintenance:

- 9 or 12 inch, flat blade #2 screwdriver
- #2 Phillips® head screwdriver
- Medium slip joint pliers
- Set of combination wrenches
- Long-nose pliers
- Assorted nut driver handles: 1/4", 5/16", 3/8" recommended
- Analog volt-ohm meter
- Multi-purpose crimp tool
- Safety Support Tool (P/N 1905333)

Access

WARNING

Before proceeding, read the warning on Page iii. Disconnect the primary power before opening enclosures.

Power Converter

The base of the power converter has mounting feet. The cover lifts off for unrestricted access to the interior. Release the latches that secure the cover to remove it for internal access.

Flashhead

Pivot the lens open by disengaging two quick-release latches. Two lanyard cables secure the lens. The flashhead normally contains no interlock. Disconnect primary power to the power converter before you open the flashhead. Wait one minute for storage capacitors to drain down. Open the flashhead and use a voltmeter to check that no voltage potential exists between the red and the blue wires on the ceramic terminal posts.

Mounting

Power Converter

Mounting and outline dimensions for the power converter are shown in Figure 2-1. Flash Technology does not furnish mounting hardware unless ordered as part of an installation kit. Use the following guidelines for mounting the power converter:

Ensure that adequate space exists around the equipment for access during installation, maintenance and servicing.

Allow space for air flow around the power converter.

You must use a bonding strap on a bolt through the power converter case leg. Connect the strap to the site grounding system.

Flashhead

Mounting and outline dimensions for the flashhead are shown in Figure 2-2. The flashhead must be protected from lightning strikes. The flashhead may be mounted to painted or unpainted surfaces. One of the mounting holes in the base of the flashhead contains a built-in electrical ground connection. Use the following guidelines for mounting the flashhead:

Use a lightning rod extended above the flashhead to protect it when it is mounted at the uppermost part of the structure.

Avoid locating a lightning rod where it would prevent tilting the lens open or interfere with access by maintenance or service personnel.

You must use a bonding strap with a flashhead mounting bolt when mounting the flashhead to the structure, using the mounting bolt to fasten the strap to the leg that contains the ground connection.

Flashhead Leveling

The flashheads must be level for correct vertical beam alignment. Two leveling vials—aligned with the mounting feet—are permanently attached to the flashhead assembly. Typically, the mounting surface for the flashhead is level and no adjustments are required. When the flashhead is level, bubbles in both leveling vials are centered. For leveling, use the following guidelines:

If adjustment is necessary, raise the appropriate mounting foot with shims or washers. Raising one foot by 1/16 inch (1.6 mm) tilts the beam about 1/2 degree.

Take extreme care to ensure that all four feet rest snugly against a firm mounting surface before tightening the mounting bolts. Failure to do so could result in serious damage to the base when you tighten the bolts.

Photocell

Mounting and outline dimensions for the photocell are shown in Figure 2-3. The photocell uses a male 1/2" NPT for mounting. Use the following guidelines to mount the photocell:

Locate the photocell where it has an unobstructed view of the polar sky.

It must not view direct or reflected artificial light.

The photocell may be supported directly by electrical conduit.

Ensure that the installation is watertight.

Installation

This manual may not contain all the information about installation wiring required for your installation.

NOTE

If installation drawings prepared specifically for your site disagree with information provided in this manual, the site installation drawings should take precedence. Consult any site-specific installation wiring diagram supplied with your equipment.

Flash Technology wiring diagrams define only minimum requirements recommended for satisfactory equipment operation. It is the responsibility of the installer to comply with all applicable electrical codes.

You can find conduit and other distribution wiring details on electrical installation diagrams provided by Flash Technology or others. Installation instructions concerning red light marker fixtures are not part of this manual.

All installation wiring should have an insulation rating of 600 volts. You must size power service wiring to satisfy the load demand of the red light system (if present) and the power converters. Read the notes on the installation wiring diagrams supplied both in this manual and with the equipment. See Figure 2-9 for information about wiring alarm connections to the main panel of the power converter.

Power Converter Wiring

Consult the installation wiring drawings. For service wiring, consider the voltage, length of the wire run, and the total load (number of lights). Assume a load of 175 volt-amperes per light, and do not permit the line voltage to drop by more than 5%

due to wire resistance. Assume a load of 175 volt-amperes per light to determine the slow-acting fuse ratings at the power distribution panel. Use a value of 250 volt-amperes per light to determine fast-acting fuse ratings at the power distribution panel and to select a system feeder transformer (if used).

In multiple-unit systems, the master unit and slave units communicate over the “master/slave” interconnect wiring. Twist the wires together at the rate of 12 twists per foot. The recommended minimum size for control and signal conductors is #14 AWG.

Flashhead Wiring

The power converter and flashhead are interconnected by the flashhead cable. When Flash Technology Part Number 6340, or equivalent cable, is used, the two may be separated by a distance up to 600 feet. Consult the factory when a greater separation is necessary. The cable between the power converter and flashhead requires five conductors with 600 volts (minimum) insulation. Two of the conductors must be #10 AWG. The other three may be #16 AWG (minimum; for mechanical strength) if you are cabling together individual wires.

To ensure long-term equipment reliability, use continuous wiring between the power converters and their flashheads without intervening junctions or splices.

Securing the Cable

Flash Technology recommends the following method for securing the flashhead cable to a skeletal structure:

1. Run the cable along one of the tower legs and wrap two full turns of two-inch Scotchrap™ #50 tape, or the equivalent, around the cable and tower leg at regular intervals of about 5 feet (1.5 meters).
2. Wrap three full turns of one-inch Scotchrap Filament #890 tape, or the equivalent, over the Scotchrap #50 tape.
3. Wrap four full turns of two-inch Scotchrap #50 tape, or the equivalent, over the Scotchrap Filament #890 tape.
4. Perform steps 1 through 4 also directly above and below any tower leg flanges that the cable may cross.

Photocell Wiring

The photocell is supplied with pigtails for connection to wires that connect to the power converter. It is connected to the main panel of the power converter. It may be located any practical distance from the power converter. The recommended minimum wire gauge is #16 AWG.

The photocell terminals on the slave power converters must be jumpered from TB1-1 to TB1-2. (An alternative jumper may be installed on PCB1 J18-1 to J18-2.) Also, you connect the master unit (to which the photocell is directly connected) to the top flashhead.

Installation Checklist

Complete the following steps before applying power to the lights.

1. Inspect all equipment for damage.
2. Verify the received equipment against the packing list to ensure completeness.
3. Power Converter Mounting. Position and mount each unit correctly, allowing adequate clearance for opening the covers. Use the following checks:
 1. Ensure that the case is mounted upright, is water tight, and grounded to the site grounding system.

2. Check hardware to ensure that all mounting hardware is tight.
 3. Ensure that only the bottom of the case has drain holes and that they are clear.
 4. Ensure that no holes are punched or drilled on the top surface of the case.
 5. Ensure that air can flow around the case.
 6. Mount the power converter away from radio frequency interference (RFI).
4. Power Converter Wiring. Examine the installation drawings and use the following checks:
1. Check for proper incoming service voltage.
 2. Wire each unit according to the instructions.
 3. In multiple installations of three systems, all three power converters should be on the same breaker.
 4. Check all electrical connections for tightness.
 5. Check all terminal strip connections for tightness.
 6. Ground the power converter.
 7. Wires at master/slave interconnect terminals should be daisy-chained as a twisted pair between the master power converter and the slave units. The rate of twist is 12 per foot. If a shielded cable is used, ground the shield. For example, ensure that TB1-4 is connected to all TB1-4 connections on all units, and TB1-5 is similarly connected.
5. Alarm Wiring.
1. If external alarm detection circuit responds to closed contacts, ensure that they are wired to the contacts on TB1 that close on alarm.
 2. If external alarm detection circuit responds to open contacts, ensure that they are wired to the contacts on TB1 that open on alarm.
 3. Alarm wiring should be lightning and RFI protected: shielded, grounded shield, and in a conduit.
 4. If a specific alarm is ganged together from all power converters as one, ensure that the wiring follows local installation instructions.
6. Flashhead Mounting.
1. Ensure that the flashhead lens can be opened without striking other objects.
 2. Level and aim the flashhead.
7. Flashhead Wiring.
1. Protect the top flashhead against lightning strikes.
 2. Ground the flashhead.
 3. Check the wiring of the flashhead cable to the flashhead.
 4. Secure the flashhead cable to the tower. Support and tape the flashhead cable to prevent its movement by the wind.
8. Photocell.
1. Locate photocell where it views unobstructed polar sky with no direct or reflected artificial lighting striking it.
 2. Mount the photocell vertically to prevent water from entering the unit. Ensure watertight connections.
 3. Connect the photocell to the master power converter.

After completing all the steps listed above, turn on the power and perform an operational checkout from procedures in Section 3 of this manual.

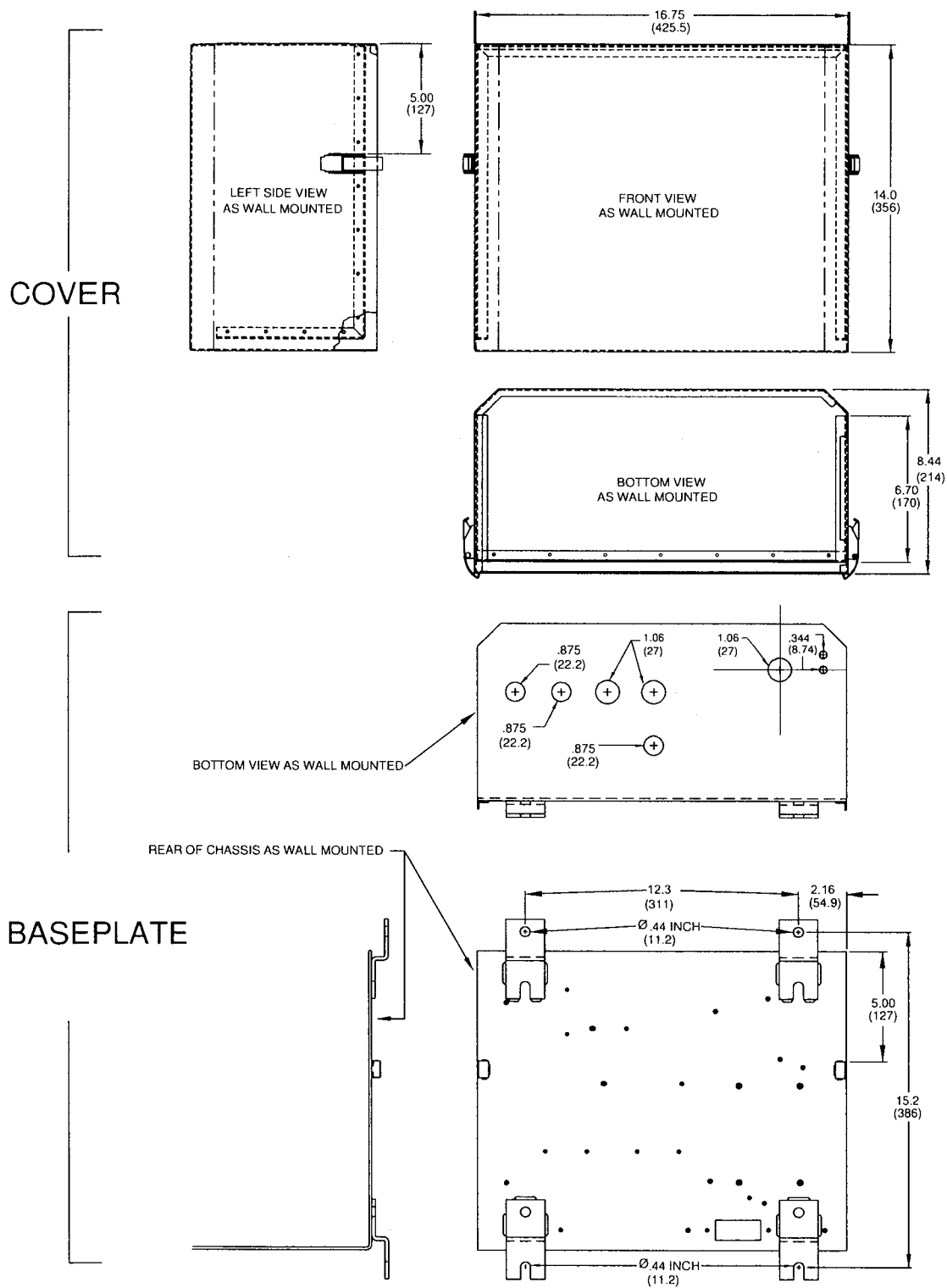


Figure 2-1 – Power Converter Mounting and Outline

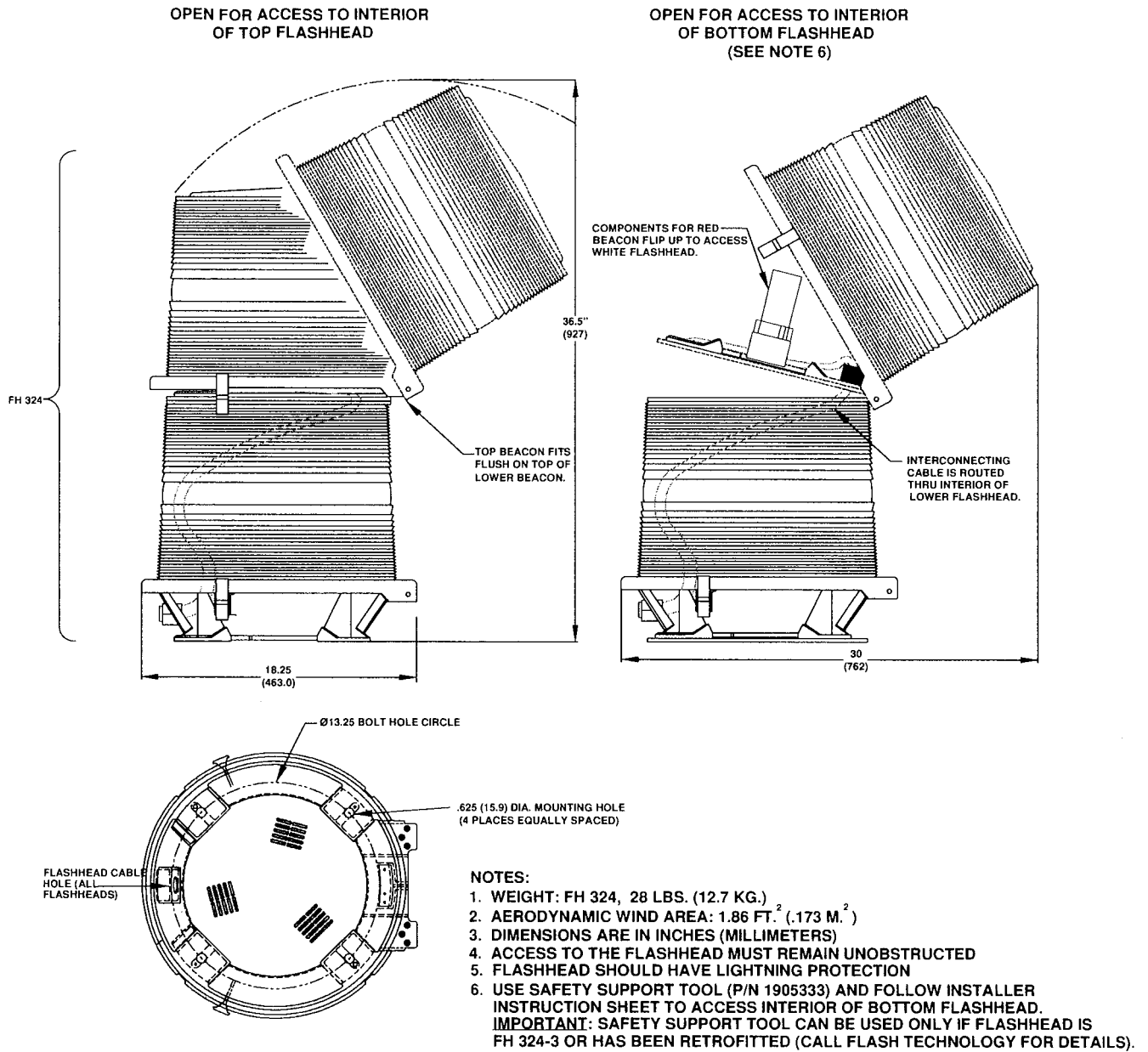


Figure 2-2 – Flashhead Mounting and Outline

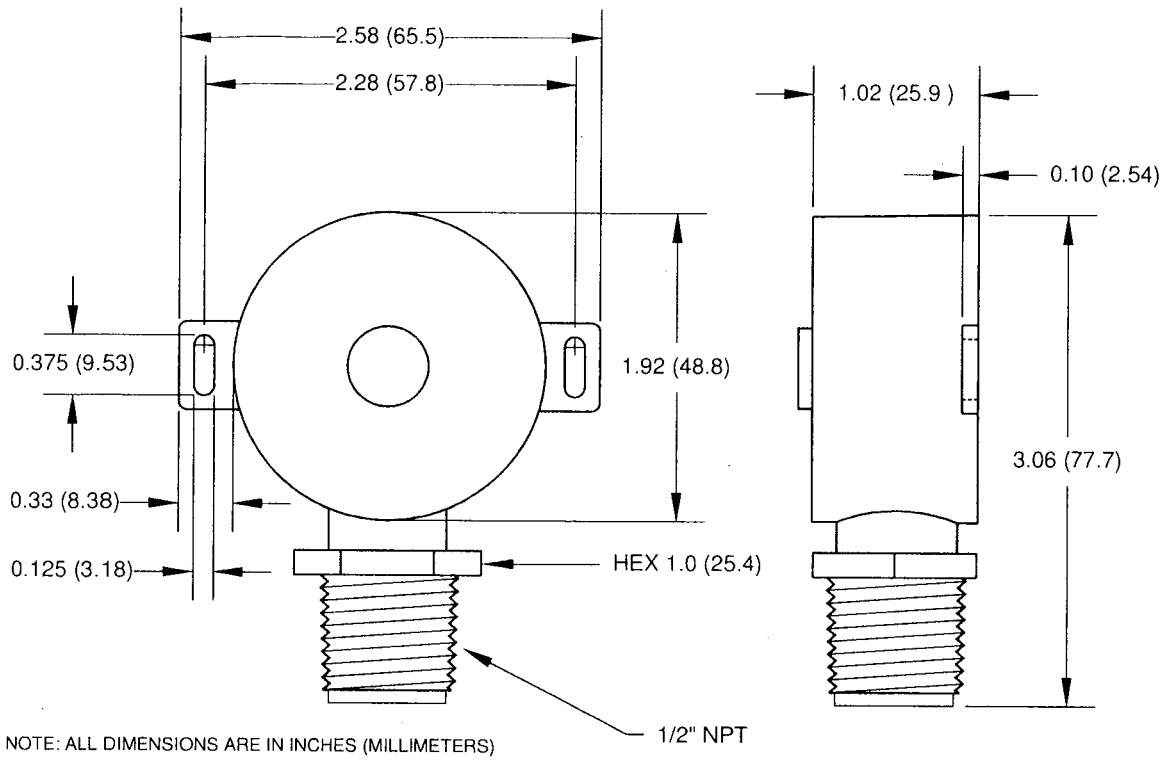


Figure 2-3 – Photocell Mounting and Outline



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ORIGINAL

Daniel F Caruso, Chairman
CT Siting Council
Ten Franklin Square
New Britain, CT 06051

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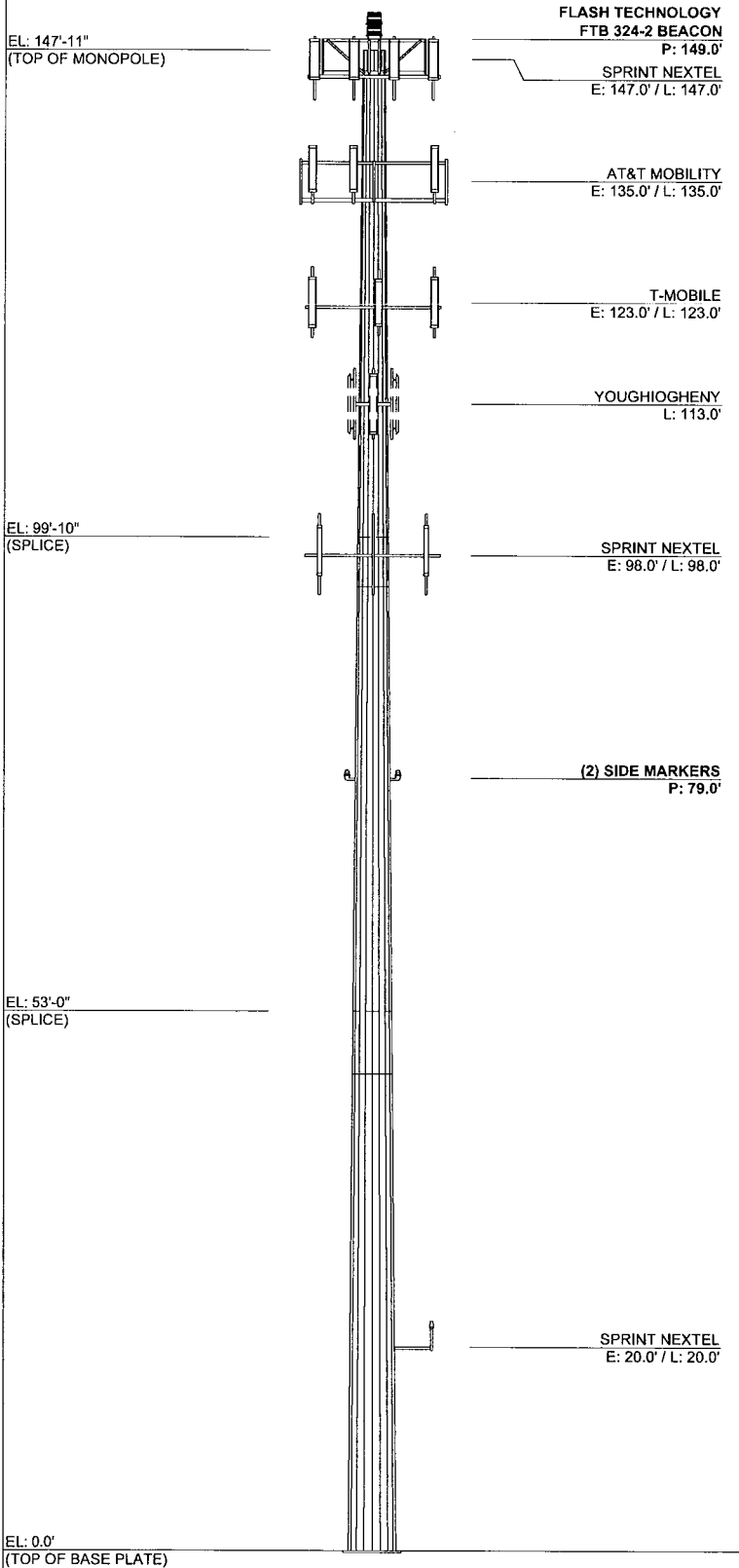


Bonnie Belair

Zoning Attorney

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781 926-4637



TOWER ELEVATION

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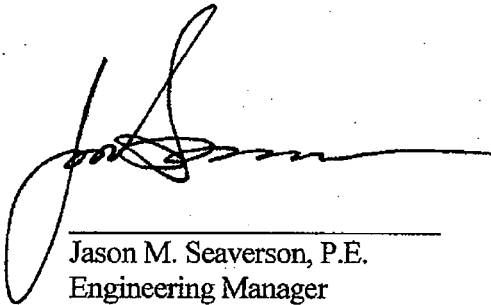


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Mounting

Power Converter

Mounting and outline dimensions for the power converter are shown in Figure 2-1. Flash Technology does not furnish mounting hardware unless ordered as part of an installation kit. Use the following guidelines for mounting the power converter:

Ensure that adequate space exists around the equipment for access during installation, maintenance and servicing.

Allow space for air flow around the power converter.

You must use a bonding strap on a bolt through the power converter case leg. Connect the strap to the site grounding system.

Flashhead

Mounting and outline dimensions for the flashhead are shown in Figure 2-2. The flashhead must be protected from lightning strikes. The flashhead may be mounted to painted or unpainted surfaces. One of the mounting holes in the base of the flashhead contains a built-in electrical ground connection. Use the following guidelines for mounting the flashhead:

Use a lightning rod extended above the flashhead to protect it when it is mounted at the uppermost part of the structure.

Avoid locating a lightning rod where it would prevent tilting the lens open or interfere with access by maintenance or service personnel.

You must use a bonding strap with a flashhead mounting bolt when mounting the flashhead to the structure, using the mounting bolt to fasten the strap to the leg that contains the ground connection.

Flashhead Leveling

The flashheads must be level for correct vertical beam alignment. Two leveling vials—aligned with the mounting feet—are permanently attached to the flashhead assembly. Typically, the mounting surface for the flashhead is level and no adjustments are required. When the flashhead is level, bubbles in both leveling vials are centered. For leveling, use the following guidelines:

If adjustment is necessary, raise the appropriate mounting foot with shims or washers. Raising one foot by 1/16 inch (1.6 mm) tilts the beam about 1/2 degree.

Take extreme care to ensure that all four feet rest snugly against a firm mounting surface before tightening the mounting bolts. Failure to do so could result in serious damage to the base when you tighten the bolts.

Photocell

Mounting and outline dimensions for the photocell are shown in Figure 2-3. The photocell uses a male 1/2" NPT for mounting. Use the following guidelines to mount the photocell:

Locate the photocell where it has an unobstructed view of the polar sky.

It must not view direct or reflected artificial light.

The photocell may be supported directly by electrical conduit.

Ensure that the installation is watertight.

Installation

This manual may not contain all the information about installation wiring required for your installation.

NOTE

If installation drawings prepared specifically for your site disagree with information provided in this manual, the site installation drawings should take precedence. Consult any site-specific installation wiring diagram supplied with your equipment.

Flash Technology wiring diagrams define only minimum requirements recommended for satisfactory equipment operation. It is the responsibility of the installer to comply with all applicable electrical codes.

You can find conduit and other distribution wiring details on electrical installation diagrams provided by Flash Technology or others. Installation instructions concerning red light marker fixtures are not part of this manual.

All installation wiring should have an insulation rating of 600 volts. You must size power service wiring to satisfy the load demand of the red light system (if present) and the power converters. Read the notes on the installation wiring diagrams supplied both in this manual and with the equipment. See Figure 2-9 for information about wiring alarm connections to the main panel of the power converter.

Power Converter Wiring

Consult the installation wiring drawings. For service wiring, consider the voltage, length of the wire run, and the total load (number of lights). Assume a load of 175 volt-amperes per light, and do not permit the line voltage to drop by more than 5%

due to wire resistance. Assume a load of 175 volt-amperes per light to determine the slow-acting fuse ratings at the power distribution panel. Use a value of 250 volt-amperes per light to determine fast-acting fuse ratings at the power distribution panel and to select a system feeder transformer (if used).

In multiple-unit systems, the master unit and slave units communicate over the “master/slave” interconnect wiring. Twist the wires together at the rate of 12 twists per foot. The recommended minimum size for control and signal conductors is #14 AWG.

Flashhead Wiring

The power converter and flashhead are interconnected by the flashhead cable. When Flash Technology Part Number 6340, or equivalent cable, is used, the two may be separated by a distance up to 600 feet. Consult the factory when a greater separation is necessary. The cable between the power converter and flashhead requires five conductors with 600 volts (minimum) insulation. Two of the conductors must be #10 AWG. The other three may be #16 AWG (minimum; for mechanical strength) if you are cabling together individual wires.

To ensure long-term equipment reliability, use continuous wiring between the power converters and their flashheads without intervening junctions or splices.

Securing the Cable

Flash Technology recommends the following method for securing the flashhead cable to a skeletal structure:

1. Run the cable along one of the tower legs and wrap two full turns of two-inch Scotchrap™ #50 tape, or the equivalent, around the cable and tower leg at regular intervals of about 5 feet (1.5 meters).

2. Wrap three full turns of one-inch Scotchrap Filament #890 tape, or the equivalent, over the Scotchrap #50 tape.
3. Wrap four full turns of two-inch Scotchrap #50 tape, or the equivalent, over the Scotchrap Filament #890 tape.
4. Perform steps 1 through 4 also directly above and below any tower leg flanges that the cable may cross.

Photocell Wiring

The photocell is supplied with pigtails for connection to wires that connect to the power converter. It is connected to the main panel of the power converter. It may be located any practical distance from the power converter. The recommended minimum wire gauge is #16 AWG.

The photocell terminals on the slave power converters must be jumpered from TB1-1 to TB1-2. (An alternative jumper may be installed on PCB1 J18-1 to J18-2.) Also, you connect the master unit (to which the photocell is directly connected) to the top flashhead.

Installation Checklist

Complete the following steps before applying power to the lights.

1. Inspect all equipment for damage.
2. Verify the received equipment against the packing list to ensure completeness.
3. Power Converter Mounting. Position and mount each unit correctly, allowing adequate clearance for opening the covers. Use the following checks:
 1. Ensure that the case is mounted upright, is water tight, and grounded to the site grounding system.

2. Check hardware to ensure that all mounting hardware is tight.
 3. Ensure that only the bottom of the case has drain holes and that they are clear.
 4. Ensure that no holes are punched or drilled on the top surface of the case.
 5. Ensure that air can flow around the case.
 6. Mount the power converter away from radio frequency interference (RFI).
4. Power Converter Wiring. Examine the installation drawings and use the following checks:
 1. Check for proper incoming service voltage.
 2. Wire each unit according to the instructions.
 3. In multiple installations of three systems, all three power converters should be on the same breaker.
 4. Check all electrical connections for tightness.
 5. Check all terminal strip connections for tightness.
 6. Ground the power converter.
 7. Wires at master/slave interconnect terminals should be daisy-chained as a twisted pair between the master power converter and the slave units. The rate of twist is 12 per foot. If a shielded cable is used, ground the shield. For example, ensure that TB1-4 is connected to all TB1-4 connections on all units, and TB1-5 is similarly connected.
 5. Alarm Wiring.
 1. If external alarm detection circuit responds to closed contacts, ensure that they are wired to the contacts on TB1 that close on alarm.
 2. If external alarm detection circuit responds to open contacts, ensure that they are wired to the contacts on TB1 that open on alarm.
 3. Alarm wiring should be lightning and RFI protected: shielded, grounded shield, and in a conduit.
 4. If a specific alarm is ganged together from all power converters as one, ensure that the wiring follows local installation instructions.
 6. Flashhead Mounting.
 1. Ensure that the flashhead lens can be opened without striking other objects.
 2. Level and aim the flashhead.
 7. Flashhead Wiring.
 1. Protect the top flashhead against lightning strikes.
 2. Ground the flashhead.
 3. Check the wiring of the flashhead cable to the flashhead.
 4. Secure the flashhead cable to the tower. Support and tape the flashhead cable to prevent its movement by the wind.
 8. Photocell.
 1. Locate photocell where it views unobstructed polar sky with no direct or reflected artificial lighting striking it.
 2. Mount the photocell vertically to prevent water from entering the unit. Ensure watertight connections.
 3. Connect the photocell to the master power converter.
- After completing all the steps listed above, turn on the power and perform an operational checkout from procedures in Section 3 of this manual.

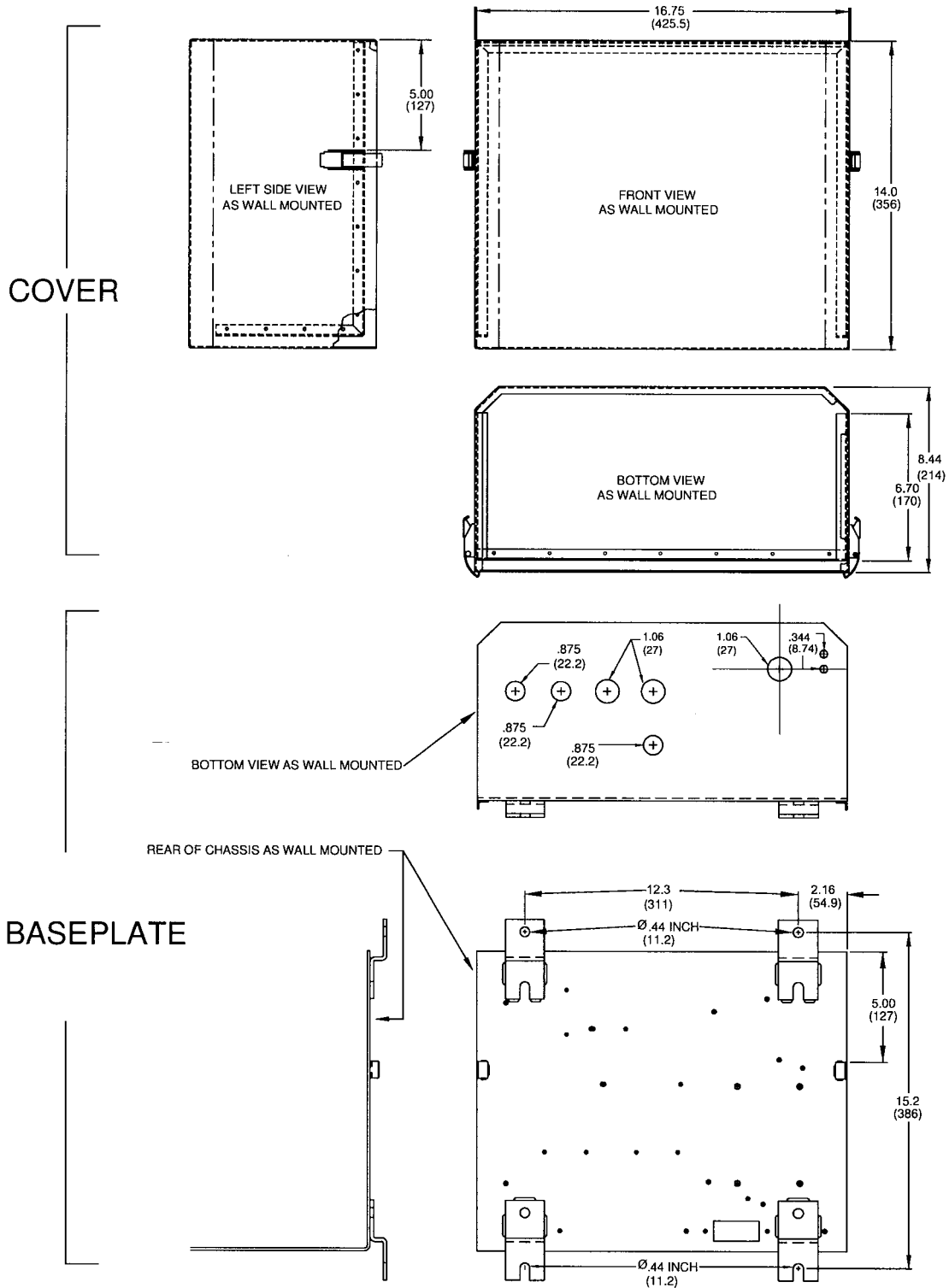


Figure 2-1 – Power Converter Mounting and Outline

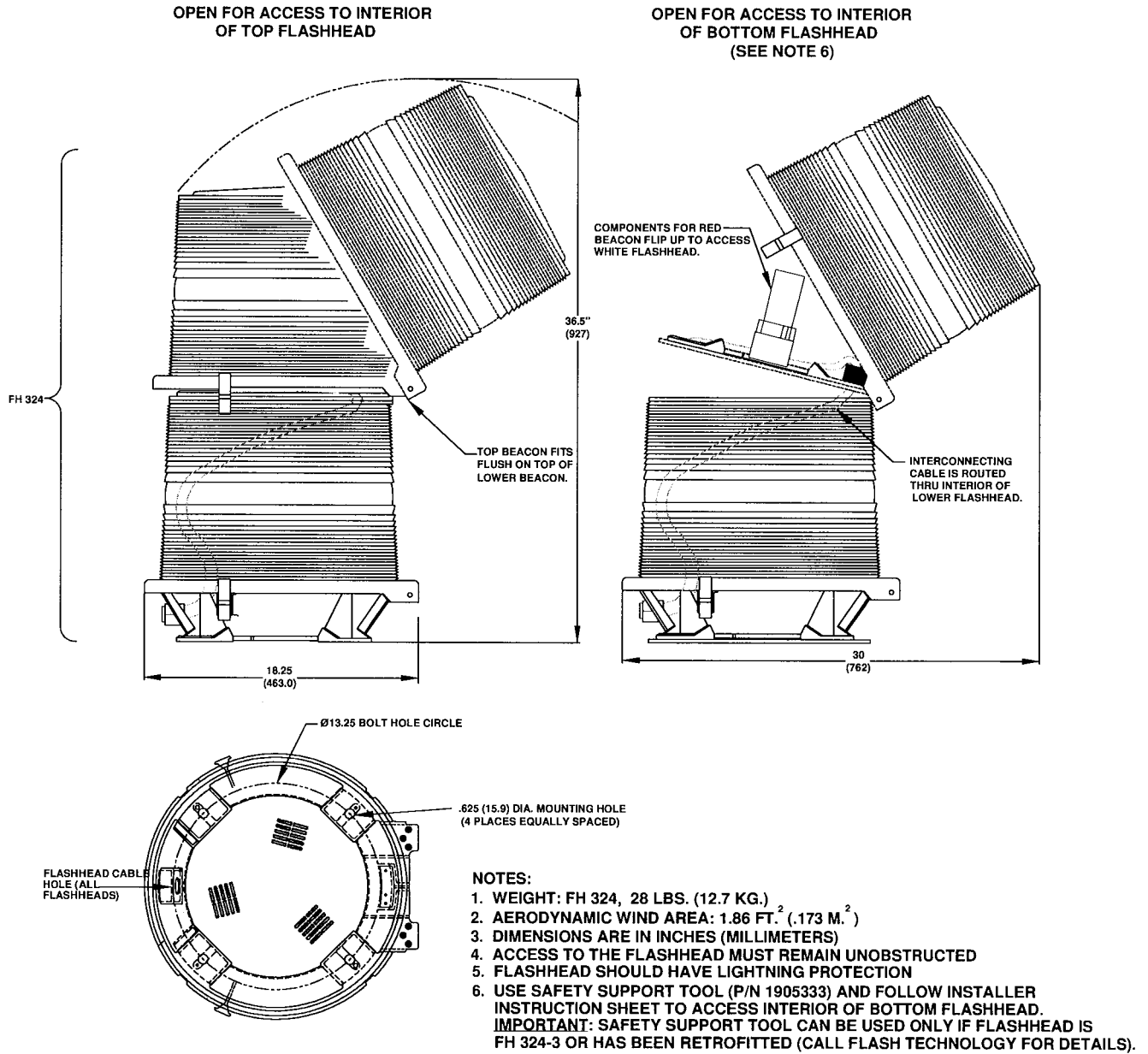


Figure 2-2 – Flashhead Mounting and Outline

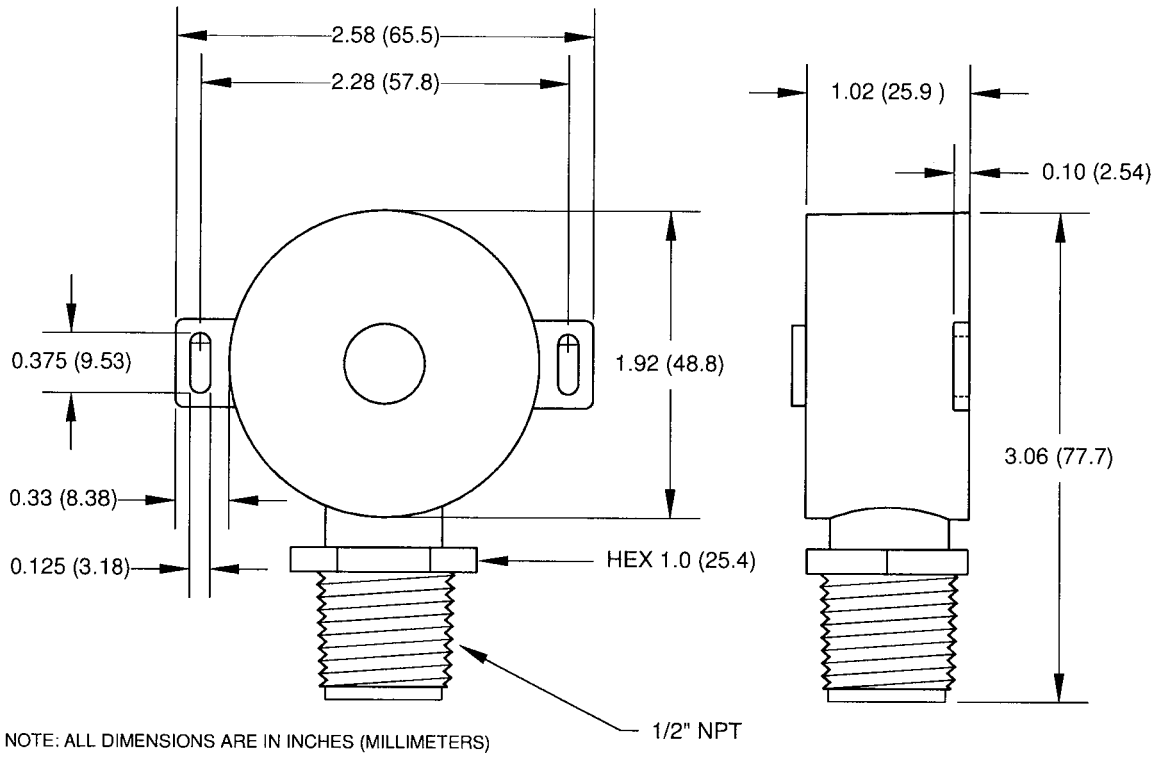


Figure 2-3 – Photocell Mounting and Outline