「車輛型式安全審驗管理辦法」第十四條附表車輛安全檢測基準部分增修條文內容檢討
(一)

會議資料

UN 法規增修涉及國內車輛安全法規內容彙整……P.2

UN 法規增修涉及國內車輛安全法規內容彙整（計 5 項）

項 次	法　規　名　稱	修訂法規內容	新增之法規項目	頁碼	版本別	內容摘要
1	附件二、車輛規格規定	◎		P.4	EU2019/2144、 EU 2021/1243、 EN 50436-7:2016、BAIIDs、 車輛點火自動鎖定裝置安裝及管理辦法	參考 EU2019/2144、EU 2021/1243 指令、EN 50436-7 :2016、BAIIDs 及車輛點火自動鎖定裝置安裝及管理辦法部分內容，增訂車輛點火自動鎖定裝置安裝介面之相關規定。
2	附件二、車輛規格規定	◎		P.8	美國消防協會所制定替代燃料車輛之緊急現場救援處理指引、 美國 GILLIG35/40 英尺電動巴士車輛緊急應變指南	1.依 112 年 8 月 9 日「電動公車防災現地綜合實作正式演練」綜合座談會議紀錄，同意統一律定電動車輛之緊急斷開開關的位置之規定，以提供消防人員即時採取因應措施。 2.參考美國消防協會所制定替代燃料車輛之緊急現場救援處理指引以及美國 GILLIG35/40 英尺電動巴士車輛緊急應變指南，研擬納入本項基準規定進行討論。
3	附件◯、昇降尾門用警示燈		◎	P.9	StVZO § 22a、 TA Nr.13、 TA Nr.16a、 StVZO § 53b、 UN R65 00-S11	依交通部指示，鑑於國內裝設有昇降尾門之車輛，於尾門開啟時後方警示不足易導致後方用路人發生危險，爰參考德國 StVZO § 22a、TA Nr.13 、TA Nr.16a 及 UN R65 00-S11 版之相關規定，增訂尾門警示燈相關規範。

項 次	法　規　名　稱	修訂法規內容	新增之法規項目	頁碼	版本別	內容摘要
4	附件三之五、車輛燈光與標誌檢驗規定	◎		P.18	StVZO § 53b	依交通部指示，鑑於國內裝設有昇降尾門之車輛，於尾門開啟時後方警示不足易導致後方用路人發生危險，爰參考德國 StVZO § 53b 之相關規定，增訂昇降尾門應裝設警示燈相關規範。
5	附件◯、車輛起步警示系統		◎	P.20	UN R159 00、00-S1、00-S2	參考 UN R159 00 Series、00-S1 及 00-S2 內容，增訂「附件◯、車輛起步警示系統」檢測基準，摘要說明如下： 1. 參考 00 Series 內容，增訂實施時間及適用範圍、名詞釋義、適用型式及範圍認定原則、受驗件及資訊提供、規格規定、試驗程序、試驗相關資料及測定盲點邊界之試驗步驟。 2. 參考 00-S1 版內容，修訂以減少因非屬相關執行情境之測試、配合 AEBS 法規之文字妥適性調整、誤植更正，以及對圖表相關定義進行補充。 3. 參考 00-S2 版內容，考量部分車輛設置(如額外掛載設備)可能造成 MOIS 無法正常運作，調整部分規定使其排除在外；另調整試驗容許誤差以增加系統穩健性。

車輛規格規定

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
(EU) 2021/1243 **…** **Article 3** **Entry into force and application** This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union.* It shall apply from 6 July 2022.	歐盟之實施時間為 新型式M,N類2022/7/6 各型式M,N類2024/7/7	附件二、車輛規格規定 … 7.11車輛點火自動鎖定裝置安裝介面 7.11.1 實施時間及適用範圍：自中華民國一百十七年一月一日起，新型式M及N類車輛及中華民國一百十九年一月一日起，各型式M及N類車輛，其應配備車輛點火自動鎖定裝置安裝介面，或提供於車輛裝設車輛點火自動鎖定裝置之安裝文件。	
(EU) 2019/2144 **…** Article 3 Definitions … (4) 'alcohol interlock installation facilitation' means a standardised interface that facilitates the fitting of aftermarket alcohol interlock devices in motor		7.11.2 名詞釋義 7.11.2.1 車輛點火自動鎖定裝置安裝之簡化措施(Alcohol interlock installation facilitation)：係指便於機動車輛安裝車輛點火自動鎖定	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
vehicles;		裝置之標準化介面或安裝文件。	
EN 50436-7:2016 … 6. Layout and contents of the installation document 6.1 General The installation document provides necessary and useful information about the aftermarket installation of an alcohol interlock into a vehicle. It details the type of the vehicle, connection schematics, accessibility instructions and recommendations to avoid safety risks. The installation document should be prepared by vehicle manufacturers and should be provided to alcohol interlock manufacturers and their installers. The installation document may be created as one document covering all vehicle variants. However it is recognized that there may be instances where the position of the connections may differ from one vehicle variant to another, and that in these instances it will be necessary to create additional installation documents to cover		7.11.3 安裝文件 申請者應提供安裝文件予車輛點火自動鎖定裝置製造廠及其安裝技術人員，以供其安裝車輛點火自動鎖定裝置於車輛上；另車輛如無車輛點火自動鎖定裝置介面者，則安裝文件應包含如下內容： 7.11.3.1 安裝文件應提供有關車輛上安裝車輛點火自動鎖定裝置之資訊，包括車輛類型、連接圖解、安裝說明(Accessibility instruction)及避免安全風險之建議。 安裝文件得涵蓋所有車輛型式，惟於某些情況下，連接位置可能因車輛型式而異，故應有額外之安裝文件涵蓋此差異。 7.11.3.2 安裝文件應為書面或電子檔，並以中文為主；安裝文件應可於 A4 格式紙張上列印及讀取。	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
these differences. 6.2 General content and layout The general content of the installation document is mandatory. It shall be available in paper or electronic format in at least English language. ... The installation document shall be printable on and readable from ISO A4 format paper (according to EN ISO 216).			
(EU) 2021/1243 **…** 3. Installation document 3.1. The installation document shall contain a detailed description, diagrams and images explaining the installation of an alcohol interlock, covering any of the following sets of information: (a) the information regarding battery feed, ground, vehicle ready and start enabler; (b) the information regarding battery feed, ground, vehicle ready and start-allowing or start prohibiting input and output line, and an optional detection of propulsion capability (e.g. engine run) or vehicle moving signal line; or		7.11.3.3 安裝文件包含任何額外軟體、硬體或安裝車輛點火自動鎖定裝置至車輛內之所需程序，應能在安裝文件上識別及標示。	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
(c) the information regarding battery feed, ground and a data bus connection.			
6.6 Safety risks at installation and items to be considered This part shall describe any safety critical concerns and other items that shall be considered by the alcohol interlock installer, for example airbags or high voltage components. NOTE The responsibility for the safe installation will remain on the alcohol interlock installer. … **(EU) 2021/1243** … 3. Installation document … 3.4. An installed alcohol interlock shall only intervene in the engine starting process or in allowing the vehicle to move under its own power upon the activation of the vehicle master control switch and the alcohol interlock shall not influence a running engine or a moving vehicle.		7.11.3.4 安裝之安全風險及注意事項 應描述任何安全之關鍵問題及車輛點火自動鎖定裝置安裝人員之應注意事項(如：空氣囊或高電壓零件)。 已安裝之車輛點火自動鎖定裝置僅應於引擎啟動過程中進行干涉，或於車輛主控開關(Vehicle master control switch)啟動後，允許車輛以自身動力行駛，車輛點火自動鎖定裝置不應影響運轉中之引擎及行駛中之車輛。 車輛點火自動鎖定裝置安裝人員應負責安裝之安全。	

附件二、車輛規格規定

修正規定	現行規定	說明
7. 各類裝置安裝規定： … 7.12 電動車輛之緊急斷開電源開關之安裝規定 … 7.12.1 實施時間及適用範圍：自中華民國 O 年 O 月 O 日起，新型式之 M2、M3 類電動車輛(含混合動力車輛）及自中華民國 O 年 O 月 O 日起，各型式之 M2、M3 類電動車輛（含混合動力車輛），應符合本項規定。 7.12.2 緊急斷開電源開關應裝設於駕駛人易觸控之位置以外，另應裝設於車輛外部左側前方鄰近駕駛窗/門之位置。 (參考基準 543 條文 5.3.1 緊急開關裝設位置及美國 GILLIG 35/40 英尺電動巴士車輛緊急應變指南之緊急開關裝設位置之相關規定) 7.12.3 一旦啟動緊急斷開電源開關，應能同時關閉車輛點火裝置、十二伏特/二十四伏特電池系統及高電壓電源等元件及/或氣體燃料系統。 7.12.4 若車輛配有感應鑰匙，應將鑰匙取下，遠離車外五公尺以上。	7. 各類裝置安裝規定： …	1. 依據 112 年 8 月 9 日「電動公車防災現地綜合實作正式演練」綜合座談會議紀錄，同意統一律定電動車輛之緊急斷開開關的位置之規定，以提供消防人員即時採取因應措施。 2. 參考美國消防協會所制定替代燃料車輛之緊急現場救援處理指引以及美國 GILLIG 35/40 英尺電動巴士車輛緊急應變指南，研擬本項基準規定。

附件○、昇降尾門用警示燈(草案)

原文規定	中文規定	說明
	附件○、昇降尾門用警示燈 1.自中華民國○年○月○日起，使用於N及O類車輛之新型式昇降尾門用警示燈，應符合本項規定。	依交通部指示，鑑於國內裝設有昇降尾門之車輛，於尾門開啟時後方警示不足易導致後方用路人發生危險，爰參考德國StVZO §22a、TA Nr.13、TA Nr.16a及UN R65 00-S11版之相關規定，增訂尾門警示燈相關規範。
UN R65 00-S11	2.名詞釋義： 2.1非固定式之昇降尾門用警示燈：係指可徒手拆裝且符合規定4.1以提醒其他用路人昇降尾門位於作動狀態之警示燈。 2.2固定式之昇降尾門用警示燈：係指須以工具拆裝且符合規定4.2以提醒其他用路人昇降尾門位於作動狀態之警示燈。	
1.3. The frequency f is the number of flashes or groups of flashes (see Annex 5, para. 6) within one second,	2.3頻率f(frequency)：係指一秒內閃爍或閃爍群組之次數。	
1.4. The *"on" time* t_H means the period of time within which the luminous intensity of the flashing light is superior to 1/10 of the maximum value (peak value) J_m. In case of groups of several flashes the "on" time shall be measured from the beginning of the first flash of the group to the end of the last flash of the same group.	2.2開啟時間(”on” time, t_H)：係指閃爍燈發光強度在閃爍過程中超過最大值（峰值）I_{max}十分之一之時間段。如係多次閃爍之群組，開啟時間應從該群組第一次閃爍開始測量，至同一群組最後一次閃爍結束為止。	
1.5. The *"off" time* t_D means the period of time within which the luminous intensity of the flashing light is less than 1/100 of the maximum value (peak value) J_m, but not more than 10 cd. In the case of groups of several flashes the "off" time shall be measured from the end of the last flash of the group to the beginning of the first flash of the next group.	2.3關閉時間(”off” time, t_D)：係指閃爍燈發光強度在閃爍過程中小於最大值（峰值）I_{max}之百分之一，但不大於十燭光(cd)之時間段。如係多次閃爍之群組，關閉時間應從該群組最後一次閃爍結束開始計測量，直至下一群組第一次閃爍。	
…		
1.7. "*Reference centre of the special*	2.4 警示燈參考中心：係指對於旋轉	

warning lamp" means: (a) For a rotating or stationary flashing lamp (Category T), and for a directional flashing lamp (Category X), the intersection of the axis of reference with the exterior light-emitting surface: it is specified by the manufacturer of the special warning lamp. In the absence of such specification, it means: (i) The optical centre of the light source; or (ii) The geometric centre of the external optical surface; or (iii) In case of an array of light sources in the optical system, the geometric centre of the array; shall be considered as the reference centre. 1.8. Reference axis of the special warning lamp means: For a rotating or stationary flashing lamp (Category T), a vertical axis passing through the reference centre of the lamp; For a directional flashing lamp (Category X) or a half bar (Category HT), a horizontal axis parallel to the median longitudinal plane of the vehicle. The manufacturer of the special warning lamp shall indicate the position of the special warning lamp in relation to the reference axis. … 1.6. The "*effective intensity*" J_e in a fixed direction for both rotating and stationary flashing type is given by:	或固定閃爍燈及定向閃爍燈，係參考軸與外部發光面之交點，由警示燈製造商規定，若無規範，則為： (i) 光源之光軸中心(Optical centre)；或 (ii) 外部光學表面之幾何中心；或 (iii) 如係光學系統中之光源陣列，該陣列之幾何中心，應考慮參考中心。 2.5 警示燈參考軸：係指對於旋轉或固定閃爍燈係為通過燈參考中心之垂直軸，對於定向閃爍燈係為平行於車輛縱向中間平面之水平軸。警示燈製造商應標示警示燈相對於參考軸之位置。 2.6 有效強度I_{eff}(Effective intensity)：係指於固定方向上之旋轉及固定閃爍類型，I_{eff}應依下式：	

$$J_e = \frac{J_m}{1 + \frac{C}{FT}}$$ Where: J_m: peak intensity (cd) C: time constant, C = 0.2 sec F: form factor $F = \frac{\int_0^T J dt}{J_m T}$ T: time of period J: instantaneous intensity (cd)	$$I_{eff} = \frac{I_{max}}{1 + \frac{C}{F \cdot T}}$$ 式中： I_{max}：強度峰值（燭光） C：時間常數，C=零點二秒 F：外形因數 $$F = \frac{\int_0^T I dt}{I_{max} \cdot T}$$ T：時間週期（秒） I：瞬時強度（燭光）	
	3.適用型式及其範圍認定原則： 3.1廠牌相同。 3.2光學系統特性相同（光度、光分布角度、燈泡種類、光源模組等）。 3.3警示燈與昇降尾門之連接方式為固定式或非固定式。	
以下為 TA 16a 之內容 (1) Portable flashing lights for securing tail lifts, which are used as flashing lights for yellow light instead of the direction indicators for the rear attachment referred to in Section 53b Paragraph 5 of the Road Traffic Licensing Regulations, must emit a yellow flashing light (strobe light) or create the impression of flashing for the observer by means of a rotating beam of light. (2) In the case of lights for connection to an electrical connection permanently installed on the vehicle, the devices for generating the flashing light and the necessary connecting cables must be an integral part of the lights. The cables must be sufficiently flexible and have a usable length of at least 2.5 m. The	4. 昇降尾門用警示燈規範 4.1 非固定式之昇降尾門用警示燈 4.1.1 非固定式之昇降尾門用警示燈應發出閃爍之橙（琥珀）色燈光，或透過旋轉光束閃爍，以提醒其他用路人。 4.1.2 若警示燈係透過連接至永久安裝在車輛上之線路，則發出閃爍燈光之裝置及必要之連接電纜應為警示燈之本體一部份，測試此類警示燈時，應施加指定之額定電壓至電纜輸入端。 4.1.3 若警示燈係以電池供電者，在	

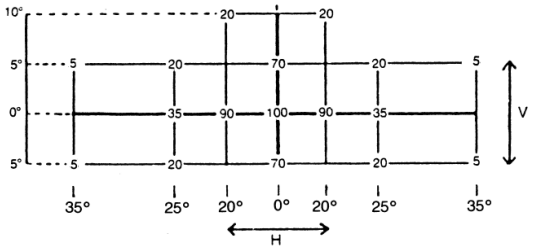
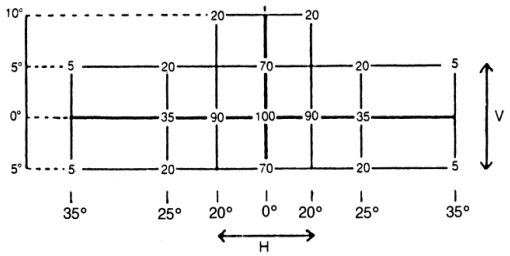
connection to the vehicle must be made using a plug connection in accordance with DIN ISO 4165. To test these lights, the assigned nominal voltage must be applied to the input of the cables. (3) Battery-operated lights must have an uninterrupted burning time of at least 8 hours at an ambient temperature of 23° C ± 5° C; for lights with rechargeable batteries for which a connection for charging on the vehicle's on-board network (DIN ISO 4165) is provided, a burning time of at least 4 hours is sufficient. The voltage present on the battery under load after the burning time is the measuring voltage for the photometric assessment of the lights. At this measuring voltage, the requirements set out in paragraph 10 must still be met. The power source intended for the device must be indicated on each device by manufacturer and type. The information must match the corresponding designations on the power source. (4) Replaceable light sources such as incandescent lamps or LED light sources must be used to generate the flashing light. If gas discharge lamps or LED modules for which no general type approval has been granted are used to generate the flashing light, they must be an integral part of the lamp, in such a way that the light source can only be replaced under	環境溫度攝氏二十三正負五度下，照明時間應能持續至少八小時；對於配有可充電電池之警示燈，若其配有可透過車載電源充電之連接裝置，則照明時間應至少為四小時。於照明時間後，在具有負載之情況下，電池上之可用電壓即為評估警示燈發光強度之測量電壓，在此測量電壓下，應符合本項要求。 4.1.4 警示燈應使用燈泡或LED等可更換式光源。 4.1.5 對於可更換式光源，應使用由該燈具設計之額定電壓進行測試。	

the responsibility of the manufacturer of the lamp. (5) In the case of replaceable light sources, test lamps with a nominal voltage which, in deviation from TA No. 3 Part 2, results from the design of the luminaire must be used. (6) The direction of the reference axis must be clearly visible and permanently indicated on the instrument or must be clearly visible due to the design of the instrument. (7) The measurements required for the assessment of the luminaires are carried out at an ambient temperature of + 23° C ± 5° C, unless otherwise specified in the specific regulations. (8) The blinking frequency f is the number of blinks (flashes) per second. (9) The dark time t_D is the time period between one blink and the next or, in the case of groups of blinks, between the last blink of a group and the first blink of the next group, during which the luminous intensity of the blink is less than a hundredth of the maximum value I_{max}, but not greater than 10 cd. (10)The portable flashing lights must meet the requirements described in the following paragraphs 11 to 15, including the general requirements of paragraphs 3 to 9 and 11 and 12 of TA No. 13. 以下為TA No. 13之內容 (3) The definitions in paragraphs 1.3 to	4.1.6 警示燈參考軸之方向應清晰可見，並永久標示於警示燈上。 4.1.7 關閉時間t_D係指閃爍與下一次閃爍間之時間段，在多組閃爍之情況下，則為群組中之最後一次閃爍與下一群組中之第一次閃爍間之時間段，閃爍燈發光強度在閃爍過程中小於最大值I_{max}之百分之一，但不大於十燭光(cd)。	

1.5, 1.7 and 1.8 of UN Regulation No. 65, 00 series of amendments, Supplement 11 shall apply. (4) The effective luminous intensity I_{eff} is a measure of the conspicuousness and effectiveness of the flashing light (strobe light) of warning lights. The effective luminous intensity is defined in point 1.6 of UN Regulation No. 65, 00 series of amendments, Supplement 11. (5) If the flashing light is generated from groups of flashes, the time interval Δt must comply with point 6 of Annex 5 to UN Regulation No. 65, 00 series of amendments, Supplement 11. --- 以下為R65 00-S11版之內容 6. If the emitted light of a special warning lamp consists of groups of several flashes, the time distance delta t between the immediately following flashes must be very short. If the peak to peak distance delta t is less or equal to 0.04 s, then the pulses in between are evaluated as one flash. If this distance delta t is longer only the flash with the highest effective intensity is valid. Moreover, the period is limited depending on the ratio between the effective intensities of the flashes within a group (I_H= max. effective intensity of the highest peak, I_L = max. effective intensity of the lowest peak) as follows: In case $\frac{I_H}{I_L} \rangle 10$ then $\Delta t\,(s) \langle \frac{1}{3f}$ In case	4.1.8 若警示燈發出之光包含數個閃爍群組，則前後兩閃爍間之時間差Δt必須非常短暫，若峰至峰Δt≦0.04秒，則其間之脈波被評估為一個閃爍。若此Δt較長，則僅以具最高有效強度之閃爍視為有效。此外，時間間隔之限制取決於群組間閃爍有效強度比率(I_H =最高峰之有效強度，I_L=最低峰之有效強度)，如下所示： 若 $\frac{I_H}{I_L} > 10$，則 $\Delta t(s) < \frac{1}{3f}$ 若 $1 < \frac{I_H}{I_L} < 10$， 則 $\Delta t(s) < \frac{1}{f(5.50-0.25\frac{I_H}{I_L})}$	

$1 < \frac{I_H}{I_L} < 10$ then $\Delta t\,(s) < \frac{1}{f(5.50 - 0.25\frac{I_H}{I_L})}$ 以下為TA No. 13之內容 (6) To assess double flashes, their cumulative effect is used if their time interval is not greater than 0.04 s. If the interval is greater, only the flash with the higher maximum luminous intensity is assessed. (7) Unless otherwise specified in the individual regulations, the measurements required for the assessment of the warning lights are carried out at an ambient temperature of +23 ℃ ± 5 ℃ and at nominal voltage (terminal voltage). (8) The measuring distance must be chosen so that the law of quadratic dependence on the distance applies, but not more than 25 m. … 以下為 TA 16a 之內容 --- (11) Flashing frequency for terminal voltages between 90% and 115% of the nominal voltages at least 2.0 Hz maximum 4.0 Hz (12) Colour of the flashing light is yellow according to TA No. 3. (13) Dark time at least 0.10 s maximum 0.50 s	4.1.9 除另有其他規定，警示燈所需測量環境應在環境溫度正攝氏二十三正負五度及額定電壓（端電壓）下進行。 4.1.10 測量距離不應超過二十五公尺。 … 4.1.11 輸入電壓在額定電壓百分之九十至百分之一百十五間之閃爍頻率應符合下述要求。 -最小二點零赫茲 -最大四點零赫茲 4.1.12 警示燈之燈色應為橙（琥珀）色。 4.1.13 關閉時間 -最小零點一零秒 -最大零點五零秒	

(14) The luminous intensity in the normal direction must reach at least the following values: for luminaires with incandescent lamps: I= 50 cd for luminaires with gas discharge lamps: I_{eff}= 35 cd	4.1.14發光強度至少應為： 鎢絲燈泡警示燈：I=五十燭光(cd) 氣體放電式警示燈：I_{eff}=三十五燭光(cd)	
The direction H = 0° and V = 0° corresponds to the normal direction parallel to the surface on which the luminaire is mounted in the direction of the required visibility; it passes through the reference point. The values given in the diagram indicate, for the various measurement directions, the minimum values as a percentage of the minimum value required for each luminaire in the axis (direction H = 0° and V = 0°).	H=0°及V=0°方向對應於參考軸（在車輛上其為水平、平行於車輛縱向中間平面且朝向所需之目視方向），其通過參考中心。其各個值列於表中係為由各個方向量測時，在每個燈軸上所需之最小強度百分比（在H=0°及V=0°方向）。	
Within the area of light distribution represented schematically by a grid, the light distribution should be substantially uniform, i.e. the luminous intensity in any direction of a part of the area formed by the lines of the grid must be at least equal to the lowest minimum value in percentage indicated on the lines of the grid delimiting the direction in question.	光度分佈區域以格線示意，光部分佈應盡量均勻，亦即顯示在環繞該球狀方向格線上最低最小值之各該方向光強度以百分比表示。	
In addition, the luminous intensity in the range up to H = 80° to both sides and V = 15° upwards and 5° downwards must be as follows: for luminaires with incandescent lamps: I = 0.30 cd for luminaires with gas discharge lamps: I_{eff} = 0.21 cd	此外，H = 80°向左向右及向上V = 15°及向下5°範圍內之發光強度應如下： 鎢絲燈泡警示燈：I=零點三零燭光(cd) 氣體放電式警示燈：I_{eff}=零點二一燭光(cd)	
Outside the reference axis, the effective luminous intensity in each direction	在參考軸之外，每個方向上的有效強	

must be at least the percentage distribution relative to the minimum value in the reference axis H = V = 0°(100 %), see the following figure.  (15) The luminous intensity of the luminaires with an all-round effect must reach at least the values required in the above percentage distribution on the vertical axis for H=0° in all horizontal directions.	度應至少為相對於參考軸H = V = 0°(100 %)上最小值之百分比分佈，見下圖。  4.1.15 旋轉類型警示燈之發光強度在所有水平方向上，在垂直軸上對於H=0°至少須達到上述百分比分佈中要求之數值。	
	4.2 固定式之昇降尾門用警示燈 4.2.1 警示燈應具有平坦之表面且不得有尖銳或銳利邊緣。 4.2.2 警示燈之燈色應為橙（琥珀）色。 4.2.3 發光強度不應小於五十燭光且不大於五百燭光。 4.2.4 固定式之昇降尾門用警示燈之每分鐘閃爍次數應在六十次以上，一百二十次以下。	參考德國StVZO § 53b之相關規定，增訂固定式之昇降尾門警示燈相關規範。

附件三之五、車輛燈光與標誌檢驗規定

原文規定	中文規定	說明
When the device is in the working position, the indicators must be visible upwards, backwards and to the side at least in the angle ranges required for direction indicators arranged at the rear of vehicles in Section 49a Paragraph 1 Sentence 4. 49a Lighting devices, general principles (1) Only the lighting devices prescribed and declared permissible may be fitted to motor vehicles and their trailers. Lighting devices also include luminous materials and retro-reflective materials as well as externally effective systems for variable or dynamic optical displays if they are self-illuminating or illuminated from behind. The lighting devices must be installed correctly and firmly and always ready for use. Lighting devices on motor vehicles and trailers within the scope of Regulation No. 48 of the Economic Commission of the United Nations for Europe (UNECE) (OJ L 14 of 16.1.2019, p. 42) must comply with the regulation in the	6.27 昇降尾門用警示燈安裝規定 自中華民國○年○月○日起，新型式N類及O類具有昇降尾門車輛及中華民國○年○月○日起，各型式N類及O類具有昇降尾門車輛，應安裝符合本基準中「昇降尾門用警示燈」之警示燈。 6.27.1昇降尾門用警示燈 6.27.1.1數量應為兩盞 6.27.1.2安裝位置應盡可能安裝於昇降尾門之末端。 6.27.1.3警示燈水平角之可視性為水平朝外夾角八十度，水平朝內夾角四十五度；垂直角之可視性為水平面上方十五度。 6.27.1.4固定式之昇降尾門用警示燈應由一獨立控制來使之作動，並於作動期間開啟且持續閃爍。	依交通部指示，鑑於國內裝設有昇降尾門之車輛，於尾門開啟時後方警示不足易導致後方用路人發生危險，爰參考德國StVZO § 53b之相關規定，增訂昇降尾門應裝設警示燈相關規範。

currently applicable version with regard to the installation and approval of lighting devices. … Tail lifts and similar devices, other than those on buses and coaches, must be identified during operation by two flashing amber lights with an intensity of not less than 50 cd and not more than 500 cd … The flashing lights must emit hazard warning lights automatically and independently of the rest of the vehicle lighting during operation of the device.		

UN R159 Uniform provisions concerning the approval of motor vehicles with regard to the Moving Off Information System for the Detection of Pedestrians and Cyclists 就行人及自行車偵測之車輛起步警示系統

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
R159 00 Series			
1. Scope 1.1. This Regulation applies to the approval of vehicles of categories M_2, M_3, N_2 and N_3 with regard to an onboard system to detect and inform the driver of the presence of pedestrians and cyclists in the close-proximity forward blind-spot of the vehicle and, if deemed necessary based on manufacturer strategy, warn the driver of a potential collision. 1.2. The requirements of this Regulation are so worded as to apply to vehicles which are developed for right-hand traffic. In vehicles that are developed for left-hand traffic, these requirements shall be applied by inverting the criteria, where appropriate. 1.3. The following vehicles of category M and N shall be exempted from this Regulation: Vehicles where installation of any device for moving off information system is incompatible with their on-road use may be partly or fully exempted from this Regulation, subject to the decision of the Type Approval Authority.	歐盟(連結) - Annex II, Subject B5 新型式：2022年7月6日 各型式：2024年7月7日 本法規之要求字面上適用於以左駕開發之車輛。對於以右駕開發之車輛而言，適用這些要求時應依實際情況反轉參數。	附件○、車輛起步警示系統（草案） 1. 實施時間及適用範圍 1.1 中華民國一百十七年一月一日起，新型式 N2、N3、M2 及 M3 類車輛及中華民國一百十九年一月一日起，各型式 N2、N3、M2 及 M3 類車輛應配備符合本項規定之車輛起步警示系統。 1.2 下述車種，可免除部分或免符合本項規定本項「車輛起步警示系統」規定。 1.2.1 若經檢測機構判斷，車輛所安裝任何之車輛起步警示系統裝置與不相容其於道路上之使用者。	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
		1.3 檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R159 00 系列及其後續相關修正規範進行測試。	
2. Definitions For the purposes of this Regulation: 2.1. *"Moving Off Information System (MOIS)"* means a system to detect and inform the driver of the presence of pedestrians and cyclists in the close-proximity forward blind-spot of the vehicle and, if deemed necessary based on manufacturer strategy, warn the driver of a potential collision. 2.2. *"Approval of a vehicle type"* means the full procedure whereby a Contracting Party to the Agreement certifies that a vehicle type meets the technical requirements of this Regulation. 2.4. *"Subject vehicle"* means the vehicle being tested. 2.5. *"Vulnerable Road User (VRU)"* means an adult or child pedestrian or an adult or child cyclist. 2.6. *"Information signal"* means a signal emitted by the MOIS with the purpose of informing the vehicle driver about a VRU in close-proximity to the front of the vehicle. 2.7. *"Collision warning signal"* means a signal emitted by the MOIS with the purpose of		2.名詞釋義 2.1 車輛起步警示系統(Moving off information system (MOIS))：係指一個為偵測及通知駕駛人於車輛前方近距離盲點有行人及自行車騎士存在之系統，且若基於申請者策略需要時，對駕駛人提供可能碰撞之警示。 2.2 試驗車輛(Subject Vehicle)：係指受試驗之車輛。 2.3 弱勢道路使用者(Vulnerable road user (VRU))：係指成年或孩童之行人或自行車騎士。 2.4 資訊訊號(Information signal)：係指為通知車輛駕駛人有關車輛前方近距離處有弱勢道路使用者，由車輛起步警示系統發送之訊號。 2.5 碰撞警告訊號(Collision warning signal)：係指當車輛起步警示系統偵	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
warning the vehicle driver when the MOIS has detected a potential frontal collision with a VRU in close-proximity to the front of the vehicle. 2.8. *"Vehicle master control switch"* means the device by which the vehicle's on-board electronics system is brought, from being switched off, as in the case where a vehicle is parked without the driver being present, to a normal operation mode. 2.9. *"Initialisation"* means the process of setting-up the operation of the MOIS after the vehicle master control switch is activated until it is fully functional. 2.10. *"Common space"* means an area on which two or more information functions (e.g. symbols) may be displayed, but not simultaneously. 2.11. *"Ocular reference point"* means the middle point between two points 65 mm apart and 635 mm vertically above the reference point which is specified in Annex 1 of ECE/TRANS/WP.29/78/Rev.6[2] on the driver's seat. The straight line joining the two points runs perpendicular to the vertical longitudinal median plane of the vehicle. The centre of the segment joining the two points is in a vertical longitudinal plane which shall pass through the		測到與車輛前方近距離之弱勢道路使用者發生潛在前方碰撞時，由車輛起步警示系統發送用於警告車輛駕駛人之訊號。 2.6 車輛主控制開關(Vehicle master control switch)：指藉由車載電子系統將車輛自關閉模式（例如車輛處於駐車且無駕駛人之狀態下）切換至一般運作模式之裝置。 2.7 初始化(Initialisation)：係指車輛起步警示系統於致動車輛主控制開關後至可完全運作前，其運作之設定程序。 2.8 共用空間(Common space)：係指一個區域，該區域可顯示二個或以上之資訊功能（如符號），但不同步顯示。 2.9 駕駛參考眼點(Ocular reference point)：係指位於駕駛座參考點垂直向上六百三十五公釐，且兩眼點間相距六十五公釐之中心點。穿過兩眼點之直線垂直於車輛垂直縱向中心平面。兩眼點間線段之中心位於一垂直縱向平面，該平面應通過申請者宣告之駕駛人指定座位中心。	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
centre of the driver's designated seating position, as specified by the vehicle manufacturer. 2.12. *"Vehicle front"* means the plane perpendicular to the median longitudinal plane of the vehicle and touching its foremost point, disregarding the projection of devices for indirect vision and any part of the vehicle greater than 2.0 m above the ground. 2.13. *"Nearside"* means the right side of the vehicle for right-hand traffic. 2.14. *"Nearside vehicle plane"* means the plane parallel to the median longitudinal plane of the vehicle and touching its most outboard point in the nearside direction forward of the driver ocular reference point, disregarding the projection of devices for indirect vision and any part of the subject vehicle higher than 2.0 m above the ground. 2.15. *"Offside"* means the left side of the vehicle for right-hand traffic 2.16. *"Offside vehicle plane"* means the plane parallel to the median longitudinal plane of the vehicle and touching its most outboard point in the offside direction forward of the driver ocular reference point, disregarding the projection of devices for indirect vision and any part of the subject vehicle higher than 2.0		2.10 車輛前方(Vehicle front)：係指垂直於車輛縱向中心平面且接觸到其最前點之平面，其不考量間接視野裝置之投影及任何高於地面二點零公尺之車輛零件。 2.11 接近側(Near side)：係指靠右行駛之右側。 2.12 接近側車輛平面(Nearside vehicle plane)：係指平行於車輛縱向中心平面且接觸到其接近側朝向駕駛參考眼點之最外緣點，其不考量間接視野裝置之投影及任何高於地面二點零公尺之試驗車輛零件。 2.13 遠離側(Offside) ：係指靠右行駛之左側。 2.14 遠離側車輛平面(Offside vehicle plane)：係指平行於車輛縱向中心平面且接觸到其遠離側朝向駕駛參考眼點之最外緣點，其不考量間接視野裝置之投影及任何高於地面二點零公尺之試驗車輛零件。	

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m above the ground. 2.17. *"Vehicle width"* means the distance between the nearside and offside vehicle planes. 2.18. *"Vehicle trajectory"* means the connection of all positions within the vehicle width where the vehicle front has been or will be during the test runs. 2.19. *"Soft target"* means a target that will suffer minimum damage and cause minimum damage to the subject vehicle in the event of a collision. 2.20. *"Pedestrian test target"* means an adult or child sized pedestrian simulated by a soft target device specified according to ISO 19206-2:2018. 2.21. *"Cyclist test target"* means an adult sized cyclist and bicycle simulated by a soft target and bicycle device specified according to ISO (CD) 19206-4. 2.22. *"Blind spot boundary"* means the line, described as defined in Annex 3, that joins all points located at the boundaries of the visible areas forward of the vehicle front and in close-proximity to the subject vehicle. 2.23. *"Collision point"* means the position where the trajectory of any point of the vehicle front would intersect with any VRU soft target		2.15 車輛寬度(Vehicle width)：係指車輛接近側及遠離側平面之間的距離。 2.16 車輛路徑(Vehicle trajectory)：係指試驗過程中車輛前方已到達或將到達車輛寬度內所有位置之連接。 2.17 軟式目標(Soft target)：係指碰撞時將目標本身與試驗車輛兩方損壞降至最低之目標物。 2.18 行人試驗目標 (Pedestrian test target)：係指依照 ISO(CD)19206-2:2018 所述之軟式目標裝置模擬成人或孩童尺寸行人。 2.19 自行車騎士試驗目標(Cyclist test target)：係指依照 ISO(CD)19206-4 所述之軟式目標及自行車裝置模擬成人尺寸自行車騎士及自行車。 2.20 盲點邊界(Blind spot boundary)：係指如規定 8 所定義之線，其連接位於車輛前方可視區域邊界及近距離試驗車輛之所有點。 2.21 碰撞點(Collision point)：係指車輛前方任一點之移動路徑與任何弱勢道路使用者之軟式目標參考點上任	

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reference point should a moving off or low-speed manoeuvre be performed by the vehicle. 2.24. *"Forward separation distance"* means the distance in the forward direction between the vehicle front and the nearest point of the soft target. 2.25. *"Maximum forward separation plane"* means the plane perpendicular to the longitudinal plane of the vehicle representing the greatest forward separation distance that the MOIS is required to detect the presence of a VRU. The distance of this plane from the vehicle front shall be selected as either 3.7 m or the most forward point of the blind spot boundary at the manufacturer's choosing, and shall be no less than 1.0 m. 2.26. *"Minimum forward separation plane"* means the plane perpendicular to the longitudinal plane of the vehicle representing the shortest forward separation distance that the MOIS is required to detect the presence of a VRU. The distance of this plane from the vehicle front shall be 0.8 m. 2.27. *"Nearside separation plane"* means the plane parallel to the longitudinal plane of the vehicle and located 0.5 m outboard from the nearside vehicle plane. 2.28. *"Offside separation plane"* means the plane		一點相交之位置，應由車輛執行一次起步或低速操作。 2.22 前向分隔距離(Forward separation distance)：係指於方向朝前之狀況下，車輛前方及軟式目標最近點之間的距離。 2.23 最大前向分隔平面(Maximum forward separation plane)：係指垂直於車輛縱向平面之平面，其代表車輛起步警示系統被要求偵測弱勢道路使用者存在之最大前向分隔距離。此平面自車輛前方起計之距離應選定為三點七公尺或盲點邊界之最前點（由申請者擇一），且不應小於一點零公尺。 2.24 最小前向分隔平面(Minimum forward seperation plane)：係指垂直於車輛縱向平面之平面，其代表車輛起步警示系統被要求偵測弱勢道路使用者存在之最小前向分隔距離。此平面自車輛前方起計之距離應為零點八公尺。 2.25 接近側分隔平面(Nearside separation plane)：係指平行於車輛縱向平面且位於接近側車輛平面朝車體外距離為零點五公尺處之平面。 2.26 遠離側分隔平面(Offside	

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parallel to the longitudinal plane of the vehicle and located 0.5 m outboard from the offside vehicle plane. 2.29. *"Forward vehicle mode"* means the vehicle mode when the powertrain moves the vehicle forward, on release of the brake system or by the application of pressure to the accelerator pedal (or activation of an equivalent control). 2.30. *"Potential moving off manoeuvre"* means the subject vehicle being stationary, the vehicle master control switch activated, the vehicle in a normal operation mode and with the forward vehicle mode or a forward gear engaged/selected. 2.31. *"Low-speed manoeuvre"* means the subject vehicle being in a normal operation mode, moving forward in a straight line at speeds of below 10 km/h. 2.32. *"Last Point of Information (LPI)"* means the point at which the information signal shall have been given.		separation plane)：係指平行於車輛縱向平面且位於遠離側車輛平面朝車體外距離為零點五公尺處之平面。 2.27 車輛前進模式(Forward vehicle mode)：係指於釋放煞車系統或藉由對加速踏板施加壓力（或等效控制器之致動）時，傳動系統使車輛前進之車輛模式。 2.28 潛在起步操作(Potential moving off manoeuvre)：係指試驗車輛於車輛主控制開關開啟、處於一般運作模式且選擇車輛前進模式或前進檔位下保持靜止之狀態。 2.29 低速操作(Low-speed manoeuvre)：係指試驗車輛於一般運作模式下，以低於十公里／小時之速度向前直行之狀態。 2.30 資訊最末點(Last point of information)：係指應完成發送資訊訊號之點。	
2.3. *"Vehicle type with regard to its Moving Off Information System"* means a category of vehicles which do not differ in such essential respects as: (a) The manufacturer's trade name or mark; (b) Vehicle features which significantly influence		3.車輛起步警示系統之適用型式及其範圍認定原則： 3.1若以完成車執行本項 3.1.1 車輛廠牌相同。 3.1.2 對於車輛起步警示系統性能有	

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the performances of the MOIS; (c) The type and design of the MOIS.		重大影響之車輛特性相同。 3.1.3 車輛起步警示系統之型式及設計相同。 3.2 若以底盤車執行本項 3.2.1 底盤車廠牌相同。 3.2.2 對於車輛起步警示系統性能有重大影響之車輛特性相同。 3.2.3 車輛起步警示系統之型式及設計相同。	
3. Application for approval 3.1. The application for approval of a vehicle type with regard to the Moving Off Information Systems (MOIS) shall be submitted by the vehicle manufacturer or by their authorized representative. 3.2. It shall be accompanied by the documents mentioned below in triplicate and include the following particular: 3.2.1. A description of the vehicle type with regard to the items mentioned in paragraph 5., together with dimensional drawings and the documentation as referred to in paragraph 6.1. The numbers and/or symbols identifying the vehicle type shall be specified. 3.3. A vehicle representative of the vehicle type to be approved shall be submitted to the Technical Service conducting the approval		4. 申請者於申請認證測試時應至少提供一部代表車（或檢測所必要車輛部份）及下列文件： 4.1規定5.所述項目之車輛型式說明，且併同尺寸圖及規定6.1所指之文件。 4.2 規定 3.之車輛規格資料，與實車圖示及／或照片。	

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tests.			
4. Approval 4.1. If the vehicle type submitted for approval pursuant to this Regulation meets the requirements of paragraph 5. below, approval of that vehicle type shall be granted. 4.2. The conformity of the requirements in paragraph 5. shall be verified with the test procedure as defined in paragraph 6., however its operation shall not be limited to these specific test conditions. 4.3. An approval number shall be assigned to each vehicle type approved; its first two digits (00 for this Regulation in its initial form) shall indicate the series of amendments incorporating the most recent major technical amendments made to this Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to the same vehicle type equipped with another type of MOIS, or to another vehicle type. 4.4. Notice of approval or of refusal or withdrawal of approval pursuant to this Regulation shall be communicated to the Parties to the Agreement applying this Regulation by means of a form conforming to the model in Annex 1 and photographs and/or			

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plans supplied by the applicant being in a format not exceeding A4 (210 x 297 mm), or folded to that format, and on an appropriate scale. 4.5. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this Regulation, an international approval mark conforming to the model described in Annex 2, consisting of either: 4.5.1. A circle surrounding the letter "E" followed by: (a) the distinguishing number of the country which has granted approval;[3] and (b) the number of this Regulation, followed by the letter "R", a dash and the approval number to the right of the circle prescribed in this paragraph; or 4.5.2. An oval surrounding the letters "UI" followed by the Unique Identifier. 4.6. If the vehicle conforms to a vehicle type approved under one or more other UN Regulations annexed to the Agreement, in the country which has granted approval under this Regulation, the symbol prescribed in paragraph 4.5. above need not be repeated. In			

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such a case, the UN Regulation and approval numbers and the additional symbols shall be placed in vertical columns to the right of the symbol prescribed in paragraph 4.5. above. 4.7. The approval mark shall be clearly legible and be indelible. 4.8. The approval mark shall be placed close to or on the vehicle data plate.			
5. Specifications 5.1. General requirements 5.1.1. Any vehicle fitted with a MOIS complying with the definition of paragraph 2.1. above shall meet the requirements contained in paragraphs 5.2. to 5.8. of this Regulation. When the vehicle is equipped with a means to automatically deactivate the MOIS in situations such as, having street cleaning equipment, snowploughs or front loader garbage collectors attached, following provisions shall apply as appropriate: The vehicle manufacturer shall provide a list of situations and corresponding criteria where the MOIS is automatically deactivated to the technical service at the time of type approval and it shall be annexed to the test report. The MOIS shall be automatically reactivated as soon as the conditions that led to the automatic deactivation are not present anymore.		5.規格規定 5.1 通則 5.1.1 任何配備上述 2.1 所定義車輛起步警示系統之車輛，應符合規定 5.2 至 5.8 之要求。 於車輛具備自動解除車輛起步警示系統之方法，於發生如附加街道清理設備或掃雪裝置或前方裝載垃圾收集器等情形，應依照實際狀況遵循下述規定： 申請者於型式認證時應向檢測機構提供車輛起步警示系統自動解除之情形列表以及對應準則，並檢附於試驗報告當中。 一旦導致自動解除之條件不再滿足時，車輛起步警示系統應立即自動重新啟動。	

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A constant optical warning signal shall inform the driver that the MOIS has been deactivated. The failure warning signal specified in paragraph 5.8. below may be used for this purpose.		一恆亮之光學警告訊號應向駕駛人就車輛起步警示系統已經解除之情形進行通知。下述規定 5.8 所述之故障警告訊號可使用於此目的。	
5.1.2. The effectiveness of the MOIS shall not be adversely affected by magnetic or electrical fields. This shall be demonstrated by compliance with the technical requirements and transitional provisions of UN Regulation No. 10, 05 series of amendments or any later series of amendments.		5.1.2 車輛起步警示系統之效能不應受磁場或電場之不良影響，且應證明符合本基準中「電磁相容性」之技術要求。	
5.2. Performance requirements		5.2 性能要求	
5.2.1. The MOIS shall at least operate during all potential moving off manoeuvres and low-speed manoeuvres, for ambient light conditions above 15 Lux with or without passing beam headlamps activated.		5.2.1 車輛起步警示系統應至少於所有潛在起步操作及低速操作過程中，環境光源條件高於十五 Lux 之狀況下運作，無論近光頭燈致動與否。	
5.2.2. The MOIS shall inform the driver about VRUs in close-proximity to the vehicle front that might be endangered during a potential moving off manoeuvre or low-speed manoeuvre. This information shall be provided to the driver so that the vehicle may be prevented by the driver from interacting with the trajectory of the VRU.		5.2.2 車輛起步警示系統應通知駕駛人於潛在起步操作及低速操作過程中，對車輛前方近距離之弱勢道路使用者造成危險之可能性。此資訊應提供予駕駛人，以使駕駛人可防止車輛與弱勢道路使用者路徑相互接觸。	
5.2.2.1. The information signal shall be provided at least for as long as the conditions specified		5.2.2.1 資訊訊號應至少於符合規定 5.2.2.2 及 5.2.2.3 所述之狀況期間提	

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in paragraphs 5.2.2.2. and 5.2.2.3. are fulfilled. 5.2.2.2. Potential moving-off manoeuvre 5.2.2.2.1. When performing a potential moving-off manoeuvre, the MOIS shall provide an information signal for VRUs moving at speeds of between 3 km/h and 5 km/h, when travelling from the nearside and offside of the vehicle in a direction perpendicular to the vehicle median longitudinal plane and located within an area bounded by the maximum and minimum forward separation planes and the nearside and offside separation planes. 5.2.2.3. Low-speed manoeuvre 5.2.2.3.1. When performing a low-speed manoeuvre, the MOIS shall provide an information signal for adult and child cyclists that are stationary or moving forward in a direction parallel to the vehicle median longitudinal plane at speeds of between 0 km/h and 10 km/h and located within an area bounded by the nearside and offside vehicle planes and the maximum and minimum forward separation planes. 5.2.2.3.2. When a vehicle performing a low-speed manoeuvre has already detected an adult or child cyclist and provided an information signal in accordance with 5.2.2.3.1., the MOIS shall maintain the information signal even if		供。 5.2.2.2 潛在起步操作 5.2.2.2.1 於執行潛在起步操作時，對於位於最大／最小前向分隔平面及接近側／遠離側分隔平面所圍出之區域中，存在以介於三公里／小時與五公里／小時之間的速度自車輛接近側及遠離側起朝向垂直車輛中心縱向平面移動之弱勢道路使用者時，車輛起步警示系統應對駕駛人提供資訊訊號。 5.2.2.3 低速操作 5.2.2.3.1 於執行低速操作時，對於位於最大／最小前向分隔平面及接近側／遠離側車輛平面所圍出之區域中，存在靜態或以介於零公里／小時與十公里／小時之間的速度並平行於車輛中心縱向平面之方向前進之成人及孩童自行車騎士時，車輛起步警示系統應對駕駛人提供資訊訊號。 5.2.2.3.2 於車輛執行低速操作且已偵測到成人或孩童自行車騎士並依照規定 5.2.2.3.1 提供資訊訊號時，即使車輛已經停止之狀況下，車輛起步警示系統仍應維持資訊訊號。當	

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the vehicle comes to a standstill. The information signal shall be maintained for as long as the cyclist remains within an area bounded by the nearside and offside vehicle planes and the maximum and minimum forward separation planes.		自行車騎士存在於最大／最小前向分隔平面及接近側／遠離側車輛平面所圍出之區域時，應持續提供此資訊訊號。	
5.2.2.3.3. When performing a turning maneuver, the MOIS detection strategy may be adjusted. It is not required to adjust the sensors to the steering angle. The detection adjustment strategy shall be explained in the information referred to in paragraph 6.1. The Technical Service may verify the operation of the system according to the strategy.		5.2.2.3.3 於執行轉向操作時，車輛起步警示系統之策略可進行調整。其無須將感測器調整至轉向角度。偵測調整策略應於規定 6.1 所指資訊中進行解釋。檢測機構可依照該策略進行驗證系統運作。	
5.2.2.4. The information signal shall meet the requirements of paragraph 5.6.		5.2.2.4 資訊訊號應符合規定 5.6 之要求。	
5.2.3. The manufacturer shall demonstrate, to the satisfaction of the Technical Service and Type Approval Authority, through documentation, simulation or other means, that the MOIS is performing as specified for smaller cyclists and bicycles, similar in size to a child cyclist.		5.2.3 為滿足檢測機構要求，申請者應透過文件、模擬或其他方式執行車輛起步警示系統可如說明般對較小之自行車騎士及自行車（尺寸相似於孩童自行車騎士）運作。	
5.2.4. The manufacturer shall demonstrate, to the satisfaction of the Technical Service and Type Approval Authority, through documentation, simulation or other means, that the number of false reactions due to the detection of VRUs and static objects (such as cones, traffic signs,		5.2.4 為滿足檢測機構要求，申請者應透過文件、模擬或其他方式執行對於相關車輛操作因而偵測到規定 5.2.2.2 及 5.2.2.3 所定義之邊界外部之弱勢道路使用者及靜態物件（如三角錐、交通號誌、樹籬及停駐車	

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hedges and parked cars) located outside of the boundaries defined in 5.2.2.2 and 5.2.2.3 for the relevant vehicle manoeuvres are minimised.		輛）所產生之錯誤反應數降至最低。	
5.3. Automatic Deactivation		5.3 自動解除	
5.3.1. The MOIS shall automatically deactivate if it malfunctions or cannot operate properly due to its sensor devices becoming contaminated by ice, snow, mud, dirt or similar material. The MOIS may also automatically deactivate due to ambient light conditions below that specified in paragraph 5.2.1.		5.3.1 若車輛起步警示系統故障或因其感測器裝置受到冰、雪、泥、土或相似物質汙染無法正常運作，則應自動解除。車輛起步警示系統亦可於環境光源低於規定 5.2.1 所述之狀況時自動解除。	
5.3.2. Automatic deactivation shall be indicated by the failure warning signal specified in paragraph 5.8.		5.3.2 自動解除應藉由規定 5.8 所述之故障警告訊號進行指示。	
5.3.3. The MOIS shall automatically reactivate when the normal function of the sensors is verified. This shall be tested in accordance with the provisions of paragraphs 6.8 (failure detection test) and 6.9. (automatic deactivation test).		5.3.3 車輛起步警示系統應於確認感測器功能恢復正常後自動重新啟動。此應依照規定 6.8（失效偵測試驗）及規定 6.9（自動解除試驗）進行試驗。	
5.4. Manual deactivation		5.4 手動解除	
5.4.1. It may be possible to manually deactivate the MOIS.		5.4.1 車輛起步警示系統可被手動解除。	
5.4.2. Manual deactivation shall be through a sequence of intentional actions to be carried out by the driver, for example by requiring a single input exceeding a certain threshold of		5.4.2 手動解除應藉由駕駛人之一順序之有意行為執行，例如要求單次輸入超過特定時間臨界值或按壓兩次，或兩個分離但同時輸入。	

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time or a double press, or two separate but simultaneous inputs. 5.4.3. It shall not be possible to manually deactivate any other system at the same time as the MOIS or through the same sequence of actions. 5.4.4. When manually deactivated, it shall be possible for the driver to easily manually reactivate the MOIS. 5.4.5. When manually deactivated, the MOIS shall automatically reactivate when the vehicle master control switch is activated. 5.5. System initialisation 5.5.1. If the MOIS has not been initialized after a cumulative driving time of 15 seconds above a speed of 0 km/h, information of this status shall be indicated to the driver. This information shall exist until the system has been successfully initialized. 5.6. Information signal 5.6.1. The MOIS information signal referred to in paragraph 5.2.2. above shall be an optical information signal that is noticeable and easily verifiable by the driver from the driver's seat. 5.6.2. This information signal shall be visible by daylight and at night. 5.7. Collision warning signal 5.7.1. The MOIS shall warn the driver when the		5.4.3 不應於解除車輛起步警示系統之當下或透過同一順序之有意行為，同時手動解除任何其他系統。 5.4.4 於手動解除時，駕駛人應能輕易手動重新啟動車輛起步警示系統。 5.4.5 於手動解除時，應於車輛主控制開關開啟時自動重新啟動車輛起步警示系統。 5.5 系統初始化 5.5.1 若車輛起步警示系統於超過零公里／小時以上之速度累積行駛時間十五秒後仍未初始化，此狀態之資訊應指示駕駛人。此資訊應存在直到系統已成功初始化。 5.6 資訊訊號 5.6.1 上述規定 5.2.2 所指之車輛起步警示系統之資訊訊號應為一個可注意到且容易由駕駛人於駕駛座辨識之光學訊號。 5.6.2 資訊訊號應於日間及夜間時皆可視。 5.7 碰撞警告訊號 5.7.1 於有立即之碰撞風險時，車輛起	

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risk of a collision is imminent by providing the collision warning signal. 5.7.2. The collision warning signal shall be provided by the means of a combination of at least two modes selected from an optical signal, acoustic signal or haptic signal. Where the collision warning signal is provided by using an optical mode, this shall be a signal differing in activation strategy from the information signal specified in paragraphs 5.2.2. and 5.6. 5.7.3. The collision warning signal shall be easily understandable for the driver to relate the warning signal to the potential collision. In case the warning signal is an optical signal this signal shall also be visible by daylight and at night. 5.7.4. The collision warning signal shall be activated according to the manufacturer strategy. The warning strategy shall be explained in the information referred to in paragraph 6.1. The Technical Service shall verify the operation of the system according to the strategy. 5.7.5. The collision warning signal may be deactivated manually. In the case of a manual deactivation, it shall be reactivated on each activation of the vehicle master control switch.		步警示系統應藉由提供碰撞警告訊號警告駕駛人。 5.7.2 碰撞警告訊號應從光學訊號、聲音訊號或觸覺訊號中選擇至少兩種模式以組合的方式提供。 當碰撞警告訊號係藉由光學模式提供，其啟動策略應與規定 5.2.2 及 5.6 所述資訊訊號不同。 5.7.3 碰撞警告訊號應能輕易理解，使駕駛人將其與潛在碰撞連結。若警告訊號為光學訊號，則此訊號應於日間及夜間皆清楚可視。 5.7.4 碰撞警告訊號應依照申請者策略啟動。此警告策略應於規定 6.1 所述資訊內進行說明。 檢測機構應依照策略驗證系統運作。 5.7.5 碰撞警告訊號可被手動解除。於手動解除狀況下，每次啟動車輛主控制開關後應被重新致動。	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
5.8. Failure warning signals 5.8.1. The failure warning signal referred to in paragraph 5.3.2. above shall be a optical signal and shall be other than or clearly distinguishable from the information signal. The failure warning signal shall be visible by daylight and night and shall be easily verifiable by the driver from the driver's seat. 5.8.2. The failure warning signal shall remain active as long as the MOIS is unavailable. 5.8.3. The MOIS failure warning signal shall be activated with the activation of the vehicle master control switch. This requirement does not apply to failure warning signals shown in a common space. 5.9. Provisions for Periodic Technical Inspection 5.9.1. At a Periodic Technical Inspection, it shall be possible to confirm the correct operational status of the MOIS by a visible observation of the failure warning signal status. In case of the failure warning signal being in a common space, the common space must be observed to be functional prior to the failure warning signal status check.		5.8 故障警告訊號 5.8.1 規定 5.3.2 所述之故障警告訊號應為光學訊號，且應不同於資訊訊號或與資訊訊號明顯區別。故障警告訊號應於日間及夜晚皆清楚可視，且應容易由駕駛人於駕駛座辨識。 5.8.2 故障警告訊號應於車輛起步警示系統無法運作期間持續致動。 5.8.3 車輛起步警示系統故障警告訊號應於車輛主控制開關開啟時致動。此要求不適用於共用空間顯示之故障警告訊號。 (此為定期技術檢驗相關規定，故建議不調和導入)	
6. Test procedure 6.1. The manufacturer shall provide a documentation package which gives access to the basic design of the system and, if		6. 試驗程序 6.1申請者應提供系統基本設計資料，並依實際情況提供其與其他車輛系統間之連結方式。應說明包含其感	

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applicable, the means by which it is linked to other vehicle systems. The function of the system including its sensing and warning strategy shall be explained and the documentation shall describe how the operational status of the system is checked, whether there is an influence on other vehicle systems, and the method(s) used in establishing the situations which will result in a failure warning signal being displayed.		應及警告策略在內之系統功能，且應於文件說明如何檢查系統運作狀態、是否會影響其他車輛系統，以及用以構建將導致顯示故障警告訊號之情況的方法。	
The documentation package shall give sufficient information for the Type Approval Authority to identify the vehicle type and to aid decision-making on the selection of worst-case conditions.		相關文件應提供足夠資訊以識別車輛型式，並對最嚴苛狀況之挑選決策提供輔助。	
6.2. Test conditions		6.2 試驗條件	
6.2.1. The test shall be performed on a flat, dry asphalt or a concrete surface.		6.2.1 試驗應於平坦且乾燥之柏油或水泥路面上執行。	
6.2.2. The ambient temperature shall be between 0° C and 45° C.		6.2.2 環境溫度應介於攝氏零度至四十五度之間。	
6.2.3. The test shall be performed under visibility conditions that allow the target to be observed throughout the test and that allows safe driving at the required test speeds.		6.2.3 應在良好視野狀況下使駕駛人能安全地以要求之試驗速度進行試驗。	
6.2.4. Natural ambient illumination shall be homogeneous in the test area and in excess of 1000 lux. It should be ensured that testing is not performed whilst driving towards, or away		6.2.4 試驗區域之自然環境照明應均勻且超過一千lux。應確保試驗不執行於朝向或遠離處於低角度之日光行駛時。	

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from, the sun at a low angle. 6.3. Vehicle conditions 6.3.1. Test weight The vehicle shall be tested in a condition of load to be agreed between the manufacturer and the Technical Service, with the distribution of mass among the axles stated by the manufacturer. No alteration shall be made once the test procedure has begun. The manufacturer shall demonstrate through the use of documentation that the system works at all conditions of load. 6.3.2. In the case where the MOIS is equipped with a user-adjustable information timing, the tests as specified in paragraphs 6.5., 6.6. and 6.7. below shall be performed for each test case with the information threshold set at the settings that generate the information signal closest to the collision point, i.e. worst-case setting. No alteration shall be made once the test procedure has begun. 6.3.3. Pre-Test Conditioning 6.3.3.1 If requested by the vehicle manufacturer, the subject vehicle may be driven a maximum of 100 km on a mixture of urban and rural roads with other traffic and roadside furniture to initialise the sensor system. 6.4. Verification of signals test		6.3 車輛條件 6.3.1 試驗重量 車輛應於申請者與檢測機構所協商之負載條件下進行試驗，其中軸重分配應依申請者宣告。一旦試驗程序開始即不應進行變更。申請者應透過使用說明文件證明此系統於所有負載狀態下均可正常運作。 6.3.2 若車輛起步警示系統具備使用者可調整資訊發送時機之功能，則下述規定6.5、6.6及6.7之每一試驗案例，應以最靠近碰撞點產生資訊訊號之資訊門檻設定（即最嚴苛狀況設定）進行試驗。一旦試驗程序開始即不應進行變更。 6.3.3 試驗前調整 6.3.3.1 若申請者要求，則試驗車輛可於具備其他交通及路邊設施之都市及鄉村混合道路上行駛至多一百公里以初始化感測器系統。 6.4 訊號試驗之驗證	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
6.4.1. With the vehicle stationary check that the optical failure warning signals comply with the requirements of paragraph 5.8 above. 6.5. Static Crossing Tests 6.5.1. The subject vehicle shall remain in a potential moving off manoeuvre with the MOIS active and the test area marked out as shown in Figure 1 of Appendix 1. The relevant test target (*T*) shall be manoeuvred such that it moves on a trajectory perpendicular to the longitudinal median plane of the subject vehicle at the test case distance (d_{TC}) away from the vehicle front and from the relevant crossing direction (*c*) (Table 1 of Appendix 1). The pedestrian test target reference point shall be the H-point (as defined by ISO 19206-2:2018) nearest the subject vehicle. The cyclist test target reference point shall be at the intersection of a plane perpendicular to the test target centreline located at the most forward point of the bicycle and a plane parallel to the test target centreline located at the test target H-point nearest the subject vehicle (as defined by ISO (CD) 19206-4). 6.5.2. The test target shall be accelerated such that it reaches the test target speed (*v*) at a distance of no closer than 15 m from the plane		6.4.1 於車輛靜態之狀況下檢查光學故障警告訊號是否符合上述規定5.8之要求。 6.5 靜態穿越試驗 6.5.1 試驗車輛應於車輛起步警示系統啟動並處於規定7.中圖一所示之試驗區域中之狀態下，維持於潛在起步操作之狀態。 相關試驗目標(T)之操作應使其移動於垂直於試驗車輛中心縱向平面之路徑上，該路徑位於試驗案例距離(d_{TC})並遠離車輛前方及相關穿越方向(c)(請參考規定7之表一)。行人試驗目標參考點應為最靠近試驗車輛之H點（如ISO 19206-2:2018所定義）。自行車騎士試驗目標參考點應位於下述兩平面之交錯處，分別為垂直於試驗目標中心線且位於自行車最前點之平面，以及平行試驗目標中心線且位於試驗目標最靠近試驗車輛H點（如ISO (CD) 19206-4所定義）之平面。 6.5.2 試驗目標應以自試驗車輛側最接近穿越方向之相關平面起計不小於十五公尺處達到試驗目標速度(v)	

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relating to the subject vehicle side nearest the crossing direction. The test case speed shall be maintained until the plane relating to the opposite vehicle side is cleared by a distance of no less than 5 m.		之方式進行加速。應維持試驗案例速度直至相對車輛側之相關平面不少於五公尺處淨空。	
6.5.3. In accordance with paragraph 5.2.2.2., the Technical Service shall verify the activation of the MOIS information signal before the test target (*T*) reaches a distance corresponding to the last point of information (d_{LPI}) in Table 1 of Appendix 1, and that the MOIS information signal remains on until the test target has at least crossed the separation plane relating to the vehicle side opposite to the crossing direction. The collision warning signal shall not be activated.		6.5.3 依照規定 5.2.2.2，檢測機構應於試驗目標(T)到達規定7.之表一中對應資訊最後點之距離(d_{LPI})前確認車輛起步警示系統之資訊訊號致動，且車輛起步警示系統之資訊訊號維持直至試驗目標已至少通過車輛側相對於穿越方向之相關分隔平面。碰撞警告訊號不應被致動。	
6.5.4. The Technical Service shall repeat paragraphs 6.5.1. to 6.5.3. for two test cases from Table 1 of Appendix 1 to this Regulation and for one additional test case selected from the combination of a soft target and the range of VRU speeds, VRU travel directions and detection boundaries defined in paragraph 5.2.2.2.		6.5.4 檢測機構應重複對規定7.之表一中兩個試驗案例執行規定6.5.1至6.5.3，及一個由規定5.2.2.2定義之軟式目標、弱勢道路使用者速度範圍、弱勢道路使用者行進方向及偵測邊界之組合所選出之額外試驗案例。	
Where deemed justified, the Technical Service may also select additional test cases within the range of the soft targets, VRU speeds, travel directions and detection boundaries defined in		於合理狀況下，檢測機構亦可選擇規定4.2.2所定義之軟式目標、弱勢道路使用者速度、行進方向及偵測邊界範圍內之額外試驗案例。	

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paragraph 5.2.2.2. 6.6. Longitudinal Stopping for Moving Off Cyclist Tests 6.6.1. The cyclist test target (*T*) shall be located within the test area marked out as shown in Figure 2 in Appendix 1. The cyclist test target shall be positioned at the relevant test target starting point (p_{cyc}) in Table 2 of Appendix 1 and face in the direction of travel and parallel to the longitudinal median plane of the subject vehicle. The cyclist test target reference point shall be at the centre of the bottom bracket of the bicycle and on the centreline of the bicycle. Should there be less than 100 mm clearance between the vehicle front and the rear most point of the cyclist test target, then p_{cyc} may be moved an additional clearance distance (d_{clear}) away from the vehicle front, in a direction parallel to the longitudinal plane, such that there is 100 +10/-0 mm clearance between the vehicle front and the rear most point of the cyclist test target. 6.6.2. The subject vehicle shall be accelerated in a straight line to a constant speed of 10 +0/-2 km/h, before entering the stopping corridor. The subject vehicle shall maintain this constant speed until the vehicle front passes the braking plane (pbrake) shown in Figure 2 of Appendix		6.6 對起步自行車騎士之縱向停止試驗 6.6.1 自行車騎士試驗目標(T)應位於規定7.之圖二所標示出之試驗區域內。自行車騎士試驗目標應定位於規定7.之表二所述相對試驗目標起始點(p_{cyc})且面對行進方向並平行於試驗車輛之縱向中心平面。自行車騎士試驗目標參考點應為自行車架底部中心並位於自行車中心線上。車輛前方與自行車騎士試驗目標最後點之間距應小於一百公釐，且P_{cyc}可朝向平行於縱向平面之方向，自車輛前方移動一額外間隔距離(d_{clear})，使車輛前方與自行車騎士試驗目標最後點之間將會有一百正十／負零公釐之間距。 6.6.2 試驗車輛應於進入停止車道前，直線加速至十正零／負二公里／小時之定速。於煞車開始到停止且車輛前方位於停止平面(p_{stop})前，試驗車輛應維持前述定速直至車輛前方通過規定7.之圖二所示之煞車平面	

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1, before braking to a stop such that the vehicle front is positioned at the stopping plane (pstop). The subject vehicle shall be considered to have stopped when it has come to a rest and the vehicle is either no longer in a forward vehicle mode or forward gear.		(pbrake)。於試驗車輛已靜止且車輛不再處於前進車輛模式或前進檔位時應將其視為停止。	
6.6.3. After a delay of no less than 10 seconds from the point at which the subject vehicle is considered to have stopped, the test target shall then be accelerated in a straight line on a trajectory parallel to the longitudinal median plane of the vehicle to a speed of 10 +0/-0.5 km/h within a distance of 5 m, before being brought to a stop. While accelerating, the lateral tolerance of the test target motion shall not exceed ± 0.10 m.		6.6.3 於試驗車輛被視為已停止之點延遲一段不少於十秒後於試驗目標停止之前，其應於平行於車輛縱向中心平面之路徑上，於五公尺之距離內直線加速至十正零／負零點五公里／小時之速度。加速時之試驗目標移動側向誤差不應超過正／負零點一零公尺。	
6.6.4. In accordance with paragraph 5.2.2.3., the Technical Service shall verify the activation of the MOIS information signal before the subject vehicle reaches a distance from the stopping plane (p_{stop}) corresponding to the last point of information (d_{LPI}) in Table 2 of Appendix 1, and the MOIS information signal remains on until the test target at least crosses a distance from the vehicle front relating to the maximum forward separation distance (d_{FSP}) in Figure 2 of Appendix 1. The collision warning signal may be activated, as appropriate.		6.6.4 依照規定5.2.2.3，檢測機構應於試驗車輛到達規定7.之表二中停止平面(p_{stop})所對應之資訊最後點之距離(d_{LPI})前確認車輛起步警示系統之資訊訊號致動，且車輛起步警示系統之資訊訊號應維持直至試驗目標已至少通過從規定7.之圖二中車輛前方相關最大前方分隔距離起計之一段距離。碰撞警告訊號可依實際狀況致動。	

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6.6.5. The Technical Service shall repeat paragraphs 6.6.1. to 6.6.4. for two test cases shown in Table 2 of Appendix 1 to this Regulation and for one additional test case by selecting a cyclist test target and cyclist starting point from within the detection boundaries defined in paragraph 5.2.2.3. Where deemed justified, the Technical Service may also select additional test cases within the range of the cyclist test targets and the detection boundaries defined in paragraph 5.2.2.3. 6.7 Longitudinal Moving Off with Cyclist Tests 6.7.1. The cyclist test target (*T*) shall be located within the test area marked out as shown in Figure 2 of Appendix 1. The cyclist test target shall be positioned at the relevant test target starting point (p_{cyc}) in Table 2 of Appendix 1 and face in the direction of travel and parallel to the longitudinal median plane of the subject vehicle. The cyclist test target reference point shall be at the centre of the bottom bracket of the bicycle and on the centreline of the bicycle. Should there be less than 100 mm clearance between the vehicle front and the rear most point of the cyclist test target, then p_{cyc} may be moved an additional clearance distance (d_{clear}) away from the vehicle front, in a direction		6.6.5 檢測機構應重複對規定7.之表二中兩個試驗案例執行規定6.6.1至6.6.4，及一個由規定5.2.2.3定義之自行車試驗目標及偵測邊界中之自行車騎士起始點所選出之額外試驗案例。 於合理狀況下，檢測機溝亦可選擇規定5.2.2.3所定義自行車試驗目標及偵測邊界範圍內之額外案例。 6.7 對自行車騎士之縱向起步試驗 6.7.1 自行車騎士試驗目標(T)應位於規定7.之圖二所標示出之試驗區域內。自行車騎士試驗目標應定位於規定7.之表二所述相對試驗目標起始點(p_{cyc})且面對行進方向並平行於試驗車輛之縱向中心平面。自行車騎士試驗目標參考點應為自行車架底部中心並位於自行車中心線上。車輛前方與自行車騎士試驗目標最後點之間距應小於一百公釐，且P_{cyc}可朝向平行於縱向平面之方向，自車輛前方移動一額外間隔距離(d_{clear})，使車輛前方與自行車騎士試驗目標最後點之間將會有一百正十／負零公釐之間距。	

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parallel to the longitudinal plane, such that there is 100 +10/-0 mm clearance between the vehicle front and the rear most point of the cyclist test target.			
6.7.2. The subject vehicle shall be accelerated in a straight line to a constant speed of 10 +0/-2 km/h, before entering the stopping corridor. The subject vehicle shall maintain a constant speed until the vehicle front passes the braking plane (p_{brake}) shown in Figure 2 of Appendix 1, before braking to a stop such that the vehicle front is positioned at the stopping plane (p_{stop}). The subject vehicle shall be considered to have stopped when it has come to a rest and the vehicle is either no longer in a forward vehicle mode or forward gear.		6.7.2 試驗車輛應於進入停止車道前，直線加速至十正零／負二公里／小時之定速。於煞車開始到停止且車輛前方位於停止平面(p_{stop})前，試驗車輛應維持前述定速直至車輛前方通過規定7.之圖二所示之煞車平面(p_{brake})。於試驗車輛已靜止且車輛不再處於前進車輛模式或前進檔位時應將其視為停止。	
6.7.3. After a delay of no less than 10 seconds from the point at which the subject vehicle is considered to have stopped, the test target and subject vehicle shall be accelerated at the same time and in a straight line, on a trajectory parallel to the longitudinal median plane of the subject vehicle, to a constant speed of 10 +0/-3 km/h in a distance of no greater than 5 m. If the characteristics of the vehicle make it impossible to abide by the distance of 5 m, the distance may be increased. The subject vehicle and test target shall maintain this constant		6.7.3 於試驗車輛被視為已停止之點延遲一段不少於十秒後，試驗目標及試驗車輛應於一個平行於試驗車輛縱向中心平面之路徑上，於不超過五公尺以內之距離以直線同時加速至十正零／負三公里／小時之定速。若車輛特性造成其無法遵循五公尺之距離要求，該距離可被增加。試驗車輛及試驗目標應維持此定速直至試驗車輛自停止點起行駛不小於十五公尺之總行駛距離。試驗車輛之側向容許誤差不應超過正／負	

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speed until a total travel distance of no less than 15 m from the stopping point is traversed by the subject vehicle. The lateral tolerance of the subject vehicle shall not exceed ± 0.20 m., whilst the lateral tolerance of the test target motion shall not exceed ± 0.10 m. The forward separation distance between the vehicle front and test target while moving shall be maintained to be within the boundaries of the maximum and minimum forward separation planes.		零點二零公尺，同時試驗目標動態之側向容許誤差不應超過正／負零點一零公尺。於移動時，車輛前方及試驗目標之間的前向分隔距離應維持於最大及最小前向分隔平面之邊界內。	
6.7.4. In accordance with paragraph 5.2.2.3., the Technical Service shall verify the activation of the MOIS information signal before the subject vehicle reaches a distance from the stopping plane (p_{stop}) corresponding to the last point of information (d_{LPI}) in Table 2 of Appendix 1, and that the MOIS information signal remains on until the subject vehicle passes a distance of 15 m from the stopping point. The collision warning signal may be activated, as appropriate.		6.7.4 依照規定5.2.2.3，檢測機構應於試驗車輛到達規定7.之表二中停止平面(p_{stop})所對應之資訊最後點之距離(d_{LPI})前確認車輛起步警示系統之資訊訊號致動，且車輛起步警示系統之資訊訊號應維持直至試驗車輛通過距停止點十五公尺之距離。碰撞警告訊號可依實際狀況致動。	
6.7.5. The Technical Service shall repeat paragraphs 6.7.1. to 6.7.4. for two test cases shown in Table 2 of Appendix 1 to this Regulation and for one additional test case by selecting a cyclist test target and cyclist starting point from within the detection		6.7.5 檢測機構應重複對規定7.之表二中兩個試驗案例執行規定6.7.1至6.7.4，及一個由規定5.2.2.3定義之自行車試驗目標及偵測邊界中之自行車騎士起始點所選出之額外試驗案例。	

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boundaries defined in paragraph 5.2.2.3. Where deemed justified, the Technical Service may also select additional test cases within the range of the cyclist test targets and the detection boundaries defined in paragraph 5.2.2.3. 6.8. Failure detection test 6.8.1. Simulate a MOIS failure, for example by disconnecting the power source to any MOIS component or disconnecting any electrical connection between the MOIS components. The electrical connections for the failure warning signal of paragraph 5.8. above shall not be disconnected when simulating a MOIS failure. 6.8.2. The failure warning signal specified in paragraph 5.8. shall be activated and remain activated while the vehicle is being driven and shall be reactivated upon each activation of the vehicle master control switch, as long as the simulated failure exists. 6.9. Automatic deactivation test 6.9.1. With the MOIS system active, contaminate any of the MOIS sensing devices completely with a substance comparable to snow, ice or mud (e.g. based on water). The MOIS shall automatically deactivate, indicating this condition as specified in paragraph 5.8.		於合理狀況下，檢測機溝亦可選擇規定5.2.2.3所定義自行車試驗目標及偵測邊界範圍內之額外案例。 6.8 故障偵測試驗 6.8.1 模擬一個車輛起步警示系統故障，例如藉由切斷至任何車輛起步警示系統組件之電源或切斷任何車輛起步警示系統組件間之連結電路之方式。於模擬車輛起步警示系統故障時，不應切斷上述規定5.8所述之故障警告訊號之連結電路。 6.8.2 於模擬故障存在時，規定5.8所述之故障警告訊號應於車輛行駛時開啟並維持致動狀態，並於車輛主控制開關每次啟動時重新致動。 6.9 自動解除試驗 6.9.1 於車輛起步警示系統致動時，以類似於雪、冰或泥之物質（例如以水為基礎之物質）完全汙染任何車輛起步警示系統感測裝置。車輛起步警示系統應自動解除，並依規定5.8所述指示此狀況。	

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6.9.2. Remove any contamination from the MOIS sensing devices completely and perform a reactivation of the vehicle master control switch. The MOIS shall automatically reactivate after a driving time not exceeding 60 seconds.		6.9.2 完全移除車輛起步警示系統感測裝置上任何汙染物，且重新啟動車輛主控制開關。車輛起步警示系統應於不超過六十秒之行駛時間自動重新啟動。	
7. Modification of vehicle type and extension of approval 7.1. Every modification of the vehicle type as defined in paragraph 2.3. of this Regulation shall be notified to the Type Approval Authority which approved the vehicle type. The Type Approval Authority may then either: 7.1.1. Consider that the modifications made do not have an adverse effect on the conditions of the granting of the approval and grant an extension of approval; 7.1.2. Consider that the modifications made affect the conditions of the granting of the approval and require further tests or additional checks before granting an extension of approval. 7.2. Confirmation or refusal of approval, specifying the alterations, shall be communicated by the procedure specified in paragraph 4.4. above to the Contracting Parties to the Agreement applying this Regulation. 7.3. The Type Approval Authority shall inform		(不影響檢測基準內容)	

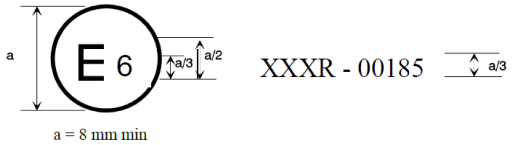
增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
the other Contracting Parties of the extension by means of the communication form which appears in Annex 1 to this Regulation. It shall assign a serial number to each extension, to be known as the extension number.			
8. Conformity of production 8.1. Procedures for the conformity of production shall conform to the general provisions defined in Article 2 and Schedule 1 to the 1958 Agreement (E/ECE/TRANS/505/Rev.3) and meet the following requirements: 8.2. A vehicle approved pursuant to this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements of paragraph 5. above; 8.3. The Type Approval Authority which has granted the approval may at any time verify the conformity of control methods applicable to each production unit. The normal frequency of such inspections shall be once every two years.		(不影響檢測基準內容)	
9. Penalties for non-conformity of production 9.1. The approval granted in respect of a vehicle type pursuant to this Regulation may be withdrawn if the requirements laid down in paragraph 8. above are not complied with. 9.2. If a Contracting Party withdraws an approval it had previously granted, it shall forthwith so		(不影響檢測基準內容)	

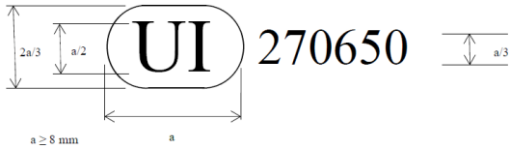
增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
notify the other Contracting Parties applying this Regulation by sending them a communication form conforming to the model in Annex 1 to this Regulation.			
10. Production definitively discontinued If the holder of the approval completely ceases to manufacture a type of vehicle approved in accordance with this Regulation, they shall so inform the Type Approval Authority which granted the approval, which in turn shall forthwith inform the other Contracting Parties to the Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.		(不影響檢測基準內容)	
11. Names and addresses of the Technical Services responsible for conducting approval tests and of Type Approval Authorities The Contracting Parties to the Agreement applying this Regulation shall communicate to the United Nations Secretariat the names and addresses of the Technical Services responsible for conducting approval tests and of the Type Approval Authorities which grant approval and to which forms certifying approval or extension or refusal or withdrawal of approval are to be sent.		(不影響檢測基準內容)	
Appendix 1		7. 試驗相關資訊	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
Figure 1 **Set Up for Static Crossing Tests** (圖片如頁末所示) Where the following definitions apply: d_w vehicle width. d_{NSP} the distance from the nearside vehicle plane to the nearside separation plane, defined as 0.5 m. d_{OSP} the distance from the offside vehicle plane to the offside separation plane, defined as 0.5 m. d_{TC} the forward separation distance for each test case. d_{FSP} the distance from the vehicle front to the maximum forward separation plane. Table 1 **Test Cases for Static Crossing Tests** (表格如頁末所示) Where the following definitions apply: d_{NSP}: the distance from the nearside vehicle plane to the nearside separation plane, defined as 0.5 m. d_{OSP}: the distance from the offside vehicle plane to the offside separation plane, defined as 0.5 m. d_{TC}: the forward separation distance for each test case. d_{FSP}: the distance from the vehicle front to the maximum forward separation plane. d_{LPI}: the distance relating to the last point of		圖一、靜態穿越試驗設定 (圖片如頁末所示) 其中定義如下： d_w 車輛寬度 d_{NSP} 自接近側車輛平面至接近側分隔平面之距離，定義為零點五公尺 d_{OSP} 自遠離側車輛平面至遠離側分隔平面之距離，定義為零點五公尺 d_{TC} 對應每個試驗案例之前向分隔距離 d_{FSP} 自車輛前方至最大前向分隔平面之距離 表一、靜態穿越試驗之試驗案例 (表格如頁末所示) 其中定義如下： d_{NSP} 自接近側車輛平面至接近側分隔平面之距離，定義為零點五公尺 d_{OSP} 自遠離側車輛平面至遠離側分隔平面之距離，定義為零點五公尺 d_{TC} 對應每個試驗案例之前向分隔距離 d_{FSP} 自車輛前方至最大前向分隔平面之距離 d_{LPI} 資訊最後點相關之距離	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
information (LPI). Figure 2 **Set Up for Longitudinal Cyclist Tests** (圖片如頁末所示) Where the following definitions apply: $d_{50\%}$ the distance relating to 50% of the vehicle width. p_{brake} the vehicle braking plane. p_{stop} the vehicle stopping plane. d_{FSP} the distance from the vehicle stopping plane to the maximum forward separation plane. d_{clear} the additional clearance distance that the cyclist test target is moved by to ensure at least 100 mm clearance between the vehicle front and the rear most point of the cyclist test target p_{cyc} the cyclist test target starting point, taken from the cyclist test target reference point. p_x the distance between the stopping plane and cyclist test target starting point. p_y the distance between the vehicle longitudinal median plane and cyclist test target starting point, with the nearside of the vehicle being the positive direction. d_{LPI} the distance between the last point of information (LPI) line and the vehicle stopping plane. Table 2 **Test Cases for Longitudinal Cyclist Tests** (表格如頁末所示)		圖二、縱向自行車騎士試驗設定 (圖片如頁末所示) 其中定義如下： $d_{50\%}$ 百分之五十之車輛寬度相關距離 p_{brake} 車輛煞車平面 p_{stop} 車輛停止平面 d_{FSP} 自車輛停止平面至最大前向分隔平面之距離 d_{clear} 自行車騎士試驗目標移動之額外間距，以確保於車輛前方與自行車騎士試驗目標最後點之間距至少為一百公釐 p_{cyc} 自行車試驗目標起始點，由自行車試驗目標參考點取出 p_x 停止平面與自行車試驗目標起始點之間的距離 p_y 於車輛接近側為正方向時，車輛縱向中心平面與自行車試驗目標起始點之間的距離 d_{LPI} 資訊最後點(LPI)線與車輛停止平面之間的距離 表二、縱向自行車騎士試驗之試驗案例 (表格如頁末所示)	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
Annex 1 Communication (Maximum format: A4 (210 x 297 mm) issued by: (Name of administration) ....  [1]Concerning: [2] Approval granted Approval extended Approval refused Approval withdrawn Production definitively discontinued of a type of vehicle with regard to the Moving Off Information System (MOIS) pursuant to UN Regulation No. [XXX] Approval No.: ..... 1. Trademark: ..... 2. Type and trade name(s): ..... 3. Name and address of manufacturer: ..... 4. If applicable, name and address of manufacturer's representative: ..... 5. Brief description of vehicle: ..... 6. Date of submission of vehicle for approval: ..... 7. Technical Service performing the approval		(不影響檢測基準內容)	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
tests: ..... 8. Date of report issued by that Service: ..... 9. Number of report issued by that Service: ..... 10. Reason(s) for extension (if applicable) : ..... 11. Approval with regard to the MOIS is granted/refused:2 12. Place: ..... 13. Date: ..... 14. Signature: ..... 15. Annexed to this communication are the following documents, bearing the approval number indicated above: ..... 16. Any remarks:			
Annex 2 Arrangements of approval marks (see paragraphs 4.5. to 4.5.2. of this Regulation)  The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in Belgium (E 6) with regard to the Moving Off Information System (MOIS) pursuant to UN Regulation No. [XXX]. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. [XXX] in its original form.		(不影響檢測基準內容)	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
 The above Unique Identifier shows that the type concerned has been approved and that the relevant information on that type-approval can be accessed on the UN secure internet database by using 270650 as Unique Identifier. Any leading zeroes in the Unique Identifier may be omitted in the approval marking.			
Annex 3 Test method for determining blind spot boundary 1. Blind spot boundary The blind spot boundary defined in paragraph 2.22. of this Regulation can be determined through the approach described in this annex. 2. Test methods 2.1. The test object shall be a circular cylinder that is 50±2 mm in external diameter, with a 10±2 mm high ring, contrasting in colour from the rest of the test object, located such that its lowest edge is 900±2 mm from the base of the test object. 2.2. The test conditions shall be as defined in paragraphs 6.2. of this Regulation 2.3. The vehicle conditions shall be as defined in paragraphs 6.3. of this Regulation		8.測定盲點邊界之試驗步驟 8.1 盲點邊界 規定 2.20 所定義之盲點邊界可經由規定 8 所述之方法進行測定。 8.2 試驗步驟 8.2.1 試驗物件應為一個外徑為五十正／負二公釐、高環為十正／負二公釐、顏色與其他試驗物件成對比之圓柱，並定位如其之最低邊緣自試驗物件底部起計為九百正／負二公釐。 8.2.2 試驗條件應如規定 6.2 所定義。 8.2.3 車輛狀況應如規定 6.3 所定義。	

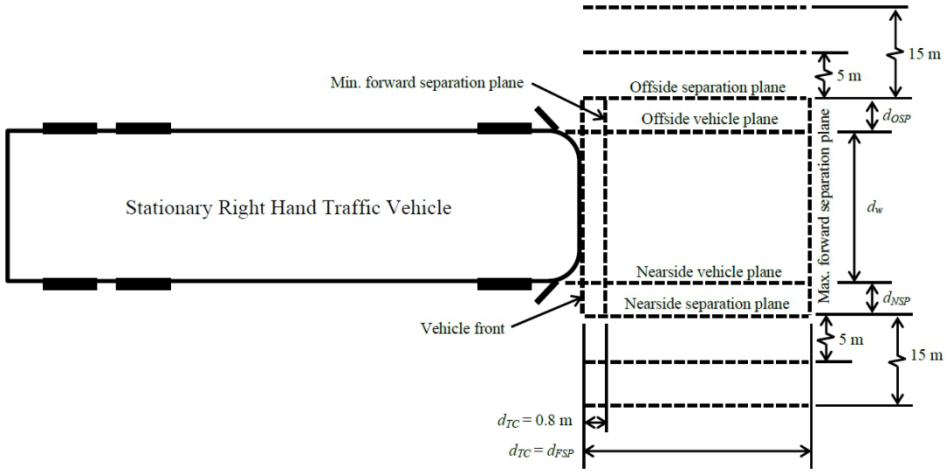
增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.4. The test area shall be marked out as shown in Figure 1 of this annex. Figure 1 **Blind spot boundary test area** (圖片如頁末所示) Where the following definitions apply: d_w vehicle width. d_{NSP} the distance from the nearside vehicle plane to the nearside separation plane, defined as 0.5 m. d_{OSP} the distance from the offside vehicle plane to the offside separation plane, defined as 0.5 m. d_{FSP} the distance from the vehicle front to the maximum forward separation plane. 2.5. The ocular reference point shall be as defined in paragraph 2.11. of this Regulation 2.6. Test procedure 2.6.1. Locate a 35 mm or larger format still camera, video camera, or digital equivalent such that the centre of the camera image plane is located at the ocular reference point. The camera shall be capable of viewing the test object in all potential test positions. Should the camera require repositioning to view all potential test positions, it shall be verified that the centre of the camera image plane for all possible camera positions is located at the ocular reference point.		8.2.4 試驗區域應如圖三所示。 圖三、盲點邊界試驗區域 (圖片如頁末所示) 其中定義如下： d_w 車輛寬度 d_{NSP} 自接近側車輛平面至接近側分隔平面之距離，定義為零點五公尺 d_{OSP} 自遠離側車輛平面至遠離側分隔平面之距離，定義為零點五公尺 d_{FSP} 自車輛前方至最大前向分隔平面之距離 8.2.5 駕駛參考眼點應如規定 2.9 所定義。 8.2.6 試驗程序 8.2.6.1 放置三十五公釐或較大格式之靜態攝影機、影片攝影機或相等之數位攝影機，使攝影機影像平面之中心位於駕駛參考眼點。 攝影機應可於所有潛在試驗位置觀察試驗物件。需要時應重新定位攝影機以觀察所有潛在試驗位置，其應確認所有可能攝影機位置之攝影機影像平面之中心位於駕駛參考眼點。	

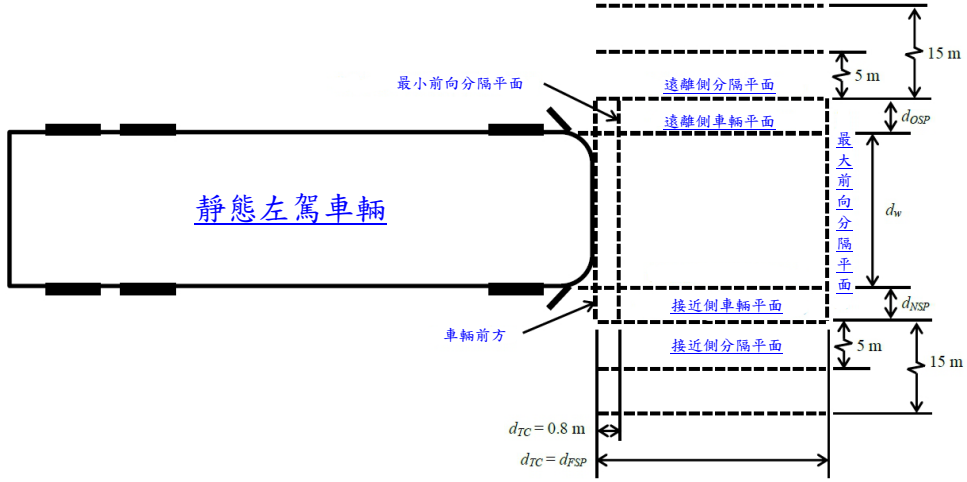
增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.6.2. The visibility of the entire ring of the test object from the ocular reference point shall be recorded for test object positions located within the area bounded by the minimum and maximum forward separation planes and the nearside and offside separation planes.		8.2.6.2 應對由最小／最大前向分隔平面及接近側／遠離側分隔平面所圍出區域內之試驗物件位置，記錄自駕駛參考眼點對試驗物件之完整環的可視性。	
2.6.3. Starting from the minimum forward separation plane, move the test object away from the vehicle front on an assessment plane parallel to the median longitudinal plane of the vehicle until the maximum forward separation plane is met.		8.2.6.3 自最小前向分隔平面起，於平行於車輛縱向中心平面之評估平面將試驗物件自車輛前方移開直至到達最大前向分隔平面。	
2.6.4. The visibility of the test object ring shall be recorded at intervals of no greater than 150 mm in distance along the assessment plane.		8.2.6.4 應記錄於沿著評估平面之距離中不大於一百五十公釐區間之試驗物件環之可視性。	
2.6.5. This process shall be repeated for assessment planes between the nearside and offside separation planes, with distances of no greater than 150 mm between each assessment plane.		8.2.6.5 此程序應於接近側與遠離側分隔平面之間的評估平面上重複執行，各評估平面間之距離不大於一百五十公釐。	
2.6.6. Approaches other than the above methods, such as CAD based or LASER based procedures, may be considered as equivalent by the Technical Service, should documentary evidence be provided to verify that the requirements of the test procedures described in this annex have been met.		8.2.6.6 檢測機構可將不同於上述步驟之方法視為相同，如基於電腦輔助設計(CAD)或雷射(LASER)之程序，應提供文件證明以驗證其符合本規定所述之試驗程序要求。	
3. Blind spot boundary definition		8.3 盲點邊界定義	

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
3.1. The blind spot area shall be determined by all test object positions where the entire ring of the test object is not visible from the ocular reference point. 3.2. The blind spot boundary shall be determined at the first position outside of the blind spot area where the entire ring of the test object is visible from the ocular reference point.		8.3.1 盲點區域應藉由無法自駕駛參考眼點觀察之試驗物件完整環的所有試驗物件位置測定。 8.3.2 盲點邊界應於可自駕駛參考眼點觀察之試驗物件完整環的盲點區域外側第一個位置測定。	

圖表增訂部分

UN內容	基準內容
(UN) Figure 1 of Appendix 1	(基準) 規定7之圖一



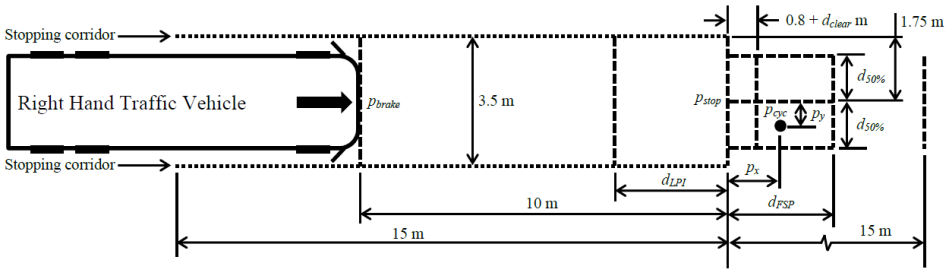


UN內容

(UN) Table 1 of Appendix 1

Test Case	*Soft Target (T)*	*Test Case Distance (d_{TC}) /m*	*Crossing Direction (c)*	*Soft Target Speed (v) /km/h*	*Distance to Last Point of Information (d_{LPI}) /m*
1	Child Pedestrian	0.8	Nearside	3	d_{NSP}
2	Adult Pedestrian	d_{FSP}	Nearside	3	d_{NSP}
3	Adult Cyclist	0.8	Offside	3	d_{OSP}
4	Adult Cyclist	d_{FSP}	Nearside	5	d_{NSP}
5	Adult Pedestrian	0.8	Offside	5	d_{OSP}
6	Child Pedestrian	d_{FSP}	Offside	5	d_{OSP}

(UN) Figure 2 of Appendix 1

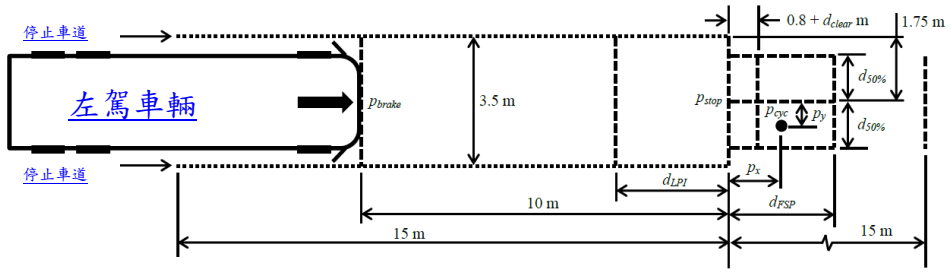


基準內容

(基準) 規定7之表一

試驗案例	軟式目標(T)	試驗案例距離(d_{TC})/公尺	穿越方向(c)	軟式目標速度(v)/公里/小時	至資訊最後點之距離(d_{LPI})/公尺
1	孩童行人	0.8	接近側	3	d_{NSP}
2	成人行人	d_{FSP}	接近側	3	d_{NSP}
3	成人自行車騎士	0.8	遠離側	3	d_{OSP}
4	成人自行車騎士	d_{FSP}	接近側	5	d_{NSP}
5	成人行人	0.8	遠離側	5	d_{OSP}
6	孩童行人	d_{FSP}	遠離側	5	d_{OSP}

(基準) 規定7之圖二

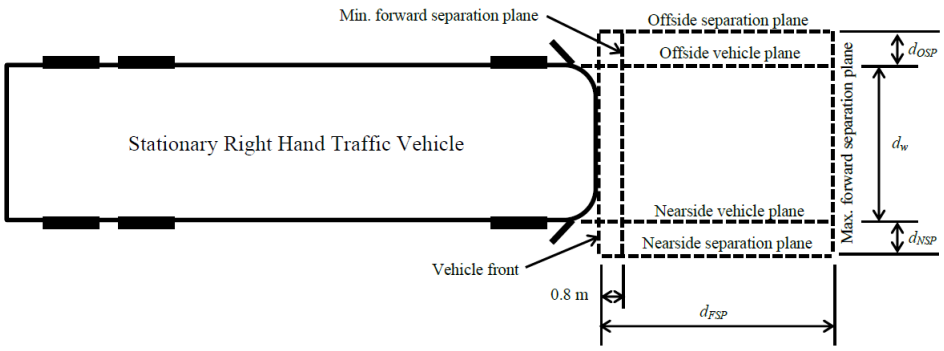


UN內容

(UN) Table 2 of Appendix 1

Test Case	*Test Target (T)*	*Distance to Forward Cyclist Start Point (p_x) /m*	*Distance to Lateral Cyclist Start Point (p_y) /m*	*Distance to Last Point of Information (d_{LPI}) /m*
1	Adult Cyclist	$0.8 + d_{clear}$	$+d_{50\%}$	$d_{FSP} - 0.8 - d_{clear}$
2	Adult Cyclist	$0.8 + d_{clear}$	0.0	$d_{FSP} - 0.8 - d_{clear}$
3	Adult Cyclist	$0.8 + d_{clear}$	$-d_{50\%}$	$d_{FSP} - 0.8 - d_{clear}$
4	Adult Cyclist	$d_{FSP} - 0.1$	$+d_{50\%}$	0.1
5	Adult Cyclist	$d_{FSP} - 0.1$	0.0	0.1
6	Adult Cyclist	$d_{FSP} - 0.1$	$-d_{50\%}$	0.1

(UN) Figure 1 of Annex 3



基準內容

(基準) 規定7之表二

試驗案例	軟式目標(T)	至前向自行車騎士起始點之距離(p_x)/公尺	至側向自行車騎士起始點之距離(p_y)/公尺	至資訊最後點之距離(d_{LPI})/公尺
1	成人自行車騎士	$0.8+ d_{clear}$	$+d_{50\%}$	$d_{FSP} - 0.8 - d_{clear}$
2	成人自行車騎士	$0.8+ d_{clear}$	0.0	$d_{FSP} - 0.8 - d_{clear}$
3	成人自行車騎士	$0.8+ d_{clear}$	$-d_{50\%}$	$d_{FSP} - 0.8 - d_{clear}$
4	成人自行車騎士	$d_{FSP} - 0.1$	$+d_{50\%}$	0.1
5	成人自行車騎士	$d_{FSP} - 0.1$	0.0	0.1
6	成人自行車騎士	$d_{FSP} - 0.1$	$-d_{50\%}$	0.1

(基準) 規定8之圖三