## 立法會 Legislative Council

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Ref.: CB1/BC/12/10

#### Report of the Bills Committee on Road Traffic (Amendment) (No.2) Bill 2011

#### **Purpose**

This paper reports on the deliberations of the Bills Committee on Road Traffic (Amendment) (No. 2) Bill 2011.

#### **Background**

- 2. As at 31 May 2011, there were 4 350 registered PLBs operating in Hong Kong, including 1 310 red minibuses (RMB) and 3 040 green minibuses (GMB) 1. According to the Administration, a number of improvement measures 2 have been introduced to enhance the safety of PLB operation over the years. Notwithstanding that, the accident and casualty rates of PLBs in 2009 and 2010 were still relatively higher than those of other classes of motor vehicles. In terms of the number of vehicles involved in traffic accidents per 1 000 vehicles in 2009 and 2010, the involvement rate for PLBs was 255.2 and 263.7 respectively, as compared to 34.1 and 34.3 for all classes of motor vehicle.
- 3. In the wake of a fatal accident involving a GMB in June 2009, public concern on PLB safety has risen. The Panel on Transport held two meetings on 26 June and 27 November 2009 to discuss measures to

RMBs provide non-scheduled services, i.e. without any fixed routes, timetables, vehicle allocation and fares, while GMBs provide scheduled services with fixed routes, fares, vehicle allocation and timetables regulated by the Transport Department.

<sup>&</sup>lt;sup>2</sup> The package of measures implemented includes promotion of safe driving among PLB drivers, mandatory installation of speed display device on PLBs, strengthening enforcement against speeding and other inappropriate driving behaviours of PLB drivers, and installation of passenger protection equipment such as passenger seat belts and high back seats on PLBs registered on or after 1 August 2004.

enhance the safety of PLB operation, which included requiring all PLBs to install speed limiters, mandating electronic data recording device (EDRD) (commonly known as "blackbox") as a basic equipment of newly registered PLBs, and mandating attendance and completion of a pre-service course. At the Panel meeting on 25 February 2011, the Administration provided an update on the progress regarding the installation of speed limiters and the formulation of specifications of EDRD required for use on PLBs in Hong Kong. The Administration informed the Panel that it aimed to introduce the necessary legislative amendment proposals in the 2010-2011 legislative session.

#### The Bill

- 4. The Bill was introduced into the Legislative Council (LegCo) on 13 July 2011. The objectives of the Bill are to amend the Road Traffic Ordinance (Cap. 374) (RTO) and its subsidiary legislation to introduce a package of measures to improve the safety of PLB operation, and to make related and miscellaneous amendments to RTO. The proposed package of measures aims to deter driving malpractices and speeding behaviour of some PLB drivers, and to achieve better control and regulation of the travelling speed of PLBs.
- 5. The main proposals contained in the Bill include
  - (i) imposing a cap on the maximum speed (80 km/hour) at which a PLB may travel;
  - (ii) requiring every PLB to be fitted with a speed limiter approved by the Commissioner for Transport (the Commissioner);
  - (iii) requiring PLBs which are of any description to be specified by the Secretary for Transport and Housing to be fitted with an EDRD approved by the Commissioner;
  - (iv) requiring applicants for PLB driving licences to attend and complete a pre-service course before issue of the licence;
  - (v) requiring every PLB driver to display a driver identity plate in the PLB when it is in passenger service; and

(vi) providing that non-compliance with the above new requirements (except for (iv)) will constitute as offences under the Bill, and specifying the penalties to be imposed.

#### The Bills Committee

- 6. At the House Committee meeting on 7 October 2011, Members formed a Bills Committee to scrutinize the Bill. The membership list of the Bills Committee is in **Appendix I**.
- 7. Under the chairmanship of Hon Miriam LAU, the Bills Committee has held six meetings with the Administration and received views from the public and representatives of various organizations (including the PLB trade) at one of the meetings. A list of the organizations which have given views to the Bills Committee is in **Appendix II**. The Bills Committee visited the Transport Department (TD) on 21 February 2012 to observe a demonstration of the functioning of EDRD and the kinds of data to be recorded by such device.

#### **Deliberations of the Bills Committee**

8. The Bills Committee in general supports the legislative intent of the Bill to enhance the safety of PLB operation. Bills Committee members have raised various concerns about the proposal of mandatory installation of EDRD on newly registered PLBs, such as the information to be recorded by the device, its effectiveness on enhancing the safety of PLB operation, the use of the data collected, and the feasibility of applying this new requirement to the entire PLB fleet.

#### Proposed mandatory installation of EDRD on newly registered PLBs

#### Functions of and information to be recorded by EDRD

9. Bills Committee members have enquired about the functions of EDRD and the justifications for the proposed mandatory installation of EDRD on PLBs. The Administration has advised that EDRD records the speed and maneuvering data of a vehicle. Details of the functions and information to be recorded by EDRD as provided by the Administration are in **Appendix III**. The Bills Committee notes that the EDRD to be used on PLBs would store data for at least 30 days. Given that the intended purpose of the EDRD is to facilitate fleet management,

complaint and traffic accident investigation, and to deter PLB drivers from improper driving, the Administration considers that 30 days of data is adequate.

10. The Administration has advised that the installation of EDRD on PLBs will facilitate fleet management and deter PLB drivers from improper driving. The data captured will also help TD investigate service-related complaints against PLB services in conjunction with the operator, ensure the proper functioning of EDRD, and enhance monitoring of PLB operation such as driving performance of drivers. Furthermore, if it is reasonably believed that a PLB installed with EDRD is involved in a traffic accident or offence(s) under RTO, the data captured may also be used in investigations by the Police. Administration has pointed out that about 85% of the franchised buses in Hong Kong have already been equipped with EDRD<sup>3</sup>. At the request of the Bills Committee, the Administration has provided examples of cases in which the Police have used the data recorded by EDRD installed on franchised buses to facilitate prosecution on traffic accidents. Details of such cases are set out in **Appendix IV**.

#### Specifications for EDRD

- 11. The Bills Committee notes that the performance specifications for EDRD are given in the proposed Schedule 19 under clause 15 of the Bill. For the purpose of device approval, EDRD suppliers will have to prove compliance by testing their products according to relevant industrial standards. Some members of the Bills Committee including Hon Miriam LAU, Hon LI Fung-ying and Hon Tanya CHAN have expressed concern as to whether it is premature to legislate for the proposed mandatory installation of EDRD on PLBs, when the Administration does not have actual experience of applying EDRD for use on PLBs, or information on the effectiveness of the device on enhancing safety and practical problems that may arise. The Bills Committee has also expressed concern about the supply of compliant models in the market.
- 12. The Administration has explained that in proposing the mandatory installation of EDRD on PLBs, the Administration has made reference to the experience of the installation and use of EDRD on franchised buses in Hong Kong, the experience of the Mainland and other places. The Administration has also discussed with EDRD suppliers and

<sup>3</sup> The installation of EDRD on franchised buses is undertaken voluntarily by franchised bus operators as a fleet management tool. Franchised bus operators use the data collected from EDRD for fleet management and investigation of accidents and driving behaviour.

has ascertained with them that they have the intention and capability to produce the appropriate products for use by new PLBs within a reasonable period of time after the enactment of the Bill.

- 13. On the need to stipulate the performance specifications for EDRD in the legislation, the Administration has explained that it is necessary to specify such requirements in the legislation for EDRD suppliers to follow in designing, testing and producing the right products before actual implementation. If the installation and performance requirements of EDRD are not clearly specified in legislation, it would be difficult for equipment suppliers to make investment and come up with products that meet the prescribed requirements. The Administration has explained that it will only introduce the necessary subsidiary legislation for negative vetting by LegCo enabling the operation of the installation requirement for EDRD, when TD is satisfied that there are suitable EDRD models that can be fitted to new PLBs and will fully meet the various requirements specified in the legislation. The Administration has assured members that sufficient time will be allowed for the design, production, testing, approval and installation of the devices before the installation requirement comes into effect. It is expected that the new requirement of mandatory installation of EDRD may be applied to newly registered PLBs within 12 months after enactment of the Bill.
- 14. The Administration has advised that although the use of EDRD on PLBs has not been put to trial in Hong Kong, the Administration is confident that EDRD can help deter improper driving behaviour of PLB drivers. The Administration has explained that as EDRD can record the speed profile of the vehicle, a PLB driver would be induced and encouraged to exercise caution throughout his driving duty. In other words, EDRD can effectively influence the attitude of a driver at the beginning of his driving duty. If a driver fails to drive properly, he will be subject to public complaint and even prosecution. The record in EDRD will be used by TD for investigation of service-related complaints against PLB services in conjunction with the operator, thus enhancing monitoring of PLB operation.
- 15. Regarding the period of warranty for the EDRD to be used by PLBs, the Administration has advised that it would require EDRD suppliers to provide a minimum warranty period of 12 months, as well as repair services for seven days a week, when granting approval to EDRD products.

#### Retrieval and use of the data recorded in EDRD

- 16. To facilitate the monitoring of the proper functioning of EDRD and the operation of PLB services, it is proposed in the Bill that the Commissioner be empowered to retrieve any data stored in an approved EDRD during examination of a PLB with a fitted EDRD pursuant to a notice under section 78(1) or an examination order by the Commissioner under section 79 of RTO. To facilitate investigation of accidents and other offences under RTO and its subsidiary legislation, it is also proposed to empower the Police to retrieve any data stored in an approved EDRD and to provide for the admissibility of such data as evidence of the matters appearing from the data without further proof in any criminal proceedings.
- 17. The Bills Committee has enquired about the rationale for providing the power for the Police under the proposed new section of 67A(5) to use data collected by EDRD as evidence without further proof in any criminal proceedings. Bills Committee members have noted that the Police may retrieve data from EDRD only when there is reasonable belief of the vehicle having been involved in an accident or any offence under RTO. Some members have asked the Administration to consider confining the use of the data to proceedings relating to offences under RTO only.
- 18. The Administration has advised that according to the Prosecutions Division of the Department of Justice, new section 67A(5) provides that in any criminal proceedings, a document purporting to be a record of the data retrieved under subsection (4)(b) (i.e. data retrieved from EDRD by the Police) is admissible as evidence of the matters appearing from the record without further proof. It does not in itself set a scope for or limit to the use of data retrieved from EDRD. It only provides for "technical convenience" such that the EDRD data may be admissible (there are tight security and anti-tampering measures provided for under the proposed legislation to ensure the accuracy of the data), as evidence without further proof in criminal proceedings. The data as evidence will still be subject to challenge and the court would decide how much weight to give to the data as evidence. The subsection is actually a common provision used in legislation to provide for admissibility of data as evidence such that it will not be necessary for the prosecution to establish, in each and every prosecution, the admissibility of certain kind of evidence (see for example, section 6A of the Money Lenders Ordinance (Cap. 163), section 33 of the Control of Obscene and Indecent Articles Ordinance (Cap. 390) and section 44(1) of the Amusement Ride

(Safety) Ordinance (Cap. 449)). Without the provision, it would be a much more onerous and long process, and much resources would be taken up for the prosecution to establish just the general admissibility of the EDRD data.

- 19. The Administration has further explained that without the proposed new section 67A(5), data retrieved from EDRD may still be used in criminal proceedings relating to any offences (whether under RTO or not), if the data are relevant to the offences in question, but the prosecution will have to prove that -
  - (a) the data recorded in the EDRD are accurate;
  - (b) there are appropriate measures to prevent unauthorized interference of the EDRD (the prosecution may have to adduce evidence from witnesses to prove that each and every driver who has driven the PLB in question did not tamper with the EDRD after its installation and sealing); and
  - (c) the EDRD was functioning properly at the material time, etc.,

before the data may be admissible as evidence in court.

- 20. If, for instance, there are no witnesses to prove the EDRD was functioning properly at the material time (which may not be available in some cases), or that there is no evidence to prove the data are accurate but the data are key evidence, the data stored in the EDRD would unlikely be admissible in any proceedings, including the proceedings on RTO offences and that it is likely that no prosecution would be instituted against the suspect, because of the missing from the proceedings of the EDRD data as crucial evidence. This will defeat one of the main purposes of requiring PLBs to have EDRD, i.e. accident investigation. The Administration therefore considers section 67A(5) essential and appropriate.
- 21. Hon CHAN Hak-kan has enquired whether a driver would be subject to prosecution if the data collected by EDRD show that the PLB which he drove at one point of time was speeding. The Administration has advised that prosecution for speeding offences would require information on the location of offence (which is not recorded by EDRD as it has no global positioning system sensor) and data on the speed of a

vehicle collected by well-tested speed detectors (e.g. laser speed detector). According to the Police, it is unlikely that prosecution could be instituted merely based on EDRD data.

22. According to the Administration, the franchised bus operators would download the data stored by EDRD on a daily or monthly basis. Hon LI Fung-ying has expressed concern as to whether the data recorded in EDRD would be used by PLB operators as a tool of monitoring drivers' performance and if so, whether undue pressure would be exerted on drivers in their day-to-day operation. She considers that the operators should be advised to download the data for investigation of driving behaviour only upon receipt of complaints in order to avoid causing substantial pressure to the drivers. The Administration has advised that according to the franchised bus operators, so far no such complaint has been received from bus captains. In future, an operator may decide to download the stored data on a regular but not excessively-frequent basis for future reference.

Proposal of extending the proposed mandatory requirement to the entire PLB fleet

- 23. Hon Andrew CHENG and Hon LEE Cheuk-yan have expressed the view that to better enhance the safety of PLB operation, the entire PLB fleet should also be required to be installed with EDRD on a mandatory basis. Hon Andrew CHENG has requested the Administration to provide information on the technical refinement required for the existing PLBs if the proposed mandatory installation of EDRD also applies to them and the additional costs that would be incurred.
- 24. The Administration has advised that at present, there are 17 PLB models in use in Hong Kong (Appendix V). They use different fuel types, and have different emission standards and engine designs. Some of these models are old and have become obsolete, and it would be technically more challenging to retrofit these PLBs with EDRD to meet the specifications proposed in the Bill. Moreover, as PLBs of different models and manufacture dates have different specifications regarding sensors and signal transmission, such as voltage, pulse, signal generation method and means, etc., the actual installation solutions and antitampering measures would need to be considered individually for each and every combination of PLB and EDRD specifications. The Administration has advised that, if the entire PLB fleet is to be installed with EDRD, significant time and effort will be required to verify and test the different installation solutions and anti-tampering measures before the

feasibility and cost of retrofitting can be ascertained. Furthermore, a long lead time will be required for the development of such a wide range of EDRDs.

- 25. Taking into account the experience gained from local trials of EDRD, overseas experiences, the large number of different PLB models in the existing fleet, and the fact that EDRDs meeting the local requirements have yet to be manufactured and approved, the Administration considers it more prudent and appropriate to mandate the installation of EDRD on new PLBs first. Through this mandatory requirement, vehicle owners, EDRD suppliers and installers will have sufficient time to resolve the potential technical, installation, software as well as operational problems that may be encountered in attempting to install different brands/models of EDRD on different PLBs. This will help improve the overall installation efficiency as well as reliability of EDRD.
- 26. Hon Andrew CHENG has expressed the view that if the current legislative amendment exercise cannot cover the existing PLB fleet, the Administration should still strive to apply the requirement of mandatory installation of EDRD to them all (4 350 in total) as early as possible to further enhance the safe operations of PLBs. Otherwise, the effect of the Bill in introducing the mandatory installation of EDRD will only be limited as the large majority of PLBs in the future will fall outside the scope of the coverage of the proposal. He has requested the Administration to provide estimation on the time and costs required to retrofit EDRD on existing PLBs of models Euro IV or Euro V and those of Euro III. The Administration has agreed to approach PLB manufacturers and EDRD suppliers for the required information.

#### Penalty level

27. Under the Bill, contravention of the requirements in relation to EDRD (such as using a PLB without an approved EDRD or with an approved EDRD which is not maintained in good working order) is made an offence where offenders will be subject to the penalty under the general offence under regulation 121(1) of the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A), i.e. a fine of \$10,000 and imprisonment for 6 months. The Bill also proposes to make tampering with EDRD (e.g. interfering with its proper operation or falsifying any data stored in it, without lawful authority or reasonable excuse) an offence subject to the same penalty, i.e. a fine of \$10,000 and imprisonment for 6 months. The Administration has advised that

suspected tampering acts will be investigated, and evidence will be collected by the Police. Prosecution for tampering with the device will proceed only when there is sufficient evidence.

28. Hon Andrew CHENG has expressed the view that the offence of interfering with the proper operation of EDRD or falsifying any data stored is more serious than the offence of failure to maintain EDRD in good working order, and the former offence should therefore be subject to a heavier penalty. The Administration has advised that the proposed penalty level for the offence of interfering with the proper operation of EDRD is appropriate, which is in line with that applicable to similar offences such as that of using a taxi fitted with an unapproved taximeter for plying for hire or for the carriage of passengers, and the alteration of a taximeter without lawful excuse under regulation 121 of Cap. 374A. The Administration considers the proposed penalty level appropriate in order to achieve the intended deterrent effect.

# Need for mandating the installation of speed display device, speed limiter and EDRD

- 29. Some members of the Bills Committee including Hon Miriam LAU have expressed concern on whether there is a genuine need for mandating the installation of speed limiter and EDRD on PLBs under the Bill in addition to the existing legal requirement for installing speed display device. The Administration has advised that different safety devices serve different functions. Speed limiters can effectively prevent drivers from driving above the set speed, and in turn reduce the incidence and severity of traffic accidents. The Administration has therefore accorded priority to their mandatory installation on new and existing PLBs alike. As for EDRD, the data stored in the device is useful for fleet management, monitoring of drivers' driving behaviour and accident investigation. The purpose of installing speed display device on PLB is to let passengers know the driving speed, and the sound signal of the device can effectively remind and alert drivers to drive within the set speed, properly and carefully at all times. Speed display device thus serves as an important monitoring and alerting device. On most of the urban roads where the speed limit is normally set at 50 km/hour, the driving speed shown on speed display device would help passengers monitor whether the PLB has exceeded the 50 km/hour speed limit.
- 30. According to the Administration, speed display device also helps passengers and PLB drivers monitor whether the speed limiter on the PLB operates properly or whether it has been tampered with. If the

driving speed as shown on the speed display device exceeds 80 km/hour, i.e. the set speed for the speed limiter installed on PLBs, it may indicate that there are problems with the speed limiter and passengers on board could remind the driver that the set speed is exceeded, and if the advice is ignored, the passenger may lodge a complaint or report to the Police. When alerted by passengers, PLB drivers can reduce the driving speed to the set speed or below and take appropriate follow up actions regarding the operation of the speed limiter.

31. Noting that the administrative measures<sup>4</sup> requiring the installation of a speed limiter on all PLBs have become effective since June 2010, Hon Miriam LAU has enquired why it is still necessary to legislate for mandatory installation of speed limiter on PLBs. The Administration has explained that by setting out clearly in the legislation the requirements on type approval, installation, sealing and maintenance of speed limiters, as well as the penalties for offences, a clear regulatory framework is provided for PLB operators and drivers to follow. Sanctions will be stipulated to deter people from disregarding the relevant requirements and from tampering with the speed limiter. The Administration has explained that, while TD may continue to enforce the requirements through administrative measures, without the legislation, penalties will not be available. It would also be more difficult to provide evidence to act on suspected contraventions.

# Mandatory attendance at pre-service course before issue of PLB driving licence

32. The Bills Committee notes that all applicants for a PLB driving licence are required under the Bill to attend and complete a mandatory pre-service course (which is intended to last one day) before they are issued with a PLB driving licence. The Administration has advised that the proposal is made in response to public calls for improving the driving attitude of PLB drivers to enhance PLB safety and service quality. Under the proposal, TD will designate Pre-service Training Schools, and work out the Code of Practice (including the course content, the qualification of the course instructor, the facilities of the schools and the issuance of certificates, etc.) for the school operators to follow. After the enactment of the Bill, TD will invite applications from interested parties. It is estimated that a lead time of six to nine months is required before this

device on all existing PLBs.

<sup>&</sup>lt;sup>4</sup> TD has introduced administrative measures through new licensing conditions since June 2010 to require the installation of a speed limiter of a type approved by TD and of a set speed at 80 kilometers per hour on all newly registered PLBs and the retrofitting of such a

new requirement may be brought into effect.

33. Some members of the Bills Committee including Hon Miriam LAU and Dr Hon PAN Pey-chyou have suggested that the Administration should explore if there is any appropriate arrangement such as employee re-training service/scheme to provide some form of subsidy for applicants enrolling on the pre-service course. The Administration has taken on board members' suggestion. In early February 2012, TD approached the Employee Retraining Board (ERB) to explore the possibility of taking forward the proposed pre-service course as a Skills Upgrading Scheme Plus Course of ERB, which would be a part-time course under which trainees might be subsidized according to the prevailing fee policy of ERB. TD will also explore the availability of other suitable institutions for providing the pre-service course, with or without subsidy.

#### Commencement of the enacted Bill

34. The Bills Committees notes that clause 1 of the Bill provides that the enacted Bill (except Part 4 on the new requirement of the mandatory attendance at pre-service course before issue of PLB driving licence) will come into operation upon gazettal. By virtue of clause 1(3), Part 4 will come into operation on a day to be appointed by the Secretary for Transport and Housing by notice published in the Gazette. Furthermore, the new Schedule 18 specifies PLBs to which the new requirement of mandatory installation of EDRD applies. The Schedule is currently left blank and the Secretary for Transport and Housing may later amend the Schedule to specify those PLBs by any description.

#### **Committee Stage amendments**

35. The Administration will move minor amendments to the drafting of certain provisions. The Bills Committee agrees to the Administration's proposed Committee Stage amendments (CSAs). The Bills Committee has not proposed any amendment.

#### **Resumption of Second Reading debate**

36. Subject to the moving of the proposed CSAs by the Administration, the Bills Committee supports the resumption of the Second Reading debate on the Bill at the Council meeting on 28 March 2012.

### **Advice Sought**

37. Members are invited to note the deliberations of the Bills Committee.

#### **Consultation with the House Committee**

38. At its meeting on 2 March 2012, the House Committee noted the deliberations of the Bills Committee.

Council Business Division 1
<u>Legislative Council Secretariat</u>
23 March 2012

#### Bills Committee on Road Traffic (Amendment) (No. 2) Bill 2011

#### Membership list

**Chairman** Hon Miriam LAU Kin-yee, GBS, JP

Members Hon LEE Cheuk-yan

Dr Hon Philip WONG Yu-hong, GBS

Hon Andrew CHENG Kar-foo Hon LI Fung-ying, SBS, JP

Hon CHEUNG Hok-ming, GBS, JP

Hon CHAN Hak-kan Hon WONG Sing-chi Dr Hon PAN Pey-chyou

Hon Tanya CHAN Hon WONG Yuk-man

(Total: 11 Members)

Clerk Ms Joanne MAK

**Legal Adviser** Mr YICK Wing-kin

#### Bills Committee on Road Traffic (Amendment) (No. 2) Bill 2011

# List of organisations/individuals that have submitted views to the Bills Committee

- I. Organizations which have made oral representations to the Bills Committee
  - 1. The Kowloon PLB Chiu Chow Traders & Workers Friendly Association
  - 2. Hon Wah Public Light Bus Association Limited
  - 3. Lam Tin Wai Hoi Public Light Bus Association
  - 4. Lei Yue Mun Ko Chiu Road Public Light Bus Merchants Association Ltd.
  - 5. Tai Po (Fixed Route) Public Light Bus Co. Ltd.
  - 6. G.M.B. Maxicab Operators General Association Ltd.
  - 7. Tsuen Wan District Tourists and Passengers Omnibus Operators Association
  - 8. Hong Kong District Tourists and Passengers Omnibus Operators Association Limited
  - 9. Public Omnibus Operators Association
  - 10. Taxi & P.L.B. Concern Group
  - 11. Public Light Bus General Association
- II. Organizations/individuals providing submissions only
  - 1. Mr LIM Hung-tat
  - 2. Aberdeen Maxicab Service Co. Limited

- 3. Transport Industry Committee of the Federation of Hong Kong and Kowloon Labour Unions
- 4. Kamalie Limited
- 5. Designing Hong Kong Limited
- 6. Lion Rock Institute

# Functions of and information to be recorded by electronic data recording device (EDRD)

#### Functions of and information to be recorded by EDRD

EDRD is a device which records and stores the vehicle's running data digitally. It includes a sensor which senses the running data of a motor vehicle, an on-board device which transmits the data to a recording medium, a recording medium that stores the data, and an analysis system consisting of analysis software and reader.

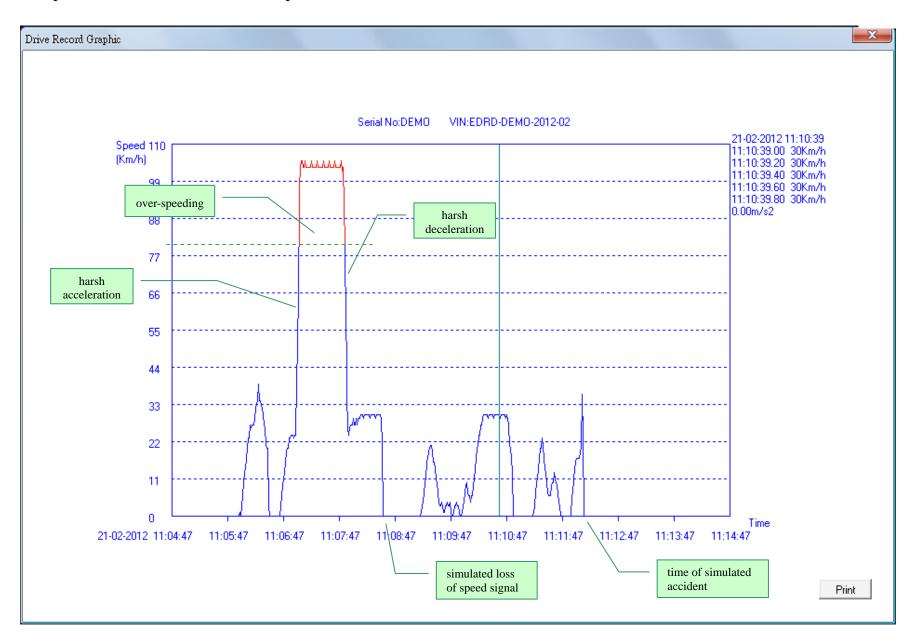
- 2. The EDRD proposed for installation on public light buses (PLBs) should be capable of recording and storing the following data for at least 30 days -
  - (i) date and time;
  - (ii) actual speed at intervals not exceeding one second;
  - (iii) the latest 15 records of harsh acceleration and deceleration;
  - (iv) events of over-speeding when the designated speed threshold is exceeded;
  - (v) the latest 30 records of actual speed, headlamp and direction indicator status, and service braking system status during the last 20 seconds just before stopping; and
  - (vi) records of power status, data downloading events, settings altered and device faults.
- 3. Sample charts of data recorded by EDRD are at **Annexes (a)** and (b).

#### Anti-tampering measures

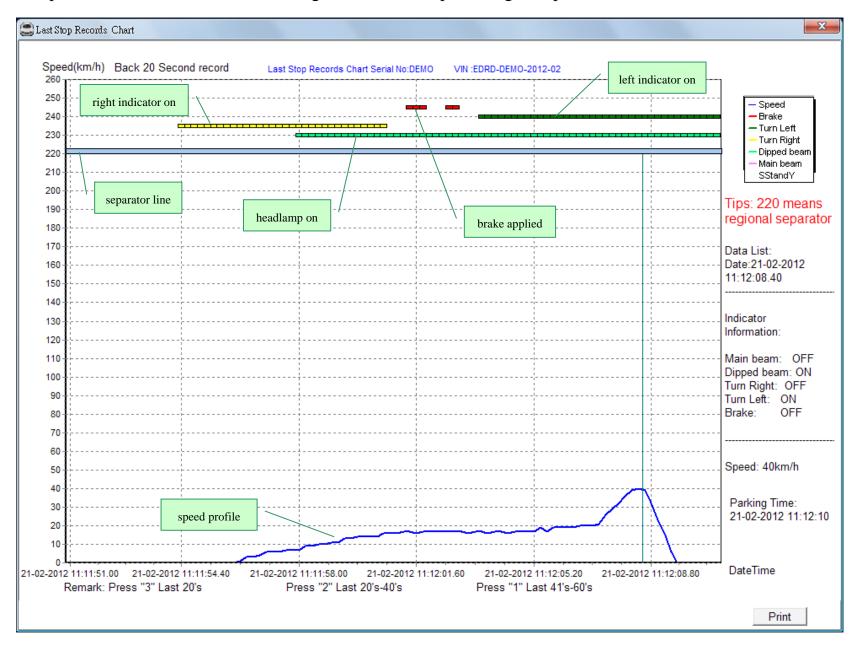
4. A driver or enforcement personnel can detect malfunction by means of two signal lamps, one indicating the normal functioning of the data collection and recording function, and another one showing other

faults or abnormal operation. EDRD is designed to prevent tampering or alteration of the data stored therein. The on-board device of the EDRD will be sealed. Sealing is also required for those wiring connections on the device, which could be disconnected thus causing undetectable alteration or loss of data. The seal is thus a means of detecting tampering attempt by visual inspection. The actual vehicle speed and time data, data download record, as well as logging of device faults and alterations to the settings stored in the EDRD will all provide further evidence of manipulation or interference.

Source: Transport and Housing Bureau



Sample chart of the data recorded during the 20 seconds preceding a stop



### Cases in which data recorded by EDRD on franchised buses has been used to facilitate the Police's prosecution on traffic accidents

### Case 1

Date of accident:	9 November 2009			
Location:	Tseung Kwan O			
Accident:	A franchised bus lost control and turned over onto the second lane of a road when entering the road from a roundabout. 2 passengers on the bus were killed and 33 persons including the bus driver were injured.			
Police investigation:	The Police has requested the bus company to provide the data recorded by the EDRD on the bus. According to the speed data recorded by the EDRD and expert analysis, the court confirmed that the bus driver had driven at excessive speed when leaving the roundabout, which caused the serious traffic incident. The bus driver was subsequently prosecuted for Dangerous Driving Causing Death.			
Result:	The bus driver was finally convicted and imprisoned for 4 years and disqualified from driving for 3 years.			

## Case 2

Date of accident:	17 September 2010		
Location:	Yuen Long		
Accident:	A franchised bus collided with a medium goods vehicle at a junction. The bus driver was injured and the two vehicles were slightly damaged. The driver of the goods vehicle alleged that the bus had travelled at high speed and the bus driver did not decelerate at the junction, which led to this traffic accident.		
Police investigation:	The Police has requested the bus company to provide the data recorded by the EDRD on the bus.  The driver of the goods vehicle was prosecuted for Careless Driving. The defendant maintained his defence during the trial.		
Result:	The driver of the goods vehicle was convicted after the court has considered all evidence including the speed data recorded by the EDRD of the bus concerned. The driver of the goods vehicle was finally convicted and fined \$2,500.		

### Models and number of existing in-use PLBs models

	Make	Model	Engine Type	Year of Introduction	No. of PLB (as at Dec 2011)
1.	Toyota	BB42R COASTER	Diesel(Euro I)	1993	8
2.	Toyota	BB42R-ZCMSS	Diesel(Euro I)	1994	336
3.	Toyota	BB43R-ZCMSW	Diesel(Euro II)	1998	497
4.	Toyota	BB43R-ZCMSW	Diesel(Euro III)	2001	7
5.	Toyota	BZB40R-ZCMSC	LPG(Euro III)	2001	2,357
6.	Toyota	BZB40R-ZCMSC	LPG(Euro IV/V)	2006	429
7.*	Toyota	BZB40R-ZCMSC	LPG(Euro V)	2011	3
8.	Toyota	BB50R-ZCMSZ	Diesel(Euro III)	2003	371
	Toyota	BB50R-ZEMQZ-HH	Diesel(Euro III)	2003	6
9.	Toyota	BZB50R-ZCMSC	LPG	2003	56
10.	Toyota	XZB50R-ZCMSY	Diesel(Euro IV)	2007	27
		XZB50R-ZEPQY	Diesel(Euro IV)	2007	1
11.	Toyota	XZB40R-ZCMSY	Diesel(Euro IV)	2008	62
12.*	Toyota	XZB40R-ZCMSY	Diesel(Euro V)	2009	48
13.	Mitsubishi	BE639ERMHDAA	Diesel(Euro II)	2000	4
		BE639ERMDAA	Diesel(Euro III)	2001	3
14.	Mitsubishi	BE649ERMDAA	Diesel(Euro III)	2002	37
15.	Mitsubishi	BE649ERMDA	Diesel(Euro IV)	2005	7
16.	Mitsubishi	BE639GRMDA	Diesel(Euro IV)	2005	61
17.	Mitsubishi	BE63DGRMDA	Diesel(Euro IV)	2008	30
				Total	4,350

<sup>\*</sup>The latest model available for sale in Hong Kong