

WHELEN®

ENGINEERING COMPANY INC.

Route 145, Winthrop Road,
 Chester, Connecticut 06412
 Phone: (860) 526-9504
 Fax: (860) 526-2009
 Internet: www.whelen.com
 Sales/Service e-mail: aviation@whelen.com

Installation Guide Aviation model 90206 - () Anti-Collision / Position Light Assembly



FAA / TSO C30c TYPE 1,2 & 3
 and
 FAA / TSO - C96a
 APPROVED

Model 90206 - () Anti-Collision / Position Light Assembly



SPECIFICATIONS (Position Light):

Nominal Operational Voltage: 28 VDC
Average Input Current: 1 AMP
Lamp for all Units:..... 28VDC, 26 Watts Max.

EQUIPMENT LIMITATIONS:

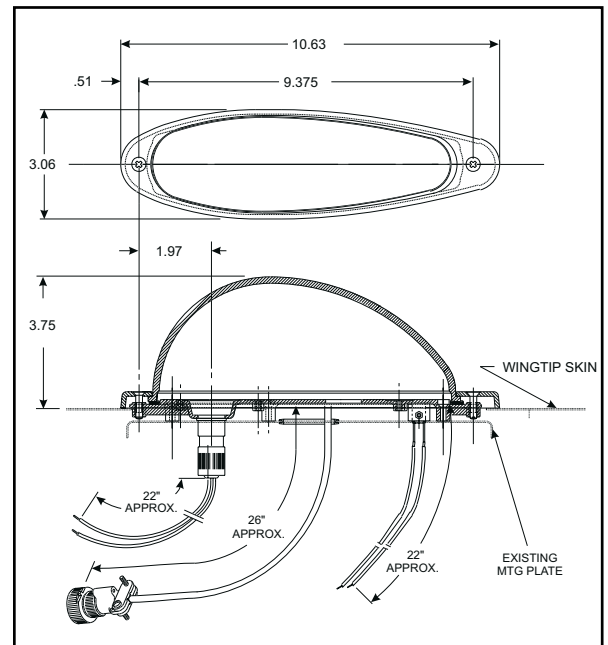
An approved Anti-Collision / Position System consists of two assemblies, one located on each wingtip.

INSTALLATION PROCEDURES:

The following information is to assist you in installing a Whelen Anti-Collision / Position light system.

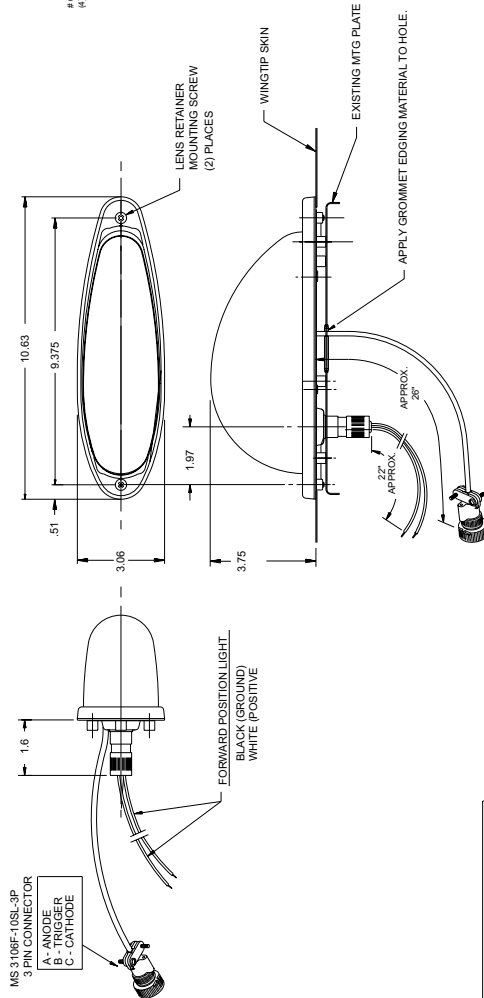
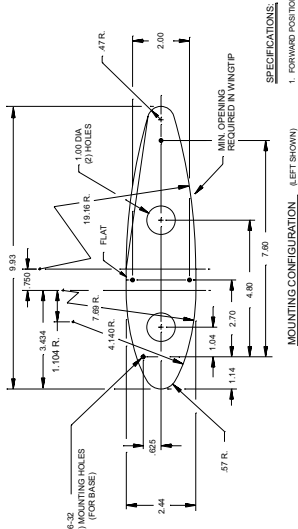
1. Choose the appropriate Model 90206 - () replacement light assembly.
2. The installation procedure described in the following text will be confined to a single light installation, but is identical for multiple light installation.
3. Remove old anti-collision light, locate and record existing +28 VDC and (-) ground position and output connector from power supply.
4. Use existing mounting holes and hardware.
5. Connect leads from light assembly in recorded manner and lead from light to power supply.
6. Breaker Requirements
 Make sure existing system is equipped with an appropriate sized breaker.
7. Install light assembly and insure that all leads are clear of any obstructions and ty-rop as required. Secure light assembly, use lock washers and/or thread lock, on all threaded fasteners.

8. Check all avionics systems for interference from this installation.
9. A flight check should be performed by a properly certified pilot.
10. When necessary, waterproof the light assembly to aircraft. Apply single part silicone (RTV) or equivalent around any open area where water could get in.
11. Update aircraft records and complete Form 337.
12. Obtain FAA field approval for installation.



Aviation

REV	EN	DESCRIPTION	DATE
B	10109	ADD BROM CHG GASK	10/29/87
C	10054	LONGER MTG SCREWS	10/29/88
D	10063	ADD ISO APPROVALS	1/14/88
E	123213	ADDED MOUNTING HOLES TO BASE	5/20/90
F	124206	ADDED MOUNTING HOLES TO WING	5/20/90
G	131972	ADD WING TIP SKIN	10/31/95
H	132882	ISO TO ISO 9001	5/18/96

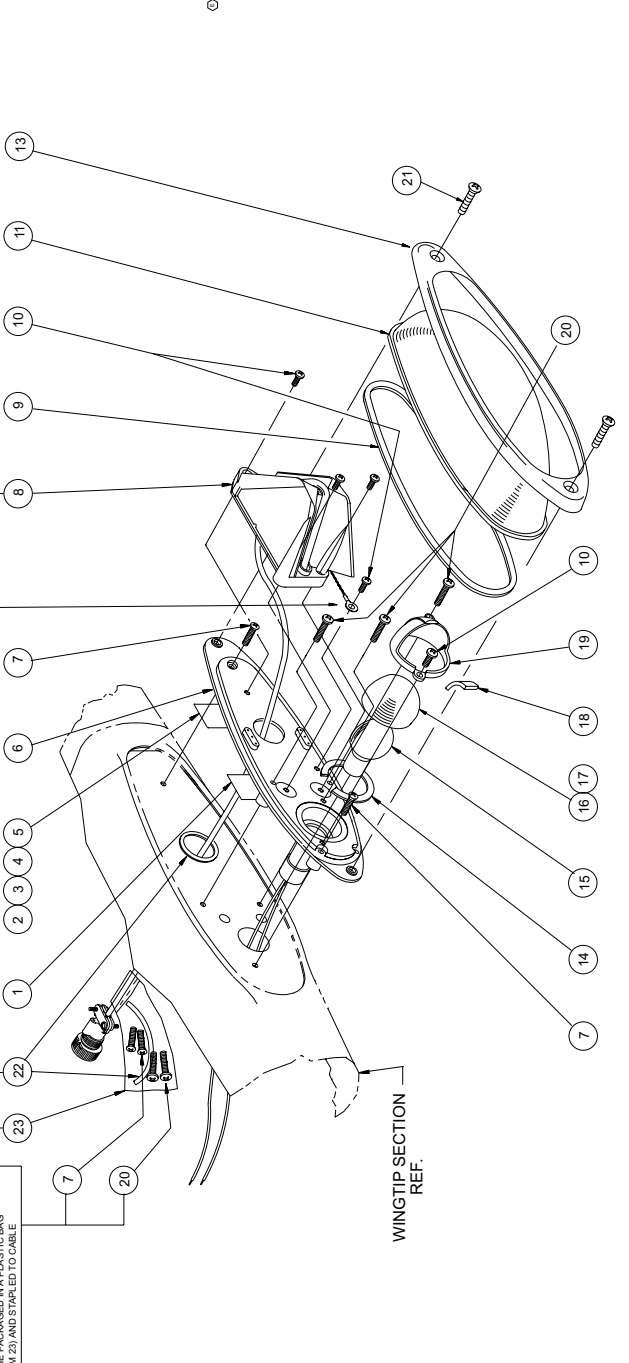


- SPECIFICATIONS**
- FORWARD POSITION LIGHT VOLTAGE... 27.0V @ 3.5V
 - UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1397(B) ANTIONIZED, GREEN AND WHITE
 - UNIT COMPLIES WITH REQUIREMENTS FOR APPROVED POWER SUPPLY OF 22 VOLTS MINIMUM, 30 VOLTS MAXIMUM
 - UNIT COMPLIES WITH THE FOLLOWING ENVIRONMENTAL TEST REQUIREMENTS: TEMPERATURE HUMIDITY: SECT 4, CATEGORY C; TEMPERATURE HUMIDITY: SECT 5, CATEGORY C; HUMIDITY: SECT 6, CATEGORY C; VIBRATION: SECT 10, DATE CODE 3; SAND AND DUST: SECT 12, CATEGORY G

WING TIP SKIN: SECT 10, DATE CODE 3
 SAND AND DUST: SECT 12, CATEGORY G
 POWER INPUT: SECT 18, CATEGORY B
 VIBRATION: SECT 10, DATE CODE 3
 ANTIONIZED GREEN AND WHITE: SECT 13, CAT B, PAR. 18.3.1
 MAGNETIC FIELDS INDICATED INTO EQ - SECTION 18, CAT B, PAR. 18.3.1.4
 RADIATED & CONDUCTED SUSCEPTIBILITY - SECT. 28, CAT. 1, PAR. 20.1.4.2.0.5
 RADIATED & CONDUCTED EMISSIONS - SECTION 21, CATEGORY B, PAR. 21.3 & 21.4
 WEIGHTS: 43.04 W/G GLASS LENS - 1.9 LB.
 6 FAR - TSO-CO-AND TSO-C86 APPROVED.

QTY	ITEM	DESCRIPTION
1	1	BAG, PLASTIC - 2 1/2 X 5"
1	2	GROMMET EDGING (P/N DUT #6E2PR-C)
2	21	SCREW #10-32 X 3/16 PPHMS
3	20	SCREW #6-32 X 7/16 PPHMS (MS1957-35)
1	19	RETAINER, LENS - POSITION LIGHT
1	18	LENS, POSITION LIGHT - RED
1	17	LENS, POSITION LIGHT - GREEN
1	16	LAMP - W/250-28
1	15	GASKET, LENS - POSITION LIGHT
1	14	RETAINER, GLASS LENS - POLISHED W/SEAL
1	13	LENS, GLASS (RHT COATED)
5	10	SCREW 6-32 X 1/2 PPHMS (MS1957-30)
1	9	GASKET, LENS
1	8	STROBE ASSY - WING TIP LIGHT
2	7	BASE PLATE ASSY - WING TIP LIGHT
1	6	LABEL, WFG - MODEL 90206
1	5	LABEL, WFG - MODEL 90206
1	4	LABEL, WFG - MODEL 90206
1	3	LABEL, WFG - MODEL 90206
1	2	LABEL, WFG - MODEL 90206
1	1	LABEL, MADE IN USA
1	01-070206-04	LIGHT ASSY FORWARD-COLL - RIGHT (POL RET)
1	01-070206-03	LIGHT ASSY FORWARD-COLL - LEFT (POL RET)

QUANTITY	ITEM	DESCRIPTION
1	01-070206-04	LIGHT ASSY FORWARD-COLL - RIGHT (POL RET)
1	01-070206-03	LIGHT ASSY FORWARD-COLL - LEFT (POL RET)



NOTE: GROUINGS TO BE SECURED BY MOUNTING SCREW (ITEM 19)
 GROMMET EDGING (ITEM 22) AND SCREWS: MS1959-32 (ITEM 7 - QTY 2), MS1959-35 (ITEM 21 - QTY 3) TO BE PACKAGED IN A PLASTIC BAG (ITEM 23) AND STAPLED TO CABLE

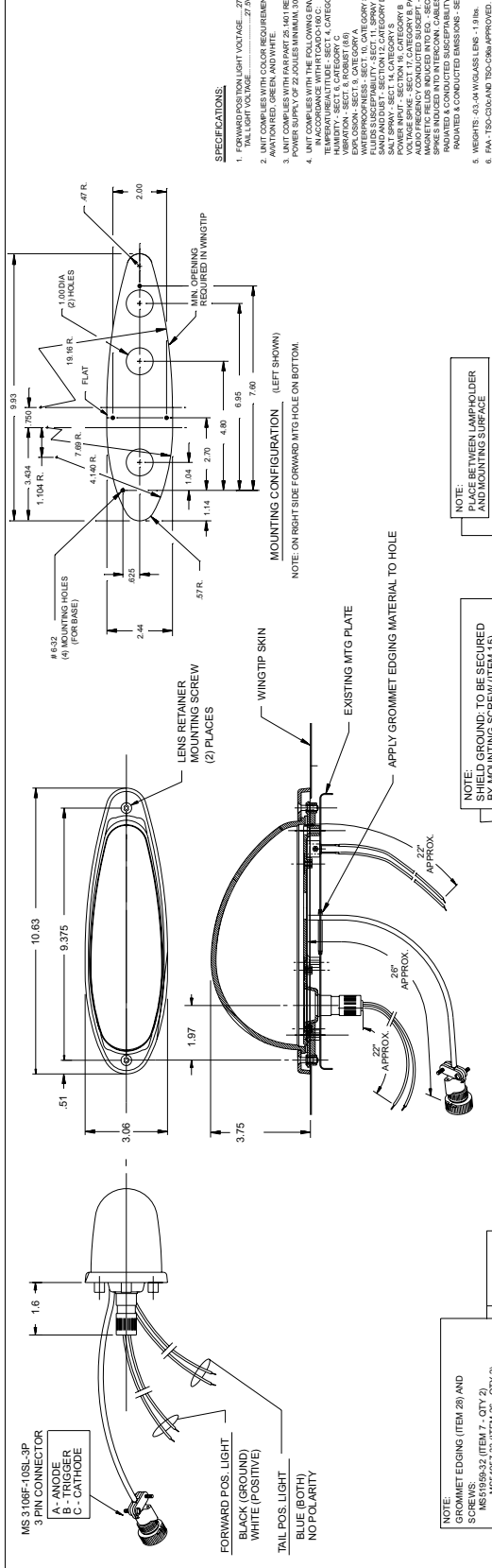
DATE	SCALE	RELEASE DATE
JAN 27/197	NONE	2/7/97
JAN 90/206	NONE	2/7/97
JAN 90/206	NONE	2/7/97
JAN 90/206	NONE	2/7/97

WHILEN
 ENGINEERING COMPANY, INC.
 10000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80201
 TEL: 303.751.1000
 FAX: 303.751.1001

POSITION ANTI-COLLISION ASSEMBLY

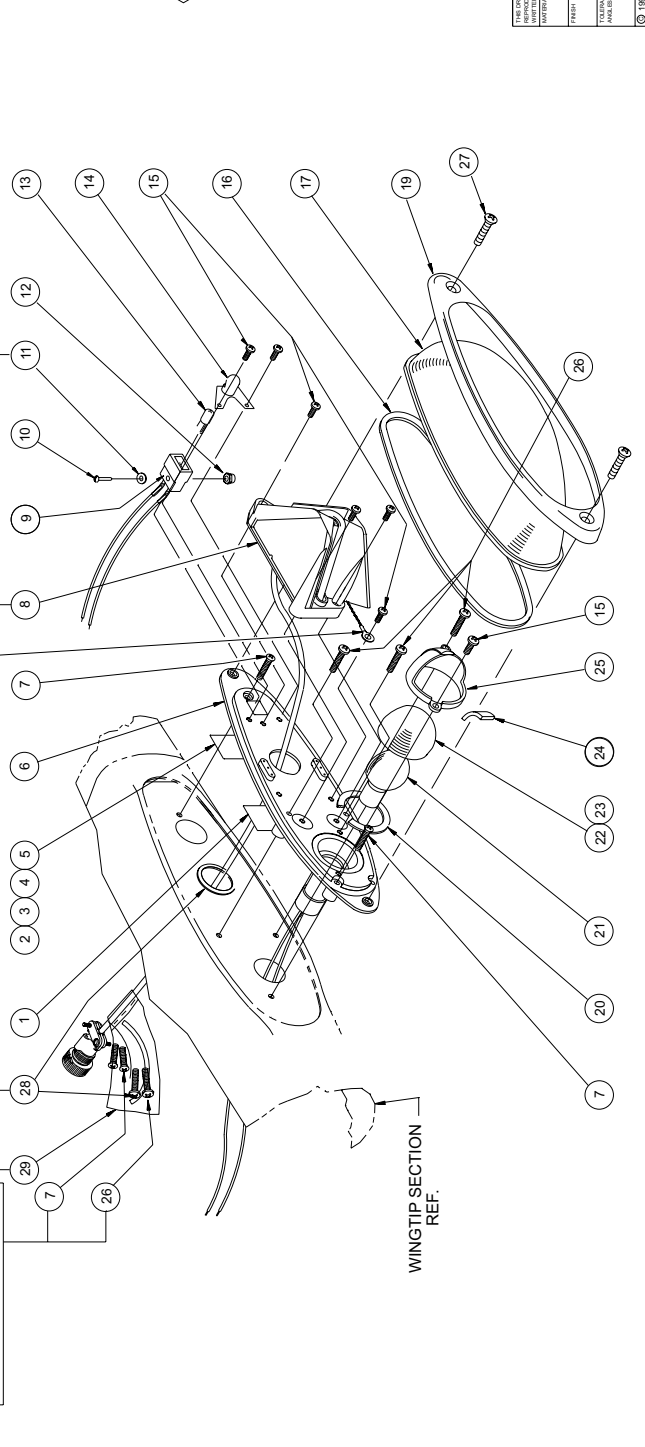
REV: 1
 DATE: 2/7/97
 SCALE: NONE
 PART NO: 90206
 WING TIP SECTION REF.

REV.	REV.	DESCRIPTION	DATE
A	18523	CHS SET PINS	10/20/07
B	19319	LAMP GROMMET CHS GASK	10/27/08
C	20054	BAG HARDWARE	11/27/08
D	20963	ADDED ISO APPROVALS	11/16/08
E	23213	REWORKED DRAWING	02/20/09
F	25626	ADDED TRIGGER TO BAG	05/20/02
G	31672	ISSUED 1/1/09	10/11/05
H	32692	ISSUED 1/1/09	01/16/06



- SPECIFICATIONS:**
1. FORWARD LIGHT VOLTAGE - 28.2V @ 3.0V
 2. TAIL LIGHT VOLTAGE - 27.7V @ 3.0V
 3. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(A)
 4. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(B)
 5. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(C)
 6. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(D)
 7. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(E)
 8. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(F)
 9. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(G)
 10. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(H)
 11. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(I)
 12. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(J)
 13. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(K)
 14. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(L)
 15. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(M)
 16. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(N)
 17. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(O)
 18. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(P)
 19. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(Q)
 20. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(R)
 21. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(S)
 22. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(T)
 23. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(U)
 24. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(V)
 25. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(W)
 26. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(X)
 27. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(Y)
 28. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(Z)
 29. UNIT COMPLIES WITH COLOR REQUIREMENTS OF FAR PART 23.1309(A)

QTY	ITEM	DESCRIPTION
1	29	03-051007-00 BAG, PLASTIC - 2 1/2 X 5"
1	28	21-500936-01 GROMMET EDGING (PINOUT) (K5E6R-PC)
2	27	14-000518-07 SCREW #6-32 X 3/4 PPHMS
3	26	14-000518-39 SCREW 6-32 X 7/8 PPHMS (MS1987-25)
1	25	11-270557-001 RETAINER LENS - POSITION LIGHT
1	24	16-172049-000 1/4 X 1/2 CARTRIDGE
1	23	28-232605-000 LAMP - W/2602628
1	22	08-020024-00 LENS POSITION LIGHT - GREEN
1	21	34-002820-045 LAMP - W/2602628
1	20	38-020021-00 GASKET LENS - POSITION LIGHT
1	19	19-190314-005 RETAINER GLASS LENS - POLISHED W/SEAL
1	18	68-417065-34 LENS GLASS (REFLECTOR)
1	17	35-027059-000 GASKET LENS
1	16	14-000502-300 SCREW 6-32 X 1/2 PPHMS (MS1987-20)
1	15	70-053587-040 SHIELD TAIL LIGHT
1	14	14-000502-300 SCREW 6-32 X 1/2 PPHMS (MS1987-20)
1	13	14-000502-300 SCREW 6-32 X 1/2 PPHMS (MS1987-20)
1	12	15-005612-022 NUT 2-56 SEC LOCK (MS104-240)
1	11	16-400916-06 FLAT WASHER #4 BRASS
1	10	04-000501-008 SCREW 2-56 X 1.58 PPHMS (MS1987-4)
1	9	02-020506-000 LAMP HOLDER ASSY - TAIL LIGHT
1	8	02-070603-000 STROBE ASSY - WING TIP LIGHT
2	7	14-000508-332 SCREW 6-32 X 3/4 PPHMS (MS1989-32)
1	6	06-170777-001 BASE PLATE ASSY - WING TIP LIGHT
1	5	15-053095-002 LABEL MFG - MODEL 9026 (W/TAIL)
1	4	15-053095-002 LABEL MFG - MODEL 9026 (W/TAIL)
1	3	15-053095-002 LABEL MFG - MODEL 9026 (W/TAIL)
1	2	15-053095-002 LABEL MFG - MODEL 9026 (W/TAIL)
1	1	15-0220776-00 LABEL MADE IN USA
1	01-790206-08 LIGHT ASSY - POS-TAILANT-COLL - RIGHT (POL-RET)	
1	01-790206-07 LIGHT ASSY - POS-TAILANT-COLL - LEFT (POL-RET)	



QTY	ITEM	DESCRIPTION
1	01-790206-08	LIGHT ASSY - POS-TAILANT-COLL - RIGHT (POL-RET)
1	01-790206-07	LIGHT ASSY - POS-TAILANT-COLL - LEFT (POL-RET)

WHILEN
 1800 W. 150th St., Suite 100
 Minneapolis, MN 55425
 TEL: 763.433.3333 FAX: 763.433.3334
 WWW.WHILEN.COM

POSITIONING ANTI-COLLISION LIGHT ASSEMBLY

DATE: 2/7/09
 SCALE: NONE
 DRAWN BY: JAC
 CHECKED BY: JAC
 APPROVED BY: JAC

REV: 2
 DATE: 2/7/09