



### Give yourself plenty of time for boarding and alighting

Running to board trains and rushing to alight from trains are extremely dangerous and can also lead to train delays. Please give yourself plenty of time when boarding and alighting.

### For customers using baby strollers

Using the escalator with a baby in a stroller is dangerous for the child. Please use the elevator. On station platforms and on-board trains, apply the stopper and hold on to your stroller.

### Customer questionnaire now in progress!

Give us your opinions via the questionnaire forms provided on the Transportation Bureau homepage or at stations.

### City of Yokohama Call Center

**☎ 045-664-2525**

FAX:045-664-2828

Open hours: 08:00~21:00  
(all year-round)

Eメール: [callcenter@city.yokohama.jp](mailto:callcenter@city.yokohama.jp)

**Transportation Bureau, City of Yokohama  
Yokohama-shi Koutsukyoku Kyouryokukai.**

See the homepage for details

City of Yokohama Transportation Bureau

2017.3 5000



Municipal Buses and Subways You Can Trust

**Transportation Bureau, City of Yokohama**



In the event of an earthquake. On-board a train

**If you feel a sudden jolt ...**

If an emergency earthquake bulletin is issued or a tremor of around M5 or above is recorded, all trains will be stopped and safety checks carried out.

If an emergency earthquake bulletin is issued or turbulence from a tremor of around M5 or above causes...



● Emergency stop of all trains



● Automatic broadcast inside stations



● Elevators will stop at the nearest floor

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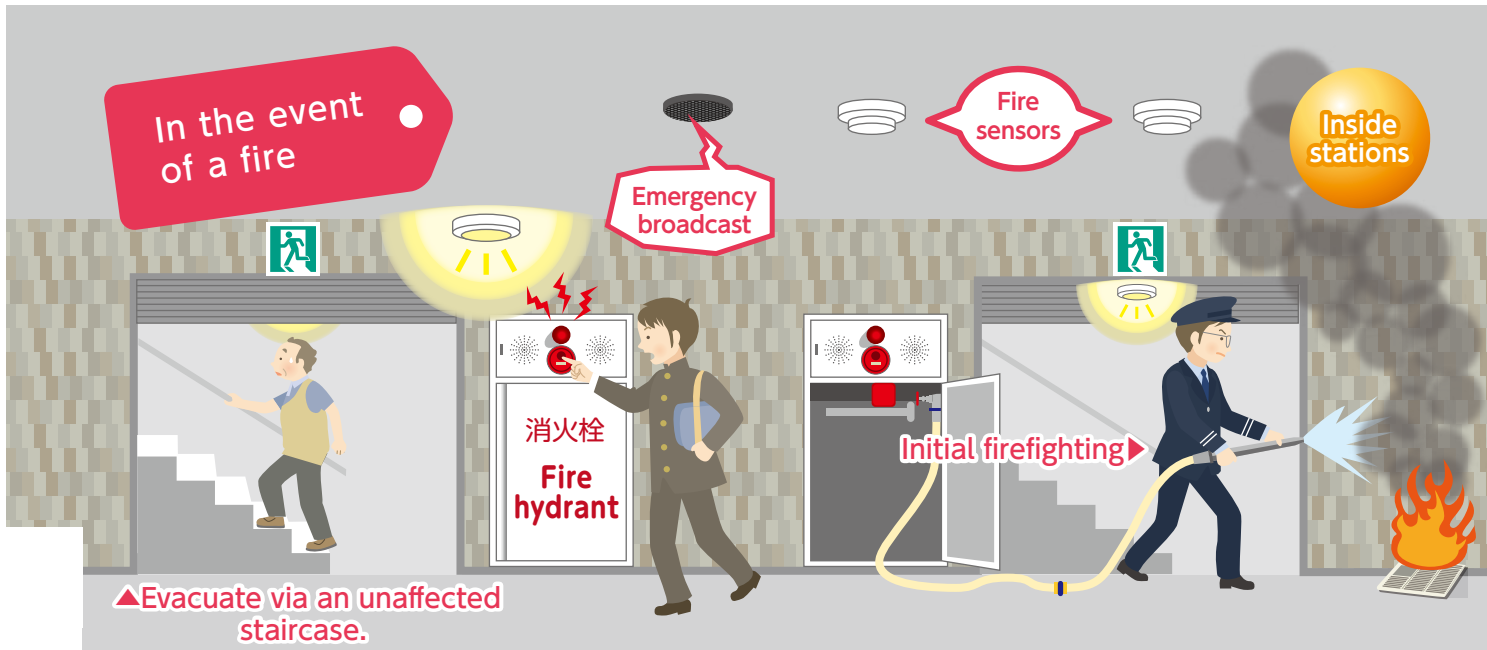
**Q. What if there is a power outage?**



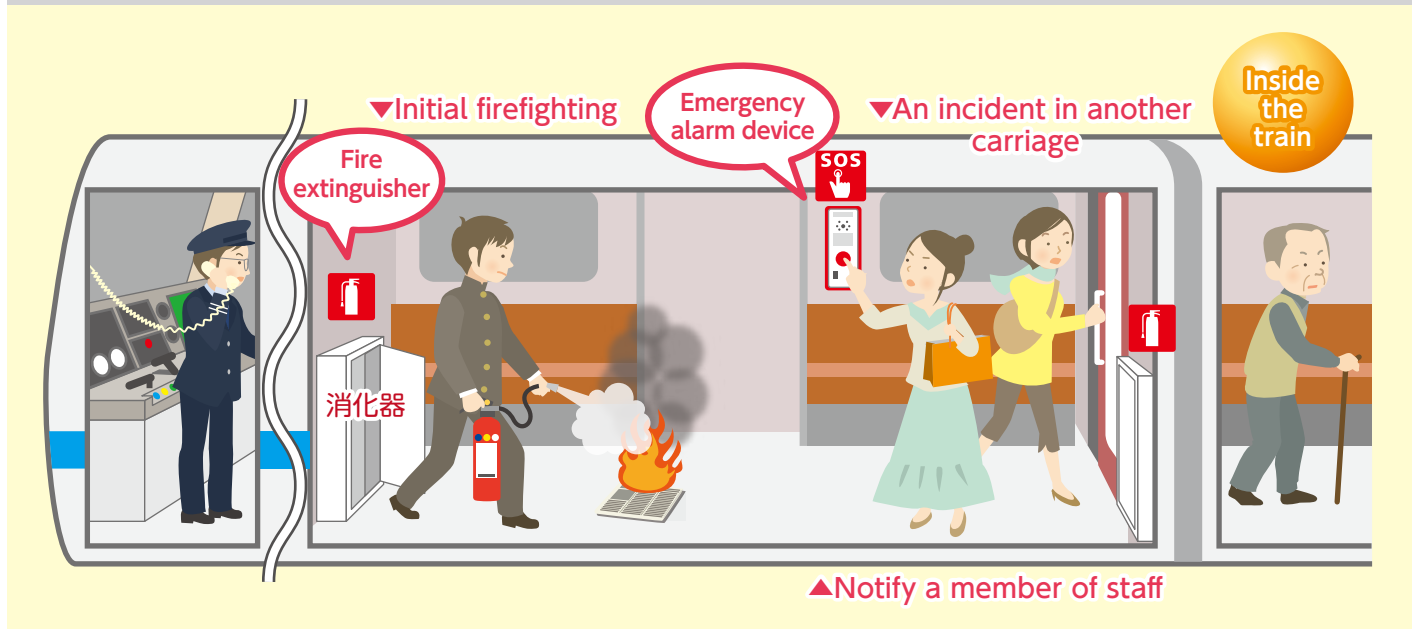
**A. Some lighting can be used.**

Trains are equipped with emergency batteries that allow lighting to remain on for at least 30 minutes. Moreover, since lights inside stations and tunnels use multiple power sources they are unlikely to be affected by power outages, and in such an unlikely event, generators can be used to power emergency lighting for a number of hours even if power is interrupted.

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In the event of a fire



Q. Are trains resistant to fire?

A. We are implementing measures to prevent fires on trains.

Subway cars conform to new fire safety standards and are designed to prevent fires from spreading. Trains now use materials that are resistant to burning and melting and are equipped with "gangway doors" to prevent flames from spreading to other carriages.

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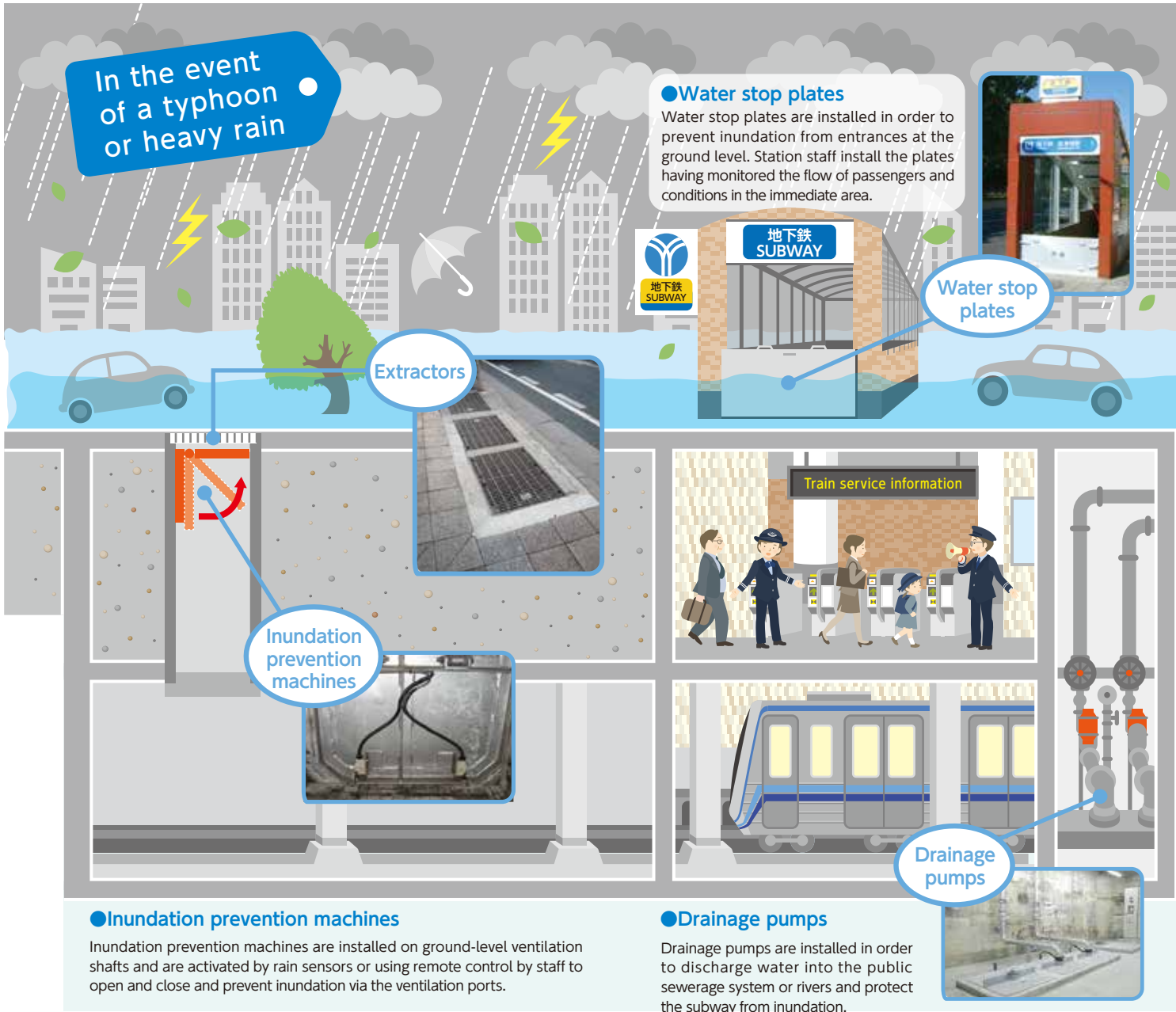
● Gangway door (prevent fire from spreading)

● Emergency alarm device (inside subway trains)

In an emergency, press one of the emergency alarm buttons installed in each carriage to talk directly with the driver or guard. There are four of these buttons installed in each carriage.



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In the event of a fire

**Q. Is the subway safe even in storms?**

**A. Various systems are in place to prevent the subway becoming inundated.**

**Q. Is it safe in the event of tsunami?**

**A. Station staff will guide you to safety.**

If a tsunami warning is issued, trains will initially stop running but wherever possible will attempt to reach the next station. However, if trains are not running due to earthquake damage, or the like, in the inundation forecast area (Yokohama Station - Maita Station), station staff will guide passengers to an evacuation point (ventilation area) leading to the nearest station or ground level.



# Aiming to be a safe mode of transport at all times

Human Resources Development

Safety Training



## Improvement of Drivers' Skills

Drivers

In developing drivers, we conduct specialist theoretical and skill education over approximately 9 months aimed at acquiring the "Class A Motor Vehicle Driver's License," which is a national qualification. Also, after drivers acquire licenses, we strive to enhance their skills through implementing emergency response and troubleshooting training in a simulator or using actual rolling stock.

## Operation and Handling Training for Abnormal Situations

Drivers, Station Staff, and Command Staff

After the end of commercial operations, actual rolling stock is used to conduct training on first aid and response methods assuming fire, train failure or other abnormalities. We also strive to improve knowledge and skills of station staff while verifying equipment operations in abnormal situations and reconfirming the manual.



Training on the Green Line

## Single Operator Driving Support Training

Station Staff

Station staff implement driver support training assuming trouble scenarios on trains. In the training, staff learn how to respond to contingencies by using emergency ladders, broadcasting equipment, door switchgear and so on.



Training in use of door cock



Training in emergency ladder installation

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## General Training for Abnormal Situations

Drivers, Station Staff, Command and Maintenance Staff

The departments implement joint training for recovering from a major earthquake. Actual rolling stock is derailed and staff conduct training on how to guide train passengers to safety, returning the rolling stock to the tracks, restoring electrical equipment and rails and so on. Moreover, members of the public are also invited to take part in this training and help make it more realistic.



Passenger rescue training



Derailment recovery training

## Maintenance Staff Training

Maintenance Staff

Maintenance post KY (kiken yochi (risk prediction)) promoters take the initiative in implementing KY training in workplaces. Basic items for limiting human errors are confirmed and safety awareness is improved through holding group discussions.



Workplace KY Training

## Tsunami Evacuation Guidance Training

Drivers, Station Staff, Command and Maintenance Staff

Training is implemented on evacuating passengers from a train that has stopped between stations and guiding them to safety assuming the occurrence of a tsunami. We aim to further enhance safety through such training; for example, based on the issues discovered in the training, staircases were installed in two ventilation ports for use as evacuation routes.



Tsunami Evacuation Guidance Training



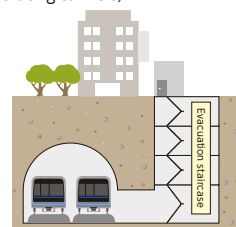
Evacuation training using simple trolley



Evacuation from Sawatari ventilation area

### Evacuation staircase at a ventilation area

Evacuation staircases were installed in two ventilation ports (facilities for ventilating tunnels).



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## For securing the safety of customers

Equipment

Information Utilization



### Securing of Safe Train Operation

#### Operation Security Equipment

The ATO (automatic train operation) system has been introduced to assist single operator driving. This ensures safe operation from departure to stopping. Moreover, we take steps to secure safe operation by means of systems for safely stopping trains in the event where **drivers experience sudden illness**. In addition to enhancing such operation security equipment, the **general control centre** gives appropriate instructions and conducts reliable equipment operations; maintenance staff conduct inspections and maintenance; and train operation staff undergo continuous training geared to preventing major accidents such as crashes and derailments.

#### ●Deadman System

The deadman system automatically stops the train if the driver loses consciousness or becomes incapacitated and takes his/her hands off the controls.

#### ●Train Emergency Stop System

When someone steps onto the tracks for instance, the system is activated by pressing a button which quickly stops nearby trains, thereby preventing accidents. It is installed on all station platforms.

### Further Seismic Reinforcement Works

#### Subway Facilities

Further seismic reinforcement works aimed at realizing the early resumption of train services in the event of major earthquake are being advanced on a planned basis.



Bridge pier seismic reinforcement



Tunnel pillar seismic reinforcement

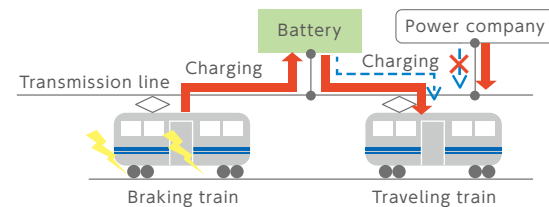
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### Installation of Large-capacity Batteries

#### Subway Facilities

Large-capacity batteries for storing power generated by regenerative brakes were installed and started operation in 2014. Thanks to these, even if a train stops in an area forecasting a tsunami inundation, it can utilize the battery power to safely and promptly move to the next station. ※ What are regenerative brakes? These are environmentally friendly brakes that use the train motor to generate electricity that can be used to reduce the train speed or reused in other trains and so on.

#### Outline of the Large-capacity Battery



### Safety measures at times of snowfall

Line

Rail heaters are installed to keep points operating at times during snowfall. In cases such as where snow covers the rails on the above-ground sections, trains will operate at reduced speed.



Conditions at times of snowfall

### Movable platform fence (platform edge door)

#### Subway Facilities

All stations are equipped with movable platform fences (platform edge doors), which operate in tandem with train doors to prevent passengers from falling onto the tracks or being hit by trains. In the event that a passenger gets caught between the train and platform door, a sensor will trip and cause the platform door to open again.



Platform door on the Blue Line

### For more information of safety measures on the municipal subway ...

See the "Safety Report" of the City of Yokohama Transportation Bureau for more details on safety measures on Yokohama Municipal Subway

Transportation Bureau, City of Yokohama Safety Report

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