



## FREEDOM OF INFORMATION COVERSHEET

The following information is provided pursuant to section 28 of the *Freedom of Information Act 2016*.

FOI reference: 24-175

Information to be published	Status
1. Access application	Published
2. Decision notice	Published
3. Schedule	Published
4. Documents	Published
5. Additional information identified	Not Applicable
6. Fees	Not Applicable
7. Processing time (in working days)	30 Days
8. Decision made by Ombudsman	Not applicable
9. Additional information identified by Ombudsman	Not Applicable
10. Decision made by ACAT	Not applicable

11. Additional information identified by ACAT	Not applicable
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# Freedom of Information - Access Application to Transport Canberra and City Services - Submission confirmation

Your submission has been successful. Please keep a copy of this receipt for your records.

Date and time

Reference code

Transport Canberra and City Services  
(TCCS)

GPO Box 158  
Canberra City, ACT 2601

Phone: 02 6207 2987  
TCCS.FOI@act.gov.au

## Applicant details

Title

Given name

Family name

Preferred name

Preferred method of contact

Phone

Email

Post

Contact phone number

Contact email address

Contact postal address

Address line 1

Address line 2

Suburb

State

Postcode

Preferred method to receive information\*

Email

Post

Same as contact email address

## Information request

Who are you making the request on behalf of?

Myself

What type of information are you requesting access to?\*

Other information

What information are you requesting access to under the Act?\*

1. Operation manual of the bus model Yutong ZK6131HG1 currently in service with ACTION. 2. A scan of the VIN vehicle data plate onboard any one vehicle if convenience in the Yutong ZK6131HG1 fleet of ACTION. 3. A technical specifications document of the Yutong ZK6131HG1 fleet, if there's such document in existence.

Attach a description or additional details about the information you are requesting access to (optional)

Do you have a similar or identical request currently under review by another ACT Government Directorate?

Yes

No

Are you enquiring as

A member of the public



Do you wish to apply for a waiver of fees associated with processing your application?

Yes

No

Provide a statement about how the release of information is in the public interest (optional)

You can find a lot of bus fans website like the actbus.net [https://www.actbus.net/fleetwiki/index.php?title=Category:Yutong\\_ZK6131HG1](https://www.actbus.net/fleetwiki/index.php?title=Category:Yutong_ZK6131HG1) and it is clear that bus fans would require more technical files from the documents held by the department, that are not carried onboard. The data plates are onboard, though, yet there's no independent way of verification of the reliability of data for the bus fans.

Would you like to provide any additional information? (optional)

<https://www.actbus.net/>

Attach additional documents to support your application (optional)

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Dear [REDACTED]

### **Freedom of Information Request – Our reference 24-175**

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act) received by Transport Canberra and City Services (TCCS) on 2 December 2024. It is my understanding that you are seeking access to the following government information under the Act:

*“1. Operation manual of the bus model Yutong ZK6131HG1 currently in service with ACTION.2. A scan of the VIN vehicle data plate onboard any one vehicle if convenience in the Yutong ZK6131HG1 fleet of ACTION.3. A technical specifications document of the Yutong ZK6131HG1 fleet, if there's such document in existence”.*

### **Timeframes**

A decision on this application is due on 13 February 2025.

### **Authority**

I am an Information Officer appointed by the Director-General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

### **Decision on access**

A search for records has been undertaken and a total of three records have been identified as relevant to your request.

Upon reviewing the information identified in the records, I have found that some of the information within these documents is, on balance, contrary to the public interest to disclose. I have decided to provide you with:

- full access to two records; and
- partial access to one record.

My decision is detailed further in the following statement of reasons. I have included a schedule of the documents at Attachment A. The documents are enclosed at Attachment B with deletions applied to information which is contrary to the public interest to disclose.

### **Statement of Reasons**

In reaching my access decision, I have taken the following into account:

- the FOI Act;
- the content of the documents that fall within the scope of your request; and
- the *Humans Rights Act 2004*.

The FOI Act has a pro disclosure bias, which requires information to be disclosed unless doing so would be contrary to the public interest. As an Information Officer, I must decide where, on balance, public interest lies in the disclosure of government information. Section 17(1) of the Act sets out the steps for

completing the public interest test. As part of this process, I must identify all relevant factors in schedule 1 of the FOI Act. If no factor in schedule 1 is found relevant, I must then consider the factors listed in schedule 2 of the FOI Act and determine, on balance, where the public interest lies.

#### **Schedule 1**

- No relevant factors identified.

#### **Public interest test (Schedule 2)**

##### Factors favouring disclosure (Schedule 2.1)

- Schedule 2.1(a)(i) - promote open discussion of public affairs and enhance the government's accountability; and
- Schedule 2.1(viii) - reveal the reason for a government decision and any background or contextual information that informed the decision.

##### Factors favouring non-disclosure (Schedule 2.2)

- Section 2.2 (a)(ii) – prejudice the protection of an individual's right to privacy or any other right under the *Human Rights Act 2004*.

In reviewing the information within scope of your application, I have identified information that is likely to provide background or contextual information that informed a government decision. I have placed significant weight on this factor. The pro-disclosure bias requires the arguments on each side of the public interest test to be weighed.

In my consideration of factors favouring non-disclosure of information within the records, I have identified the personal information of parties who are not employees of the ACT Government. I have considered that the information has been provided to TCCS with the expectation that it is handled in accordance with published privacy statements and policies. Authority to access this information or evidence of identity to validate authority to release of personal information, has not been provided in the submission of your application. I consider that this information is not readily available to the public and has not otherwise been disclosed by TCCS. I further consider that this information has come to be held by TCCS with the expectation that it is handled in accordance with the *Information Privacy Act 2014*.

I have found that the factors favouring disclosure can be satisfied by the deletion of information which is contrary to the public interest. I have attached a list of the records at [Attachment A](#) and a copy of the records with redactions at [Attachment B](#).

#### **Charges**

No fee applies to your application as the number of pages for release is within the fee-free threshold.

#### **Online publishing – disclosure log**

Under section 28 of the Act, TCCS maintains an online record of access applications called a disclosure log. Your original access application, my decision and documents released to you will be published with personal information removed.

#### **Ombudsman review**

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek an Ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published in TCCS' disclosure log or a longer period allowed by the Ombudsman.

If you wish to request a review of my decision, you may write to the Ombudsman at:

ACT Ombudsman  
GPO Box 442  
CANBERRA ACT 2601  
Via email: [actfoi@ombudsman.gov.au](mailto:actfoi@ombudsman.gov.au)

**ACT Civil and Administrative Tribunal (ACAT) review**

Under section 84 of the Act, if a decision is made under section 82 on an Ombudsman review, you may apply to the ACAT for review of the Ombudsman decision.

Further information may be obtained from ACAT at:

ACT Civil and Administrative Tribunal  
GPO Box 370  
CANBERRA CITY ACT 2601  
Telephone: (02) 6207 1740  
[www.acat.act.gov.au](http://www.acat.act.gov.au)

If you have any queries concerning the directorate's processing of your request, or would like further information, please contact the TCCS FOI team on (02) 6207 2987 or email to [tccs.foi@act.gov.au](mailto:tccs.foi@act.gov.au)

Yours sincerely

A handwritten signature in black ink that reads "Alison Kemp". The signature is written in a cursive, flowing style.

Alison Kemp  
Information Officer

13 February 2025

## FREEDOM OF INFORMATION REQUEST SCHEDULE

Please be aware that under the *Freedom of Information Act 2016*, some of the information provided to you will be released to the public through the ACT Government's Open Access Scheme. The Open Access release status column of the table below indicates what documents are intended for release online through open access.

Personal information or business affairs information will not be made available under this policy. If you think the content of your request would contain such information, please inform the contact officer immediately.

Information about what is published on open access is available online at: [https://www.cityservices.act.gov.au/about-us/freedom\\_of\\_information/disclosure-log](https://www.cityservices.act.gov.au/about-us/freedom_of_information/disclosure-log)


### Factors favouring non-disclosure:

Schedule 2.2(a)(ii) - prejudice the protection of an individual's right to privacy or any other right under the *Human Rights Act 2016*.

### Reference Number

**24-175**

Reference number	Page number	Description	Date	Status	Reason for non-release or deferral	Open Access release status
1	1-22	Yutong E12 Training Module - Drivers Basics	January 2023	Partial Access	Schedule 2.2(a)(ii)	Documents to be published on the <a href="#">TCCS Disclosure Log</a>
2	23	Yutong specification_2024-12-06-12-46-50	Undated	Full access	Not applicable	
3	24	Yutong vehicle data plate	2024	Full access	Not applicable	

A photograph of a white Yutong E12 electric bus, overlaid with a semi-transparent green filter. The bus features a large advertisement on its side that reads "100% Electric. Zero Emissions." and "Zero emission electric bus". The bus is parked on a street, and the background shows some buildings and trees.

# YUTONG E12 Driver's Training Manual

## **Training Module : Driver Basics**

This manual has been written to provide instructions and guidance for drivers operating Yutong E12 vehicles. The information within this guide will improve your knowledge of the vehicle and assist with your daily driving procedures.

# E12

100% FULL ELECTRIC BUS  
THE NEW CHOICE FOR ZERO EMISSION PUBLIC TRANSPORT



## About Vehicle Dealers International Pty Ltd

In 2012, Yutong began importing buses from China and quickly achieved a significant market share. Yutong is the world's largest bus manufacturer, known across the globe for its service, reliability, and quality vehicles in a wide range of markets. Yet its beginnings were small as a bus repair factory in 1963, before expanding into the areas of manufacturing, research, and customised design.

In 2014, ABC Sales & Maintenance was established in Cairns, by [REDACTED] Family with [REDACTED] leading the team as General Manager. ABC then went on to become the North Queensland Dealer for Yutong Australia.

In 2016, Yutong decided to host their annual APAC Golf Convention in Cairns. This was the first time this has ever been hosted outside of China. During this convention, an agreement to service and support Yutong vehicles nationally was signed, and subsequently, Vehicle Dealers International (VDI) was established. In the same year, VDI became the official Australian distributor of all Yutong Spare Parts

In 2017, VDI moved forward to manage all Spare Parts Nationally and in 2018, became the National Distributer for Yutong Australia.

Despite multiple branches across Australia, remains a locally owned, family-run business, led by [REDACTED] Managing Director, Vehicle Dealers International.

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# Identifying Yutong E12

## OVERALL DIMENSIONS OF YUTONG E12



## Turning the Yutong E12 on and off

### POWER SWITCH FOR 24V BATTERY

#### CAUTION

Before parking the vehicle for a long time, make sure the power handle switch is turned off to prevent battery power loss.

The 24v battery power switch is located on the outside below the driver's side window. This power switch is to turn off all electric current from 24v to the vehicle. This power switch is advised only to be used when the vehicle is to be parked for a period of longer than 72 hours.

- Turn the power switch clockwise by 90 degree to switch ON the main power.
- Turn the power switch anti-clockwise by 90 degree to switch OFF the main power.

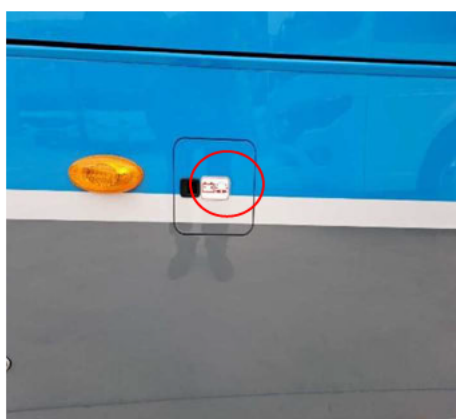


Photo of power switch and its location

## STARTING THE BUS

Please ensure you have the hand brake applied and your foot on the brake before starting the vehicle.

To start the vehicle:

1.



Turn main power switch on

2.

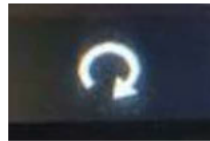


Shown above. Stating power is on, vehicle not running.

3.



Press the Run symbol on the status indicator changes to above. Vehicle is now running..



4.



To turn the vehicle off, come to a steady stop. Place the vehicle in neutral, apply the park brake and press the stop side of run button then turn the Main power switch off. Vehicle will shut down. .

Please ensure the hand brake is on before proceeding otherwise the vehicle will not shut off.

## Interior Console & Dashboard Identification

### INTERIOR AND CONSOLE IDENTIFICATION



WARNING

Interior console and switches may vary depending on the purpose of the vehicle and operators.

1. Engine ON/OFF switch
2. Main ON/OFF switch
3. Lights Master Switch
4. Front Cabin Lights
5. Rear Cabin Lights
6. Driver Lamp
7. Hazard Lamps
8. Roof Hatch Fan
9. Drivers Additional lights
10. Drivers Window and Front Door Heater
11. Mirror Demister
12. Traction Control Off Switch

Driver's left hand side console and switches

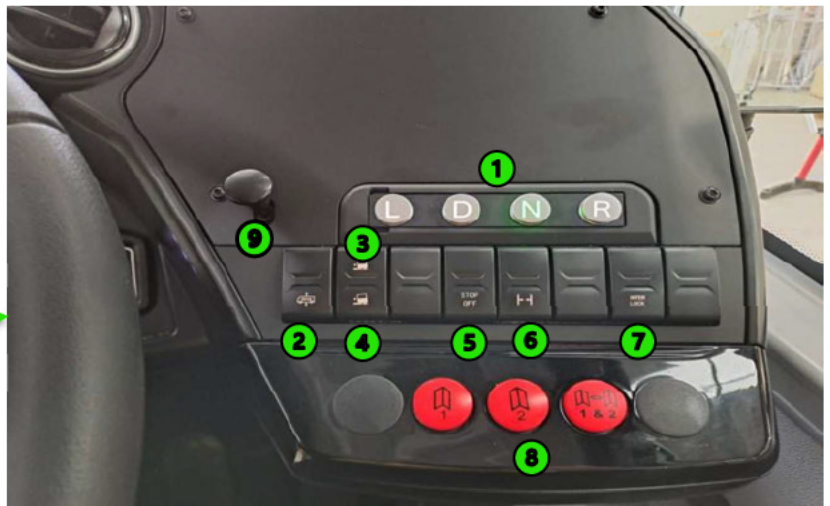


1. Gear switch panel
2. ECAS Up and Down switch
3. Vehicle Ride Height Return
4. Vehicle kneeling switch
5. Next Stop button Off Switch
6. Door High Pressure Hold
7. Door Interlock Override  
(Only to be used in emergency situations to get bus off the road)
8. Door Open / Close Switches
9. Short Stop

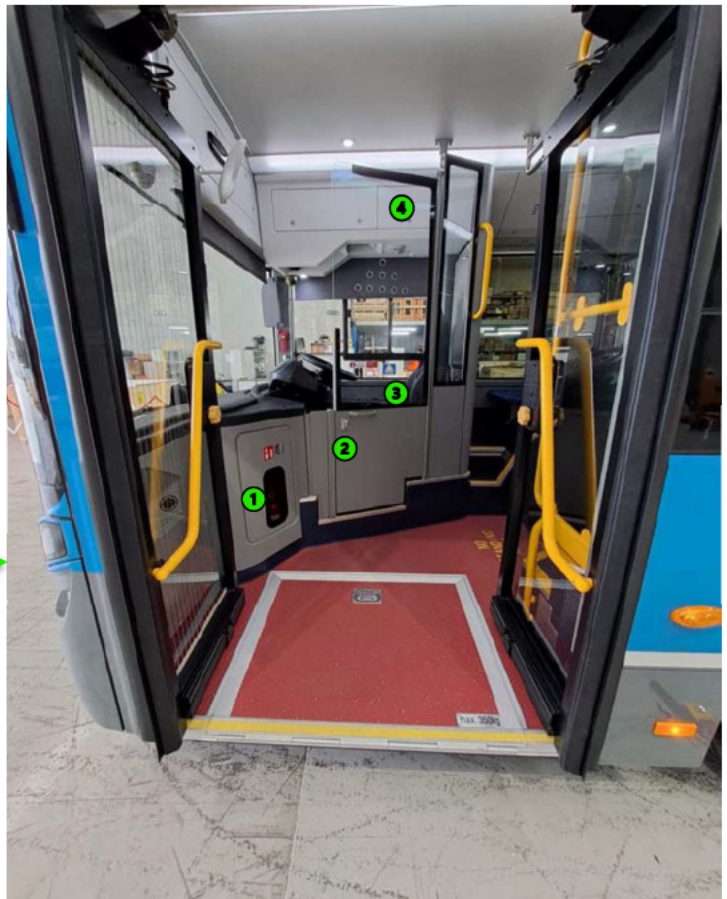
1. Electric Mirror Controller
2. Drivers AC/Demister switch
3. Sunblind Switch
4. A/C Master Switch
5. 12V Charge Port
6. Park brake Lever
7. Drivers Audio unit
8. BROOM/BROMS Brake (Only use if Park brake Fails)

1. Fire Extinguisher Cabinet
2. Drivers Door opening handle
3. Drivers Seat
4. Driver's Overhead lunch/belonging locker

### Driver's right hand side console and switches



### Driver's seat and compartment area



## DRIVERS AIR CONDITIONER CONTROL UNIT

In the Yutong E12, the passenger cabin area air conditioning is controlled Automatically. The Cabin temperature is set to 22 degrees Celsius and the Air con unit will maintain that temperature without any need for human interaction.

The drivers AC however can be adjusted to suit the individual and only affects the driver's area. Below are some images of the control unit and some details on their functions:

Rotate this dial to increase or decrease fan blower speed. Turning the dial clockwise all the way to the right will activate the demister. Turn dial back "one click" from demister to get max A/C.



1. Position air flow at your feet
2. Position air flow at your head & shoulder area
3. Demister for front windscreen
4. Fresh air
5. Cold Air
6. Hot Air

## DRIVER AUS SWITCH EXPLAINED

### EMERGENCY SHUT DOWN SWITCH

In an urgent situation the driver can cut the power to the traction motor by turning the AUS (Auto Urgent System) switch on. This switch (shown below) is located to the left of the driver as shown below. When this switch is turned on the main power will be cut off, both the front and rear doors will be open, the saloon lights will be turned on and the hazard lamps will be flashing.

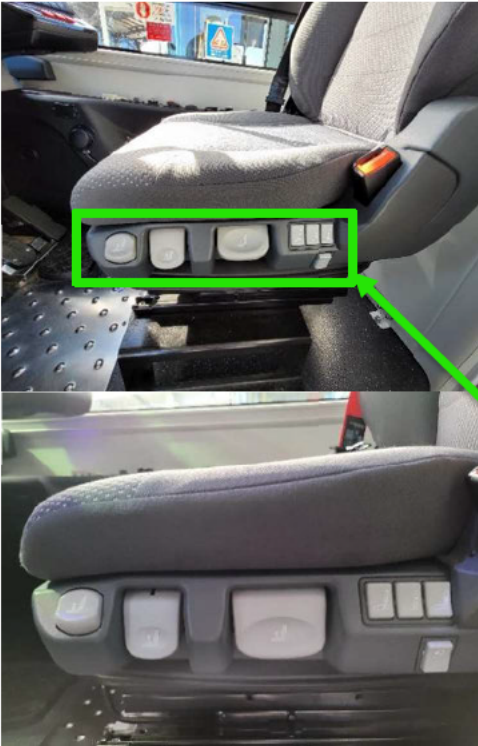


### STEERING ADJUSTMENT

After power on, using your foot, press down on the steering wheel adjustment switch shown in this image. Then proceed to adjust the steering wheel to a comfortable position. (This will not work with the vehicle in drive mode)



## DRIVERS SEAT FUNCTIONS



The image to the left of this text is your Isri appointed drivers seat. If you take notice of the side panel highlighted there are many controls available for you to adjust the positioning of your seat in tandem with your steering wheel adjustment to ensure you have the most comfortable seating position unique to you.

Below is a detailed image explaining the function of each switch.

### Shoulder Adjustment

Lift lever, using body weight move upper backrest support to required Position. Release to lock.

### Backrest Adjustment

Apply slight pressure to backrest prior to lifting lever. Lift the lever, using body weight move backrest to required position, release lever to lock.

### Air Lumbar Support

Two lumbar chambers, Lower (LL) & upper (UL) plus air adjustable side bolsters (SB). Press the + to increase and - to decrease. Adjust to give the lumbar region of your back the desired support.



### Seat Height Adjust

Gently pull the lever up to raise the seat and press down to lower seat height. Each notch of adjustment will change the seated height by approximately 12mm.

### Shock Absorber Adjustment

Gently push the lever down for a firmer suspension, lift lever for a softer suspension. Adjust to suit road conditions.

### Air Dump Valve

Gently press button in at the top once seated, before exiting press button down. This improves entry & exit clearance.

### Three Point Seat Belt

### Air Suspension

The air suspension automatically sets to the operators weight being between 50 & 150Kg.

### Seat Cushion Adjustment

Gently lift the lever and push hips forward/backwards. Release to lock.

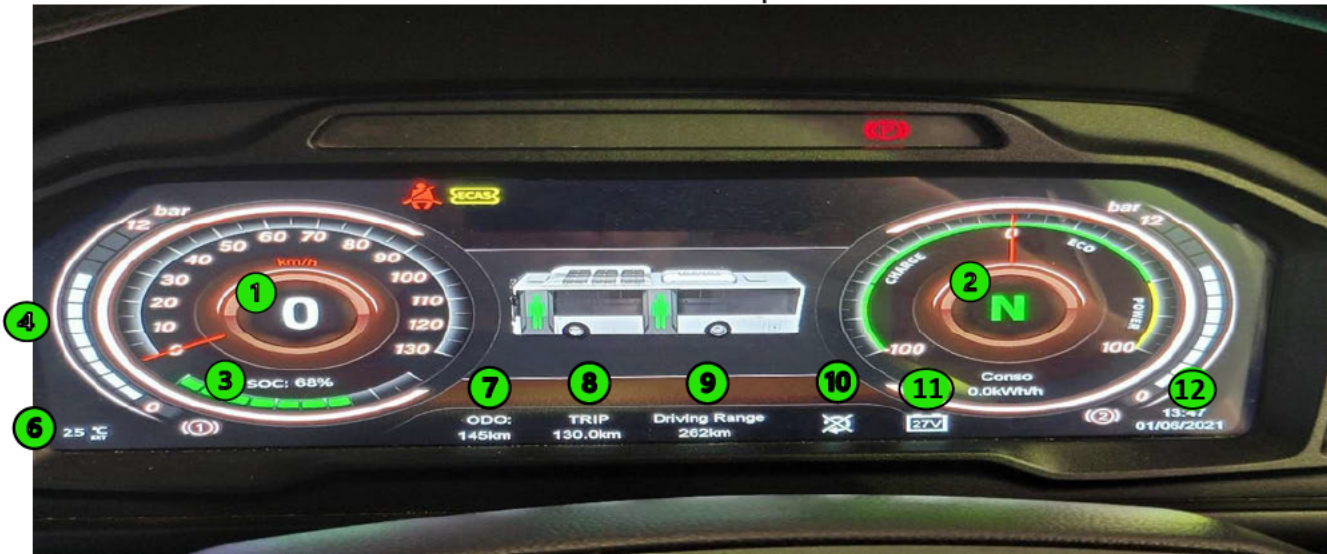
### Seat Tilt Adjust

Gently lift the lever and lean forward/back to adjust seat. Release lever to lock.

### Slide Adjust

Lift slide handle and slide seat back/forward to the required position. Release to lock.

## Dashboard Description



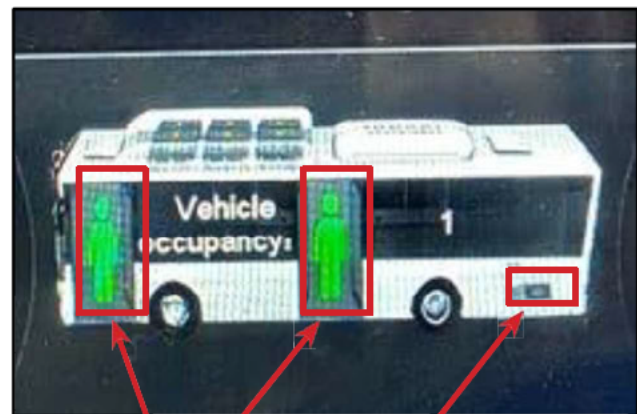
- |  |                                   |
|--|-----------------------------------|
| 1. Speedometer                             | 10. Vehicle status indicator      |
| 2. Gear position indicator                 | 11. 24v Battery voltage indicator |
| 3. Battery level                           | 12. Date and time indicator       |
| 4. Air pressure level indicator for axle 1 |                                   |
| 5. Air pressure level indicator for axle 2 |                                   |
| 6. External temperature indicator          |                                   |
| 7. Odometer                                |                                   |
| 8. Travel recorder                         |                                   |
| 9. Estimated driving range indicator       |                                   |

## Dashboard digital bus indication



WHEELCHAIR RAMP DEPLOY  
INDICATOR

This lets you know that wheelchair ramp has been deployed.



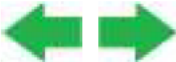



















DOOR OPENED  
INDICATOR














This lets you know the passenger door is open.

CHARGE SOCKET  
COMPARTMENT  
DOOR INDICATOR

This lets you know the charger socket door is opened.

# Dashboard Indicators

DASHBOARD INDICATION DEFINITION			
COLOUR	ICON	NAME	DESCRIPTION
GREEN		TURN SIGNAL	This indicates the turn signal is switched on.
		FRONT FOG LIGHT	This lets you know your front fog lights are switched on.
		LOW BEAM	This indicates your low beam is switched on.
		SIDE LAMP INDICATOR	This indicates your side light is switched on.
		KNEELING INDICATOR	This indicates the bus is currently on kneeling.
ORANGE		REAR FOG LIGHT	This lets you know your rear fog lights are switched on.
YELLOW		ECAS INDICATOR	This lets you know your ECAS system is in use.
		EBS FAULT INDICATOR	This lets you know your EBS system has a fault.
		DYNAMIC STABILTY CONTROL SYSTEM	This lets you know your traction control system is activated.
		AIR DRYER INDICATOR	This lets you know that vehicle's air dryer is currently ON.
		REAR COMPARTMENT DOOR INDICATOR	This indicates that the rear compartment door is opened.
		BATTERY LOW VOLATGE INDICATOR	This indicates thay the battery's voltage is low.
		BRAKE PAD WARNING INDICATOR	This lets you know the vehicle's brake pad is low.
		ANTI SLIP CONTROL INDICATOR	This lets you know the vehicle's ASR is ON.
		TIRE PRESSURE WARNING LIGHT	This indicates that vehicle's tire pressure is low.
		LOW SPEED WARNING OFF LIGHT	This lets you know vehicle's low speed warning sound is OFF.
		HILL START ASSISTANCE WARNING LIGHT	This lets you know that vehicle's hill start assistance has a fault.
RED		AIR PRESSURE WARNING	This indicates there is a fault in vehicle air pressure system. You must stop the vehicle immediately.
		STOP SIGN	This indicates your vehicle is in serious fault and you must stop the vehicle immediately.
		COOLANT LEVEL WARNING	This lets you know the vehicle coolant is low.

RED		PARK INDICATOR LIGHT	This indicates vehicle park brake is on.
		DRIVERS SAFETY BELT	This lets you know the drivers seat belt is not buckled.
		ECAS WARNING	This indicates your ECAS system has a major fault.
	<b>EBS</b>	EBS MAJOR FAULT INDICATOR	This lets you know your EBS system has a major fault.
		DRIVER SEAT UNSEATED WARNING	This lets you know that driver seat is currently vacant.
		CHARGING CONNECTION STATUS	This indicates that vehicle is in the state of charging.
		MOTOR TEMPERATURE WARNING	This indicates that vehicle motor temperature is too high and you must stop the vehicle immediately,
		RETARDER FAULT INDICATOR	This indicates that there is a major fault in vehicle retarder.
		DRIVER ELECTRIC FAN SWITCH	This lets you know driver's seat cooling fan is ON.
WHITE		BUS STOP LIGHT	This indicates that passenger pressed bus stop switch.
		DRIVER SIDE MIRROR DEFROST LIGHT	This lets you know driver's side mirror defrost is ON.
		DRIVER WINDOW DEFROST LIGHT	This lets you know driver's window defrost is ON.
		HILL START ASSISTANCE	This lets you know the Hill start assistance is activated.
		WHEELCHAIR RAMP REQUEST INDICATION	This lets you know that wheelchair area bus stop switch has been pressed and customer requests for wheelchair ramp.

# Operating Instructions For Service doors

## DOOR OPERATION OF THE VEHICLE



WARNING



DO NOT try to forcefully open the service door when the vehicle is moving as it will influence the vehicle or cause personal injuries and even death.

Location of the exterior control switch for the service doors.



Diagram of passenger door button under windshield wiper arm

Photo of the exterior control switch for service door.

In the above diagram you will see on the front of the vehicle is a DRIVER ACCESS DOOR switch. This is located on the underside of the left-hand wiper arm. This is the switch the driver can use to access the vehicle. Both the front and rear service door also has its own open and close valves on the exterior located on the right-side panel of the door. These valves can be used to open the passenger doors from outside the vehicle. In an emergency, service doors can be opened by lifting the cover and rotating the valve to release the air in the system allowing the door to be opened manually. This applies for both the front and rear doors.

Location of the driver's control switch for the service doors.

The front and rear service door can be controlled to open and close separately. Driver's door control is located on the right-hand side of the driver's console. The driver also has the option to open both the front and rear passenger doors simultaneously.



1. Front Passenger door control switch
2. Rear passenger door control switch
3. Simultaneous Passenger door control switch

(CONT)



When the vehicle is running at more than 3km/h, the passenger door holding pressure will be increased to hold the door closed whilst underway.



When the door encounters an obstacle while closing, it will fully open automatically by itself.

## EMERGENCY DOOR CONTROL

### Driver's emergency door control

Driver's emergency door release valve is located on the left hand side under the panel. In an emergency, turn the emergency air release valve on the side of the instrument panel to cut off the air source to the passenger door to manually open the door.



Photo of the emergency air release valve for drivers.




Location of the emergency air release valve for drivers.

### Passenger's emergency door control

To open and close the door in emergency for the passengers, the emergency door release valve is located on the top of the front and rear passenger door. When the door cannot be opened with the passenger door switch, passengers can lift the cover and turn the emergency door release the air on the door, allowing the door to be opened manually.



### External emergency door control

There is an external passenger door emergency control valve which is located on both the external areas of the front and rear doors. In the event you need to open the doors from the outside of the vehicle, simply lift the cover and turn the valve to release the air and open the door manually. In the event the external control is tampered with this alarm  will show up on dash. If so please ensure the external control is returned to its horizontal position.



### Emergency Roof Hatch

The emergency roof hatch is located at the front of the vehicle near the drivers cabin area.

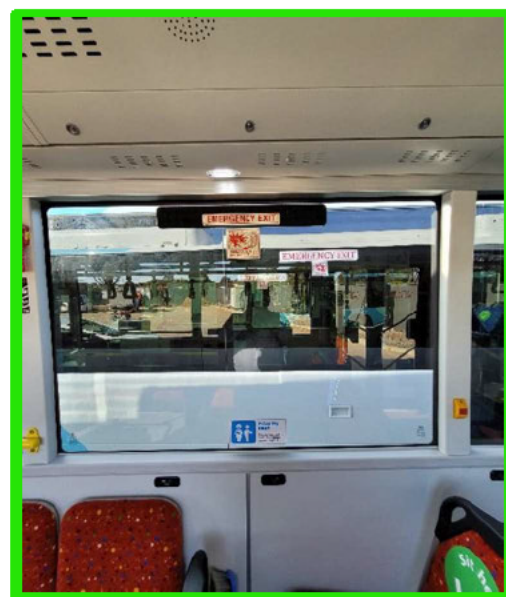


# Emergency Exit Glass

## EMERGENCY EXIT GLASS PROCEDURE

### Emergency Use Only:








Located inside the bus, you will find your emergency hammers. These hammers are designed to break glass on impact to assist in escaping from the vehicle in the case of an emergency. Simply remove the cap and strike the labelled 'Emergency Exit' Glass. The bus has 3 x clearly labelled emergency exit windows, these have provided recessed footsteps outside of the window to allow passengers to safely climb down from the window and out of the vehicle. These hammers are all fitted with safety switches and if removed without requirement you will be notified via an alarm.



# Daily Check list before Operating E12



## DRIVER'S DAILY CHECK LIST

-  Before starting the vehicle, make sure to walk around the vehicle to check if there is any major damage to the general panels and battery compartment area.
-  Make sure the charger gun is disconnected from the vehicle and charging socket compartment door is fully closed.
-  Check the coolant tank to see if the vehicle has sufficient amount of coolant before the operation.
-  Start the vehicle and check for any warning signs or indication lights up on the dashboard.
-  Make sure to check both the low and high voltage battery to make sure the vehicle has sufficient battery to start the operation.
-  Check both air pressure gauges on the dashboard.
-  Try opening and closing all the service doors from driver's console remote switches to check that all doors are functioning normally.



Make sure the socket compartment door and socket lid is closed.

## VEHICLE DRIVING

**Drive:** To put the vehicle in drive press the 'D' on the gear selector, once the vehicle is in drive, it will show on the gear selection indicator (shown below). Release the hand brake and press the accelerator and the bus will begin to move forward.

**Reverse:** To put the vehicle in reverse press the 'R' on the gear selector, once the vehicle is in reverse it will show on the gear selection indicator (shown below). Check your surroundings using your mirrors and cameras. Once satisfied, you may release the hand brake and press the accelerator. The bus will begin to move backwards.



**Short Stop:** For brief stoppages such as waiting at traffic lights, the bus can be parked using the hold brake switch on the dashboard (see the image below for location reference).



For long stoppages and extended stays, it is recommended your put the vehicle in 'N' neutral and apply the park brake.

Before changing gears from drive to reverse and vice versa you must first bring the bus to a stop. When stopped shift to 'N', then press either 'D' or 'R' which will select the chosen gear.

**Eco-driving: Following these tips can reduce power consumption by 20%**

**①. Ensure you accelerate slowly.**

With acceleration, aim to start with a small throttle opening then move into a half throttle opening. Do not press hard on the accelerator pedal. Especially in situations where you are approaching traffic lights, pedestrian crossings etc.

Do not apply the emergency brake when travelling behind a vehicle, this can cause high energy consumption and obvious high risks, use your pedal brake to stay an appropriate distance away. Your pedal brake provides regeneration to your energy system, charging the vehicle whilst being applied. Smooth operation is the best way to ensure optimal travel time out of your electric bus.

**②. Release the accelerator pedal quickly**

E-Bus energy recovery systems ensure that once you have removed your foot from the accelerator it will return quickly. The reason for this is not to waste any energy and help collect energy that can be used to regenerate and charge the battery.

**③. Aim to drive the E-bus at a constant speed and control your highest speed**

During repeated acceleration and deceleration, the vehicle is using a lot of energy. Much like traditional fuel vehicles, if you aim to keep your vehicle at a constant speed this will help to extend battery life. Also remember, driving at higher speeds will consumer more battery power. Be sure to be mindful of the vehicle speed to ensure you are still achieving optimal operating time.

### Use and operation instruction for buses

- ①. Charge the bus immediately after it has finished its operation.
- ②. Do not place the charging station in an open area.
- ③. The economic speed of E-Bus is between 30 - 40 km/h, driving the bus in or near these speed values will extend the traveling distance and reduce power consumption.
- ④. Heavy acceleration is unnecessary and will increase the battery discharge and power consumption. In turn decreasing the travelling distance. Drivers should be mindful and accelerate smoothly to ensure optimal running time.
- ⑤. The traction motor also functions like a retarder. When decelerating the motor will reduce the speed of the vehicle whilst simultaneously regenerating power back to the HV battery.
- ⑥. Never drive the bus overloaded.

## Driving precautions

### Driving across water

Do not submerge the bus in water for any extended period. When driving through water ensure to do so at low speed and continue without stopping. Brakes do not function at full capacity when submerged in water, so do not travel at speed. Once the section of water has been cleared, apply the brake gently to ensure they are dry and adequate prior to resuming regular operation.

### Driving on slopes and hills

We recommend to shift the vehicle into 'L' when the bus is running up a steep incline, slopes or hills etc. This limits the speed to 30km/h but does increase the overall torque.

When stopping for a short time on an incline, you can move directly from the brake pedal to the accelerator when ready to resume. The EBS system will assist the driver by holding the brake for 3 seconds, whilst the driver switches over to the accelerator pedal preventing any roll back.

# Recharging Yutong E12

## CHARGER & CHARGING OPERATIONS

### Safety Instructions

**Please note:** When it comes to charging your vehicle, you must be aware that both the charging station and the charging gun operate at a high voltage. Ensure you exercise precaution when using the charging system. Be aware of your surroundings and only use the charging station for its intended purpose.



### Charging your E12

When charging the E12 ensure all power is off, and the park brake is applied before leaving the vehicle. Once outside the vehicle you may close the driver access/front passenger door by using the button at the front of the vehicle, on the underside of the left-hand wiper arm. Hold this button for 2 seconds to activate. To begin charging your vehicle the first step is to simply open the cover as shown above, remove the charging socket cap. Remove the charging gun from the charger, place the gun into the charging socket on the bus and ensure it is secured firmly in position. If the gun is firmly secured your charging station should automatically start charging the vehicle. Please ensure cables are not a trip hazard before leaving the area.





# E12 series

FULL ELECTRIC | ZERO EMISSION

**MODEL**  
E12

**SEAT CONFIGURATIONS**

1 x drivers suspension seat with lap sash belt & head rest  
44 x fixed metro type seats in cloth 2 door plus 21 standees  
49 x fixed metro type seats in cloth 1 door plus 30 standees

**STANDARD VEHICLE CONFIGURATION**

44 x fixed metro type seats in cloth 2 door plus 21 standees  
Two piece windscreen  
Electric controlled mirrors with heating  
Full electric reverse cycle air conditioning with fixed outlets  
Bonded dark glass to saloon area  
Frame & body panels steel full vehicle electro plating for anti corrosion  
Body skirt panels in aluminium  
3 piece front and rear bumper bars in FRP  
Reverse camera with colour screen  
Integrated audio system with radio, P.A.  
Passenger door system to TS155 spec  
3 destination boards fitted  
7 camera CCTV  
Fully opening easy access front panel

**DIMENSIONS**

Length	12,470mm
Width	2,500mm
Height	3,445mm
Wheel Base	6,300mm
Overhang Front / Rear	2,740mm / 3,430mm
Track Front / Rear	2,050 mm / 1,853 mm

**GROSS VEHICLE MASS**

GVM (Maximum Permissible)	18,000 kg
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**DRIVE SYSTEM**

Engine Arrangement	Single rear mounted
Emission Type	Zero
Drive Motor Manufacturer	Yutong
Drive Motor Model	YTM280-CV9-H
Motor Control System	Yutong
Rate Output	215Kw continuous 350kw peak
Rated Torque	3200Nm
Battery Type	LiFe
Battery Capacity	422Kwh or 350Kwh
Battery management	Yutong
Battery Cooling	Liquid
Charger type	DC
Charge rate	60-230 amp

**TRANSMISSION**

Nil

**INSTRUMENTATION**

State of charge , air pressure, speedometer, door state, next stop indication,

**WARNING SYSTEM**

State of charge, air light & audible, indicator light, hazard light parking brake light, high beam light, door fault

**PROPELLER SHAFT**

2 piece with slip joint  
Forged ends with "U" joint at each end

**REAR AXLE**

Type	ZF AV132
Capacity	11,000 kg
Gear Ratio	6.19:1

**STEER AXLE**

Type	ZF RL85A
Capacity	7,500 kg

**WHEEL & TYRE**

Tyre Size	295/80R 22.5
Wheel	Aluminium 8.25 x 22.5 x 10 stud fixing

**STEERING**

Type	Integral recirculated ball & nut Power assisted
Column	Tilt and telescopic

**SERVICE BRAKE**

Type	Full air
Front	Disc
Rear	Disc
Lining	Non asbestos
Features	ABS, EBS, ASR, ESC
Park Brake	Spring actuated gradual Control valve
Auxiliary	Vehicle regenerative braking

**SUSPENSION**

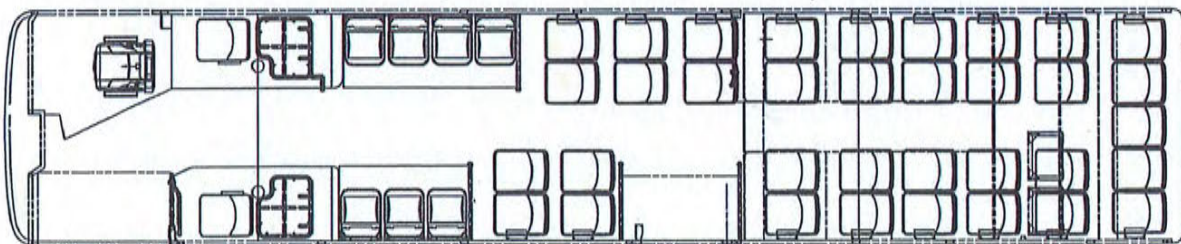
Type	Air suspension with ECAS
Front	2 air bags
Rear	4 air bags
Shocks	2 front 4 rear

**ELECTRICAL SYSTEM**

Alternator	24v charge from high voltage system
Battery	2 x 90 AH / MF

**DRIVER SAFETY**

ESC  
Mobileye advanced driver warning system



Lmp

THE ABOVE SPECIFICATIONS ARE TRUE AND CORRECT AS OF 19-09-2019 AND CAN CHANGE WITHOUT NOTIFICATION. Yutong Bus reserves the right to discontinue or change the models, features, specification, options designs and prices of the products referred to in this brochure without incurring any liability whatsoever to any purchaser or prospective purchaser of any such products. Some of the items herein are optional at extra cost. Consult Yutong Bus for the latest information on models, specification, features, prices options and availability.



ZK 6131HG1 BUS

NAME OF MANUFACTURER: YUTONG BUS CO., LTD.

VIN: LZYTMGCW7R1014046 ENGINE NO. MIV000717C

DIMENSION (L X W X H (MM)): 12470 X 2500 X 3370

FRONT & REAR AXLE LOAD OF MAX. TOTAL WT. 6200kg & 11800kg

PRODUCT NO. 24H45CP-0001 ADR CATEGORY CODE ME

SEATING CAPACITY 45

MAXIMUM TOWING WEIGHT 750kg YEAR OF PROD. 2024

THIS VEHICLE DOES NOT COMPLY WITH ADR 59/00 OMNIBUS ROLLOVER STRENGTH  
MADE IN THE PEOPLE'S REPUBLIC OF CHINA