

WHELEN[®]

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Wiring & Part Replacement Guide: Mini Edge[®] Lightbar

Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro[®], clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.
- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the **NEGATIVE (-)** battery post.
- If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.
- Do not attempt to activate or control this device in a hazardous driving situation.
- This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

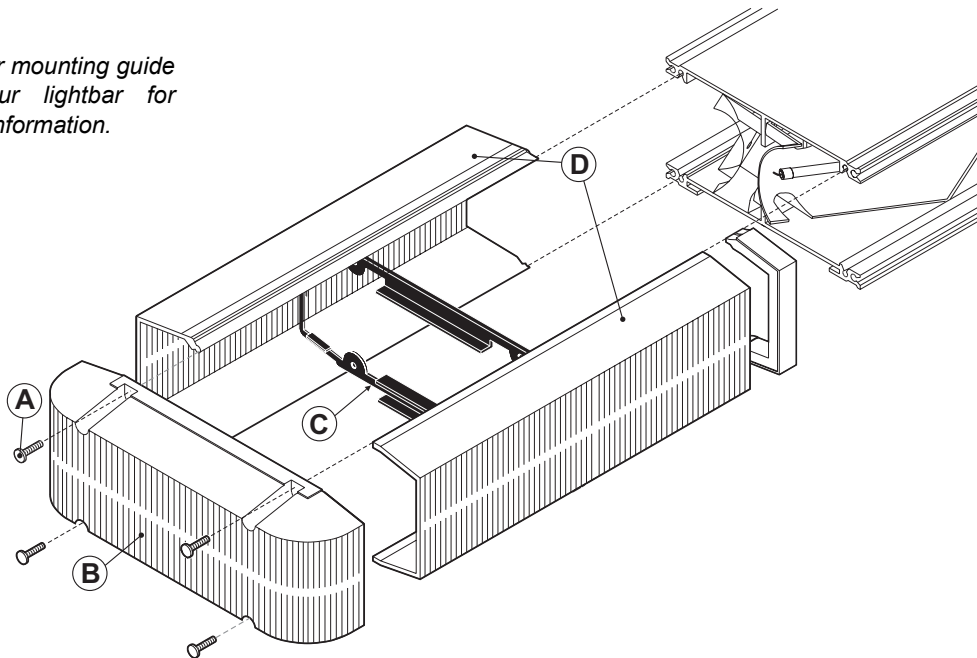
For warranty information regarding this product, visit www.whelen.com/warranty

Strobe Specifications / 1 Power Supply

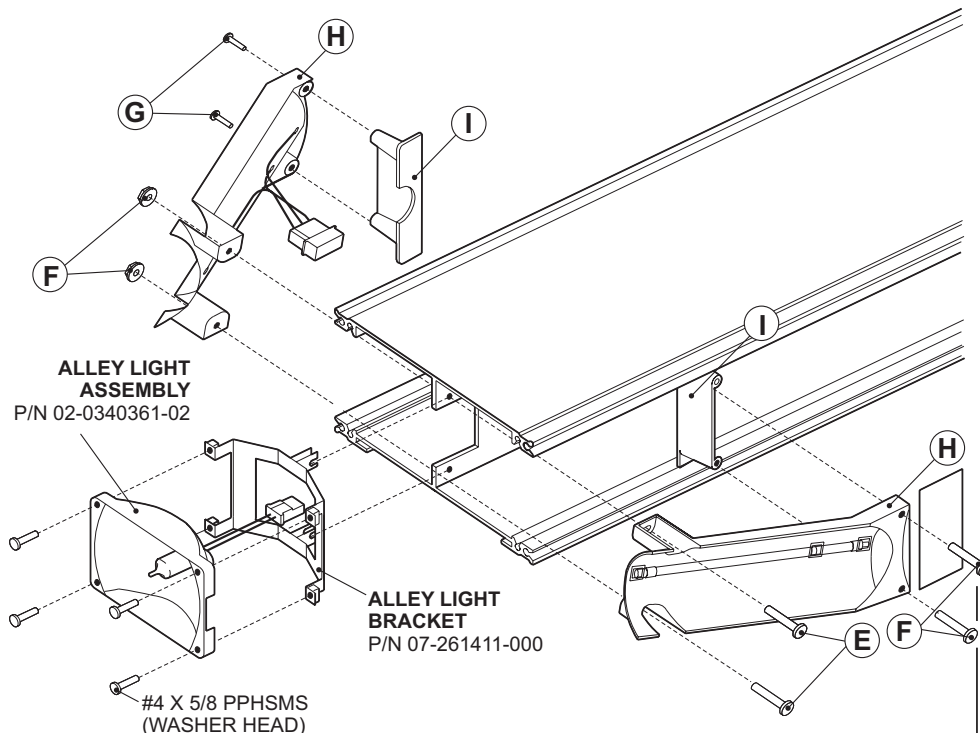
Input Voltage	13.5VDC±20%
Input Current Off.....	0 Amps
Input Current (30 Watts).....	3 Amps (typ.)
Input Current (60 Watts).....	6 Amps (typ.)
Input Current (90 Watts).....	9 Amps (typ.)
Flashrate (Comet Flash).....	75 fpm (per lamp)@85ms.
Flashrate (Double Flash).....	110 fpm (per lamp)@100ms.
Flashrate (Single Flash).....	240 fpm (per lamp)
Flashrate (Sequential).....	3 cycles (Comet) - 4 cycles (SF)

Input Control Voltage	13.5VDC±20%
Input Control Current	50 ma (typ.)
Energy 60 Watt Mode	26.5 Joules (total) 11.5 / 5 / 5 / 5 Joules
Energy 90 Watt Mode	36 Joules (total) 15 / 7 / 7 / 7 Joules
Energy Lo Power Mode	10 Joules (total) 2.5 / 2.5 / 2.5 / 2.5 Joules

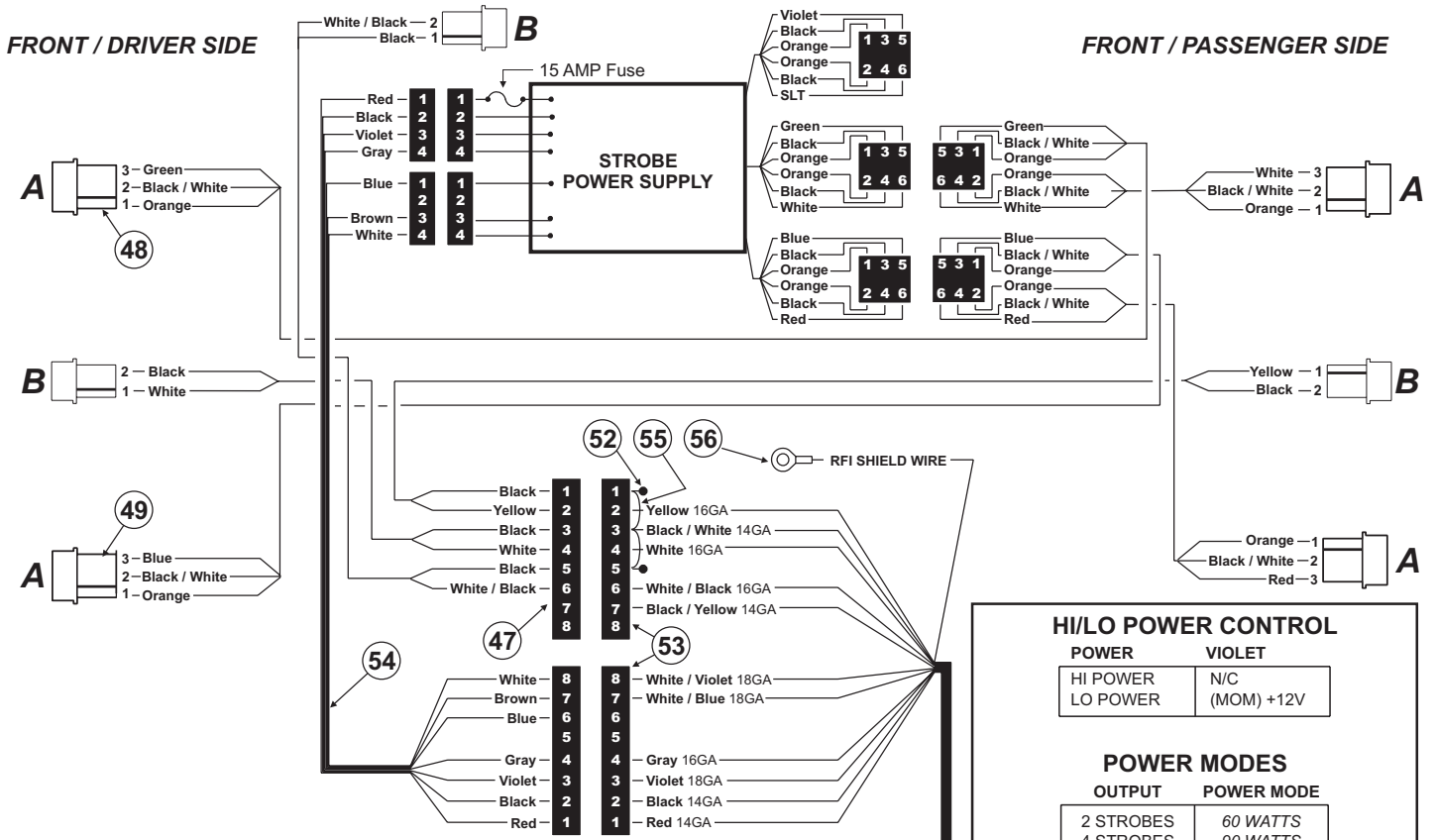
Refer to the lightbar mounting guide included with your lightbar for detailed mounting information.



Replacing Strobe Assembly: Remove the four screws (A) that hold on the endcap (B) and pull the endcap and gasket (C) off. Slide the lenses (D) out, to gain access to the reflector assembly. Unscrew the 2 mounting screws (E) from the 2 whiz nuts (F) that secure the reflector assembly to the base. Carefully slide the assembly (H) out of the lightbar base and unplug it from the lightbar. Unscrew the two screws (G) that secure the mounting brackets to the strobe assembly and remove brackets to use on the new assembly to be installed. Plug the new assembly in, attach the mounting brackets and slide it into the lightbar, then secure it with the 2 mounting screws. Re-assemble and test the lightbar. Installation of alley lights is shown below.



MINI-EDGE LIGHTBAR / WIRING DIAGRAM



HI/LO POWER CONTROL	
POWER	VIOLET
HI POWER	N/C
LO POWER	(MOM) +12V

POWER MODES	
OUTPUT	POWER MODE
2 STROBES	60 WATTS
4 STROBES	90 WATTS
6 STROBES	90 WATTS

PATTERN SELECTION		
PATTERNS	WHITE / BLUE	WHITE / VIOLET
COMET	N/C	N/C
DOUBLE FLASH	13.5VDC +/-20%	N/C
SINGLE FLASH	N/C	13.5VDC +/-20%
SEQUENTIAL	13.5VDC +/-20%	13.5VDC +/-20%

HALOGEN SPECIFICATIONS / 1 BULB

INPUT VOLTAGE 13.5 VDC +/-20%

INPUT CURRENT 32 WATTS (TAKE DOWN) . . . 2.66 AMPS

INPUT CURRENT 32 WATTS (ALLEY) 2.66 AMPS

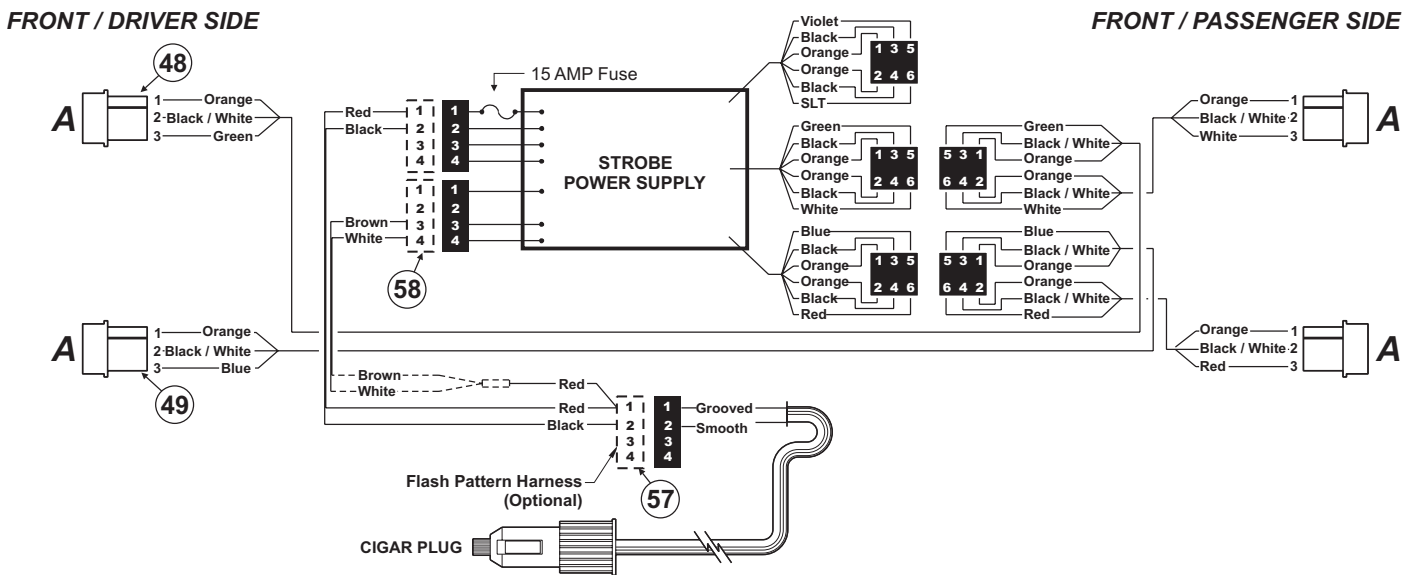
11/C COMPOSITE CABLE

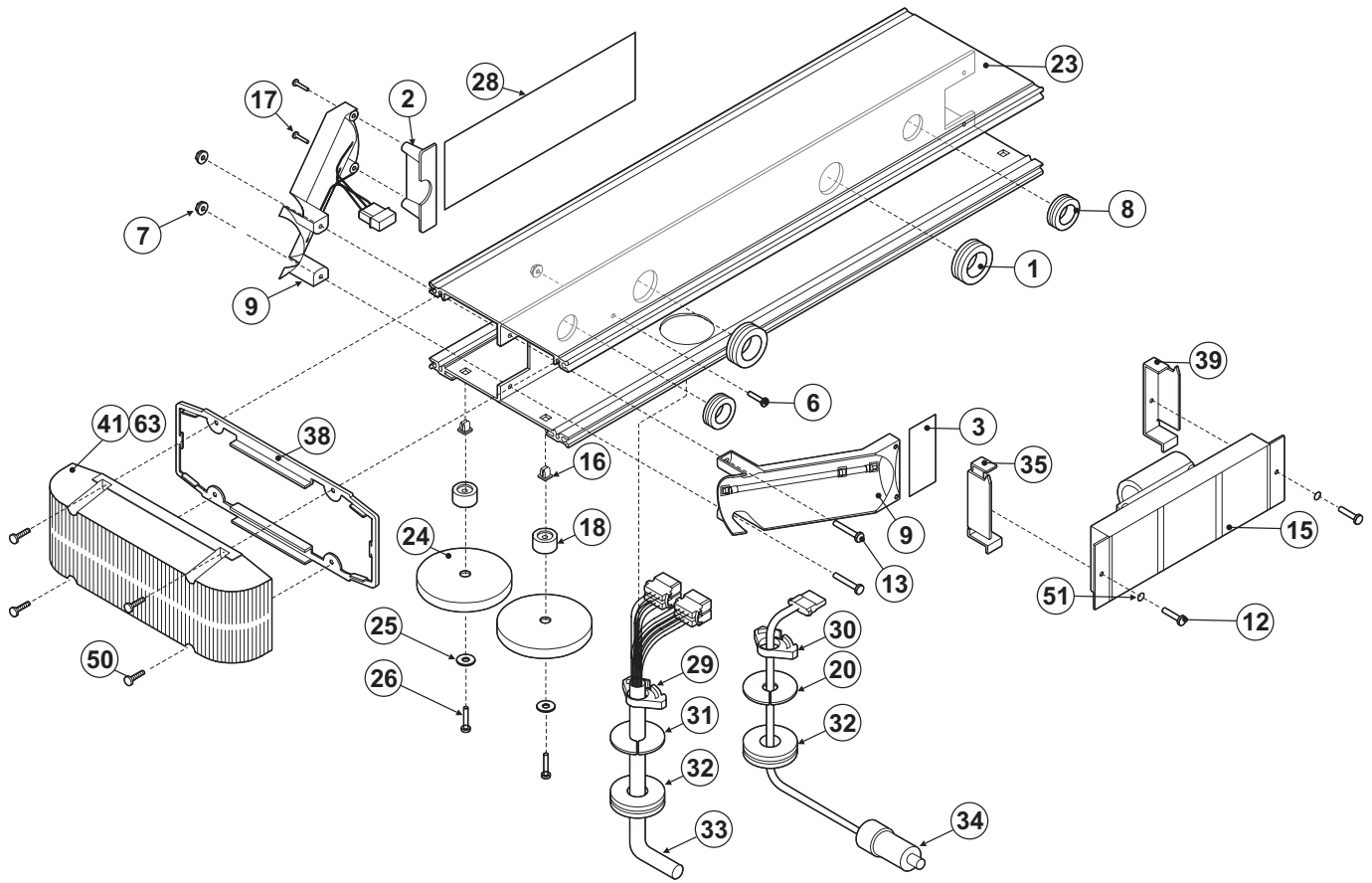
FUNCTION	COLOR	AWG
+12 VDC (STROBE)	RED	14
GROUND (STROBE)	BLACK	14
LOW POWER (MOM) +12V	VIOLET	18
DELETE FRONT STROBE	GRAY	18
DOUBLE FLASH	WHITE / BLUE	18
RANDOM FLASH	WHITE / VIOLET	18
PASSENGER ALLEY	YELLOW	16
DRIVER ALLEY	WHITE	16
FRONT TAKEDOWN	WHITE / BLACK	16
GROUND (ALLEY, TAKEDOWN)	BLACK / WHITE	14
(NO CONNECTION)	BLACK / YELLOW	14
RFI SHIELD DRAIN	NONE	18

A = Connection for Linear Strobe
B = Connection for Halogen Light

WARNING: All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED "at the battery" to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

Mini-Edge with Cigar Plug





REPLACEMENT PARTS / MINI-EDGE LIGHTBAR

QTY.	QTY.	QTY.	QTY.	ITEM	PART NUMBER	DESCRIPTION
		*			01-0682808-00	MINI-EDGE ASSEMBLY / MAG. MOUNT / 94MEDGEM
		*			01-0682808-01	MINI-EDGE ASSEMBLY / PERM. MOUNT / 94MEDGEP
	*				01-0682808-V0	MINI-EDGE ASSEMBLY / MAG. MOUNT / VIOLET
	*				01-0682808-V1	MINI-EDGE ASSEMBLY / PERM. MOUNT / VIOLET
2	2	2	2	1	21-11324004-0	GROMMET 1.25"
4	4	4	4	2	07-241014-000	LIGHTHEAD BRACKET
2	2	2	2	3	09-1341933-16	FILLER PANEL / 1.00"
1	-	1	-	6	14-062216-080	#6-32 X 1/2 PPHMS
5	4	5	4	7	13-062111-053	#6-32 WHIZ NUT
2	2	2	2	8	21-11263204-0	GROMMET 1.00"
4	4	4	4	9	02-0362733-00	CORNER LINEAR REFLECTOR ASSEMBLY
2	2	2	2	12	14-104216-120	#10-24 X 3/4 PPHMS
4	4	4	4	13	14-062216-160	#6-32 X 1 PPHMS
1	1	1	1	15	01-0268033-00	SL6 POWER SUPPLY
-	4	-	4	16	21-17060704-3	#10 PLASTI-GROMMET
8	8	8	8	17	15-041816-160	#4 X 1 PPHSMS / WASHER HEAD
-	4	-	4	18	08-0640834-00	MOUNTING PAD
-	1	-	1	20	16-1566430-08	3/8" WASHER / I.D. DWG No. 41197
1	1	1	1	23	54-160701-000	EXTRUDED BASE / 24.25"
-	4	-	4	24	65-0010192-00	MAGNET-90LB PULL
-	4	-	4	25	16-1001220-06	#10 FLAT WASHER
-	4	-	4	26	15-101416-202	#10 X 1-1/4" PPHSMS
1	1	1	1	28	09-1361222122	FILLER PANEL / 12.25"
1	-	1	-	29	26-0121053-01	7/16" RICHCO CLAMP P/N SHC-26
-	1	-	1	30	26-0121053-00	3/8" RICHCO CLAMP P/N SHC-23
1	-	1	-	31	16-1766430-08	1/2" WASHER / I.D. DWG No. 41197

1	1	1	1	32	21-11245004-1	INPUT GROMMET / 1.562"
1	-	1	-	33	02-0242331-25	11/C COMPOSITE CABLE ASSEMBLY
-	1	-	1	34	02-0240837-00	CIGAR PLUG CABLE ASSEMBLY
1	1	1	1	35	07-242230-000	POWER SUPPLY BRACKET / LEFT
				36		
3	3	3	3	37	02-0341448-00	LENS DIVIDER ASSEMBLY
2	2	2	2	38	38-0261131-00	ENDCAP GASKET
1	1	1	1	39	07-242229-000	POWER SUPPLY BRACKET / RIGHT
-	-	2	2	41	68-1181528-20	ENDCAP / BLUE
-	-	2	2	42	68-1182100120	LENS SECTION / BLUE / 7.500"
1	1	1	1	43	68-1182184590	BLACK PANEL / 8.625"
-	-	2	2	44	68-1182100320	LENS SECTION / BLUE / 12.000"
1	-	1	-	47	46-0942332-00	INTERNAL HARNESS
1	1	1	1	48	46-0942308-00	STROBE HARNESS / GREEN 26"
1	1	1	1	49	46-0942307-00	STROBE HARNESS / BLUE 26"
8	8	8	8	50	14-104286-16J	#10-24 X 1.25 TORX HEAD
2	2	2	2	51	16-1021220-45	#10 INTERNAL TOOTH LOCKWASHER
2	-	2	-	52	39-0501316-04	AMP PIN
2	-	2	-	53	39-0408313-04	8 POSITION PIN HOUSING
1	-	1	-	54	46-0942475-00	POWER SUPPLY INPUT HARNESS
1	-	1	-	55	25-0830060-05	3 POSITION COMMONING TAB
1	-	1	-	56	25-0123220-03	#6 RING TERMINAL
-	1	-	1	57	46-0942222-00	POWER INPUT ADAPTER HARNESS
-	1	-	1	58	46-0722170-00	PATTERN CONTROL HARNESS
2	2	-	-	60	68-11821003V0	LENS SECTION / VIOLET / 12.000"
2	2	-	-	61	68-11821001V0	LENS SECTION / VIOLET / 7.500"
2	2	-	-	63	68-1181528-V0	ENDCAP / VIOLET

