

Test Report
No. : TW065-A0-120405
ECE Regulation No.65



Type : PY-9286-A
Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Test Report

Agreement

concerning the adoption of uniform technical prescriptions for the wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions

Uniform provisions concerning the approval of special warning lamps for power-driven vehicles and their trailers

ECE-Regulation 65

including all amendments until

Series of Amendments: 00
supplement 8

dated: November 18, 2012

Approval status	
ECE	Number of approval
	E4-65R-00 6598

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Test object(s) and general test information

Test object(s)

Identification number : PY-9286-A
Version : Special Warning Lamp
By category of lamp : Category T

General test information

Order issued by
(if different from manufacturer) : ---
Test object / test vehicle received
on : not applicable
Test date : Finished on May 14, 2013
Test site : MANY WAIN ENTERPRISE CO., LTD.
Tainan, Taiwan R.O.C.
Remark : ---

Test minutes

Test facilities : The test facilities are in compliance with the requirements of the regulation.
Test results : ~~The type has been examined according to the amendments mentioned in appendix 0. See attached.~~
~~An actual test of the type was not required. The results of the previous tests are still valid.~~
Temperature/Relative Humidity of laboratory : 24° C / 56%

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Type : PY-9286-A
Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Markings : The trade mark is marked clearly legible and indelible on the lens ~~and on the housing~~ of the lamp.

~~The light source and rate wattage of the light source are clearly legible and indelible marked on the housing of the lamp.~~

The rate voltage and rate wattage of the non-replaceable light source are clearly legible and indelible marked on the lens.

Space for the approval mark and for additional symbols is provided on the lens ~~and housing~~ of the lamp.

General specifications : The special warning lamps must be so designed and constructed that in normal conditions of use, and notwithstanding the vibrations to which they may be subjected in such use, their satisfactory operation remains assured and they retain the characteristics prescribed by this Regulation.

The special warning lamp shall be powered directly from the voltage supply network of the vehicle by direct connection or usual connectors (e.g. cigarette lighter plug).

All measurements, photometric and colorimetric, on the lamp equipped with non-replaceable light sources LEDs were made at ~~6.75V~~ 13.5V/28.0V.

Starting and correct functioning of the special warning lamp shall remain assured at the conditions described in paragraph 5.6. and Annex 4.

And the frequency of the flash shall remain between 2 and 4 Hz.

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Photometric tests : The light source of lamp emitted was obtained by means of LEDs stated in Appendix L-4, ~~producing the required luminous flux.~~

For any lamp equipped with non-filament light source(s), the luminous intensities measured after one minute and after 30 minutes of operation shall comply with the minimum and maximum requirements. The luminous intensity distribution after one minute of operation can be calculated by applying the ratio achieved at HV between one minute and 30 minutes of operation

The light distribution angles and levels of intensity have been measured in accordance with Annex 5 of the Regulation, based on the manufacturer's indication of the centre of reference and axis of reference.

Frequency tests : The frequency f , the "on" time t_H and the "off" time t_D correspond to the values indicated in the table in Annex 5 to the Regulation. They be measured at an ambient temperature of $+23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and with voltages at the terminals of the device which are between 90 per cent and 115 per cent of the rated voltage.

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Frequency, time and intensity of the emitted light **(Single Flash)**

Sample 1 (12V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.034
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.197
"OFF" time tD (s)	min.	0.1	0.294

Sample 2 (24V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.034
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.197
"OFF" time tD (s)	min.	0.1	0.294

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Type : PY-9286-A
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Frequency, time and intensity of the emitted light **(Double Flash)**

Sample 1 (12V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.035
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.197
"OFF" time tD (s)	min.	0.1	0.294

Sample 2 (24V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.035
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.197
"OFF" time tD (s)	min.	0.1	0.294

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 Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Frequency, time and intensity of the emitted light **(Rotating Flash)**

Sample 1 (12V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.048
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.189
"OFF" time tD (s)	min.	0.1	0.299

Sample 2 (24V)

		Requirement	Results of Frequency tests
		Colour blue or amber or red	Amber / Blue / Red
		Rotating system or flash light sources (Categories T and X)	Categories T or ✕
Frequency f (Hz)	max.	4	2.049
	min.	2	
"ON" time tH (s)	max.	0.4/f	0.189
"OFF" time tD (s)	min.	0.1	0.299

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Results of photometric tests of the Special warning lamp Category T **(Single Flash)**

Category T						Results	
			Colour			Amber / Blue / Red	
			blue	amber	red	Sample 1 (12V)	Sample 2 (24V)
Minimum value of the effective luminous intensity J_e , within the specified vertical angles and a horizontal angle of 360° around the reference axis (a) In the case of Category T, a horizontal angle of 360° around the reference axis (b) In the case of Category HT a horizontal angle of minimum $\pm 135^\circ$ relative to its horizontal reference axis	0°	by day	120	230	120	==	==
		by night	50	100	50	161.1	166.7
	$\pm 4^\circ$	by day	60	-	60	==	==
		by night	25	-	25	==	==
	$\pm 8^\circ$	by day	-	170	-	==	==
		by night	-	70	-	73.5	74.4
Maximum value of the effective luminous intensity J_e	Inside $\pm 2^\circ$	by day	1,700			==	==
		by night	700			187.6	184.7
	Inside $\pm 8^\circ$	by day	1,500			==	==
		by night	600			105.4	100.8
	Outside the above areas	by day	1,000			==	==
		by night	300			105.4	100.8

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 Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Results of photometric tests of the Special warning lamp Category T **(Double Flash)**

Category T						Results	
			Colour			Amber / Blue / Red	
			blue	amber	red	Sample 1 (12V)	Sample 2 (24V)
Minimum value of the effective luminous intensity J_e , within the specified vertical angles and a horizontal angle of 360° around the reference axis (a) In the case of Category T, a horizontal angle of 360° around the reference axis (b) In the case of Category HT a horizontal angle of minimum $\pm 135^\circ$ relative to its horizontal reference axis	0°	by day	120	230	120	==	==
		by night	50	100	50	168.1	160.5
	$\pm 4^\circ$	by day	60	-	60	==	==
		by night	25	-	25	==	==
	$\pm 8^\circ$	by day	-	170	-	==	==
		by night	-	70	-	81.8	76.4
Maximum value of the effective luminous intensity J_e	Inside $\pm 2^\circ$	by day	1,700			==	==
		by night	700			186.2	175.1
	Inside $\pm 8^\circ$	by day	1,500			==	==
		by night	600			109.2	104.5
	Outside the above areas	by day	1,000			==	==
		by night	300			109.2	104.5

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Type : PY-9286-A
 Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Results of photometric tests of the Special warning lamp Category T (**Rotating Flash**)

Category T			Results		
			Colour		
			blue	amber	red
			Sample 1 (12V)	Sample 2 (24V)	
Minimum value of the effective luminous intensity J_e , within the specified vertical angles and a horizontal angle of 360° around the reference axis (a) In the case of Category T, a horizontal angle of 360° around the reference axis (b) In the case of Category HT a horizontal angle of minimum $\pm 135^\circ$ relative to its horizontal reference axis	0°	by day	120	230	120
		by night	50	100	50
	$\pm 4^\circ$	by day	60	-	60
		by night	25	-	25
	$\pm 8^\circ$	by day	-	170	-
		by night	-	70	-
Maximum value of the effective luminous intensity J_e	Inside $\pm 2^\circ$	by day	1,700		
		by night	700		
	Inside $\pm 8^\circ$	by day	1,500		
		by night	600		
	Outside the above areas	by day	1,000		
		by night	300		

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Rain test

: A simple of the special warning lamp, fitted in its normal operating position, with all the drainage apertures open if they exist, shall be subjected to a precipitation of 2.5 mm of water per minute, the water being directed at an angle of 45° and from a nozzle producing a full conical jet.

During the test, the device shall turn on its vertical axis at a rate of four turns per minute.

The test shall last for 12 hours continuously after which the water jet shall be stopped.

One hour later, the sample shall be examined and shall be regarded as having passed the test if the accumulated volume of water does not exceed 2 cm³

Frequency checked after Rain test : **Single Flash**

	Results of Frequency tests
	Amber / Blue / Red
	Categories T or ✕
Frequency f (Hz)	2.038

Double Flash

	Results of Frequency tests
	Amber / Blue / Red
	Categories T or ✕
Frequency f (Hz)	2.035

Rotating Flash

	Results of Frequency tests
	Amber / Blue / Red
	Categories T or ✕
Frequency f (Hz)	2.049

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The colouring beam is obtained through : Amber / ~~Blue~~ / ~~Red~~

The colour comply with the colorimetric boundaries prescribed in Annex 3 to the Regulation.

Single Flash

The chromaticity coordinates (x,y) of the light emitted (Reference axis)	Special warning lamp
x	0.5803
y	0.4151

Double Flash

The chromaticity coordinates (x,y) of the light emitted (Reference axis)	Special warning lamp
x	0.5807
y	0.4146

Rotating Flash

The chromaticity coordinates (x,y) of the light emitted (Reference axis)	Special warning lamp
x	0.5800
y	0.4165

Explanatory note : Not applicable

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Remark concerning tested object(s)

All versions of the lamps as stated in the information document are covered with the tested version(s) and test object(s) respectively.

Appendices

- L Technical information about the lamp type according to Annex 1 for the communication of the ECE-type approval
- 0 List of modifications : Not attached
- 1 Information folder no. : PY-9286-A -00

Statement of conformity

The information folder and the type described there comply with the requirements in the above mentioned ~~directive~~ regulation.

The technical report (including appendix L) consists of pages 1 to 15 and shall not be reproduced except in full without the written approval of the testing laboratory.

Certification Number: RDW-99050016

Taipei, May 23, 2013
IFM/#



Cronus Huang
Engineer

Test Report
No. : TW065-A0-120405
ECE Regulation No.65

Type : PY-9286-A
Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

Technical information about the lamp type according to Annex 1
for the communication of the ECE-type approval

Appendix L

1. Special warning lamp / rotating / stationary flashing lamp / ~~directional flashing lamp / complete bar / blue / amber / red~~
2. Special warning lamp has one/~~two~~ levels of intensity
Special warning lamp consists of 1 separate units
4. Used light source

category of filament lamp : Not applicable

gas discharge light source : Not applicable or,

LED : ~~yes~~/no or,

Light source module : ~~yes~~/no or,

Light source module specific
identification code : Not applicable
5. Rated voltage of special warning
lamp : 12V/24V
6. Trade name or mark :

Pai-Ying or  or


A PUBLIC SAFETY EQUIPMENT COMPANY or

 or





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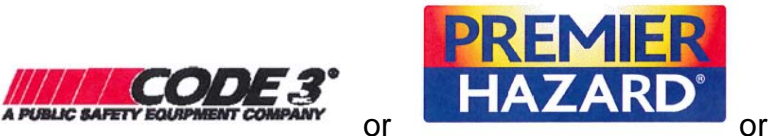

Type : PY-9286-A
Manufacturer : MANY WAIN ENTERPRISE CO., LTD.

7. Manufacturer's name and address : MANY WAIN ENTERPRISE CO., LTD.
No. 10, Lane 808, Chung Shan Rd., Shin Hwa Dist.,
Tainan, Taiwan
8. If applicable, name and address of manufacturer's representative : not applicable
9. Submitted for approval on : December 17, 2012
11. Date of report issued by that service : May 23, 2013
14. Reason(s) for extension : not applicable



1. Specification Data

January 31, 2013

Type No.		PY-9286-A
Function		Special warning lamps
Category		Rotating or stationary flashing lamp (category T)
Color		Amber
Level of intensity		Class 1 (by night)
Minimum horizontal angular range for category x		Not applicable
Rate	Voltage	12V/24V
	Wattage	40W
Application Regulation (ECE)		ECE Regulation 65
Light source category		LED x 12
Location of marking	Trade mark	
		
		
		On the lens
Approval mark		On the lens

Remark: 1. There are two versions of the lens. (Refer to the drawing).

2. This device with three kinds of flash mode : Single Flash/ Double Flash/ Rotating Flash



2. Construction and Material :

Construction	Material	Remarks
Lens	Polycarbonate	Amber
Housing	Aluminum	--

3. Name and Address of Manufactory : MANY WAIN ENTERPRISE CO., LTD.
No. 10, Lane 808, Chung Shan Rd.,
Shin Hwa Dist., Tainan, Taiwan



4. Name and address of representative of manufacturer: Not applicable

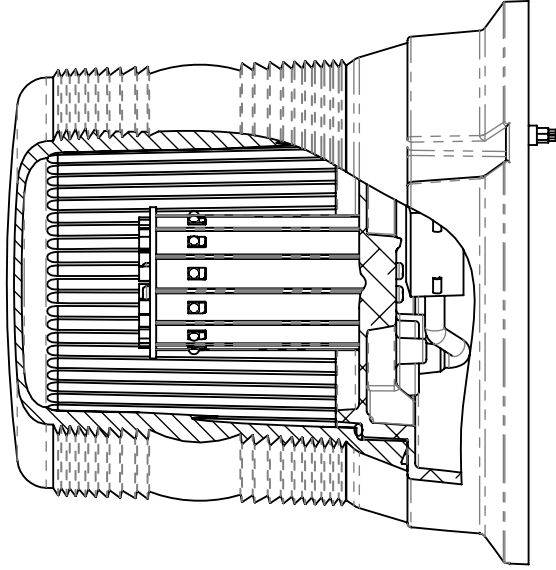
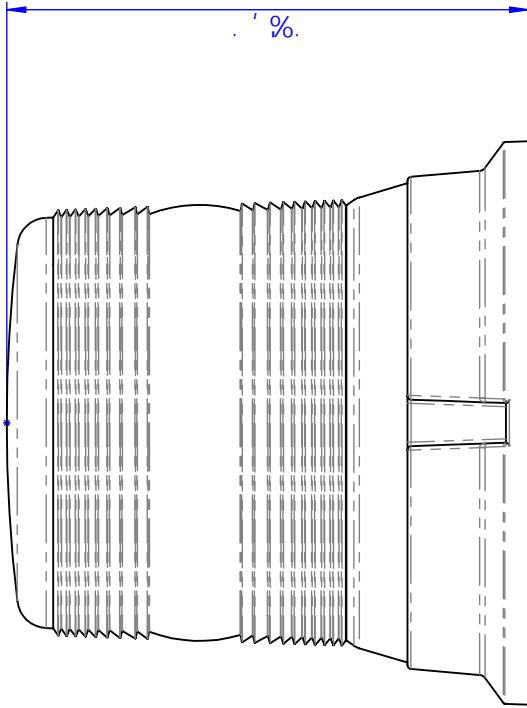
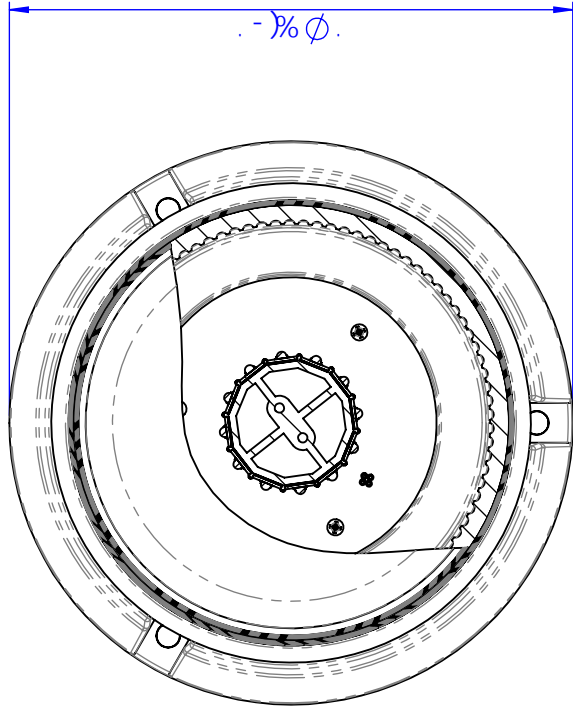
This document (including drawing) consists of 7 pages



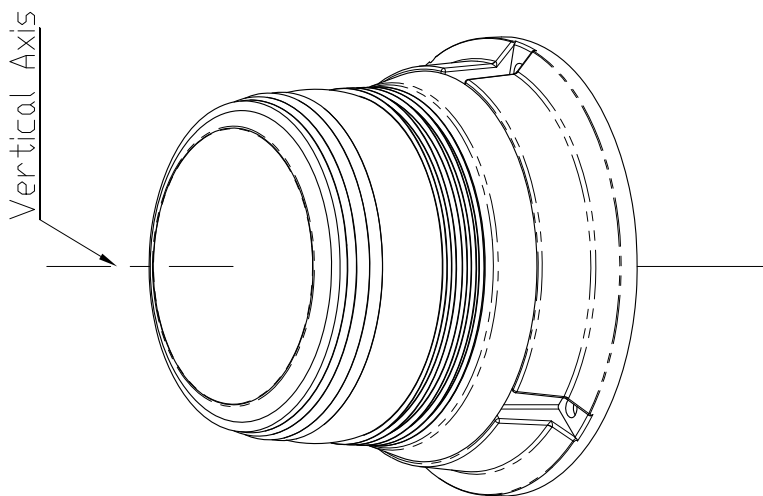


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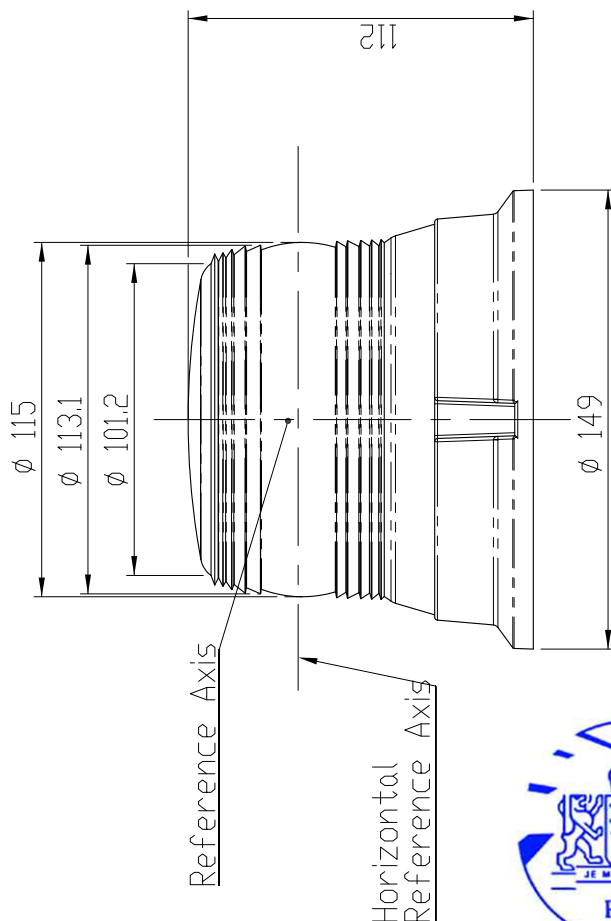
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			0~6	±0.08	300~600	±0.6	Material	Approval		Drawing	Item Name	
			6~30	±0.1	>600	±0.8		Finish		Scale		Item No.
			30~120	±0.2	ANGLE	±1φX				Color	Unit	Date
DATE	REV	DESCRIPTION	120~300	±0.4	SIZE	A4						Page




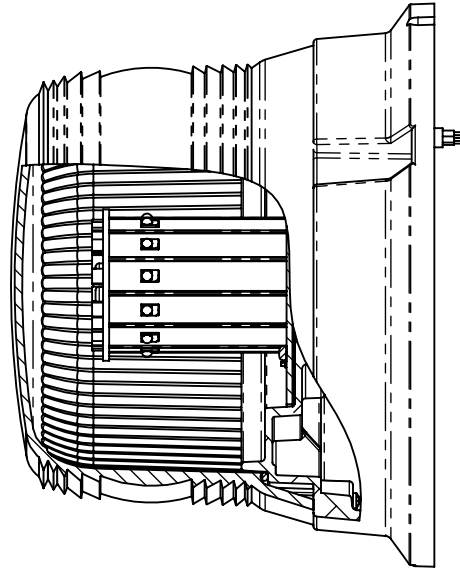
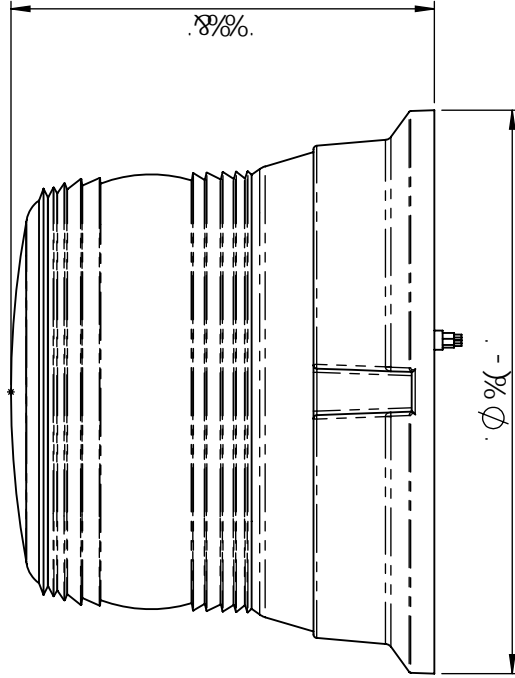
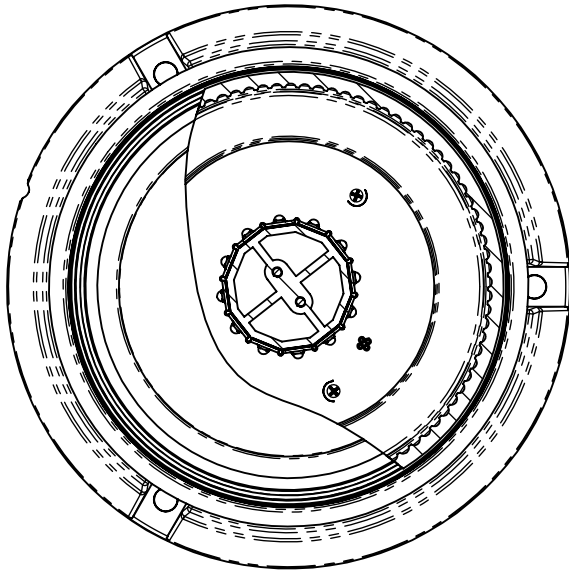
85H9	F9J	8 9G7 F-DHC B	HC @9F5B79				 D5=MB; 9B1H7F-@7C7Z@B" A UHY 7U : b7g 7 c'cf	7 \YWL 5ddfcj YX GWUY l b7h	8Yg7 b 8fuk 7b[GWUY 8UNY	8fuk 7b['Bc" - & *1% \$) %)+ #7a 'BUa Y DM- &, * #7a 'Bc" FYj DU7Y
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PPY-9286LL-A (AMBER)
 LED: 12PCS
 LENS: PC(AMBER)
 BASE: ALUMINUM



DATE	REV	DESCRIPTION	TOLERANCE		Check	Design	Drawing No.	
			0~6 \ M+2B130	Ø80~608M+2B130 Material	Approval	Drawing	Item Name	
			6~30 \ M+2B130, 1 >600 \ M+2B130	Finish	Scale		Item No.	
			30~120M+2B130, 2 ANGLE \ M+2B130	ØX	Unit	Date	Rev	Page
			120~308M+2B130, 4 SIZE	A4	Color			



85H9	F9J	8 9G7 F-DHC B	HC @9F5B79				 D5=MB; 9B1H7F-@7C7Z@B" A UHY 7U	7 \YWL	8Ygll b	8fuk jbl Bc"	DU[Y FYj DU[Y %#%
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THE NETHERLANDS
(N E D E R L A N D)

COMMUNICATION

Concerning ⁽¹⁾:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of special warning lamp for motor vehicles, pursuant to Regulation number 65.

Approval number: E4-65R-00 6598**Extension number: 00**

1. Special warning lamp / rotating / stationary flashing lamp / ~~directional flashing lamp / complete bar / blue /~~ amber / ~~red~~ ⁽¹⁾: PY-9286-A
2. Special warning lamp has one/~~two~~ levels of intensity ⁽¹⁾
Special warning lamp consists of one separate units
3. For special warning lamps having two levels of intensity, indicate the system used to obtain increased intensity at daytime : Not applicable
4. Used light source,
 - category of filament lamp : Not applicable
 - gas discharge light source : Not applicable or,
 - LED : yes/~~no~~ ⁽¹⁾ or,
 - Light source module : ~~yes~~/no ⁽¹⁾ or,
 - Light source module specific identification code : Not applicable
5. Rated voltage of special warning lamp : 12V/24V



6. Trade name or mark :

Pai-Ying or  or

 or
A PUBLIC SAFETY EQUIPMENT COMPANY

 or



8. Manufacturer's name and address : MANY WAIN ENTERPRISE CO., LTD.
No. 10, Lane 808, Chung Shan Rd., Shin Hwa
Dist., Tainan, Taiwan
9. If applicable, name and address of the
manufacturer's representative : Not applicable
10. Submitted for approval on : December 17, 2012
11. Technical service responsible for
conducting approval tests : TÜV NORD Mobilität GmbH & Co. KG
Institut für Fahrzeugtechnik und Mobilität
Adlerstrasse 7, D-45307 Essen
12. Date of report issued by that service : May 23, 2013
13. Number of report issued by that
service : TW065-A0-120405
14. Approval : granted/~~extended/refused/withdrawn~~⁽¹⁾
15. Reason(s) for extension (if applicable) : Not applicable
16. Place : Zoetermeer
17. Date : 22-JUL-2013



18. Signature :



The image shows a handwritten signature in blue ink, which appears to read 'R.F.R. Clement'. The signature is written over a circular official stamp. The stamp contains a coat of arms with a crown on top and the letters 'RDW' at the bottom. The text 'R.F.R. Clement' is printed in a bold, sans-serif font directly below the signature.

19. The list of documents filed with the administration service which has granted approval and available on request is annexed to this communication.

⁽¹⁾ Strike out what does not apply.