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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 1/03



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF SPECIAL WARNING LIGHT FOR MOTOR VEHICLES, PURSUANT TO
REGULATION NO 65

Approval No: E11 65R-000135

1. Special warning lamp ~~/rotating/~~ stationary flashing lamp ~~/directional flashing lamp/~~ complete bar
~~/ blue /amber~~
2. Special warning lamp has ~~one/~~ two* levels of intensity
3. For special warning lamps having two levels of intensity, indicate the system used to obtain
increased intensity at day-time: Refer to manufacturer's documentation
4. Used light source, discharge lamp or category of filament lamp: Light source module; MD E11
000135
5. Rated voltage of special warning lamp: 12 volt
6. Trade name or mark: Woodway Engineering LTD
7. Manufacturer's name and address:
Woodway Engineering LTD
Lower Road
Barnacle
Coventry CV7 9LD
United Kingdom
8. If applicable, name and address of manufacturer's representative: not applicable
9. Submitted for approval on: 23 March 2007



10. Technical service responsible for approval tests: Intertek Testing Services NA, Inc.
11. Date of report issued by that service: 5 June 2007
12. Number of report issued by that service: 3111873CRT-001
13. Approval GRANTED
14. Reason(s) of extension (if applicable): Not applicable
15. Place: BRISTOL
16. Date: 12 JUNE 2007
17. Signature:  A KUBINSKI
18. The list of documents filed with the administration service which has granted approval and available on request is annexed to this communication.

UAG079377





LOWER ROAD, BARNACLE, COVENTRY CV7 9LD ENGLAND



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Website: www.woodwayengineering.co.uk

Approval number and extension: E11 0135 Base Approval

Reason for Extension: Initial Approval

Lamp Type Number or Part Number: Freedom Lightbar Series, FL\$BBBB-ECE
(\$ to be replaced by lightbar length reference).

Basic Description of Lamp, including ECE Category: Special Warning Lamp, Blue, two levels of intensity, Rated voltage 12 V.

ECE Regulation 65 Category 'T', type B, class 2 special warning lights.

Date: June 4, 2007

Manufacturer's Name and Address:

Woodway Engineering Ltd
Lower Road
Barnacle
Coventry
CV7 9LD
United Kingdom

Representative's Name and Address (if applicable):

n/a

Lamp Specifications

Lens Optics / Reflector Optics: Lamp modules consisting of multiple LED's mounted in optical reflectors positioned around lightbar circumference. Plain outer blue polycarbonate cover.

Rated voltage: 12 V



Number of bulbs and ECE Reg 37 bulb category or for non-replaceable light sources number and total wattage:

Minimum 10 LED lamp modules installed as detailed in drawing 84692 4 of 5. 4 LED lamp modules, part number 02-0169734-22. (See attached drawing 63814), one mounted at each corner of the lightbar. 2 LED lamp modules, part number 02-0164517-20 one mounted at each end of the lightbar. (See attached drawing 64528). 4 LED lamp modules, part number 02-0164517-20, two forward and two rear facing one lamp module mounted adjacent to each corner module. (See attached drawing 64528).

Up to a maximum of 6 additional pairs of LED lamp modules, part number 02-0164517-20. (See attached drawing 64528). Lamp modules positioned to either the front or the rear of the lightbar as detailed on attached drawing 84692 4 of 5. Number of additional pairs is determined by the lightbar length.

Dual Intensity control achieved by power reduction to LED modules via the electronic control card part number 02-0184638-00. The type of switch used to control the 2 levels of intensity is dependant on how the operator wishes the intensity control to function:

Latching Mode: By applying +12 VDC to the VIOLET control wire for less than 1 second, the lightbar is 'latched' into the low intensity level. The lightbar must be turned 'off' then back 'on' to restore the high intensity level. (Typically achieved through a momentary switch).

Level Mode: Applying +12 VDC to the VIOLET wire control wire for more than 1 second holds the lightbar in the low intensity mode until the voltage is removed. (Typically achieved through a latching switch).

Lens material: Polycarbonate

Housing material: Extruded aluminium 'I' section chassis, natural finish with coloured polycarbonate lens.

Sealing/bonding method and material: n/a

Vehicle application list (if applicable): n/a

Drawings or Photos: See attached drawings.

(Must have sufficient detail to identify lamp. Must include details of E Mark and other markings such as bulb categories on housing).



Manufacturer Signature

22 May 2007

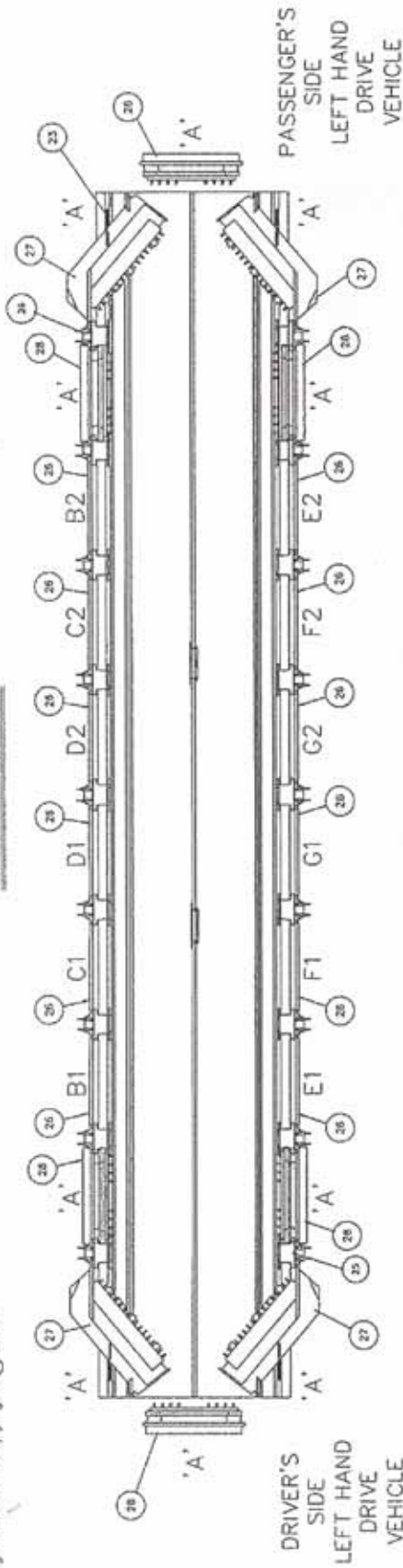
Date



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THIRD ANGLE PROJECTION

FRONT OF LIGHTBAR



BASE ECE65 ASSEMBLY

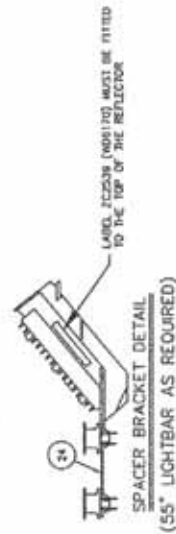
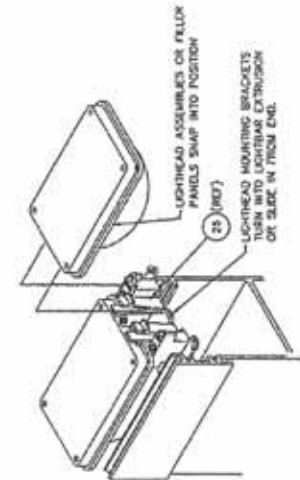
- 4 CORNER MODULES 01-0263014-20 (BLUE) AT 'A'
- 6 DIRECTIONAL LAMPS 01-0254077220 (BLUE) AT 'A'
- OPTIONAL ECE65 PAIRS**

DIRECTIONAL LAMPS 01-0364528222 (BLUE) AT:

- B1, B2
- C1, C2
- D1, D2
- E1, E2
- F1, F2
- G1, G2

NOTE: A MAXIMUM OF 6 ADDITIONAL SETS OF 400 SERIES LEADS ARE ALLOWED BEFORE ECE MAXIMUMS ARE EXCEEDED.

LIGHTHEAD HOUSING
ADDITIONAL HALOGEN, STROBE OR LED MODULES FOR
OPTIONAL SPOT LIGHTS, DIRECTIONAL WARNING OR
SIGNAL LIGHTS/TRAFFIC ADVISORS MAY BE MOUNTED IN
ANY UNUSED LIGHTHEAD HOUSING AS
DEMANDED/PERMITTED ACCORDING TO INDIVIDUAL
NATIONAL LEGISLATIONS.



ASSEMBLY INSTRUCTIONS

- 1.) CONNECT CORNER LEADS TO INTERNAL HARNESS AND SLIDE INTO BASE EXTRUSION ATTACH TO MTC BRACKET (ITEM #25) AND POSITION APPROX AS SHOWN.
- 2.) LIGHTHEAD ASSEMBLIES (ITEM #28) OR FILLER PANELS (ITEM #25 & #24) MAY BE INSTALLED AS NEEDED.

BASED ON WHELEN DRAWING 84692 SHT 4

DRN	ISS.	MOD. No.	ISS.	MOD. No.	DATE	MATERIAL: -	ORIGINAL	FILE DIR:	PART	DRG.	SHT 2 CONTD
TMF	-----	-----	-----	-----	22/5/07	SEE ABOVE	SCALE	S:\ENGINEERING\ACAD DRAWINGS WOODWAY	NUMBER	WD6171	ON SHT X
CHKD	A					FINISH: -	1:1		SEE ABOVE	No.	ON SHT X
APPO						TREATMENT: -	FREEDOM ECE65 DUAL INTENSITY				
DATE	22/5/07						GENERAL ASSEMBLY				
							DO NOT SCALE				
							IF IN DOUBT ASK				

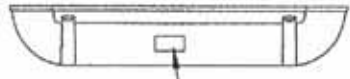
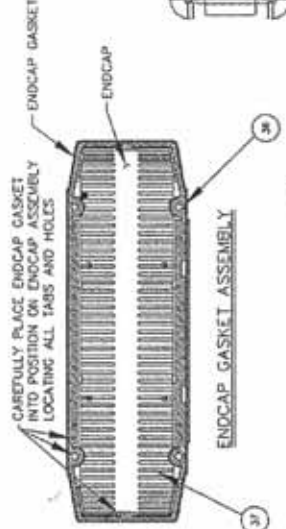
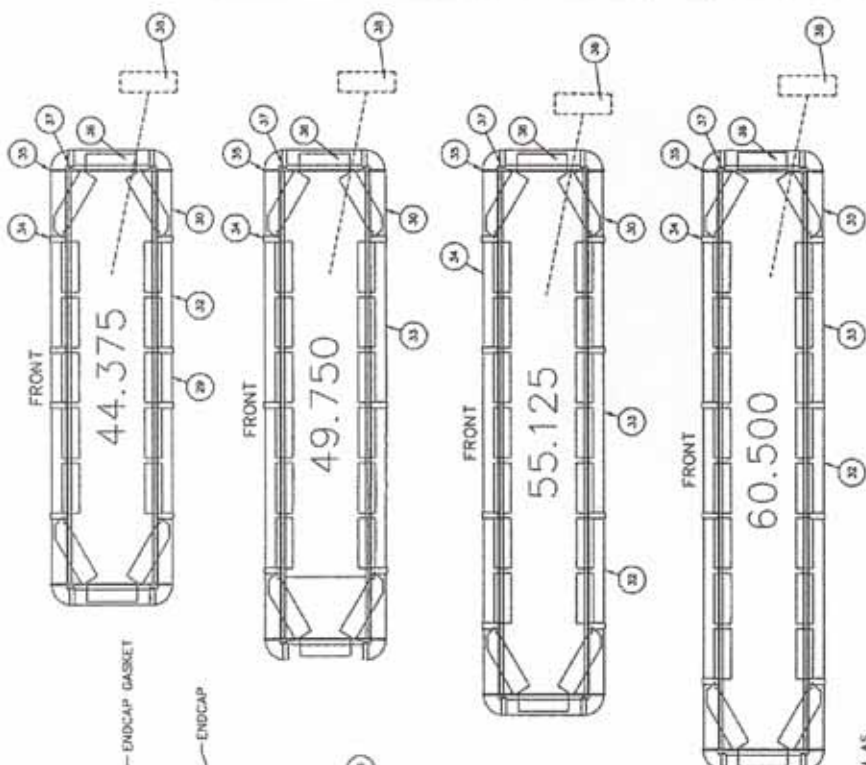


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THIRD ANGLE PROJECTION

GENERAL SPECIFICATION

LENS: 990.6mm MIN - 1524mm MAX (1524mm SHOWN)
 FLASH PATTERN: SINGLE/DOUBLE
 LED COLOUR: BLUE
 LENS COLOUR: BLUE
 INTENSITY: DUAL



FIX AN EXCESS LABEL (OUTSIDE TOP) ON BOTH ENDCAPS AND ON ALL SECTIONS OF BLUE LENSES COVERING EDGE APPROVED LED LIGHT MODULES MOUNTED IN THE LIGHTBAR. SEE DRG W09169 FOR LABEL DETAIL.

ASSEMBLY INSTRUCTIONS

- 1.) INSTALL LENSES (ITEM #29 THRU #33) INTO BASE EXTRUSION AS NEEDED. (SEE LENS CONFIGURATION CHART ABOVE)
- 2.) INSTALL ENDCAP GASKET (ITEM #35) TO ENDCAP ASSEMBLY (ITEM #36). (REFER TO ENDCAP GASKET ASSEMBLY)
- 3.) CAREFULLY INSTALL ENDCAP ASSEMBLIES TO BASE EXTRUSION USING #10-24 x 1-1/8" TX. PHD. SCREW W/SHOULDER (ITEM #37) AND TIGHTEN PER WHELEN FASTENER TORQUE SPECIFICATION 04-0805031-00
- 4.) INSTALL MFG. LABEL (ITEM #30) TO BOTTOM OF LIGHTBAR. (CABLE SIDE)

BASED ON WHELEN DRAWING 84692 SHT 5

QTY	DR	REV	DATE	BY	APP	PART NUMBER	DESCRIPTION
1	1	1				30	ZC2538
1	1	1				31	10-0523067-02 LABEL MODEL & SERIAL NO
8	0	8				37	14-104286-18-08 #10-24 x 1-1/8" TX. PHD. SCREW W/SHOULDER
2	2	2				36	88-1163359-20 ENDCAP, BLUE
2	2	2				35	38-0783381-00 GASKET, ENDCAP
6	4	6				34	02-0341448-00 LENS DIVER ASSY. (BLACK)
6	4	6				33	66-1984100-20 LENS, 15.75" BLUE
4	2	4				32	68-1183491802 LENS, 10.375" BLUE
-	-	-				31	68-1984104-20 LENS, 9.25" BLUE
4	4	4				30	68-1984307-20 LENS, 6.982" BLUE
2	-	-				29	88-1983816-20 LENS, 3.00" BLUE
6	6	6				28	02-0364528222 LINEAR LED 400 BLUE GEN III AMP
4	4	4				27	01-0263014-20 CORNER LED, FREEDOM BLUE/BLUE
6	12	6				26	09-1363158-00 FILLER PANEL, "400" SPINES
12	16	12				25	07-283102-000 MOUNTING BRACKET
-	-	-				A/R	
4	4	4				24	07-242815-000 BRACKET, SPACER
4	4	4				23	20-0942785-00 SPACER, CORNER STORE
12	12	12				22	48-0784112-04 ASSY. HARNESS UPPER LED ADAPTER
1	1	1				21	48-0763942-00 HARNESS, 4 LIGHT 72"
2	2	2				20	46-0763941-00 HARNESS, 6 LIGHT
1	1	1				19	39-0403023-04 HOUSING, 3 POS SOCKET
1	1	1				18	39-0418323-04 HOUSING, 16 POS SOCKET CANAL
1	1	1				17	39-0017189-06 HOUSING, 2 POLE
1	1	1				16	01-0264800-00 ASSEMBLY 1/0 BOARD LC, EEE 65 12V
2	2	2				15	21-7263988-00 VENT, 3/A"
2	2	2				14	21-242401-000 BUSHING, 1-5/8"
1	1	1				13	26-0115503-10 CABLE CLAMP, 5/8"
1	1	1				12	13-104111-063 W/UT, #10-24 WHZ
1	1	1				11	14-104216-160 #10-24 x 1 1/8 PHAS
1	1	1				10	46-0742063-17 CABLE, 17/C Z20A 17
1	1	1				9	46-0742957-17 CABLE, 2/C 100A 17
1	1	1				8	21-11246004-1 GROMMET, 1.562"
4	4	4				7	29-0416982-00 PROTECTIVE COVER
2	2	2				6	13-130711-072 W/UT, 1/4-20 ELASTIC STOP (318 STAINLESS)
2	2	2				5	22-0542701-00 MTC, STUD
1	-	-				4	11-363390-000 BASE EXTRUSION (40.375")
-	-	-				3	11-363143-000 BASE EXTRUSION (56.50")
-	-	-				2	11-363142-000 BASE EXTRUSION (51.125")
-	-	-				1	11-363141-000 BASE EXTRUSION (43.75")
•	•	•				01-0684692-00	ASSY, FREEDOM GEN 3 LC R/R/B/B 44"
•	•	•				01-0684692-03	ASSY, FREEDOM GEN 3 LC R/R/B/B 60"
•	•	•				01-0684692-02	ASSY, FREEDOM GEN 3 LC R/R/B/B 30"
•	•	•				01-0684692-01	ASSY, FREEDOM GEN 3 LC R/R/B/B 50"

FILE DIR: S:\ENGINEERING\ACAD DRAWINGS WOODWAY A3

PART NUMBER SEE ABOVE DRG. WD6171 SHT 1 CONTD ON SHT 2

ORIGINAL SCALE 1:1 FREEDOM ECE65 DUAL INTENSITY GENERAL ASSEMBLY

MATERIAL: - SEE ABOVE FINISH: - SEE ABOVE TREATMENT: -

DATE 22/5/07 ISS. MOD. No. DATE 22/5/07

ALL DIMENSIONS ARE IN mm U.O.S. [] = IMP. U.O.S.

DO NOT SCALE IF IN DOUBT ASK

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