

LIGHTING AND ELECTRICAL SUPPLIES



12-Volt Batteries — Lead/Acid Battery

Valve Packs. Includes acid and is packaged so as to avoid hazardous UPS charges.

Part Number	5-Hour Cap.	Cold Crank	Emer. Cap.	Length	Width	Height	Weight (in lbs.)
CB-25VP	25AH	235A	35A	7.71	5.18	7.53	28
CB-35AVP	35AH	330A	45A	9.78	5.17	6.83	35

Limited Warranty: 24 months on 12-volt batteries.

24-Volt Batteries

Limited Warranty:
12 months on 24-volt batteries

Part Number	5-Hour Cap.	Cold Crank	Emer. Cap.	Length	Width	Height	Weight (in lbs.)
CB-24-11	17AH	190A	13A	7.38	7.31	6.46	27
CB-24-11M	17AH	190A	16A	7.38	7.31	6.75	28

M = manifold vented



Concorde Platinum Series Extra High Cranking 12 Volt Batteries

12 volt "25 & 35" series vented lead acid aircraft battery

FEATURING:

Real aircraft quality copper alloy terminals with silicon bronze bolts and conical washers. (no more lawn and garden tractor lead terminals with cast in studs, split lock washers and wing-nuts). More cold cranking amperes for one minute at 0 degrees F (-18C) than any other brand. More 30 minute emergency capacity than any other brand. More one hour capacity than any other brand. More high rate performance (rated to the international electrotechnical commission IEC 952-1 standard).



Battery Temperature Degrees Celsius	Peak Power Amperes		Power rating Amperes	
	CB-25XC	CB-35AXC	CB-25XC	CB-35AXC
23	895	1121	738	939
-18	625	818	513	665
-30	447	603	371	492

Part Number	One Hour Capacity	Cold Crank Amp.	30 Min. Emer. Capacity	Length	Width	Height	Weight In Lbs.
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CB-25XCVP	25AH	295 CCA	43AH	7.71	8.18	7.29	24.5
CB-35AXCVP	34AH	385 CCA	55AH	9.78	5.17	7.31	31

CB-25XC Same as CB-25XCVP except no acid.
CB-35AXC Same as CB-35AXCVP except no acid.
These batteries are packaged with their own acid packs.

Valve Regulated Sealed Lead Acid Batteries FAA/PMA Approved

- Redesigned for more power
- Aircraft type terminals
- Fully sealed for aerobatic applications



Part No.	Volt	Amp/ Hr	Ipr@ 23°C/74°F	L	W	H	Shipping Weight
RG-25	12V	22AH	508A	7.50	4.97	6.81	23
RG-35A	12V	29AH	898A	9.58	4.97	6.83	31
RG-24-11M	24V	11AH	504A	7.90	7.31	6.75	26.5
- High Capacity Extra Cranking Power -							
RG-25XC	12V	24AH	597A	7.50	4.97	6.81	25
RG-35AXC	12V	33AH	1096A	9.58	4.97	6.83	33

Concord 24 volt Platinum Series Battery

Battery Temperature Degrees Celsius	Peak Power Amperes	Power rating Amperes
23	1064	643
-18	684	437
-30	533	310



Part Number	Rated Cap.	Length	Width	Height	Weight (in lbs.)
CB-24-11XC	15AH	7.38	7.31	6.33	31
CB-24-11MXC	15AH	8.65	7.31	6.73	31

M = manifold vented

24-Volt Batteries Commuter Series

Limited Warranty:
12 months on 24-volt batteries
Shown in picture: CB-24-380E



Part Number	5-Hour Cap.	Cold Crank	Emer. Cap.	length	Width	Height	Weight (in lbs.)
CB-24-380E	45AH	505A	79A	11.87	9.84	10.28	80
CB-24-390E	25AH	345A	42A	9.81	9.90	8.84	55
CB-24-40E	14AH	190A	22A	7.75	7.63	7.40	34

*"E" indicates an Elcon quick-disconnect which mates with an Elcon part number BD6-3 and BD13-1 quick-disconnect plug in the aircraft. Cannon-type connectors are available.

Battery Charger for RG-25 and RG-35
(New Concorde High Reliability Maintenance-Free Batteries)
Part Number.....CBC-12V10A

Battery Acid Solution (1.285 specific gravity)

2-quart pack.....	CBA6-2Q
3-quart pack.....	CBA4-3Q

MIL-SPEC BATTERIES — QUALIFIED PRODUCTS LISTED

replaces obsolete AN-3150 and MS-18045 series batteries (Cannon connectors)

Part Number	Volts	1 Hour AH	3 Minutes 0°F	Length	Width	Height	Weight in Lbs.
M83769/1-1	24	31AH	186A	11.65	11.99	10.32	75
M83769/2-1	24	18AH	108A	11.65	9.90	8.88	50
M83769/3-1	24	8.4AH	51A	7.98	9.90	7.63	34
M83769/4-1	24	18AH	108A	10.61	9.90	8.88	50
M83769/5-1	24	31AH	186A	10.63	11.99	10.32	75
M83769/6-1	24	31AH	186A	11.65	11.99	10.32	74
M83769/7-1	12	54AH	324A	14.15	7.15	11.15	80

LIGHTING AND ELECTRICAL SUPPLIES

Concorde Battery (continued)

Manufacturer	Model	CBC Part No.	Manufacturer	Model	CBC Part No.
Eaton	Group 4150, 4250 D	CB25, RG-25	Unison	APU 3-2, 3-2X Memory M10 Marathon model 206-2, -2, -3, -5	RG-25 RG-25 CB25, RG-25, RG-25A
	Group 4150, 4250, 4350	CB25, RG-25	Amchem/All	RC2, RV4, RV5, RV6, RV6A, RV7	CB25, RG-25, RG-25A
	Group Fortville FT11A	CB25, RG-25	Unison	Marathon 2150-3 S-220 Vrb. M220-4 Nureva, SF-200-3 Niteair, AMF Super	CB25, RG-25, RG-25A

Notes: 1) Replacement lead acid batteries recommended for use in all applications. Some manufacturers may require special care and maintenance. 2) This battery is currently in development. 3) Please contact the factory for more information and ALL-PMI eligibility list.

Please contact the factory for more information and ALL-PMI eligibility list.

CROSS REFERENCE GUIDE 1

CBC PART NO.	OBSOLETE	CBC ALTERNATE 2	GILL PART NO.	MISC. CROSS REF/SPEC. NOTES
RG12 ²	NA	NA	NA	
CB25	CB12-9	RG25 OR RG25XC ²	G25	
RG25	CR12-9M OR CB25M	CB25	G25 OR G25M OR AEDGFI 30	
FG25XC	CR12-9M OR CB25M	CB25	G25 OR G25M OR ALH0GLL 30	EXTRA-CHANKING POWER
CB35	CB12-11	RG35 OR FG35XC	G35	
RG35A	CR12-11M OR CB35M	CB35	G35 OR G35M	
FG35XC	CR12-11M OR CB35M	CB35	G35 OR G35M	EXTRA-CHANKING POWER
CB12-8S			G08	PGA13 & 5PH13 & 8S
CB24-11	CB24-9	RG24-11 ² 15 ²	G240 & G242	
CB24-11M	CB24-9M	RG24-11M, 15M ²	G241 & G243	
RG24-11 ²	CB24-9	CB24-11	G240 & G242	
RG24-11M ²	CB24-9M	CR24-11M	G241 & G243	
HG24-15A ²				HIGH CAPACITY REPLACEMENT FOR RG24-11
CR24-20		RG24-20 ²	G244 OR G246	
RG24-20 ²		CB24-20	G247	
CB24-2150	AN-3150 OR AN-2150-2		G-500	
CB24-2150-1				SPECIAL ALPH COMMANDER
CB24-2150E	MS18045-42		GE-50E	
CB24-2151	AN-3151-1		SE-51	
CB24-2151-1				SPECIAL T-34 A & B
CB24-2151F	MS18045-41		SE-51E	
CB24-2154	AN-3154-1A		GF-54C	
CB24-360C			G-636C OR G-636C	
CB24-360L		RG-360E SERIES	G-636E OR G-636E-F	MARATHON SP430 CA-5 MA-5 SAFT 4071, 4075
CR24-362E		RG-360E SERIES		
CB24-39C		RG-390E	G-630C	
CR24-39C		RG-390E	G-630E	MARATHON CA4, CA9, SP910 SAFT: 2371, 23180, 23175
MS37591-1	AN-3150		G1-1	CB0-12-P
MS37592-1	AN-3151		G2-1	CB0-21-B
MS37593-1	AN-3154		G3-1	CB0-306
MS37594-1	MS18045-41		G4-1	CB0-41-B
MS37595-1	MS18045-42		G5-1	CB0-531
MS37596-1			G6-1	CB0-631
MS37597-1	MS37597-1		G7-1	CB0-754
RG-109 ²				MARATHON CA21-5 SP933
RG-125 ²				MARATHON CA-125
RG-126 ²				MARATHON CA-126
RG-185 ²				MARATHON CA54 & CA154
RG-206			G-541E	SPECIAL BELL 206 A & B
RG-390E		CB24-39C	G-636E	SAFT 2371, 23180, 23175
RG-360E Series		CB24-360E	G-636E OR G-630E	MARATHON SP430 CA-5 MA-5 SAFT: 4071, 4075
RG-360E SERIES ²				SPECIAL KINTAIR
RG-360E SERIES ²				SPECIAL LEARIE
RG-400E ²			G-636E	MARATHON CA7 SAFT 1277
RG-600 SERIES ²				SPECIAL MS 9630 CA-200E SAFT 4071, 4075

1) Comparison between models is for reference only. Model differences may exist. 2) This battery is currently in development. 3) Please contact the factory for more information and ALL-PMI eligibility list. 4) Approved using JEATC/USCIB listed here are the equipment in the military and aerospace. 5) This battery is in developmental stage. Please contact the factory for more information. 6) This battery has not been produced. 7) Do not have any approvals yet.

Concorde's HRMFB — High Reliability, Maintenance-Free Batteries

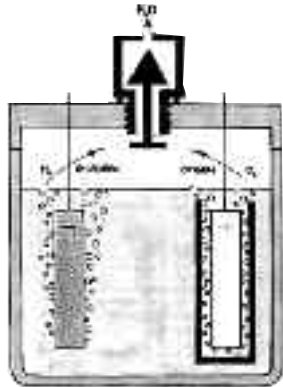
High Reliability, Maintenance-Free Batteries — Their History

Since their introduction in 1986 the Concorde Battery Corporation has developed several styles of HRMFB, also known as VRSLAB (Valve Regulated Sealed Lead Acid Batteries). Concorde Battery Corporation has a dedicated Research and Development Department that is continuously improving and refining their sealed product line. Formed in 1977, originally their factory was dedicated to manufacturing dry charged (vented or flooded electrolyte) aircraft batteries. But now, with the Concorde VRSLAB's proven reliability and great acceptance in both military and commercial aviation, over 80 percent of their manufacturing facility has been changed over from dry charged to VRSLAB production.

How They Differ

Some of the main differences between the old vented lead acid aircraft batteries and the new valve regulated sealed lead acid aircraft batteries are:

- The electrolyte is absorbed in a glass mat (AGM) separator in the VRSLAB and it is spillable in the flooded or vented type.
- The cells have two-way vent valves in the VRSLAB that are designed to keep a positive pressure in each cell. The older vented or flooded type aircraft battery cells are open to atmosphere through the vent cap holes (unless the battery is tilted or inverted, when the vent caps' shut-off valves are supposed to close to prevent the flooded electrolyte from spilling all over your airplane).



This drawing represents the old flooded or vented type lead acid battery on charge.

- The plates in the old vented type are suspended by their terminal lugs with loose fitting separators and lots of space between the positive and negative plates that are awash with electrolyte. In contrast, VRSLAB has every square inch of positive and negative plate material tightly packed and compressed with the AGM and supported by the walls of each cell jar.

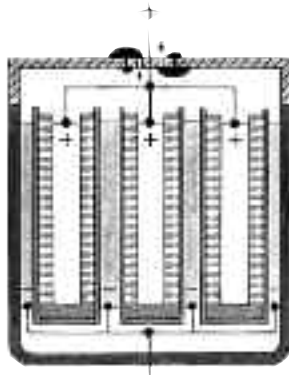
Because of this type of construction the new VRSLAB have much lower internal resistance and obviously have greater starting power, particularly at cold temperatures. This support provides a much higher degree of shock and vibration than the old flooded type. The VRSLAB performance is comparable to nickel cadmium aircraft batteries without their expensive temperature monitoring or maintenance requirements.

How They Work

The old flooded electrolyte electric storage batteries consume water in service because the battery generates hydrogen from the negative plates and oxygen from the positive plates at the end of the charging cycle. The battery evolves flammable percentages of hydrogen and oxygen gases that escape through the open vent cap holes. This escape of gases known as electrolysis reduces the water content of the electrolyte and requires the water to be replaced periodically in order to maintain the correct specific gravity and electrolyte level.

Not a Gelled Electrolyte

The new Concorde VRSLAB is a recombinant gas (RG) absorbed electrolyte battery. The Concorde



This drawing represents the recombination of the gases on charge with the immobilized or absorbed electrolyte design.

RG battery cells are sealed with two-way pressure relief valves that provide a positive or higher pressure within the battery and prevent the battery case from rupturing at any altitude. The design of the Concorde RG Series Aircraft Batteries utilizes a greater quantity of negatively active material than positive active material. The plates are sandwiched with a micro fibrous silica glass mat consisting of a blend of glass fibers of varying length and diameter that have good wicking characteristics and promote retention of the electrolyte. Electrolyte is absorbed and held in place by the capillary action between the fluid and the glass mat fibers. The mat is over 90 percent saturated with electrolyte. By design, it is not totally saturated with electrolyte . . . a portion is filled with gas. The void space provides the channels by which oxygen travels in its path from positive to negative plate.

The void spaces allow the freshly generated gases, which are in their atomic state and very reactive, to recombine rapidly and safely. This recombination passivates the negative slightly, reducing electrolysis and ultimately eliminating the need to add water, making the battery maintenance-free.

Charge Without Fading on a Constant Potential (Voltage) Buss

Concorde RG Series Aircraft Batteries simply work better than nickel cadmium batteries do in aircraft that are not equipped with dedicated nickel cadmium battery chargers.

Charge Retention

Three times better than the old vented type.

Safe

By design Concorde Recombinant Gas Aircraft Batteries produce less than 2 percent hydrogen gas during a severe overcharge (4.1 percent is required for flammability in air). They meet or exceed the requirements of MIL-SPEC B-8565 and FAR 23.1353, 25.1353(c), 27.1353, 29.1353(3), 25.853(a) amendment 25-72 appendix F, part 1 paragraph (a) (1)(i).

Reliable

Ask the U.S. Navy and Air Force. The F/A-18 and the F-117A were reported to have had trouble-free batteries during Desert Storm (both types were equipped with Concorde VRSLAB).

FAA Approval

Concorde RG Series batteries have been approved in One-Fifties to Falcon Nine Hundreds.

Shipping . . . AOG?

Concorde RG Series Batteries are not restricted for shipment by air or any other means of transportation. They are classified as non-dangerous, are shipped fully charged, and are not required to have corrosive labels on their shipping cartons.

Recyclable

At any smelter that recycles automobile batteries

General Aviation 12-Volt and 24-Volt Batteries, FAA/PMA Approved or Approval Pending Valve Regulated, Sealed Lead Acid Battery (SLAB)

(These batteries are shipped serviced and charged.)

Battery Type	Ampere Hour	Shipping Weight
12-volt RG-25	22	23
12-volt RG-25XC	24	25
12-volt RG-35A	29	31
12-volt RG-35AXC	33	33
24-volt RG-24-11M	11	26.5

Size varies slightly from the obsolete part numbers and modifications may be necessary for retrofit. Installation may require field approval.

LIGHTING AND ELECTRICAL SUPPLIES

Steel Formed Navigation Light Plates



- A** can be welded or screwed to rudder to attach model S light.
Part Number0400-113
- B** can be welded or screwed to wing tip bows to attach model E light.
Part Number0400-112

PC 190

Navigation Light Fairing



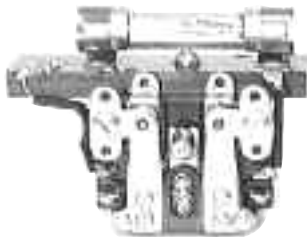
This plastic fairing is required to convert model B type wing lights to more streamlined model E navigational lights on Ercoupe 415-C, -D, and -G.
Part Number **PC 125** 210346-005

Whitaker Mount



For installation of Grimes and Whelen rotating beacon or strobe light on rudder. STC approved on PA-11 thru PA-25.
Part Number..... **PC 625**AW221

Relay Type Flasher Unit



Relay operates two sets of contact points which may be wired in normally open or normally closed position. Flasher may be used for navigation or warning lights.
Part NumberRELAY

PC 625

Strobe Light Bracket



Can be used on the top of Piper rudders. FAA Field Approval Required
Part Number **PC 150** .. U15722-002

If you don't find the part you need, be sure to give us a call at (303) 375-8882. We are here to help you with all of your classic aircraft needs!

Miscellaneous Lights and Switches

- | | |
|--|---|
| <p>A </p> <p>B </p> <p>C </p> <p>D </p> <p>E </p> <p>F </p> <p>G </p> <p>H </p> <p>I </p> <p>J </p> <p>K </p> <p>L </p> <p>M </p> | <p>A AN3160-5 Circuit Breaker, 5-amp.....AN3160-5</p> <p>B Spring Loaded "On-Off" SwitchAN3022-7B</p> <p>C Regular "On-Off" Switch, 31TS1-2.....AN3022-2</p> <p>D Double Pole, "On-Momentary On"AN3023-10</p> <p style="text-align: center;">PC 580</p> <p>E Fuse Clip, composition baseFC1</p> <p>F C6363 Circuit Breaker—Klixon5-amp.....C6363-5
15-ampC6363-15
30-ampC6363-30</p> <p>G Klixon PM Circuit Breaker.....5-amp.....PM-5
10-ampPM-10
20-ampPM-20
35-ampPM-35
40-ampPM-40</p> <p>H Klixon PSM Circuit Breaker5-ampPSM-5
10-amp .W23X1A1G-10
15-ampPSM-15
20-amp .W23X1A1G-20
25-ampPSM-25</p> <p>I Heavy-Duty 110-amp Circuit Breaker—Cutler Hammer.....8766K3</p> <p>J Klixon CM Circuit Breaker15-ampCM-15</p> <p>K Ohmite Rheostat, for instrument panel lightsOR1</p> <p>L Warning Lights, glass jewel type, with 12-volt bulb
redAH-133R
greenAH-133G
amberAH-133A</p> <p>M Microswitch—RDT-1P2T, 10-amp rating at 125 volts. May be installed in either "normally open" or "normally closed" position. Requires 1/16 inch travel to actuate, with 7/32 inch additional override. Perfect for mechanisms, doorlights, trunk lights or hood lights. Makes excellent push-button for starter solenoids, overdrive kickdown switch, etc.....RD7-1P2T</p> |
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LIGHTING AND ELECTRICAL SUPPLIES

Whelen Aviation Lighting - Anti-Collision Systems

LIGHTING KITS

2-LIGHT STROBE PACKAGE (for use with existing model E style lights)

Quantity	Description	Part Number
2 each	Strobe Lights	A650
1 each	Power Supply	A413AHDA-CF
1 each	60-foot Wiring Package	HD-60



**2-Light Strobe Package
Part Number.....W2000**

3-LIGHT STROBE PACKAGE

Quantity	Description	Part Number
2 each	Strobe Lights	A650
1 each	Tail Strobe Lights, horizontal	A500A-H-14
1 each	Power Supply	A413AHDA-CF
1 each	90-foot Wiring Package	HD,T3-90



**3-Light Strobe Package
Part Number.....W3000**

14-volt lights are listed; 28-volt lights are also available.

Strobe Heads

Anti-Collision Systems, Beacons, Single Light Remote Systems

Model A470A Strobe Head

The A470A can be installed on the vertical fin or fuselage. It incorporates a vibration-proof flash tube which allows flush mounting. Available with Aviation Red, Aviation White or Split Aviation Red/White optic lens.



Red Lens.....	A470A-R
White Lens.....	A470A-W
Split Red/White Lens.....	A470A-S

When ordering with Aviation Red or Split Aviation Red/White lens, the A490A-TS-DF-14/28 may be used; with Aviation White, use the A490A-T-DF-14/28. When installing the system, use special 3-conductor shielded cable between light assembly and power supply. HD-5 (5-foot cable); HD-10 (10-foot cable).

Specifications: weight; 0.3 lbs.; exposed height; 3.75 inches; diameter; 2.5 inches; lens material; Lexan.

Model A450



(This is optional for the A470 light shown at left.) The A450 is equipped with Pyrex glass (clear only) designed for use in severe vibration, chemical and moisture conditions. Specifications: exposed height: 2.25 inches; diameter: 2.5 inches; weight 0.3 lbs. Part Number.....A450

Model A715-1 Landing Light FAA/PMA Approved

Standard equipment on new Beechcraft, and will retrofit into older aircraft as well. Accommodates PAR 36 lamp. Lamp element available separately.

A715-1 Specifications
Weight: 0.4 lbs.
Diameter: 4.75"
Length: 6.5", Depth: 2.12"



Part Number.....A715-1

Mounting Hardware (on left)

Part No..... H102

(on right)

Part No..... H103

These adapters are designed for the A470A, A450, & 70509. The H102 allows direct mounting of the strobe light head assembly to the skin of the fuselage or the top of a 2-1/2-inch-diameter Cessna vertical stabilizer fairing. The H103 is designed to allow strobe light head assemblies to be installed in 3-3/4-inch-diameter standard rotating beacon mounting.



Whelen Mounting Adapter

Available for fuselage installations of models HR-CFA and SA-CF.



Part NumberA440

*Model SA, CF FAA/PMA Approved

The SA,CF is a self-contained CometFlash anti-collision strobe-light. With a glass dome (Aviation White), the rugged SA is ideal for agricultural applications where chemicals are used. The SA,CF has an effective intensity of 300 candles in a hemisphere.

SA,CF Specifications

Power Consumption: 3.2 Amps @ 14 volts DC, 1.6 Amps @ 28 volts DC; Weight: 1.5 lbs.; Diameter: 3.71", Height: 5.50", Flash Rate: 50+/-5 FPM.

Dome material: Pyrex glass. Aviation White only. Flash Tube Replacement: The SA406 flash tube used in the SA,CF is a plug-in type easily replaced with minimum labor and time.



Part NumberSA-CF-14/28

Whelen Anti-Collision Systems with Self-Contained Power Supplies



*Lenses offered :

- * White Lens
.....HR-CFA-14/28W
- * Red Lens
.....HR-CFA-14/28R
- * Split-
White/Red Lens
.....HR-CFA-14/28S

3-1/4-inch diameter base.

Flash Tube Replacement: The A469A flash tube used in the HR-CFA is a plug-in type easily replaced with a minimum of labor and time.

Specifications: power consumption: 3.2 amps @ 14 volts DC, 1.6 amps @ 28 volts DC; weight: 1.5 lbs.; diameter: 3.71 inches; height: 7.25 inches; flash rate: 50 ± 5 FPM; lens material: Lexan; lens colors: Aviation Red, Aviation White, or Split Aviation Red/White.

Model 70509 Flasher

Specifications:

Current Draw:
2.7 AMPS @ 14V
1.35 AMPS @ 28V
Weight: .27 lbs.

Wire: 20 AWG Teflon
Lamp: 35W Halogen
Filament: CC-8 (axial)

Lens: Lexan® Polycarbonate



Whelen Engineering introduces the Model 70509 Flasher, a totally new self-contained, flashing anti-collision light assembly that is FAA TSO-C96A approved. The Model 70509 FLASHER features a rugged polycarbonate lens with internal optics (patent pending), replaceable halogen lamp and flasher assemblies. It can be installed as a replacement on 1967-1979 Cessna aircraft, on most general aviation aircraft, home builds, and ultralights. A separate flasher power pack is not needed because the unit is completely self-contained.

MODEL 70509 FLASHING ANTI-COLLISION LIGHT

Part Number	Description
01-0770509-05	28V Flasher Assy. (red/white)
01-0770509-04	28V Flasher Assy. (white)
01-0770509-03	28V Flasher Assy. (red)
01-0770509-02	14V Flasher Assy. (red/white)
01-0770509-01	14V Flasher Assy. (white)
01-0770509-00	14V Flasher Assy. (red)

LIGHTING AND ELECTRICAL SUPPLIES

Whelen Aviation Lighting Anti-Collision Lighting for Wingtip and Tail

A500A Strobe Tail Position Light Assembly

Specifications:

- Weight: 0.3 lbs.
- Exposed height: 1.75 inches
- Diameter: 1.5 inches



Horizontal InstallationA500A-H-14, -28
Vertical InstallationA500A-V-14, -28

A555 Tail Position Light

Manufactured of non-magnetic materials, the A555 tail position light is available in Aviation White only. Its dome material is Pyrex glass. 14-volt lights are listed; 28-volt lights are also available.



Specifications:

- Weight: 0.3 lbs.
- Exposed height: 1.75 in.
- Diameter: 1.5 in.

Horizontal InstallationA555A-H-14
Vertical Installation.....A555A-V-14

A600 PR/PG Series Wingtip Light

Ready to install, this strobe light head assembly will equip the aircraft with forward and tail position lights. Some installations may require this series rather than the A650 PR/PG series. For system installation, substitute the A600 PR/PG lights with the A650 PR/PG lights. 14-volt lights are listed; 28-volt lights are also available.



Specifications:
Weight: 0.5 lbs.
Exposed Height:
2.4 inches:

Length: 5.625 inches: A612 magnifying lens.
Please specify 14 or 28 volts when ordering.

Red LightA600-PR-14
Green LightA600-PG-14

A650 PG/PR Series Wingtip Light

The A650 PG/PR-14 can be installed with almost no modifications to the aircraft's structure. This position and strobe light is electronically and mechanically interchangeable with the Whelen A429 PG/PR.



Specifications:

- Weight: 0.4 lbs
- Exposed Height: 2.4 inches
- Length: 4 inches; A612 magnifying lens.

Red Light.....A650-PR-14
Green LightA650-PG-14
14-volt lights are listed. 28-volt lights are also available.

Model W1555A • TSO-C30b Approval

The W1555A position light features two 25 watt hard glass Halogen lamps separately controlled by an electronic switch. If the primary light fails, the second lamp is electronically activated. Please specify horizontal or vertical mounting and voltage. 14V or 28V.



Specification:

- Weight: 0.3 lbs.
- Diameter: 1.50 inches
- Exposed Height: 1.75 inches

Part Number(14 Volt)W1555-14
Part Number(28 Volt)W1555-28

A650 Series Wingtip Light

Recommended light: two A650 wingtip lights. The A650 may be added to the existing Type E position light with a minimum of structural modification. Only a 1/4-inch hole in the position light is required. The wingtip strobe retainer supports the position light tip as the original retainer did. The A650 is electronically and mechanically interchangeable with the Whelen A429.



Specifications:

- Weight: 0.2 lbs.; Exposed Height: 2.4 inches.
- A612 magnifying lens.

Part NumberA650

Model A675 PG/PR • FAA/TSO-C30b Approval

Ready to install, this light assembly will equip the aircraft with forward and tail position lights.

Specifications:

- Weight: 0.5 lbs
- Exposed Height: 1.25 inches
- Length: 5.625 inches
- Please specify 14 or 28 volts when ordering.



Part NumberA675PG-14, -28
Green LightA675PR-14, -28
PG= Position Green, PR= Position Red.

Model W1250 • TSO-C30b Approval

The W1250PG and W1250PR are approved position lights. They are designed to fit underneath the wingtip fairings.



Specifications:

- Weight: 0.3 lbs.
- Exposed Height: 1.25 inches
- Length: 2.75 inches

RedW1250PR-14
GreenW1250PG-14

Model A625 FAA/PMA Approved

For aircraft with Wing Tip Tanks.
For aircraft with Enclosed Position Lights.



Specifications:

- Weight: 0.2 lbs.
- Exposed Height: 1-13/32 inches.

Part Number.....A625

Position Lights-Wingtip and Tail Model W1285 • TSO-C30b Approval Direct Replacement for Model E Grimes Lights



The W1285PG and W1285PR are approved position lights available in Red or Green. They are manufactured of non-magnetic materials.

Specifications:

- Weight: 0.2 lbs.
- Exposed height: 1.25 inches
- Length: 4 inches

RedW1285PR-14
GreenW1285PG-14

Models A612, A610 FAA/PMA Approved

For Cessna Single Engine Aircraft 1972 and later

In this system the A610 and A612 are mounted directly onto the wingtip retainer. Use the A612 as a template for cutting a hole in the existing light shield. This system requires very little time or labor to install. The A612 magnifying lens increases the light intensity by two to three times in the horizontal plane.



Strobe Tube AssemblyA610
Magnifying Lens.....A612

Effective Candles Produced using Whelen double flash power supplies

	25 Joules per Flash	20 Joules per Flash	12 Joules per Flash
A600 PG/PR	.660	.600	.380
A650 PG/PR	.660	.600	.380
A650	.660	.600	.380
A500	.330	.300	.190
A625	.660	.600	.380
A450	.330	.300	.190
A470A in Aviation White	.825	.825	.500
A470A in Aviation Red	.180	.165	.unavailable

LIGHTING AND ELECTRICAL SUPPLIES

Whelen Power Supplies

ABOUT COMETFLASH®

Whelen Engineering is proud to have pioneered and introduced the *NEW* Cometflash, CF, a major advancement in the field of Safety Lighting. By pulsing the flash tube four times in rapid succession, the effective "on-time" of the strobe is increased from 2/1000 of a second to 4/10 of a second. This increases your airplanes visibility. The development of the CometFlash reflects Whelen's dedication to safety.

HOW TO CHOOSE A POWER SUPPLY

The power supply system you choose determines the number of lights you can add to your airplane. The HDA, CF is our most versatile and advance power supply made for two or three lights and offers the choice of alternate flashing, simultaneous flashing or both. The HTS-CF is designed for installation adjacent to the strobe light head assembly thus eliminating long run of high voltage cables. It powers one light and a simple connection to another HTS-CF provides simultaneous flashing. The HT-CF is our most economical power supply when adding only one light. The HT, CF is designed for installation adjacent to the strobe light head assembly. The compact size gives it unparalleled versatility. All power supplies can operate between 13-30 VDC.

Model HDA-CF

The HDA-CF is the finest power supply system available. It has the capacity for simultaneous flashing, alternate flashing, or both. A 2-light system alternate flashing produces 25 joules to each light. A 2-light system simultaneous flashing produces 12 joules to each light. A 3-light system produces 12 joules to each simultaneous light, and 25 joules to the third light. A 4-light system produces 12 joules of energy to each light. The HDA-CF requires a special 3-conductor cable cord routed from the power supply to the light assemblies.

Part Number.....A413AHDA-CF
Recommended Components: for 2 lights: 1 HD-60 installation package; for 3 lights: 1 HD, T3-90 installation package; for 4 lights: 2 HD-60 installation packages.

Specifications:
Power Consumption: 7.0 Amps @ 14 Volts DC, 3.5 Amps @ 28 Volts DC; Weight: 3 lbs.; Length: 5.5 inches; Width: 5 inches; Height: 3.25 inches; Flash Rate: Alternately at 90+/- 5FPM, simultaneously at 50 +/- 5 FPM.

Model A300 Map Reading Light Assembly

Designed for indirect cockpit illumination. The A300 will upgrade your aircraft cockpit with greater illumination. Slide switch permits direct chart reading. Available with red or instrument white lens. Please specify voltage and color when ordering.

Specifications:
6 Watt Lamp
Diameter: 4.125 inches
Depth behind Mounting Flange: 1.06 inches
Weight: 0.16 lbs.



14 Volt.....A300-14
28 Volt.....A300-28

Model HTS-CF

The HTS, CF produces an estimated 34 joules of energy. It can be equipped to flash simultaneously with up to 5 other HTS, CF power supplies by connecting an 18 gauge wire between the synchronization mechanisms in each power supply. An 18 gauge low voltage wire supplies power to each HTS power supply.



Specifications:
Power Consumption*: 2.9 Amps @ 14 volts DC; 1.7 Amps @ 28 Volts DC
Weight: 1.5 lbs.
Length: 5.0 inches
Width: 3.12 inches
Height: 3.06 inches
Flash Rate: 50+/-5 FPM

Part NumberA490ATSCF14/28

Model HT-CF FAA/PMA Approved

Our most compact, single-source power supply produces an accumulated 19 joules of energy.



Specifications:
Power Consumption: 1.7 amps @ 14 volts DC; .85 Amps @ 28 Volts DC
Weight: 1.2 lbs.
Length: 5.0 inches
Width: 3.12 inches
Height: 2.25 inches; flash rate: 50+/-5 FPM.

Part NumberA490T-CF-14/28

Interior and Cockpit Lighting



Model A315-HI Cockpit Utility Light

Identical to utility light, except equipped with instrument white lens assembly.

Part NumberA315-HI-14

Model A350 Instrument Post Light

Illuminates the instrument panel and functions as one of the instrument mounting bolts. The A350 can be equipped with a dimmer if desired.

Part NumberA350CBS14V



Model A315-LO Cockpit Utility Light

Unit rotates for convenience in reading maps and illuminating instrument panel. Also available with right angle bracket. Requires remote switch control.

Part NumberA315-LO-14

Model HDS

The HDS produces 20 joules of energy alternating between two light assemblies. This unit produces a single flash and has a low current draw.



Specifications:
Power Consumption:
4 amps @ 14 volts DC
2 Amps @ 28 Volts DC
Weight: 2 lbs
Height: 2-3/8 inches
Length: 5.5 inches
Width: 5.0 inches
Flash Rate: Alternately at 90+/-5 FPM
Part NumberA413AHDS-14/28

Whelen Installation Packages

Description	Part Number
SA/HR Installation Package	SA/HR
HS-30 Installation Package (30-foot cable).....	HS-30
HS-5 Wingtip Installation Package (5-foot cable).....	HS-5
HD-60 Installation Package (60-foot cable).....	HD-60
HT Installation Package	HT
HD, T3-90 Installation Package (90-foot cable)	HD,T3-90
HT 10 Installation Package (10-foot cable).....	HT-10
HT 1 Multiple Installation Package	HT-1

Model 70339

Dome Flood and Compartment Light

The 70339 is designed for recessed overhead or wall mounting with minimal depth. It can be supplied with an on/off switch.

Specifications:
6 Watt Lamp
Diameter: 4.125 inches
Depth behind Mounting Flange: 1.06 inches
Weight: 0.16 lbs.



14 Volts DC.....01-0770339-01
28 Volts DC.....01-0770339-02
14 Volts DC with Switch01-0770339-03
28 Volts DC with Switch01-0770339-04

Model 70820 Series Map Lights

Specifications:

Current Draw:
0.02 amps @ 14 VDC Weight:
0.02 amps @ 28 VDC 0.19 lbs.



The model 70820 Series are LED (Light Emitting Diode) interior map/reading light assemblies. They are designed for cabin, or cockpit illumination. It has a 360° swivel base, allowing for infinite light angle adjustment. Utilizing LED technology, the following advantages are offered: Long Life (approx. 20,000 hours); Reduced Power Consumption (compared to alternative light sources). Shock & Vibration Resistant.

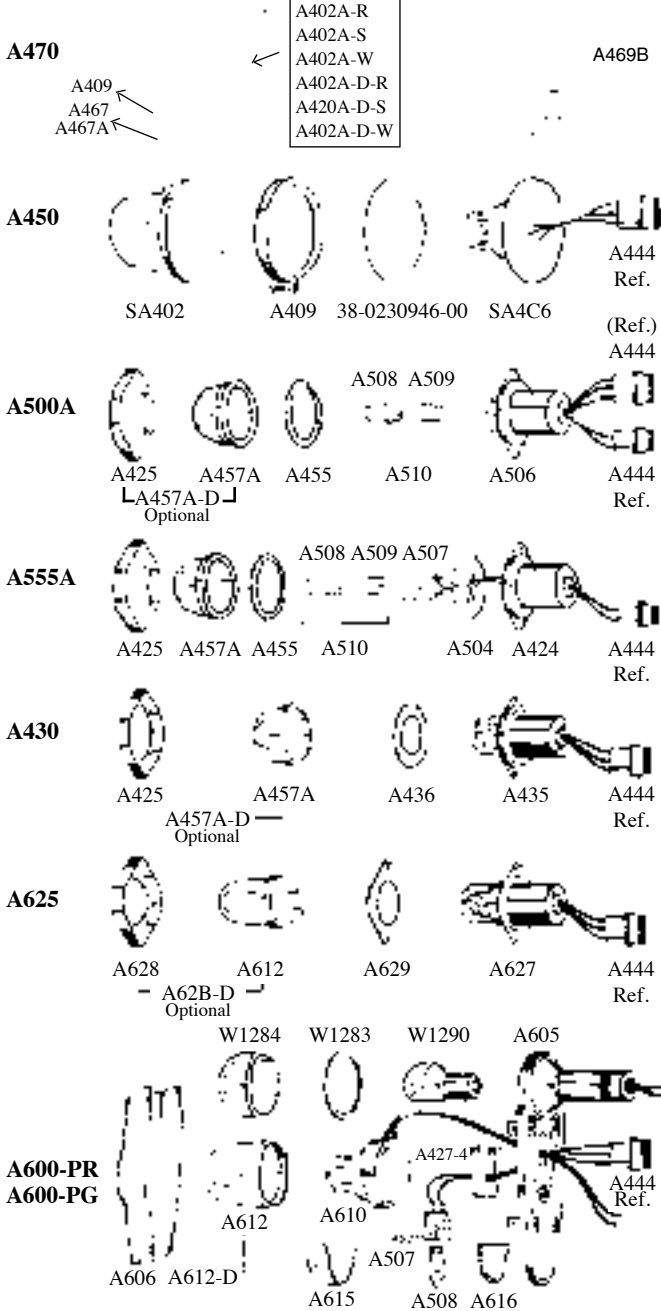
Part Number	Description
01-0770820-01	14 V Map light natural aluminum finish - white
01-0770820-02	14 V Map light black anodized finish - white
01-0770820-04	14 V Map light black anodized finish - red

28 Volt versions of the above lights are available.

LIGHTING AND ELECTRICAL SUPPLIES

Whelen Aviation Lighting Position Lights, Anti-Collision Systems and Interior Lights

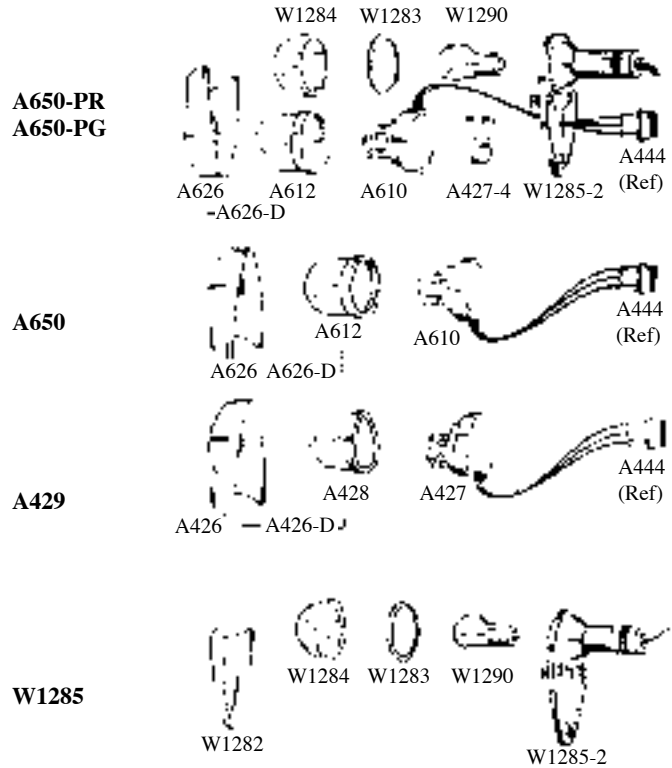
Whelen Parts (Exploded view)



NOTES:

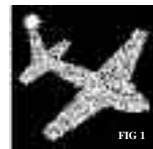
- The A429 head assembly has been replaced with the A650 head assembly.
- The A600 head assembly can be used with any wingtip system.
- The A490-TS, A490A-TS-CF, and A413A-HDA power supplies provide 400 effective candles ref STC SA21NE, when used with the A600 and A650 head assembly.
- The A490-TS-DF replaces the A412A-HS strobe light power supply.

All Whelen aviation strobe products are manufactured under Product Manufacturing Authority from the Federal Aviation Administration, assuring top quality, reliable design and construction, and conforming to all applicable FAA regulations.



WHAT IS AN ANTI-COLLISION LIGHT SYSTEM

FIVE LOCATIONS ON THE AIRCRAFT FOR ANTI-COLLISION STROBE LIGHTS, TO COMPLY TO THE LIGHT PATTERN REQUIREMENTS.



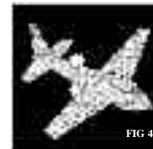
One anti-collision strobe light mounted on the vertical fin will meet the minimum requirements on most aircraft. A half red and half white lens is recommended.



Enclosed wingtip anti-collision strobe lights, require a third strobe light on the tail or vertical fin, to fill in the required light envelope. This is an approved anti-collision system.



Two wingtip strobe lights that protrude beyond the wingtip, their light converging in front and back of the aircraft within 1200 ft. is an approved anti-collision strobe light system.



A fuselage mounted anti-collision strobe light system requires a minimum of two strobe lights to get the required vertical coverage. This is an approved anti-collision system.

POSITION LIGHTS AND ANTI-COLLISION LIGHT DISTRIBUTION PATTERNS REQUIREMENTS



FIG. 5 An approved anti-collision strobe light system must project light 360° around the aircraft's vertical axis. One or more strobe lights can be used.



FIG. 6 An approved anti-collision strobe light system must project light + or - 30° above and below the horizontal plane of the aircraft. One or more strobe lights can be used. The + or - 75° projected light is required since July 18, 1977.

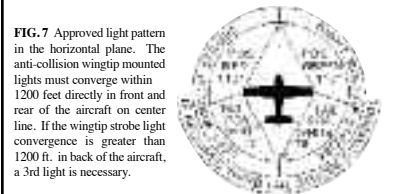


FIG. 7 Approved light pattern in the horizontal plane. The anti-collision wingtip mounted lights must converge within 1200 feet directly in front and rear of the aircraft on center line. If the wingtip strobe light convergence is greater than 1200 ft. in back of the aircraft, a 3rd light is necessary.

RADIO NOISE SUPPRESSION

Whelen strobe light lenses P/N A428 and the A402A are available with an advanced RF shielding technique that Whelen Engineering developed to reduce radio interference. When properly grounded to the aircraft structure, these radio shielded strobe light heads will reduce the radiated RF energy created by the trigger pulse as much as 15-17 DB. (To locate RF shielded parts, refer to Whelen Engineering's strobe light parts list).

A429 strobe light head, use the A428-D which is an RF shielded A428 lens epoxied into an A426 retainer. A470A, can be radio shielded by replacing the existing lens with P/N A402A-D () color.

A500A, use the A457A-D which is an RF shielded A612 lens epoxied into an A606 lens retainer.

A650 strobe light head, use the A626-D which is a RF shielded A612 lens epoxied into an A626 lens retainer.

All items on this page are Price Code 620 unless otherwise noted

Price and availability subject to change without notice. Univair's Toll Free Sales: 1-888-433-5433