



LIFT & 電梯通訊 ESCALATOR NEWSLETTER

Feature Article

Contactless Lift Buttons

As technology continues to advance, the design of lifts has become smarter and more user-friendly. Among them, the contactless lift buttons (contactless buttons) are an important innovation, which can call and control a lift upon sensing body parts or objects near them, bringing a more convenient and hygienic experience to passengers.

Benefits of contactless buttons

Through contactless buttons, passengers can avoid direct contact with the lift operation panel, reducing the cross-transmission of bacteria and viruses among passengers, thereby providing a safer and more hygienic lift environment. Besides, contactless buttons are less affected by mechanical wear since passengers do not need to press them. Therefore, contactless buttons are more durable than traditional physical buttons, and can maintain sensitivity and reliability for a long time.

Technical principles of contactless buttons

The technical principles of contactless buttons are mainly based on the following:

1. Capacitive sensing technology

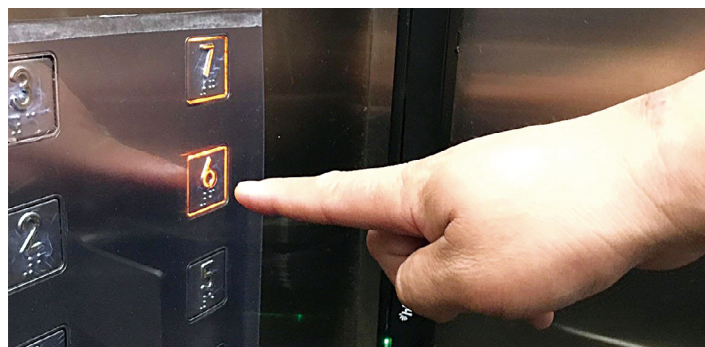
The buttons have built-in capacitive sensors. When a body part or object approaches, a change in capacitance will occur and trigger a control signal.



Contactless buttons utilising capacitive sensing technology

2. Infrared detection technology

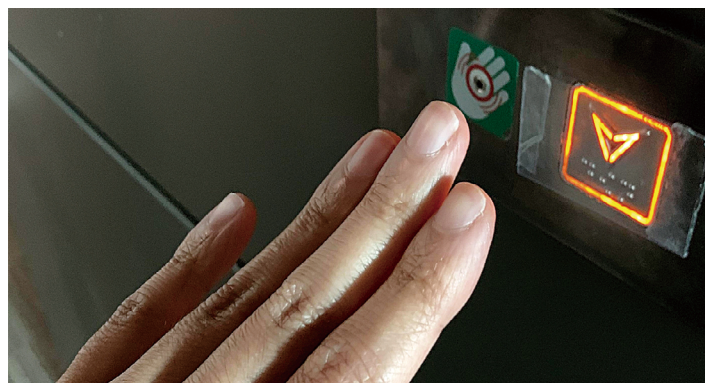
The buttons have built-in infrared transmitters and receivers. When a body part or object approaches, the infrared ray will be reflected back to the receiver, which will trigger the system to send the corresponding control signal.



Contactless buttons utilising infrared detection technology

3. Laser detection technology

The principle of laser detection technology is similar to that of infrared detection technology. When a body part or object approaches, the laser is reflected back to the receiver, which will trigger the corresponding control signal. Generally speaking, compared to infrared detection, laser detection has a shorter sensing distance but offers higher accuracy.



Contactless buttons utilising laser detection technology

Installation and application of contactless buttons

There are different types of contactless button products on the market. In addition to being an option for newly installed lifts, contactless buttons can also be easily added to existing lifts. Lift owners can consult registered lift contractors (RLCs) on solutions of adding contactless buttons according to their needs. In recent years, many lifts in hospitals, shopping malls, residential buildings, commercial buildings, schools, libraries, sports centres and government office buildings have been equipped with these contactless buttons.

Conclusion

In summary, the practical technology of contactless buttons not only effectively prevents the spread of bacteria and viruses, but also improves the reliability and user experience of lifts.

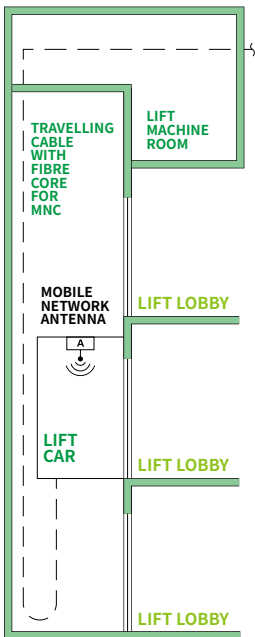
(Contributed by the Lift and Escalator Contractors Association)

Feature Article

Provision of Mobile Network Coverage inside Lift Cars

With the ongoing development of 5G services, there is a growing public demand for high-speed and reliable mobile services. 5G services also facilitate the successive launching of more innovative applications, thereby fostering smart city development in Hong Kong. An indoor ubiquitous 5G network coverage is therefore becoming increasingly important. To be in line with the Government's effort in promoting telecommunications infrastructure, the Electrical and Mechanical Services Department (EMSD) has consulted various stakeholders since January 2024 about allowing the installation of mobile communications facilities (MCFs) in the dedicated areas of lifts (including lift wells, machine and pulley rooms) on the premise of ensuring safety, in order to provide uninterrupted mobile network services for lift passengers. The consultation has been completed, and the EMSD issued Circular No. [6/2024](#) in June 2024 to implement the relevant proposal. The following outlines the basic principles of the installation and maintenance of MCFs in lifts or the dedicated areas of lifts:

1. If an MCF has been integrated into the component of a lift and can provide mobile telecommunications service when the lift is in operation, the MCF will be regarded as part of the lift, and its installation and maintenance works will be regarded as lift works and must be carried out by RLCs. In view of the special nature of MCFs, RLCs may subcontract the installation and maintenance works of MCFs to telecommunications service providers, but such works must be carried out under the supervision of qualified persons.

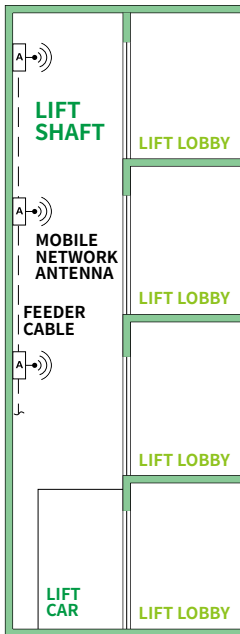


An example of an MCF regarded as part of the lift

2. If an MCF is installed in the dedicated areas of a lift (including lift wells, machine and pulley rooms) and has no direct contact with the lift and its associated equipment, the MCF will not be regarded as part of the lift, and its installation and maintenance works will not be regarded as lift works. However, due to the special environment in the dedicated areas of lifts, such works must also be carried out under the supervision of qualified persons. Before the commencement of such works, the RLC responsible for the maintenance of the lift must submit Form [LE3](#) and the technical documents related to the works to the EMSD for record.



3. If an MCF is installed in the dedicated areas of a lift, it should not be suspended above the lift machinery or equipment inside the machine room. Its conduits and cables should also be clearly labelled and separated from the peripheral equipment of the lift with sufficient space between them to ensure that the MCF will not hinder the repair and maintenance of the lift.



An example of an MCF not regarded as part of the lift

Latest Development of the Digital Log-books System for Lifts and Escalators

The EMSD has rolled out the Digital Log-books for Lifts and Escalators (the Digital Log-books) to digitalise the maintenance records of lifts and escalators and replace conventional paperbound log-books. The Digital Log-books enable responsible persons for lifts/escalators (RPs), registered lift/escalator contractors (RCs), trade practitioners and the EMSD to monitor, record, manage and analyse the maintenance records of lifts/escalators in real time through a mobile app or web portal. It facilitates joint monitoring of the relevant work by various stakeholders, thereby uplifting the management and safety standards of lifts and escalators.

Since its official roll-out in November 2022, the Digital Log-books has received high acclaim from the lift and escalator trade, property management sector and RPs, and its adoption rate has been increasing steadily. As at December 2024, more than 56 000 lifts and escalators have adopted the Digital Log-books, accounting for about 70% of the total number of lifts and escalators in Hong Kong. Besides, the EMSD added new functions to the Digital Log-books progressively in 2024 to facilitate users' management of lifts and escalators:

New function 1 –

Export Log-books (Printable Version)

The “Export Log-books (Printable Version)” (Figure 1) function has been added to the web portal of the Digital Log-books. Using the function, RPs and RCs can export log-book records in PDF format (Figure 2), which can be printed for RPs who do not have an account of the Digital Log-books for reading.

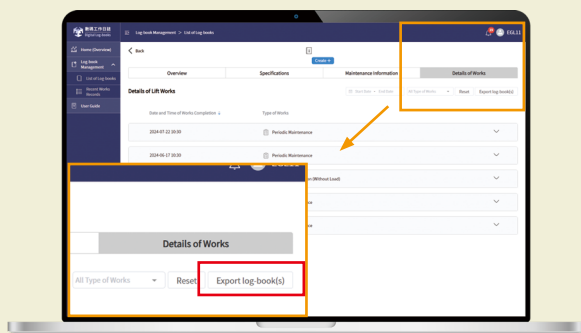


Figure 1 – The “Export Log-books (Printable Version)” function

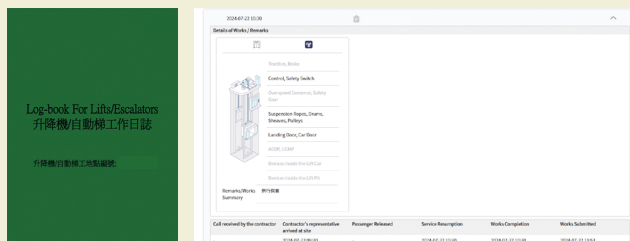


Figure 2 – A printable version of the Digital Log-books

Activation of the Digital Log-books

The Digital Log-books has been officially launched for use free of charge. For those who are interested in using the Digital Log-books, please email to digitallogbooks@emsd.gov.hk. Designated staff of the EMSD will contact you to activate the relevant Digital Log-books upon receipt of the email.

For further details, please call the hotline for the Digital Log-books on 3741 8880 (for enquiries related to information technology) or 9761 6685 (for enquiries related to the operation) between 9am and 6pm from Monday to Friday (except public holidays). Members of the public may also visit this [website](#) to learn more about the various functions and benefits of the Digital Log-books.

New function 2 –

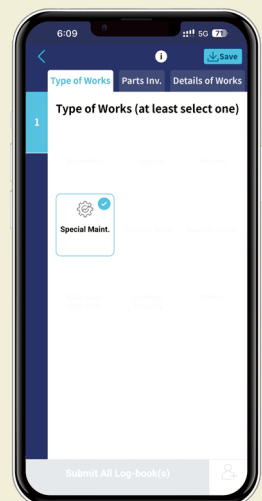
Submit Special Maintenance Records

A “Submit Special Maintenance Records” (Figure 3) function has also been added to the mobile app of the Digital Log-books. Using the function, trade practitioners can upload the relevant works records upon completion of special maintenance works for aged lifts in a time-saving and convenient manner.

To expedite the transition from using the existing paperbound log-books to the Digital Log-books, RCs are required with effect from 1 September 2024 to adopt the Digital Log-books for all aged lifts that required special maintenance and submit the special maintenance records via the Digital Log-books. For details, please refer to Circular No. [7/2024](#).



**Circular
No. 7/2024**



**Figure 3 –
Submit Special
Maintenance
Records**



Email



Website

News -in- Brief

Uplifting the Qualification Requirements for Registration as Lift/Escalator Engineers

To enhance the professional standards of the lift and escalator trade, the Lifts and Escalators Ordinance stipulates clearly that the qualification requirements for registered lift/escalator engineers (REs) will ultimately be uplifted to the level of registered professional engineers (RPEs). After extensive consultation with various stakeholders, the Commencement Notice in relation to uplifting the qualification requirements for becoming REs was gazetted on 22 March 2024 and the new qualification requirements will take effect from **31 December 2027**. In other words, with effect from 31 December 2027, only **practitioners possessing RPE qualification in the specified six disciplines and two years of relevant experience will be eligible to apply for becoming REs**, and the existing route of registration through attainment of a bachelor's degree in the specified five disciplines and four years of relevant experience will be repealed.

Between now and 31 December 2027, practitioners with a specified bachelor's degree and four years of relevant experience may still apply to become REs. During the above period, the EMSD will hold written examinations for application to become REs at least once every year to allow ample opportunities for practitioners to sit the examination. In addition, the two-year validity of the results of previous written examinations has also been lifted, meaning that practitioners holding "pass" results of the written examinations obtained at any time can apply for an interview directly after obtaining the relevant bachelor's degree and four years of relevant working experience. If practitioners wish to apply to become REs via the existing route, they should allow sufficient time before the deadline and lodge their applications as soon as possible. For details, please refer to Circular No. [5/2024](#).

In the long run, lift/escalator practitioners and those who intend to join the trade should formulate detailed plans to obtain RPE qualification. Meanwhile, RCs are also encouraged to organise Scheme "A" Training programmes approved by the Hong Kong Institution of Engineers (HKIE) to help their staff obtain RPE qualification. We believe that the tripartite cooperation among the trade, the HKIE and the EMSD will comprehensively enhance the professional standards of the trade and bring about better lift/escalator services to the local community.



**Circular
No. 5/2024**

News -in- Brief

Intermediate Tradesman Collaborative Training Scheme (Lift Mechanics) of the Construction Industry Council

To meet the manpower demand of the lift industry, the EMSD collaborated with the Construction Industry Council to incorporate the lift trade into its Intermediate Tradesman Collaborative Training Scheme (ITCTS) in 2020, providing on-the-job training for general workers who newly joined the trade or wish to further increase their exposure to different areas of lift works. During the training, the Hong Kong Institute of Construction (HKIC) will give grants and subsidies to trainees and their employers. After completing the whole training programme and successfully passing tests, the trainees and their employers will even receive graduation bonuses and subsidies respectively.

The training lasts for six months. In addition to fundamental training in general technical knowledge, trainees will also undergo site training provided by their employers to gain first-hand knowledge of five areas, including work safety requirements and risk assessments, types of lifts, basic structure of lifts and functions of components, installation and work training, as well as maintenance and adjustment of components, so as to comprehensively enhance their actual work capability.

Employers who wish to join the ITCTS should complete the application form and could commence recruitment of trainees upon approval by the HKIC. They can also visit the ITCTS [website](#) for details of or application for the ITCTS.



ITCTS Website

Lift/Escalator Work Safety Video Competition 2024

To enhance the safety awareness of employees in the lift and escalator trade, the EMSD organised the Lift/Escalator Work Safety Video Competition 2024 from July to October 2024, and its final cum prize ceremony took place on 3 October at the Lecture Theatre of the EMSD Headquarters. The trade actively participated in the competition, with strong support from various co-organisers such as the Labour Department, Construction Industry Council, Vocational Training Council (VTC), Occupational Safety and Health Council, Lift and Escalator Contractors Association (LECA) and Hong Kong General Union of Lift and Escalator Employees, contributing to its great success.

The entries of this year were very outstanding and creative, expressing the importance of lift and escalator work safety in a lively and interesting manner. For instance, a participating video showcased correct work procedures from a first-person perspective, while another emphasised that work safety does not rely on an “open sesame”, but rather on adherence to proper work procedures. The competing teams produced a number of inspiring videos with novel themes, clearly conveying the crucial message of work safety. These videos, coupled with the practitioners’ wonderful performances, not only easily engaged the audience, but also deepened the understanding of work safety among other practitioners, significantly facilitating the promotion of lift and escalator work safety.

The videos of the four finalists were uploaded to the [YouTube channel](#) of the event in September 2024, with the number of “likes” from the public serving as the online voting score. Before the final was held, the four shortlisted videos had been viewed more than 10 000 times in total.



YouTube Channel

On the day of the final, in addition to presentations by the shortlisted teams to the guest jury, there were screening of videos and drama performances, which captivated the audience with their action-packed contents. Mr POON Kwok-ying, Director of Electrical and Mechanical Services (DEMS), presided over the prize ceremony on the same day. In his speech, he thanked the co-organisers and the trade for their active participation and support, and emphasised that the EMSD fully co-operated with the Government in promoting the application of innovative technologies to achieve smarter site safety, such as the adoption of the Smart Site Safety System (4S), Modular Integrated Construction (MiC) and Multi-trade integrated Mechanical, Electrical and Plumbing (MiMEP) methods. In the end, Anlev Elex Elevator Limited’s “Safe Lift Ride” video won the competition, while the first and second runners-up were Chevalier (HK) Limited and Pro-act by VTC respectively. At last, each winning team took a group photo with the presenting guests, bringing the competition to a successful close.



The championship team took a photo with Mr POON Kwok-ying, DEMS (sixth left) and Mr KUOK Hoi-sang, President of the LECA (sixth right)



Mr KUOK Hoi-sang, President of the LECA, delivered a speech at the prize ceremony



Participating teams introduced their entries to the audience

News -in- Brief

Quality Lift Service Recognition Scheme

With the rapid development of buildings and infrastructures in Hong Kong, great importance has always been attached to the safety, management and service quality of lifts. In view of this, the EMSD launched the Quality Lift Service Recognition Scheme (QLSRS), aiming at encouraging RPs for lifts (including owners, owners' corporations and property management companies) to adopt modernisation measures to enhance the safety, reliability and comfort of lifts.

The assessment criteria of the QLSRS cover three aspects, including the level of lift modernisation, record of lift operation, and performance of RPs in managing lift services. After assessment, RPs will receive a Gold, Silver or Bronze Award, or a Certificate of Excellence or Merit according to their scores, in recognition of their contribution to the modernisation of lifts and continuous provision of quality lift management services. The certificates are valid for two years.

For details of and application for the QLSRS, please email us at qlsrs@emsd.gov.hk or visit the QLSRS [website](#).



QLSRS
Email



QLSRS
Website



The Gold Award Certificate of
the QLSRS

News -in- Brief

Lift/Escalator Work Safety Before and After Holidays

The Lunar New Year holiday is approaching, and experience shows that the periods before and after holidays are a high-risk time for industrial accidents. Lift and escalator workers should remain highly vigilant and remind each other to ensure lift/escalator work safety during these periods. Below are some suggestions for reference:

Before the holiday

The project supervisor should ensure that the project is carried out according to safe working procedures, and avoid omitting any necessary safety measures in order to complete the works before the holiday. RCs should also enhance the understanding of handling emergencies among workers who have to work during the holiday, so as to ensure that they can respond immediately and effectively in case an incident occurs during the holiday.

After the holiday

After returning to work, workers should first confirm that the environment is safe and that all lift/escalator equipment functions normally before commencing their duties. The supervisor should conduct a work briefing to reiterate work priorities and various safety matters, in order to raise the safety awareness of workers.

Feedback

Your comments and suggestions, whether on editorial style or contents, are most welcome. Tell us how we can improve and make the Lift and Escalator Newsletter a truly informative and interesting publication for you. The Lift and Escalator Newsletter is available on our website at <http://www.emsd.gov.hk>.

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