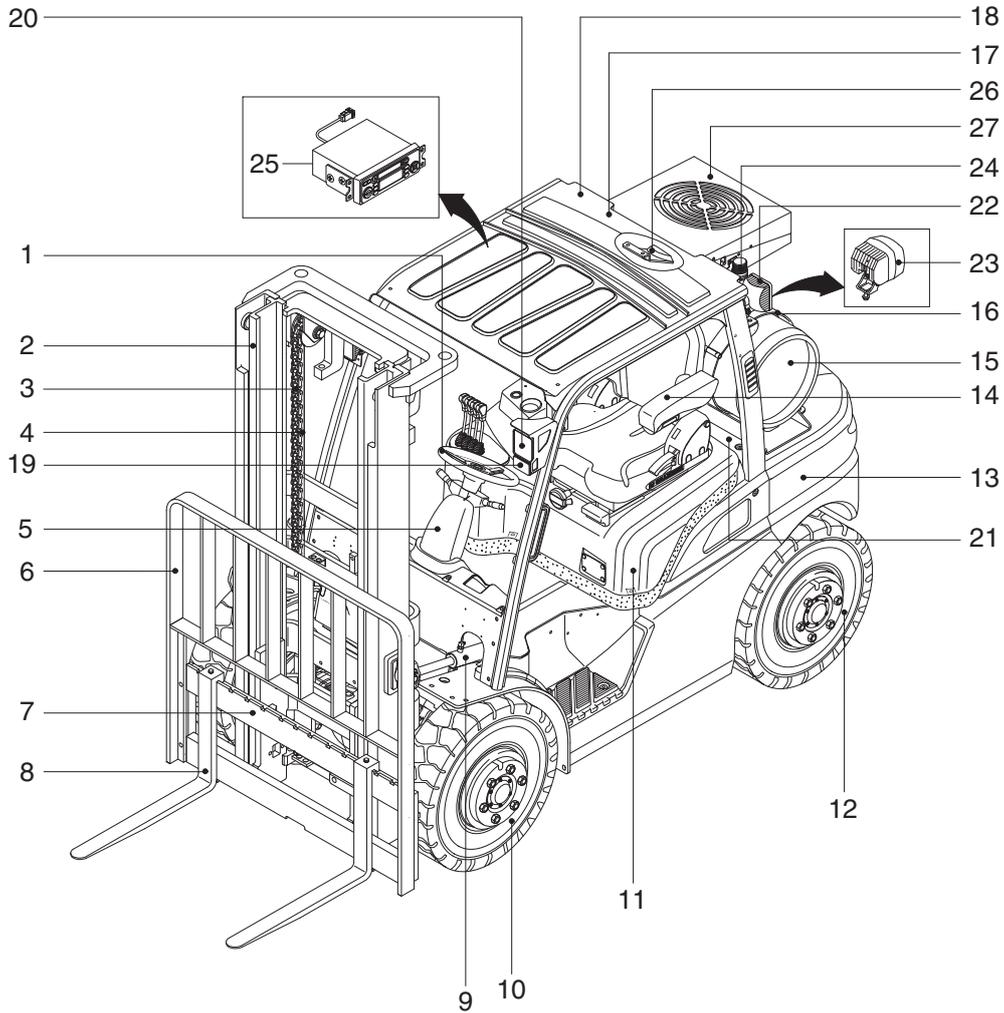


3. KNOW YOUR TRUCK

1. GENERAL LOCATIONS

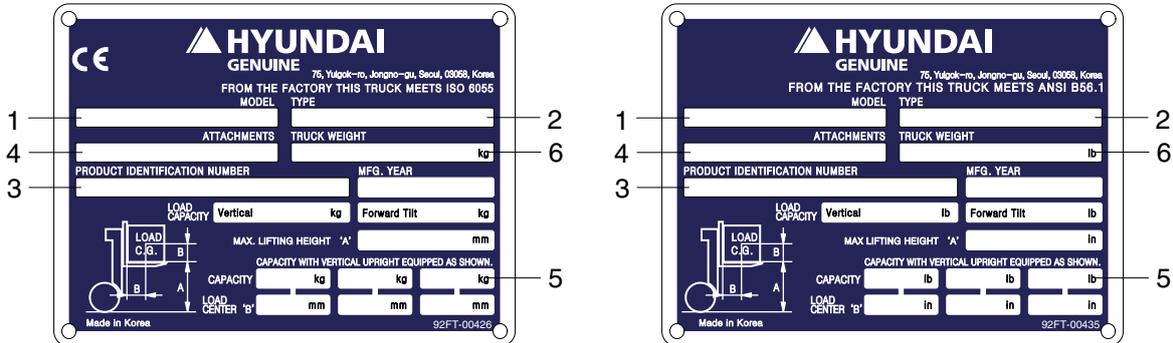


25L9AOM57

- | | | | | | |
|---|----------------|----|-----------------------|----|----------------------------|
| 1 | Steering wheel | 10 | Front wheel | 19 | Turn signal lamp |
| 2 | Mast | 11 | Bonnet | 20 | Head lamp (opt) |
| 3 | Lift chain | 12 | Rear wheel | 21 | Sub bonnet |
| 4 | Lift cylinder | 13 | Counterweight | 22 | Rear work lamp (opt) |
| 5 | Cluster | 14 | Seat | 23 | Blue spot (opt) |
| 6 | Backrest | 15 | LPG tank | 24 | Beacon lamp (opt) |
| 7 | Carriage | 16 | Clamp | 25 | Radio and USB player (opt) |
| 8 | Forks | 17 | Overhead guard | 26 | Rear view camera (opt) |
| 9 | Tilt cylinder | 18 | Rear combination lamp | 27 | Air conditioner (opt) |

2. NAME PLATE AND OPERATOR SAFETY DECAL

1) TRUCK NAME PLATE



(1) Truck model number or registered name

(2) Truck type

The type is indicated a type of the truck such as diesel, LPG or battery.

(3) Truck serial number

An identification number assigned to this particular truck and should be used when requesting information or ordering service parts for this truck from your authorized HYUNDAI dealer. The serial number is also stamped on the frame.

(4) Attachment description (If any installed)

The user must see that the truck is marked to identify the attachment (s), including the weight of the truck/attachment combination and truck capacity with the attachment.

(5) Capacity rating, load center, and lifting height data

Shows the maximum load capacity of this truck with relation to load centers and fork heights (See diagram on plate). Personal injury and damage to the truck can occur if these capacities are exceeded.

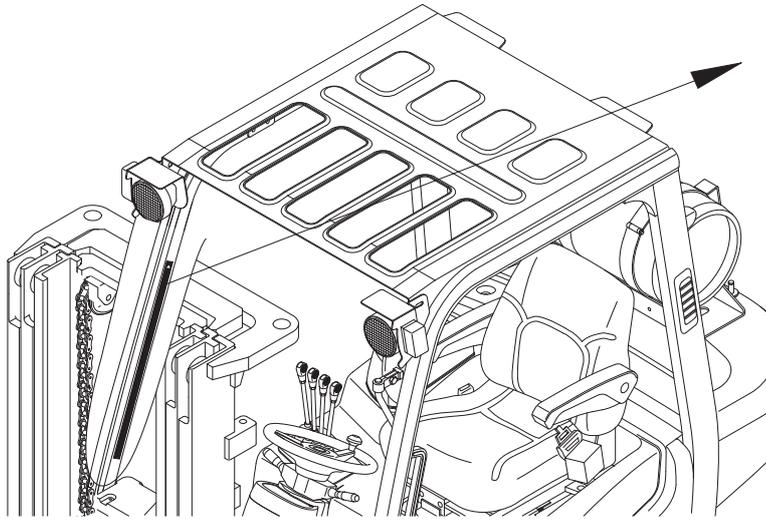
Do not exceed the maximum capacity specified.

(6) Truck weight

The approximate weight of the truck without a load on the forks. This weight plus the weight of the load must be considered when operating on elevators, elevated floors, etc. to be sure they are safe.

▲ Before modifications that affect the stability of safety systems are made written approval from HYUNDAI. This is an OSHA requirement. Contact your authorized HYUNDAI dealer for a new nameplate showing the revised capacity.

2) OPERATOR SAFETY WARNING DECAL



15L7MOM59

▲ Safety and warning decals are placed in conspicuous locations on the truck to remind you of essential procedures or to prevent you from making an error that could damage the truck or possibly cause personal injury. You should know, understand, and follow these instructions. Safety and warning decals should be replaced immediately if missing or defaced (damaged or illegible). Refer to this manual for the location of all decals (page 0-6).

▲ Operator/Tip-over warning decal

This decal is located on the front right inside of the overhead guard stay. Its purpose is to remind the operator that staying in the seat provides the best chance of avoiding injury in the event of a truck-tipping or driving off a dock mishap.

Lift trucks can be tipped over if operated improperly. Experience with lift truck accidents has shown that the driver cannot react quickly enough to jump clear of the truck and overhead guard as the truck tips. To protect operators from severe injury or death in the event of a tip over, it is best to be held securely in the seat. So, please, always buckle up when driving your lift truck.



92HG-00910

25L7A0OM09

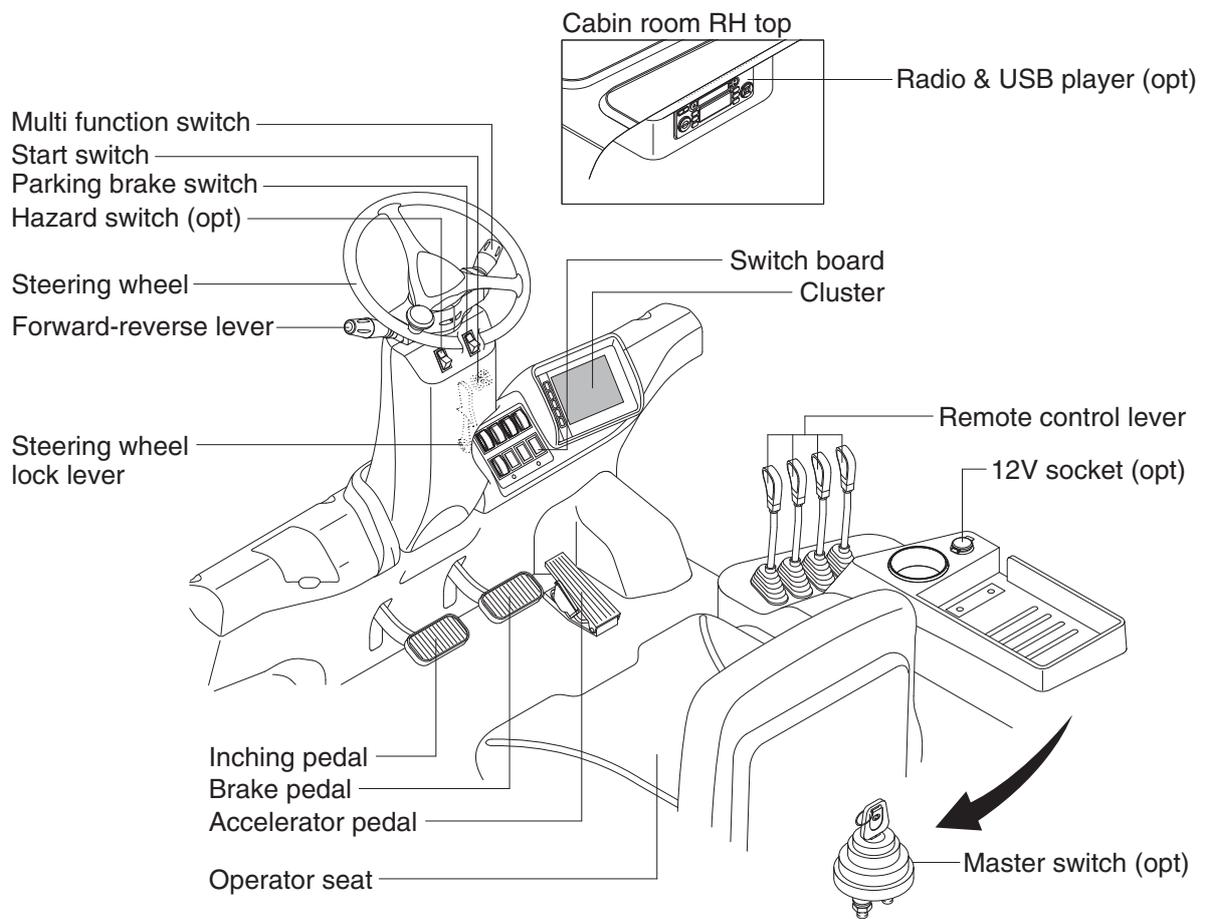
3. CAB DEVICES

1) The ergonomically designed console box and suspension type seat provide the operator with comfort.

2) ELECTRONIC MONITOR SYSTEM

(1) The centralized electronic monitor system allows the status and conditions of the truck to be monitored at a glance.

(2) It is equipped with a safety warning system for early detection of truck malfunction.



25L9ACD01

4. CLUSTER

1) STRUCTURE

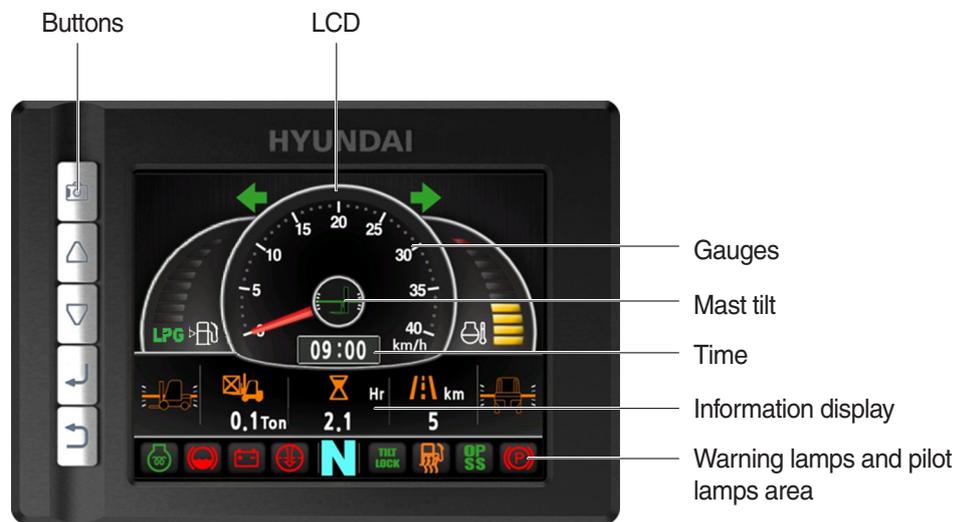
Like following figure, cluster is consisted of LCD and buttons. LCD will indicate the operation and abnormal status of truck to the driver in order to use and maintenance.

Also, LCD allows to set and indicate the various modes, monitoring, and gadgets.

※ The cluster installed on this truck does not entirely guarantee the condition of the truck.

Daily inspection should be performed according to chapter 7. **PLANNED MAINTENANCE AND LUBRICATION.**

※ When the cluster provides a warning immediately check the problem, and perform the required action.



25L9ACL001

2) GAUGE

(1) Operation screen

Operating screen will be displayed if turn on the start switch.



- 1 Speed meter
- 2 Fuel gauge

- 3 Coolant temperature gauge
- 4 Clock

(2) Speed meter

- ① Display the trip speed of truck.
- ② Speed unit is km/h or mile.
- ※ **Speed unit can be set in the speed unit menu of display set up at page 3-36.**



25L9ACL002

35D9SCL003K

(3) Fuel gauge



25L9ACL004

- ① Display the remains of fuel tank.
- ② If the gauge displays in the red zone, or warning lamp  will be lit up in red, please refuel.

(4) Coolant temperature gauge



35D9SCL005K

- ① Display the coolant temperature.
 - White zone : 40 ~ 120 °C (104~248 °F)
 - Red zone : Over 120 °C (248 °F)
 - Warning lamp on : Over 115 °C (239 °F)
- ② If the gauge displays in the red zone, or warning lamp  is on, please stop the engine and inspect the coolant system.

(5) Clock



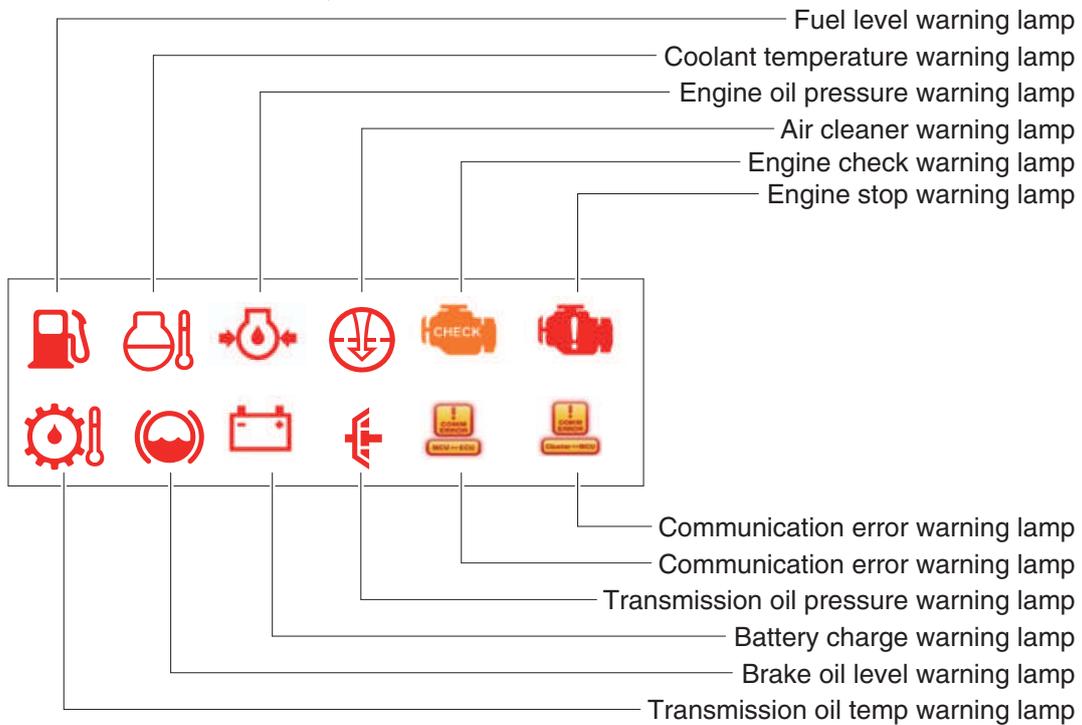
35D9SCL006K

- ① Display current time.
- ② You can enter current time at display Set Up > Time Set Up menu.

3) WARNING LAMPS



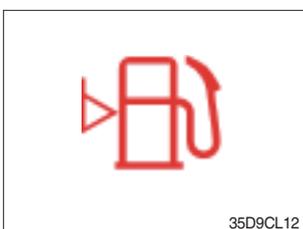
Warning lamps



25L9ACL007

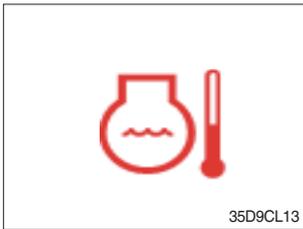
※ Warning and pilot lamp will display only items that were set as ON, and all warning and pilot except fuel level warning and coolant temperature warning will be displayed in order from the left of screen. And directional pilot lamp will display at the center.

(1) Fuel level warning lamp



- ① Warning lamp will be displayed if fuel level is low.
- ② Please refuel immediately if the lamp is ON.

(2) Coolant temperature warning lamp



- ① Coolant temperature warning will be lit up when temperature is over 115 °C (239 °F).
- ② If the warning lamp is on continuously, please inspect the coolant system.

(3) Engine oil pressure warning lamp



- ① This warning lamp will be lit up when engine oil pressure is low.
- ② Stops the engine immediately if the warning lamp is lit up.
- ③ Please check the engine oil.

(4) Air cleaner warning lamp



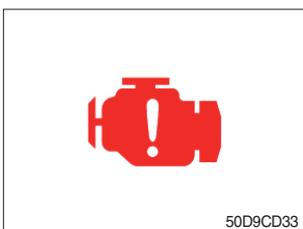
- ① This warning lamp is lit when air cleaner filter is clogged up.
- ② Please clean up or replace the filter.

(5) Engine check warning lamp



- ① This warning lamp will be lit up if the engine ECU sends a failure code to cluster or receives the signal.
- ② Check the failure code of cluster.

(6) Engine stop warning lamp



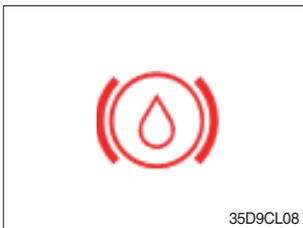
- ① If the lamp lights ON, stop the engine immediately and check the engine.
- ※ **Please contact your Hyundai service center or local dealer.**

(8) TM oil temperature warning lamp



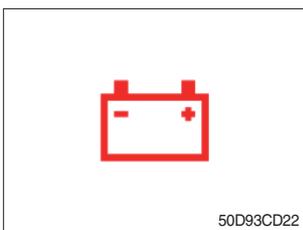
- ① Transmission oil temperature warning is consisted of two indications.
 - 110 °C (230 °F) or higher : Amber is light up
 - 120 °C (248 °F) or higher : Red is flashing
- ② When this lamp light up during operation, stop the engine and check the truck.

(9) Brake oil level warning lamp



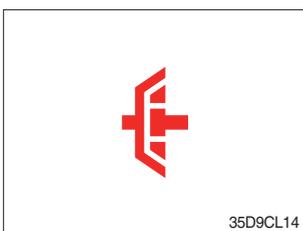
- ① Warning lamp will be displayed if brake oil is low of reservoir tank.
- ② Please refill immediately if the lamp is ON.

(11) Battery charge warning lamp



- ① This warning lamp is lit when battery charging voltage is low.
- ② Please inspect the battery charging circuit if the warning lamp is lit.

(12) T/M oil pressure warning lamp



- ① Warning lamp will be displayed if transmission oil pressure is not enough.
- ② The lamp also will be displayed while inching operation.
- ③ Please check the transmission when the lamp is displayed without inching operation.

(13) Communication error warning lamp



- ① This warning lamp will be lit up if the communication between MCU and ECU is fail.
- ② Please check the communication line if the warning lamp is lit up.

(14) Communication error warning lamp

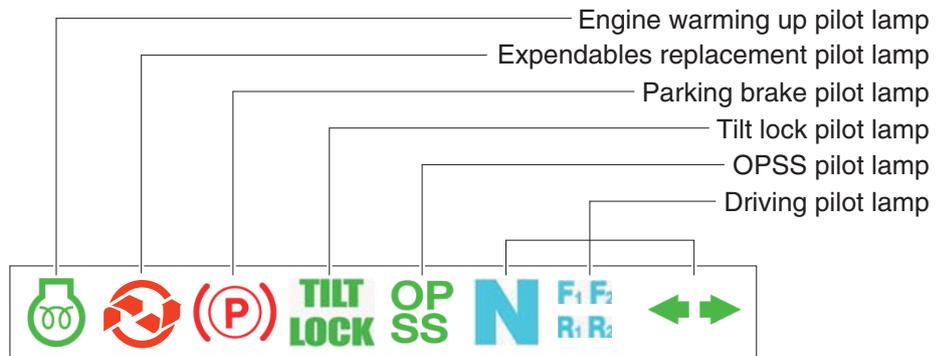


- ① This warning lamp will be lit up if the communication between MCU and cluster is fail.
- ② Please check the communication line if the warning lamp is lit up.

4) PILOT LAMPS



Pilot lamps



25L9ACL008

※ Warning and pilot lamps will display only items that were set as ON, and all warning and pilot except turning pilot lamp and driving pilot lamp will be displayed in order from the left of screen.

(1) Engine warm-up pilot lamp



- ① The truck senses the engine coolant temperature and warms-up engine when needed. (coolant temperature < 0 °C).
- ② When it is happening, the indicator lamp is ON.

(2) Expendables replacement pilot lamp



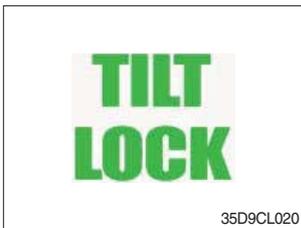
- ① Light up if expendables which must be replaced are exist.
- ② The pilot lamp will light up only 3 minutes since start switch ON, and then light OFF.
- ③ Please check the expendables management list in maintenance menu.

(3) Parking brake pilot lamp



- ① Light up when parking brake is locked.

(3) Tilt lock pilot lamp



- ① The Indicator lamp will be lit up if the tilt lock switch (optional) is entered.
- ② Tilt action will be limited if this Indicator lamp is lit up and the mast is located at 90 degrees.

(4) OPSS pilot lamp



- ① Light up if driver leave seat during operation.
- ② Truck driving and control will be blocked if lamp is lit up.
- ※ Please refer to page 0-9 for details.

(5) Driving pilot lamp

① Neutral



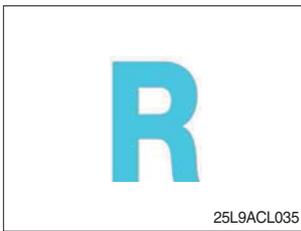
- a. This pilot lamp will be lit up when direction lever is located in neutral.

② Forward



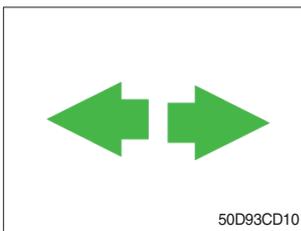
- a. This pilot lamp is displayed if the forward gear is selected.
- b. Forward gear will be displayed as **F**.

③ Reverse



- a. This pilot lamp is displayed if the reverse gear is selected.
- b. Reverse gear will be displayed as **R**.

④ Right or left turning pilot lamp



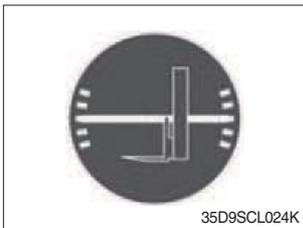
- a. This pilot lamp will flash if turns on the right or left turn signal.

5) INFORMATION DISPLAY



25L9ACL023

(1) Mast front/rear tilt (option)



- ① Display the real time tilt of mast.

(2) Vehicle front/rear tilt



- ① Display the front/rear tilt of vehicle in real time.
 - Stop : Tilt angle is higher than 2.3° then the red warning symbol.
 - Driving : Tilt angle is higher than 10.2° then the red warning symbol.

(3) Vehicle left/right tilt



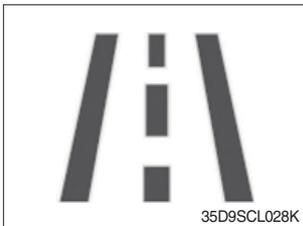
- ① Display the left/right tilt of vehicle in real time.
 - Stop : Tilt angle is higher than 3.4° then the red warning symbol.
 - Driving : Tilt angle is higher than 20.8° then the red warning symbol.

(4) Load weight (option)



- ① Display the load weight.
- ② Screen will display blurry if the weight sensor has not been mounted.

(5) Total trip distance

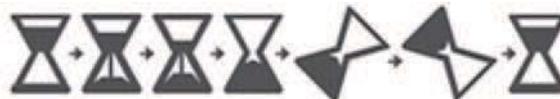


- ① Display total trip distance of the truck..
- ② Unit of distance is kilometer.

(6) Operation time



- ① Display the used time of the truck..
- ② Icon will be changed as follow if starts ignition.



35D9SCL030K

(7) Explanation of warning lamp and pilot lamp



Explanation of selected warning lamp or pilot lamp

Selected icon

25L9ACL031

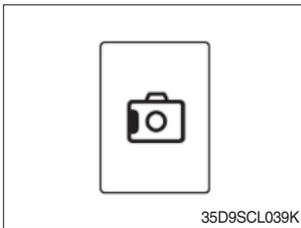
- ① Explanation will be displayed if press the arrow (refer to page 3-17) while warning lamp or pilot lamp is ON.
- ② Explanation for warning lamp or pilot lamp that are shown on the screen will be displayed if press the arrow continuously.

6) BUTTONS

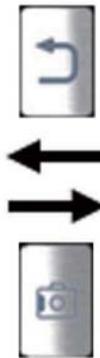


25L9ACL038

(1) Camera

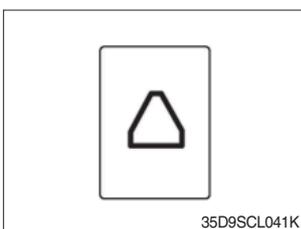


- ① This switch displays rear camera images. (if the camera is mounted)



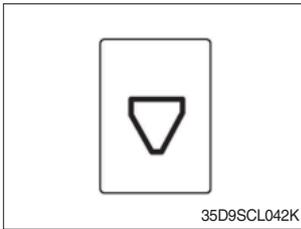
25L9ACL040

(2) UP/Left



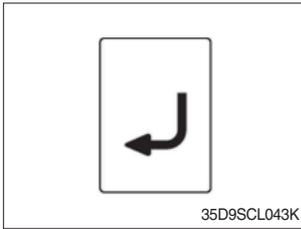
- ① This switch is used to move upward or leftward in menu or increase the value.

(3) Down/Right



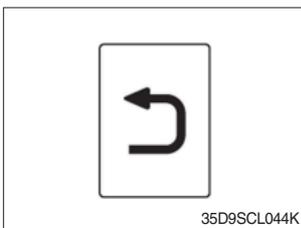
① This switch is used to move downward or rightward in menu or decrease the value.

(4) Select



① This switch is used to enter into the menu or to select.

(5) Cancel (ESC)



① This switch is used to cancel or move to upper menu.



25L9ACL045

7) MAIN MENU



25L9ACL046

A menu consists of main menu and sub-menu.

(1) Structure

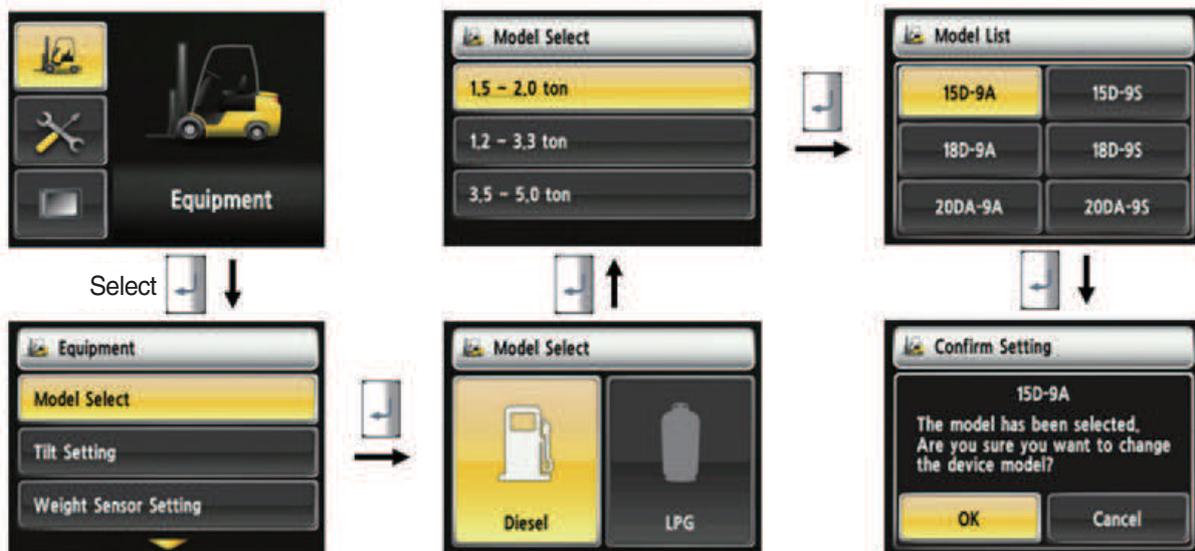
No	Main menu	Sub menu	Explanation
1		Model select Vehicle tilt Initialize Weight sensor setup Ignition control setup Camera setup Auto-shift speed setup DCSR speed setup Vehicle max speed limit MCU Cluster information	Diesel, LPG Vehicle tilt Initialize Enter the cylinder cross section area , Adjust load weight, Weight display setup Ignition control, Change password Interoperate with reverse gear 1st gear-> Switching speed to 2nd gear, 2nd gear -> Switching speed to 1st gear DCSR On, Block driving speed, Restore driving speed Maximum speed limitation MCU/Cluster Information
2		Failure History Expendables management I/O Information	Current engine failure, Engine failure history Change oil and filter replacement cycle Analog Input, Digital input/output
3		LCD Brightness Time Setup Unit Setup Language Setting A/S Contact ESL password Maintenance management	Automatic, Manual Clock Speed, Weight, Temperature, Pressure, Date type Korean, English Change A/S contact E/G starting password contact Maintenance parts management

(2) Model select (a required setting)

- ※ This is a required setting. Some functions may not be worked properly if you do not select the model.
- How to check the Model Select (Check under the start switch ON status)



25L9ACL070



· How to select the model

1. Device setup > Model select
 2. Please select the fuel type.
 3. Please select the vehicle weight level.
 4. Please select the exact model name.
 5. Selection will be cancelled if press the cancel button or ESC switch.
 6. Check the phrases would be disappeared in the main screen.
- ※ To use full function of vehicle, exact model must be selected.



35D9SCL07



25L9ACL071

(3) Initialize vehicle tilt (a requid setting)

· How to check the "Initialize Vehicle Tilt" (Check under the start switch ON status)

1) Vehicle that has not applied the mast angle sensor

2) Vehicle that has applied the mast angle sensor



25L9ACL072



25L9ACL048

· Initialize vehicle tilt

1. The tilt sensor has already been initialized when deliver the vehicle from factory.
2. Initialize vehicle tilt if the tilt sensor figure or vehicle tilt is not horizontal in the flatland.
Vehicle set up > Initialize vehicle tilt
3. You must set tilt in the flatland since this is a horizontal set up.
4. If tilt sensor for mast is mounted (optional), locates the mast vertically.
5. Mast maximum angle depends on the vehicle.

· **Check functions**

(1) Check the real time operation by changing angles of vehicle tilt and mast tilt,

(2) Auto-leveling (option)

- ① Tilt mast inward or outward.
- ② Start tilting mast toward its vertical position, pushing the auto tilt leveling switch.
- ③ Check if the mast stops traveling when it becomes vertical to ground.

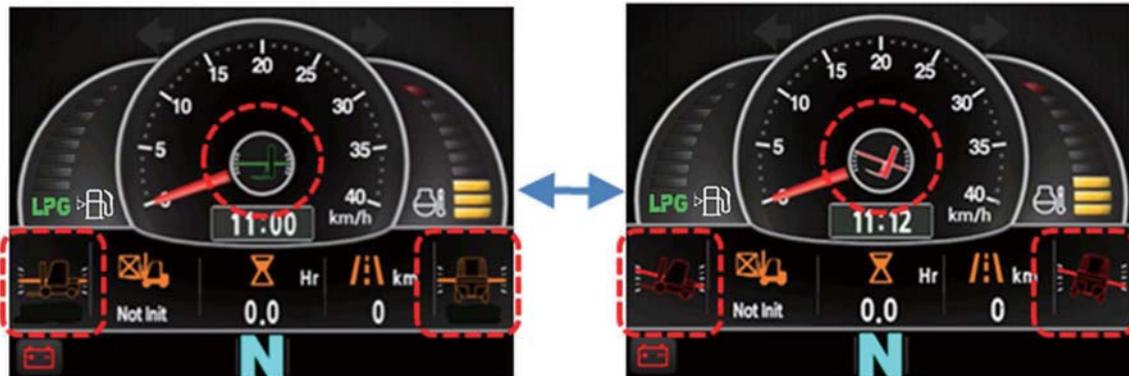
(3) Front/Rear Tilt Warning (red)

- ① Stop : $\pm 2.3^\circ$ (1.5 tons~5.0 tons)
- ② Driving : $\pm 10.2^\circ$ (1.5 tons~5.0 tons)

(4) Left/Right Tilt Warning (red)

- ① Stop : $\pm 3.4^\circ$ (1.5 tons~5.0 tons)
- ② Driving

Vehicle Weight	Warning Angles (Red)
1.5 tons~2.0 tons	$\pm 20.3^\circ$
2.2 tons~3.3 tons	$\pm 20.8^\circ$
3.5 tons~4.5 tons	$\pm 24.2^\circ$
5.0 tons	$\pm 28.0^\circ$



25L9ACL073

(4) Weight sensor set up (optional)

· How to check the "Weight Sensor Setting" (Check under the start switch ON status)

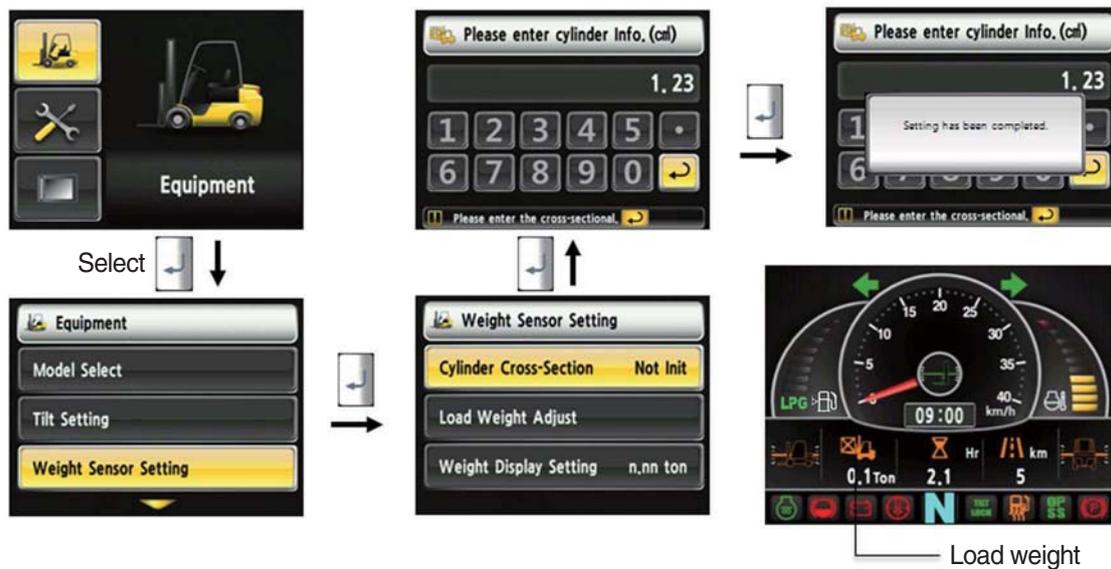
1) Vehicle that has not applied the weight sensor



2) Vehicle that has applied the weight sensor (not set)



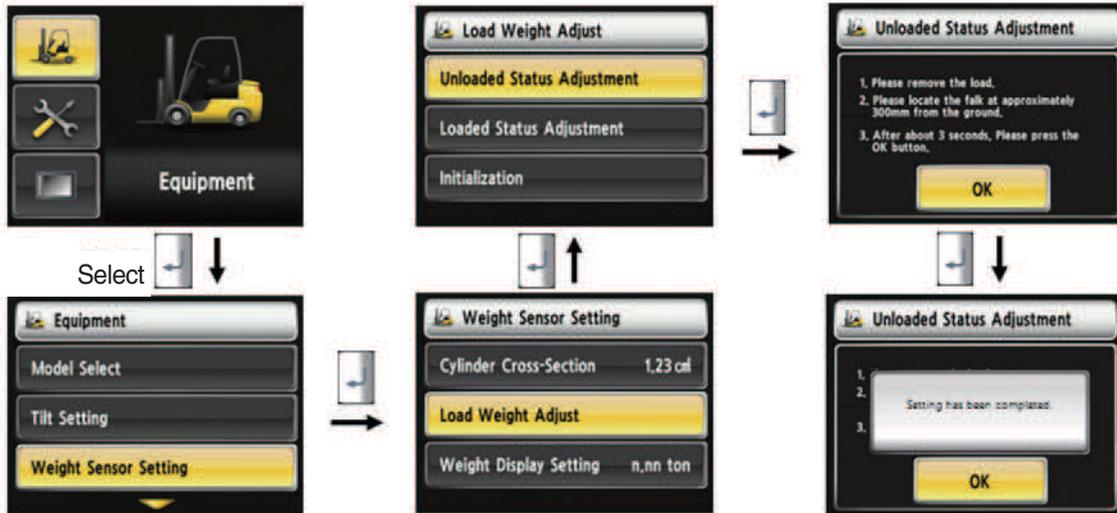
25L9ACL074



25L9ACL049

· How to set weight sensor

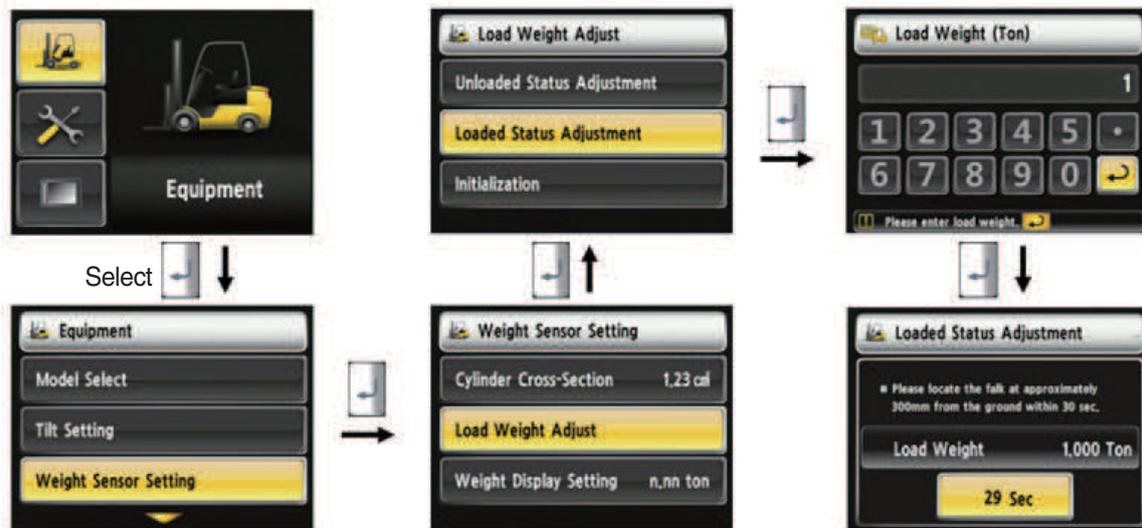
1. The weight sensor has already been set when deliver the vehicle from factory.
2. Device setup > Weight sensor setup
3. There are three ways to setup. (unload, load, initialization)
4. A cylinder cross sectional area value will be displayed in initial screen, please enter the cross sectional area using \triangle ∇ shift and \rightarrow select button if there are changes.
5. Please finish setup using \rightarrow enter button when input is done.



35D9SCL050

· **How to set weight sensor (unload)**

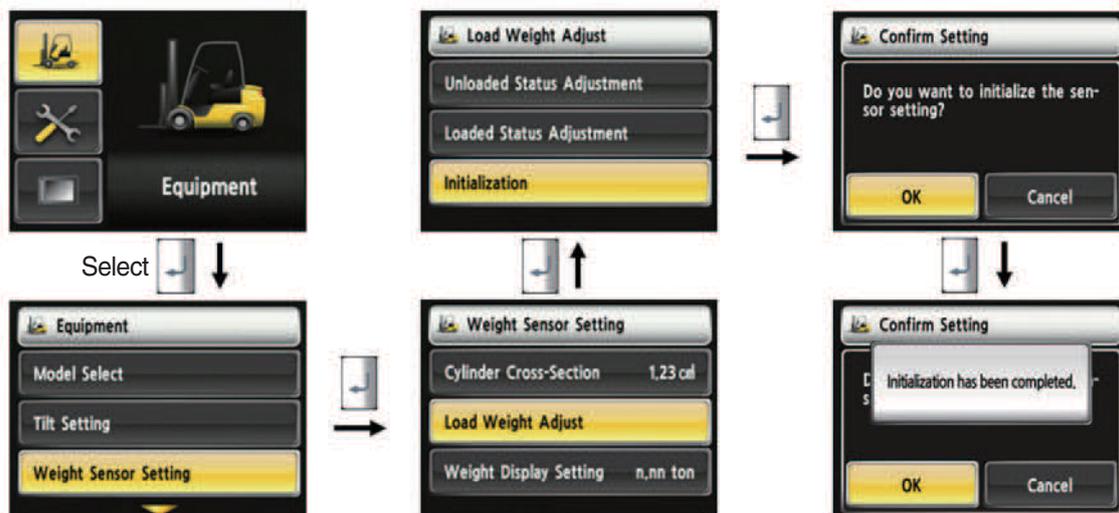
1. Device setup > Weight sensor setup
2. The way to adjust the no-load weight is as follow
3. First, please select the no-load adjust.
4. Wait 3 seconds after lifting no-load fork approximately 30 cm from the ground level, then press OK button.



35D9KCL051

· **How to set weight sensor (load)**

1. Device Setup > Weight Sensor Setup
2. The way to adjust the load weight is as follow
3. First, please select the load adjust.
4. Please enter load weight.
- ※ **Must be prepared to lift up by locating the load on the fork before enter the weight.**
5. Please locate the loaded fork approximately 30 cm from the ground level.
- ※ **MCU recognizes the weight automatically by detecting the pressure change.**
- ※ **Must be performed only the load lift task within 30 seconds.**
- ※ **Accurate weight value is not recognized if other pressure changes that are occurred besides salvage work.**
- ※ **Re-perform the "Load/No-Load Adjustment" if the measurement malfunction is occurred.**
6. If set is completed, the screen will be switched automatically.
7. Please proceed the operation within 30 seconds.
8. Operating will be cancelled automatically if the time is elapsed longer than 30 seconds

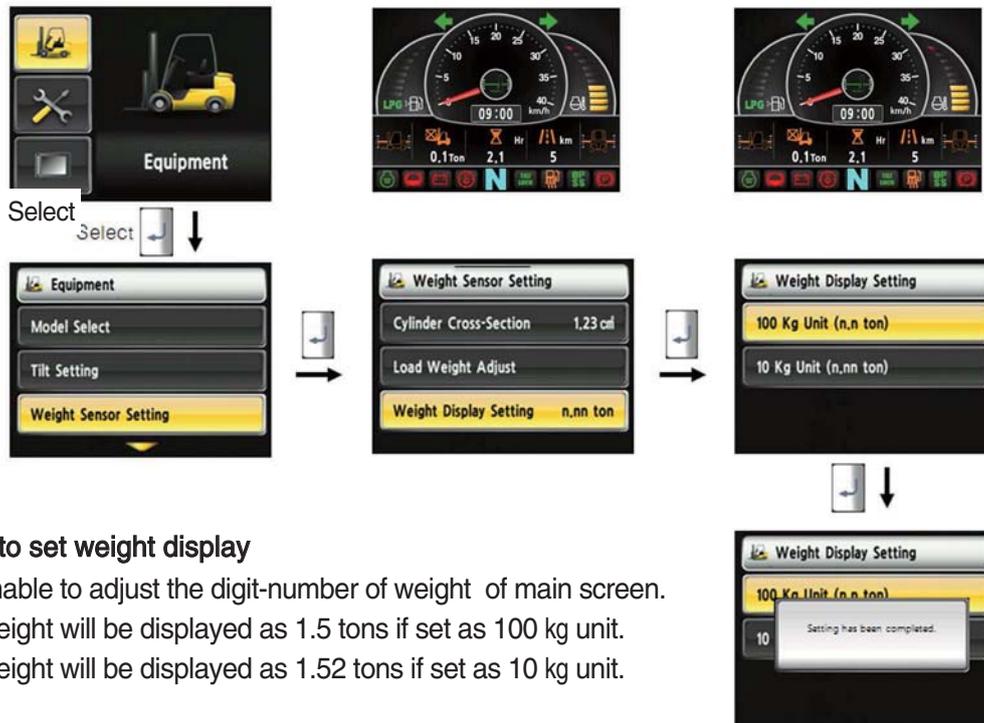


35D9KCL052

· **How to set weight sensor (initialization)**

Initialize the all values of "No-Load Adjustment" and "Load Adjustment" that were entered previously (Cylinder cross-sectional area is not initialized.)

(5) Weight setup

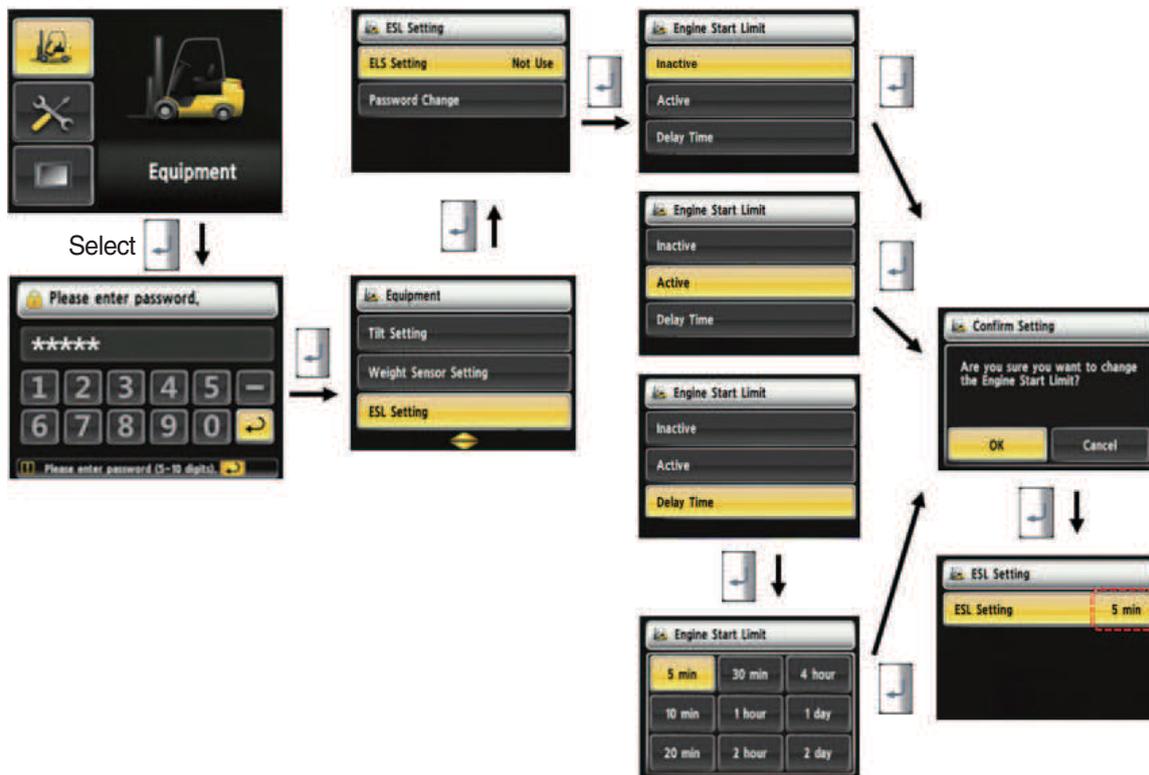


How to set weight display

1. Enable to adjust the digit-number of weight of main screen.
2. Weight will be displayed as 1.5 tons if set as 100 kg unit.
3. Weight will be displayed as 1.52 tons if set as 10 kg unit.

25L9ACL053

(6) Startup Control Setting (Standard) : Default is "Not Use"



35D9KCL054

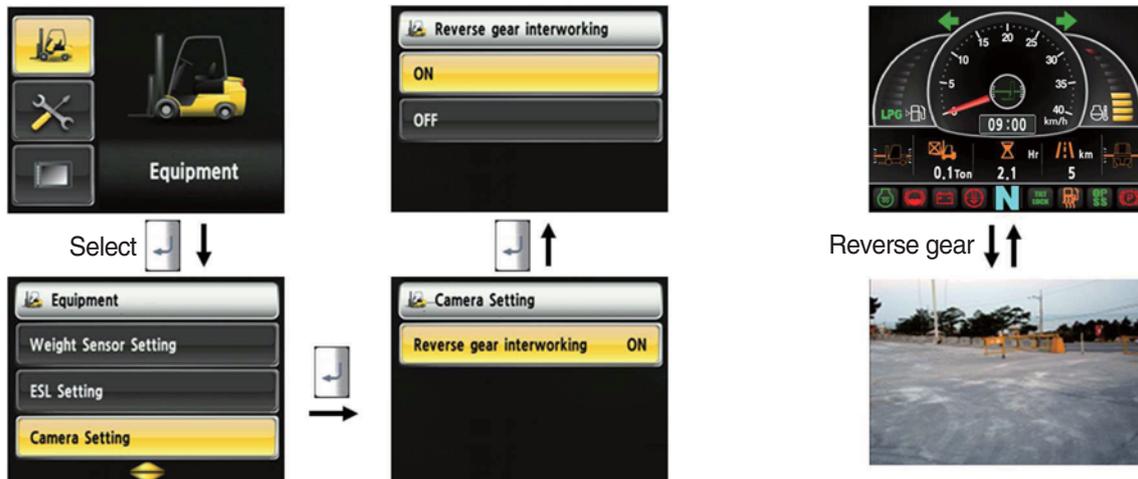
How to set ESL setting

1. Device Setup > ESL setting
 2. Password request screen will be displayed if you select the menu. Default password is "00000".
 3. Password length must be 5~10 digits.
 4. Next step is allowed only if password is authenticated.
 5. Check functions
 - ① Set the mode as active and start switch OFF.
 - ② Upon start switch ON, the password screen pops up and starting is prohibited until the right password has been offered.
(But, driver still can start the vehicle if starts within 10 seconds from start switch OFF)
 - ③ Set the mode as 5 min of delay time and start switch OFF.
 - ④ check if vehicle can start within 5 min and start switch OFF.
 - ⑤ check if vehicle requests password after 5 min.
- ※ **Start switch ON screen (When startup control mode is ON)**



35D9KCL075

(7) Camera setup

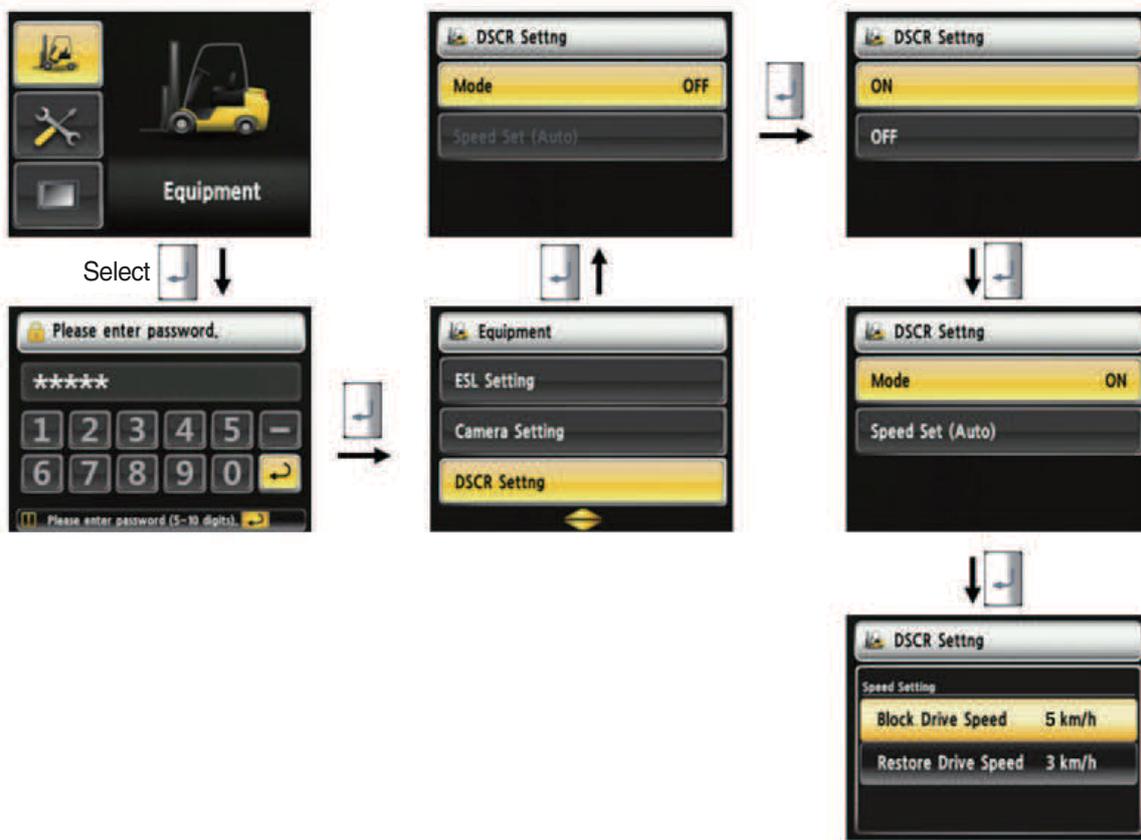


25L9ACL056

· How to set camera

1. Device setup > Camera setup
2. After set the reverse gear interoperation as ON, the screen will be changed from main screen to camera mode if put gear into reverse, and if the gear is changed, screen will be back to the main screen.

(8) DCSR Setup (standard)



35D9KCL058

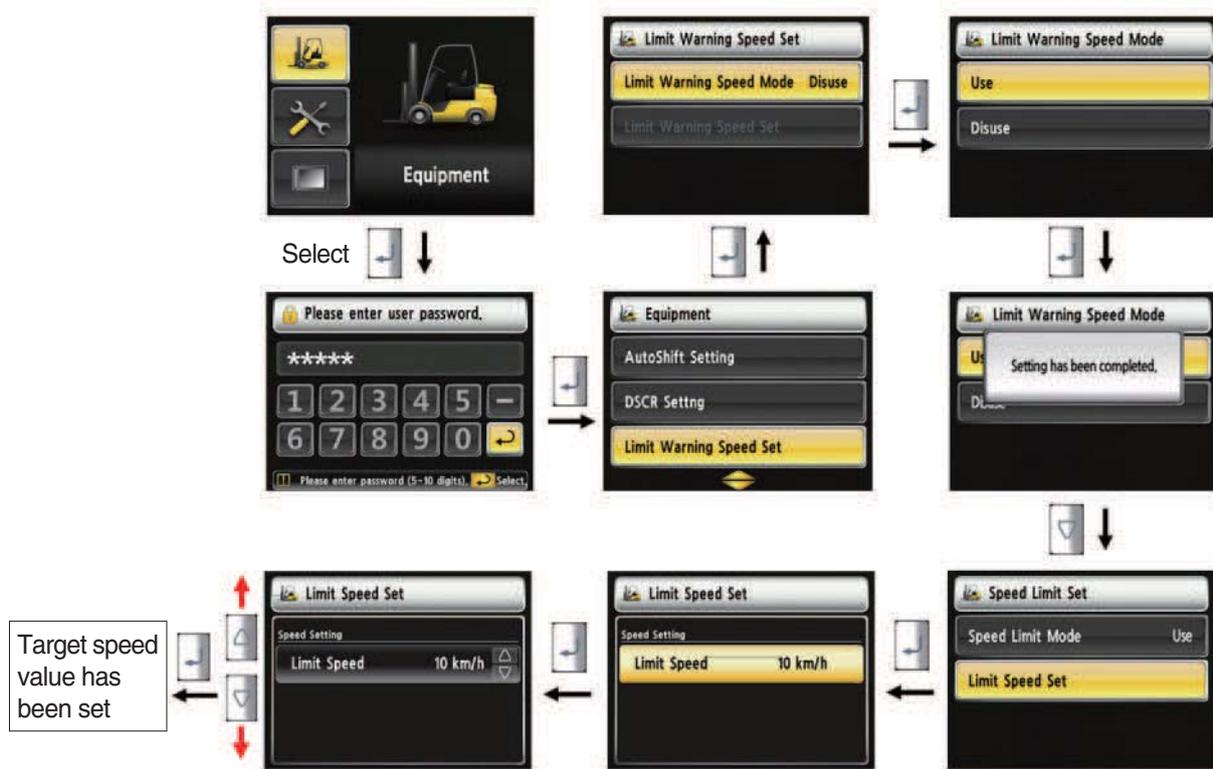
How to set DCSR

1. Device setup > DCSR setup
2. User password is required in order to set this function.
3. Set the mode ON. Below is how this feature functions.
4. If you are driving at over the block drive speed and then change gear from forward to reverse (or reverse to forward), the gear stays as neutral until the vehicle reaches the restore drive speed.
5. The car changes direction and starts to travel.

※ **DCSR : Direction change shock relief**

※ **Restore drive speed cannot be set over the block drive speed.**

(9) Limit warning speed set



22D9ECL059

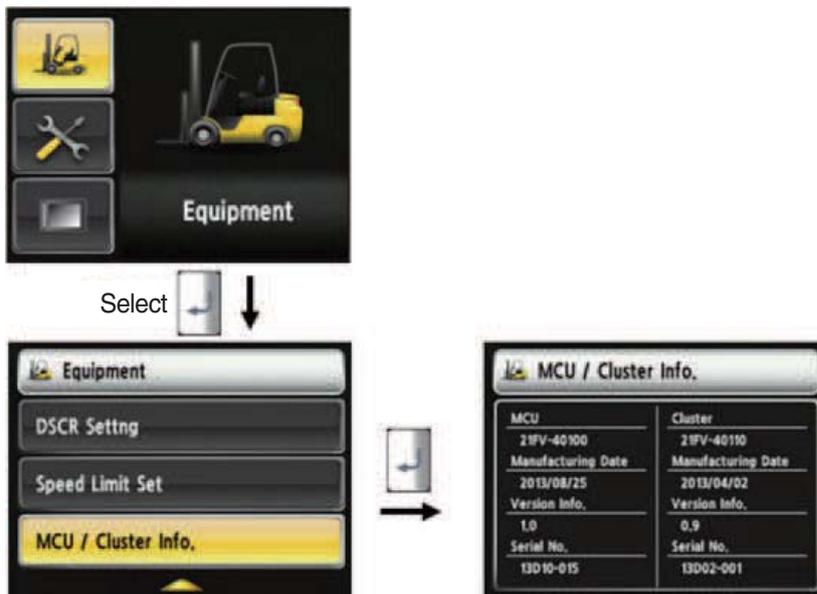
How to set limit warning speed

1. Equipment > Limit warning speed set.
2. User password is required in order to set this function.
3. The default setting is off with the speed of 10 km/h.
4. The speed setting range is 2~25 km/h.
5. If the vehicle drives over the set speed, the warning lamp shows up and buzzer rings.



25L9ACL060

(10) MCU/Cluster information

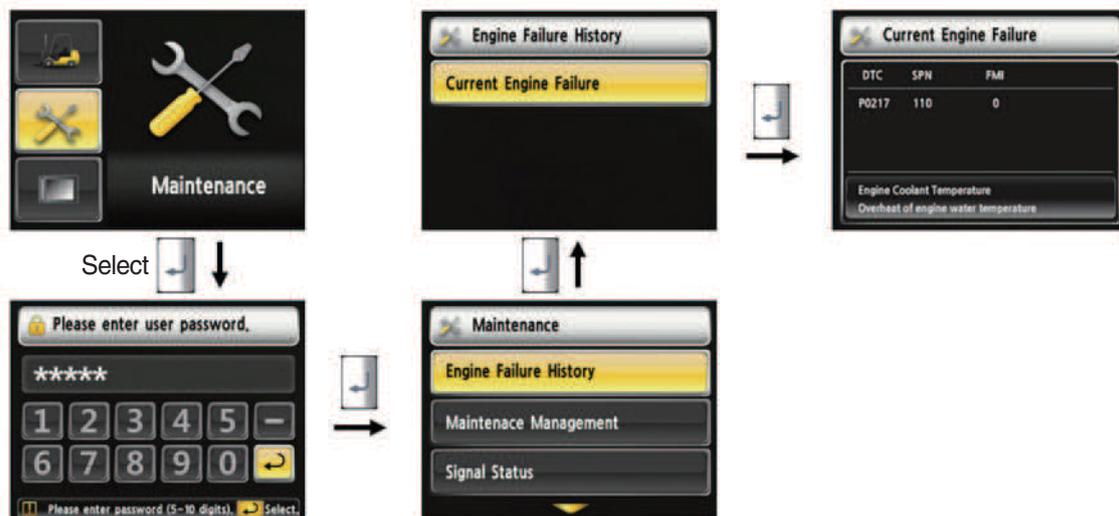


35D9SCL060

· MCU / Cluster information

1. Device Setup > MCU/Cluster information
2. MCU, manufactured date and version of cluster, and serial number will be displayed.

(11) Engine Failure History



35D9KCL078

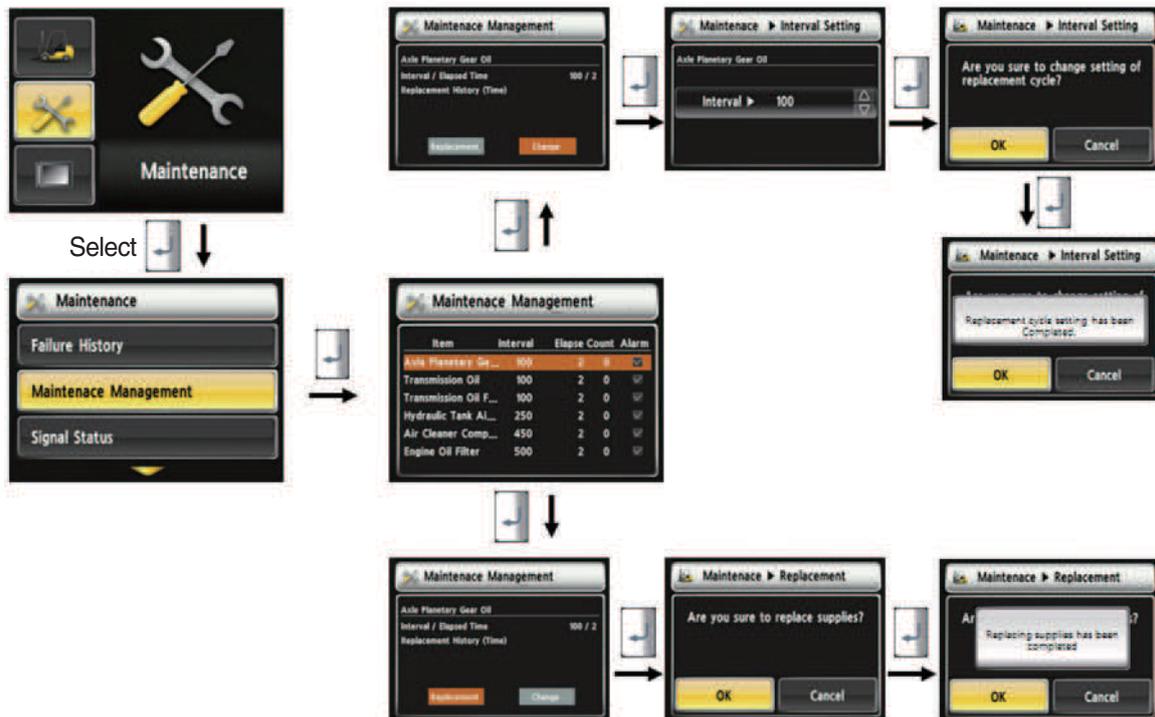
· Engine failure history

1. Device Setup > Engine failure history
2. Device that has an error code among the engine.

(12) Expendables replacement management



25L9ACL079

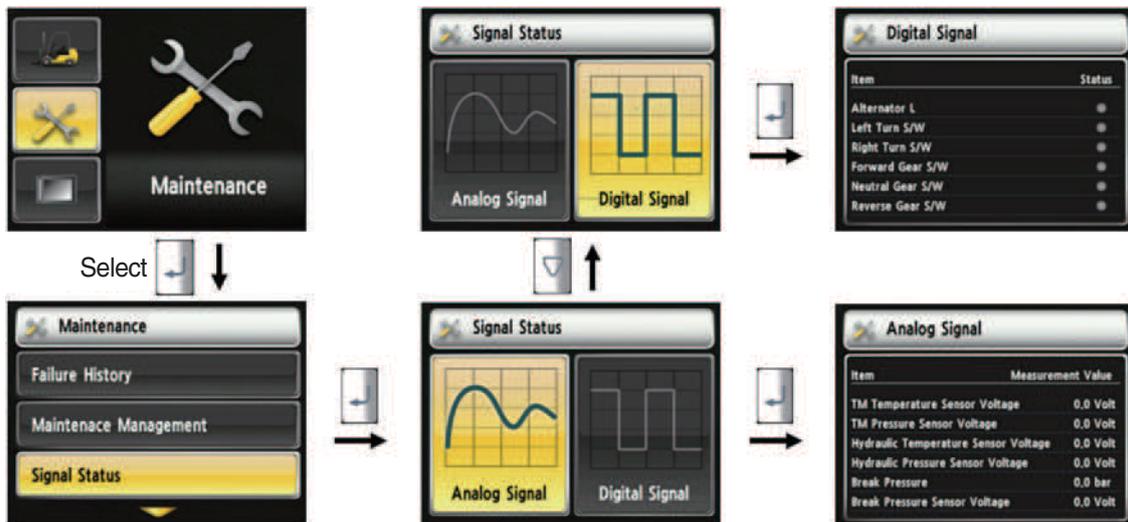


35D9SCL061

How to replace expendables

1. Device setup > Expendables management
2. If the expendables replacement cycle has been passed, alarm will be displayed as ON.
3. Press the "Expendables replacement" if replaced the expendables.
4. Information about recent replacement (max. 9) will be displayed.
5. If you want to change the cycle, please press the "Change cycle" button.

(13) I/O Information

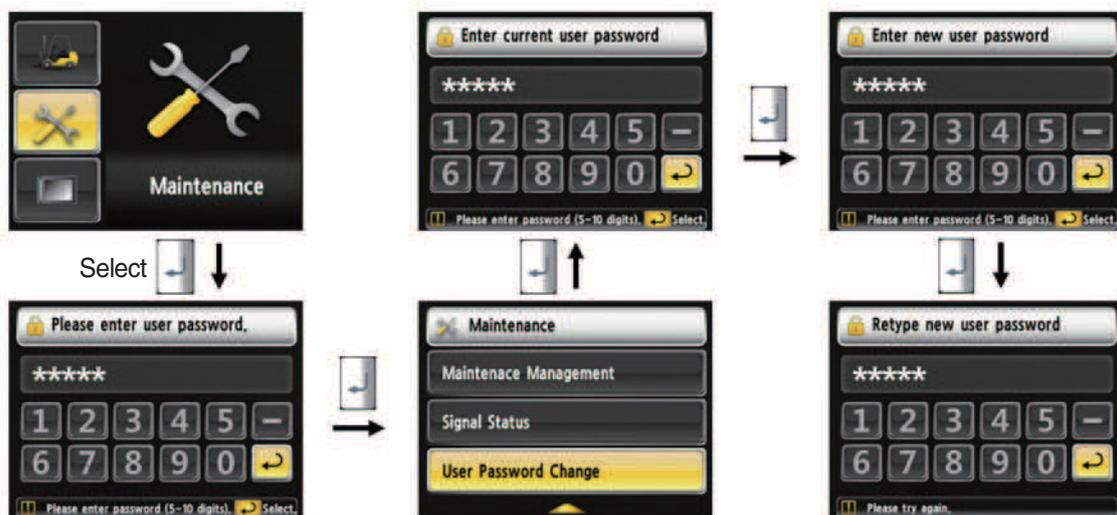


35D9SCL062

· How to set I/O information

1. Maintenance > I/O information
2. I/O information can be classified as two signals. Analog signal can see the numeric data. Digital signal can indicate only ON/OFF.
3. User can change the cycle.

(14) User password change

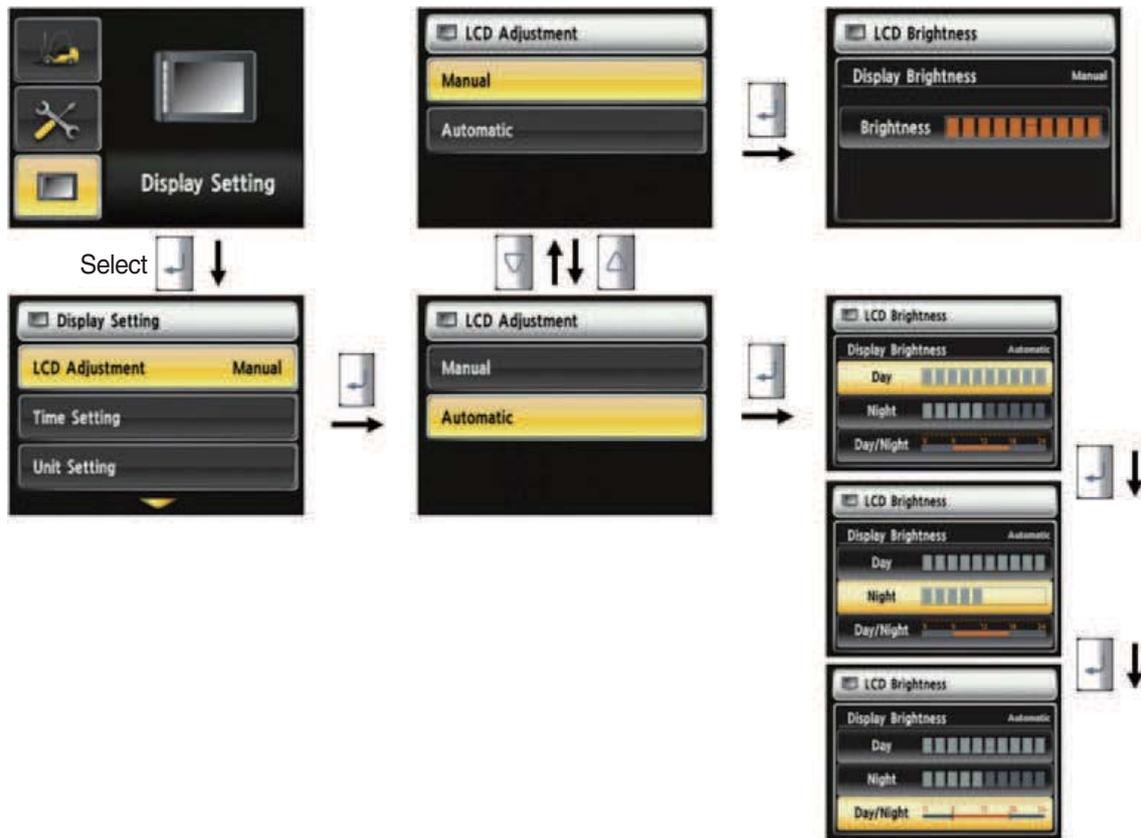


35D9KCL080

· How to change "User Password"

1. Device setup > User password set up
2. Change password
3. This function is to allow to change password from default password to user defined password.
4. Password length must be 5~10 digits.
5. Since, if you forget the password, you must request the A/S, do not forget the password.

(15) LCD brightness

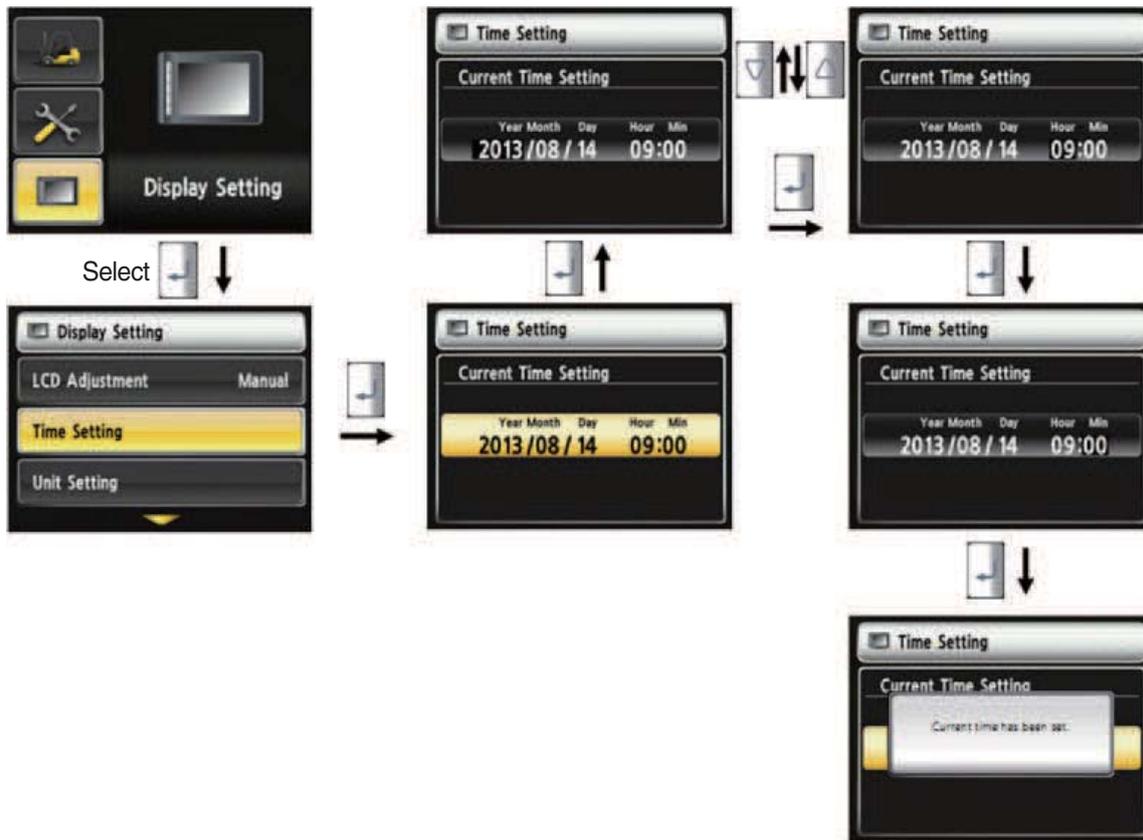


35D9SCL064

· How to set LCD brightness

1. Display > LCD brightness
2. LCD brightness has two options. Automatic mode and manual mode.
3. Manual mode always keeps the selected brightness.
4. Daytime brightness : 100%, Nighttime brightness : 50%, Daytime/Nighttime time zone : 06~18

(16) Time setup

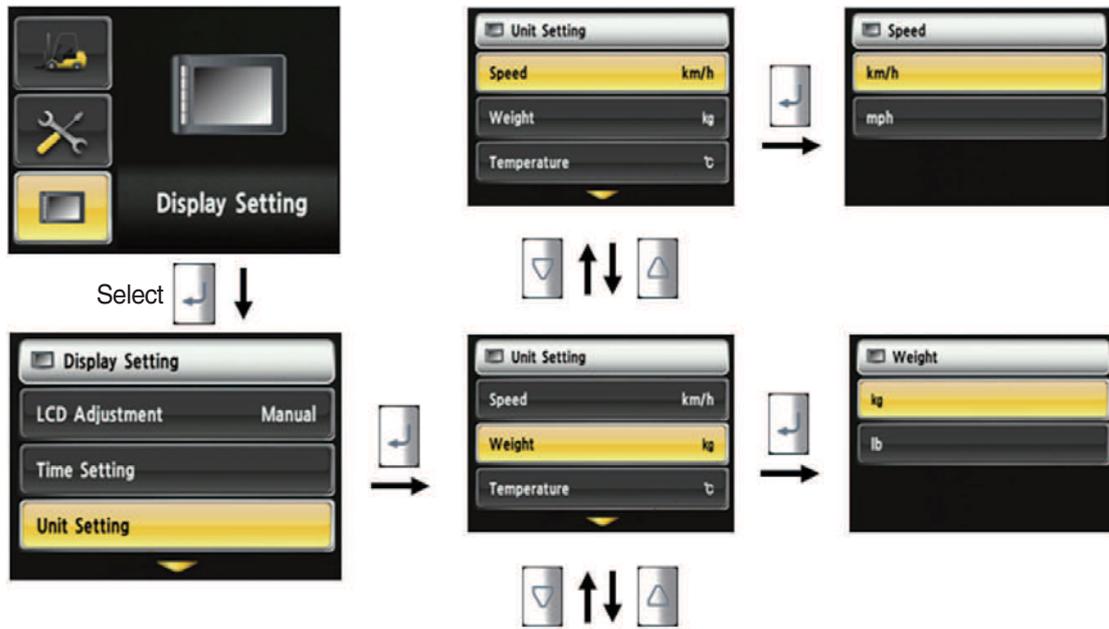


35D9SCL065

How to set current time

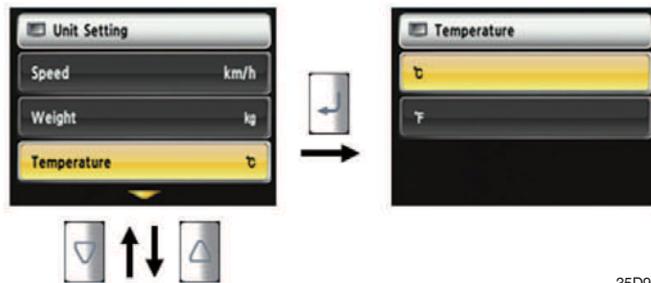
1. Display setup > Time setup
2. Enable to set the time that is displayed in main screen.
3. Set time in following order. (year > month > day > hour > minute)

(17) Unit setup

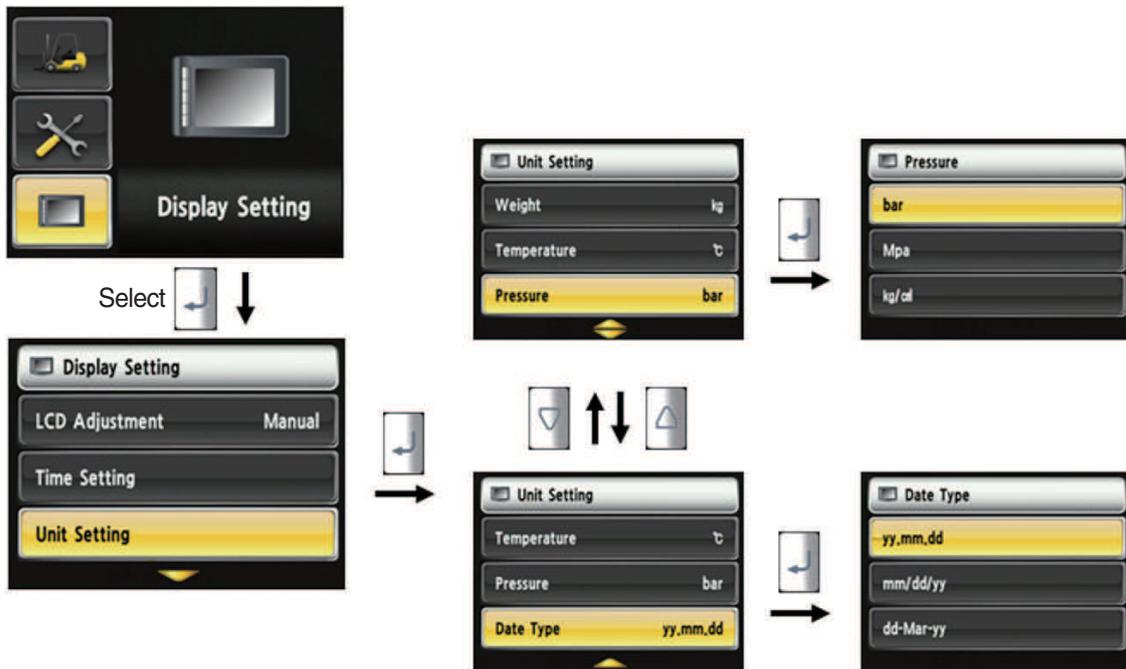


Unit setup

1. Display setup > Unit setup
2. Enable to set all unit values that displayed on screen.
3. It is displayed by calculating as setting unit.

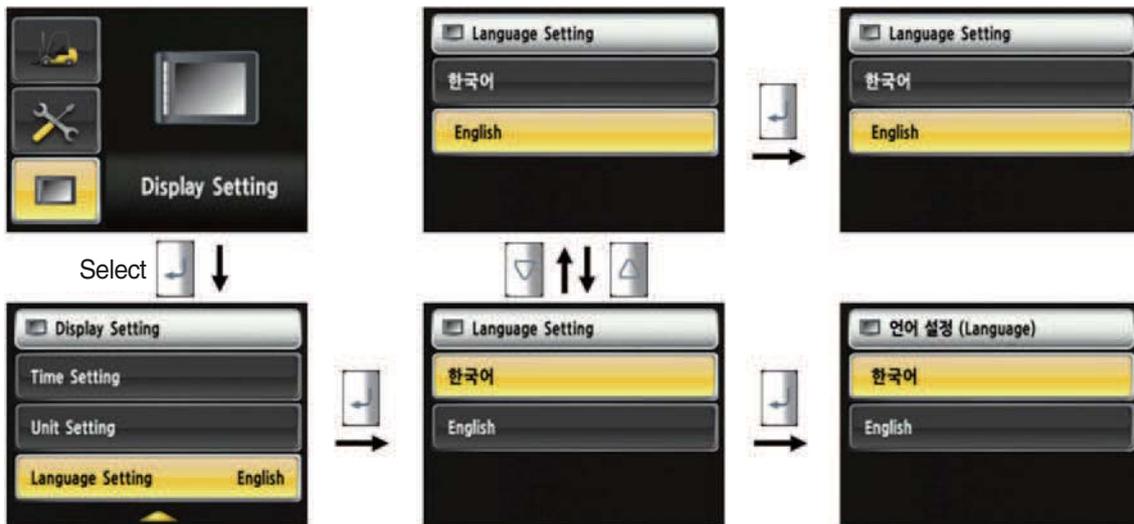


35D9SCL066



35D9SCL067

(18) Language setup



35D9SCL068

· How to set language

1. Display Setup > Language setup
2. Language setup changes the language that is displayed on the screen to language that user defined.
3. Currently, supported language is Korean and English.

(19) A/S Contact Setup



35D9SCL063

· How to set A/S contact

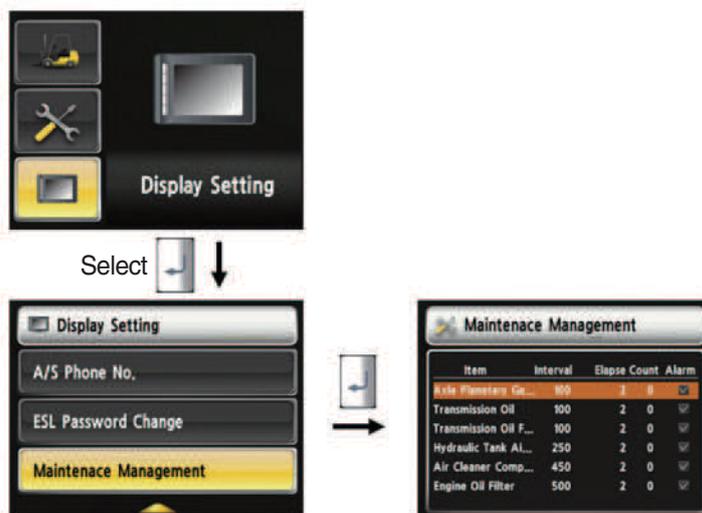
1. Maintenance > A/S Contact
2. User can change the A/S contact when deliver the vehicle from factory.
3. If user moves numeric number using arrow, and press the  select button, number will be displayed on the screen.
4. If user press the  enter key, the value will be set.
5. Contact will be displayed as the modified value.

(20) ESL password change



35D9KCL081

(21) Maintenance management



35D9KCL082

- ※ Only viewing is available in this menu
- ※ Other management options can be accessed from the Maintenance → Maintenance management menu

8) CAUSES AND CORRECTION OF CLUSTER WARNING LAMP

S/No.	Warning lamp types	Symbol	Warning and pilot lamp	Causes and correction
1	Engine oil pressure warning		Engine oil pressure warning lamp	Engine oil pressure is low. Please the engine oil refill.
2	Engine warm-up pilot		Engine warm-up pilot lamp	Warm-up will be started.
3	Air cleaner warning		Air cleaner warning lamp	Replace the filter.
4	Engine check warning		Engine check warning lamp	Check the failure code of cluster.
5	Engine stop warning		Engine stop warning lamp	Check the failure code of cluster.
6	TM oil temperature warning		TM oil temperature warning lamp	TM oil is over temperature condition.
7	Parking brake pilot		Parking brake pilot lamp	Parking brake is operating.
8	Brake oil level warning		Brake oil level warning lamp	Brake oil level is low. Please refill the brake oil.
9	Battery charging warning		Battery charging warning lamp	Battery is not being charged. Please check alternator and wiring.
10	Tilt lock pilot		Tilt lock pilot lamp	Auto-leveling is the operational status.
11	OPSS pilot		OPSS pilot lamp	OPSS is working : Driving, Tiltig, Lifting locked and truck parked.
12	Fuel warning		Fuel warning lamp	Fuel level is low. Please change the LPG tank.
13	Coolant temperature warning		Engine coolant temperature warning lamp	Engine coolant is over temperature condition.
14	T/M oil pressure warning		Clutch oil pressure warning lamp	Inching operation. Check T/M to find out pressure drop.
15	Expendables replacement pilot		Expendables replacement pilot lamp	Expendables replacement cycle has been passed.
16	Communication error warning		Communication error warning lamp	Communication with between MCU and ECU has been failed. Check communication line.
17	Communication error warning		Communication error warning lamp	Communication between CLUSTER and MCU has been failed. Check communication line.

S/No.	Warning lamp types	Symbol	Warning and pilot lamp	Causes and correction
18	LH Turn pilot		LH Turning pilot lamp	-
19	RH Turn pilot		RH Turning pilot lamp	-
20	Forward gear		Forward gear pilot lamp	-
21	Reverse gear		Reverse gear pilot lamp	-

S/No.	Warning lamp types	Symbol	Warning and pilot lamp	Causes and correction
18	LH Turn pilot		LH Turning pilot lamp	-
19	RH Turn pilot		RH Turning pilot lamp	-
20	Forward gear		Forward gear pilot lamp	-
21	Reverse gear		Reverse gear pilot lamp	-

4. CLUSTER

1) STRUCTURE

Like following figure, cluster is consisted of LCD and buttons. LCD will indicate the operation and abnormal status of truck to the driver in order to use and maintenance. Also, LCD allows to set and indicate the various modes, monitoring, and gadgets.

- ※ The cluster installed on this truck does not entirely guarantee the condition of the truck. Daily inspection should be performed according to chapter 7. PLANNED MAINTERNACNE AND LUBRICATION.
- ※ When the cluster provides a warning immediately check the problem, and perform the required action.



35L93KY03

2) GAUGE

(1) Operation screen

Operating screen will be displayed if turn on the start switch.



35L93KY04

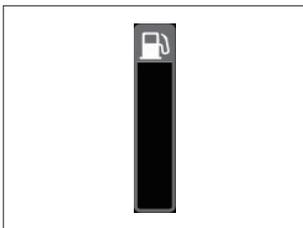
- | | | | |
|---|-------------|---|---------------------------|
| 1 | Speed meter | 3 | Coolant temperature gauge |
| 2 | Fuel gauge | 4 | Operating time |

(2) Speed meter

It indicates the speed of truck and is calibrated in kilometer per hour (km/h) or miles per hour (mph).

※ Speed unit can be set in the speed unit menu of display set up at page 3-29.

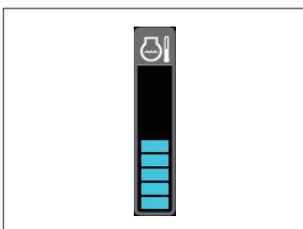
(3) Fuel gauge



35L93KY05

- Fuel gauge displays the approximate amount of fuel remaining in the fuel tank.
- It shall be obtained fuel as soon as warning lamp  lights on.
- ※ For trucks using LPG fuel, the fuel gauge level is not displayed.

(4) Coolant temperature gauge



35L93KY06

- It indicates the temperature of the engine coolant.
 - White zone : 40 ~ 120 °C (104 ~ 248 °F)
 - Red zone : Over 120 °C (248 °F)
 - Warning lamp on : Over 115 °C (239 °F)
- If the gauge display in the red zone, or warning lamp  comes on, please stop the engine and inspect the coolant system.

(5) Clock



35L93KY07

- It displays the usage time of the truck.

3) WARNING LAMPS

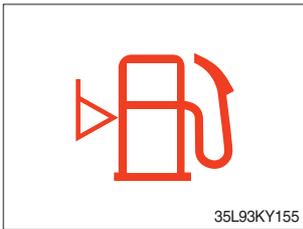


35L93KY08

No.	Warning lamp		No.	Warning lamp	
1		Fuel Level warning lamp	8		Transmission oil temperature warning lamp
2		coolant temperature warning lamp	9		Air cleaner filter warning lamp
3		Engine oil pressure warning lamp	10		DPF regeneration warning lamp (only diesel)
4		Water in fuel warning lamp (only diesel)	11		DPF inhibit warning lamp (only diesel)
5		Engine check warning lamp	12		DPF high temperature warning lamp (only diesel)
6		Battery charge warning lamp	13		Brake oil level warning lamp
7		Communication error warning lamp			

※ Warning and indicator lamp will display only items that were set as ON, and all warning and indicator will be displayed in the left or right side of screen. And directional indicator lamp will display at the center.

(1) Fuel level warning lamp



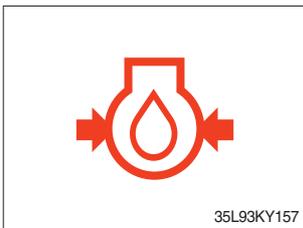
- Warning lamp will be displayed if fuel level is low.
- Please refuel immediately if the lamp is on.

(2) Coolant temperature warning lamp



- Coolant temperature warning will lit up when temperature is over 115 °C (239 °F).
- If the warning lamp is on continuously, please inspect the coolant system.

(3) Engine oil pressure warning lamp



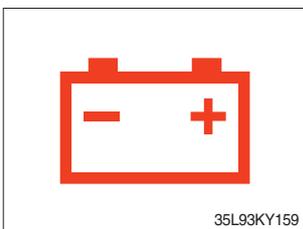
- This warning lamp will be lit up when engine oil pressure is low.
- Stop the engine immediately if the warning lamp is lit up.
- Please check the engine oil.

(4) Engine check warning lamp



- If the lamp lights ON, check the engine and a failure code of cluster. If you have a proper action, the lamp will turn off within 4 times of restart.
- Check the failure code of cluster.

(5) Battery charge warning lamp



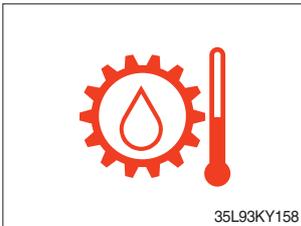
- This warning lamp is lit up when battery charging voltage is low.
- Please inspect the battery charging circuit if the warning lamp lights up.

(6) Communication error warning lamp



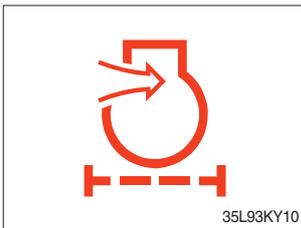
- This warning lamp will be lit up if the communication between MCU and ECU is fail.
- Please check the communication line if the warning lamp is lit up.

(7) Transmission oil temperature warning lamp



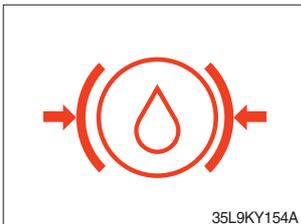
- Transmission oil temperature warning lamp will be lit up and flashing when temperature is 120 °C (248 °F) or higher.
- When this lamp lights up during operation, stop the engine and check the truck.

(8) Air cleaner filter warning lamp



- When the filter of the air cleaner that purifies the air supplied to the engine is clogged and a vacuum is generated inside, the switch is activated and turned on.
- If the lamp is on, check the filter and clean or replace it.

(9) Brake oil level warning lamp



- This warning lamp will be displayed if brake oil is low of reservoir tank.
- Please refill immediately if the lamp lights up.

4) INDICATOR LAMPS



35L93KY11

No.	Indicator lamp		No.	Indicator lamp	
1		Consumable replacement indicator lamp	5		OPSS indicator lamp
2		Engine warming up indicator lamp	6		Driving indicator lamp
3		Fuel warmer indicator lamp (only diesel)	7		
4		Parking brake indicator lamp	8		

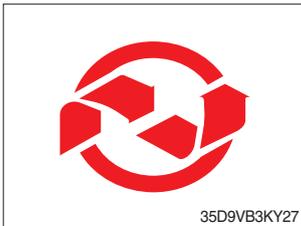
※ Warning and indicator lamp will display only items that were set as ON, and all warning and indicator will be displayed in the left or right side of screen. And directional indicator lamp will display at the center.

(1) Engine warming up indicator lamp



- The truck senses the engine coolant temperature and warms up engine when needed.
- When it is happening, the indicator lamp is ON.

(2) Consumable replacement indicator lamp



- Lights up if consumables which must be replaced are exist.
- The indicator lamp will light up only 3 minutes since start switch ON, and then light OFF.
- Please check the consumables management list in maintenance menu.

(4) Parking brake indicator lamp



- Lights up when parking brake is ON.

(5) OPSS indicator lamp



- Lights up if driver leave seat during operation.
 - Truck driving and/or mast control will be blocked if lamp is lit up.
- ※ Please refer to page 0-11 for details.

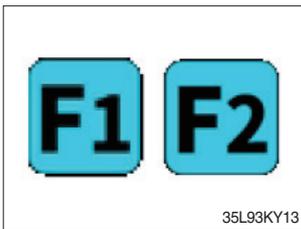
(6) Driving indicator lamp

① Neutral



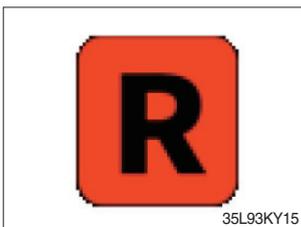
- This indicator lamp will be lit up when direction lever is located in neutral.

② Forward



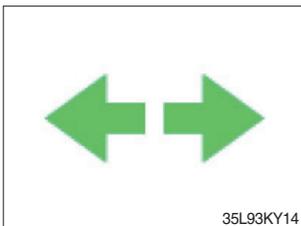
- This indicator lamp is displayed if the forward gear is selected.
- First gear will be displayed as **F₁**, and second gear will be displayed as **F₂**.

③ Reverse



- This indicator lamp is displayed if the reverse gear is selected.

④ Right or left turning indicator lamp



- This indicator lamp will flash if turns on the right or left turn signal.

5) INFORMATION DISPLAY (option)



(1) Mast front/rear tilt



- Display the real time tilt of mast.

(2) Truck front/rear tilt



- Display the front/rear tilt of truck in real time.
- The red warning symbol turned on condition.
 - Stop : Tilt angle is higher than 2.3°
 - Driving : Tilt angle is higher than 10.2°

(3) Load weight



- Displays the weight of the cargo.
- If the weight sensor is not attached, it is dimmed

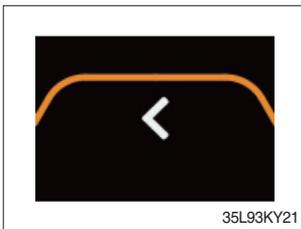
6) BUTTONS

(1) Enter (select)



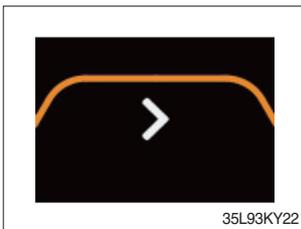
- This switch is used to enter into the menu or to select.

(2) UP/Left



- This switch is used to move upward or leftward in menu or increase the value.

(3) Down/Right



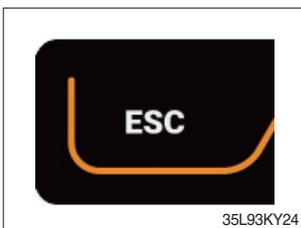
- This switch is used to move downward or rightward in menu or decrease the value.

(4) Menu or Home



- This switch is used to enter into the menu or return to home.

(5) Cancel (ESC)



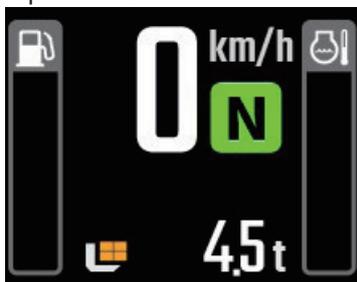
- This switch is used to cancel or move to upper menu.

7) MAIN MENU

(1) Structure

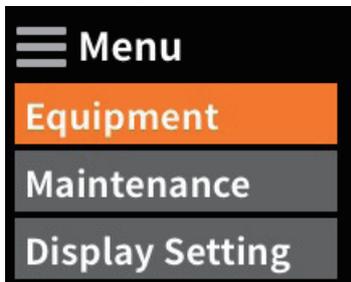
A menu consists of main menu and sub-menu.

Operation Screen



35L93KY25

Main Menu Screen



35L93KY26

Sub-Menu Screen



35L93KY27

No.	Main menu	Sub menu	Explanation
1		<ul style="list-style-type: none"> · Model select · Tilt setting (option) · Weight sensor setting (option) · ESL setting · DCSR setting · HAC setting · Vehicle max speed limit · Clutch protection alarm · Zero start setting · Auto shift setting · Information 	<ul style="list-style-type: none"> · Diesel, LPG · Vehicle tilt Initialize · Enter the cylinder cross section area, Adjust load weight, Weight display setup · ESL setting, Engine start limit, Delay time · DCSR on, Cut-off driving speed, Restore driving speed · Maximum speed limitation · Speed setting, Overlap time setting · Cluster-CI information
2		<ul style="list-style-type: none"> · Failure History · Maintenance management · I/O information · User password change 	<ul style="list-style-type: none"> · Engine failure history · Change oil and filter replacement cycle · Analog Input, Digital input/output
3		<ul style="list-style-type: none"> · Time Setting · LCD brightness adjustment · LED brightness adjustment · Unit Setting · Language · ESL password change 	<ul style="list-style-type: none"> · Date, Time setting · Speed, Weight, Temperature, Pressure, Date

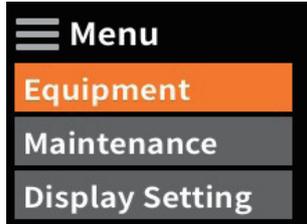
(2) Equipment menu

① Model select (a required setting)

- How to check the Model Select (check under the start switch ON status)
- Selection will be canceled if pressed the cancel button.

※ **This is a required setting. Some functions may not be worked properly if you do not select the model.**

1. Equipment



35L93KY26

Enter to equipment menu.

2. Password



35L93KY28

Enter the password.
Default password is "00000".
Password length must be 5~10 digits.

3. Model select



35L93KY29

Choose model select

4. Diesel or LPG



35L93KY30

Please select the fuel type.

5. Choose model



25L9A3KY31

Select the your model.

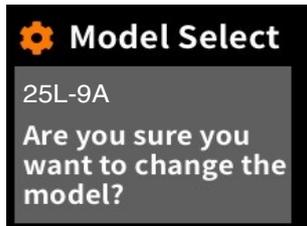
6. Model select



35L93KY32

Select the your tire.

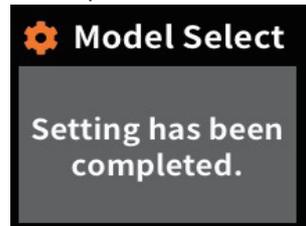
7. Model select



25L9A3KY33

Change on select button.

8. Completion



35L93KY34

- ※ If you want to move back to previous page, please enter ESC button in any stage.
- ※ It shall be selected right model to prevent malfunction of truck.

② **Tilt setting** (option, as required setting)

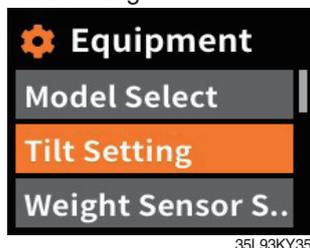
How to check "Tilt reset" (Check under the start switch ON status.)

※ The tilt sensor has already been initialized when deliver the truck from factory.

※ Tilt reset if the tilt sensor figure or truck tilt is not horizontal in the flatland.

▲ You must set tilt in the flatland since this is a horizontal set up.

1. Tilt setting



Choose tilt reset.

2. Instruction



Follow the instruction showing in the screen.

3. Completion



Setting has been completed.

a. **Check functions**

(a) Check the real time operation by changing angles of truck tilt and mast tilt.

(b) **Auto-leveling**

- (a) Tilt mast inward or outward.
- (b) Start tilting mast toward its vertical position, pushing the auto tilt leveling switch.
- (c) Check if the mast stops traveling when it becomes vertical to ground.

(c) **Front/rear tilt warning** (red)

- Stop : $\pm 2.3^\circ$ (1.5 tons ~ 5.0 tons)
- Driving : $\pm 10.2^\circ$ (1.5 tons ~ 5.0 tons)

(d) **Left/right tilt warning** (red)

- Stop : $\pm 3.4^\circ$ (1.5 tons~5.0 tons)
- Driving

Truck weight	Warning angles (Red)
1.5 tons ~ 2.0 tons	$\pm 20.3^\circ$
2.2 tons ~ 3.3 tons	$\pm 20.8^\circ$
3.5 tons ~ 4.5 tons	$\pm 24.2^\circ$
5.0 tons	$\pm 28.0^\circ$

③ Weight sensor set up (option)

- How to check "the weight sensor set up" (Check under the start switch ON status)
- There are three settings for weight sensor. (unload, load, reset)

※ The weight sensor has already been set when deliver the truck from factory.

a. Setting cylinder cross section

1. Weight sensor setting



35L93KY38

Choose weight sensor setting.

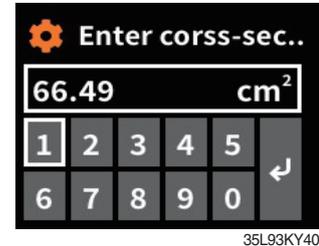
2. Cylinder cross-section



35L93KY39

Choose Cylinder Cross-Section. If Cylinder Cross-Section is already set up, setting value is shown in initial screen.

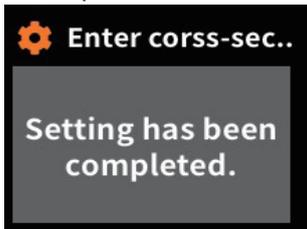
3. Value



35L93KY40

Enter cylinder cross-section value using up/down buttons.

4. Completion



35L93KY41

Setting has been completed.

※ Cross-section value

Model	V-mast	TF-mast	TS-mast	VF-mast
25/30/33L-9A	39.27	44.18	47.52	56.75
35LN-9A	47.52	56.75	56.55	56.75

b. Unloaded status adjustment

1. Weight sensor setting



35L93KY38

Choose weight sensor setting and enter.

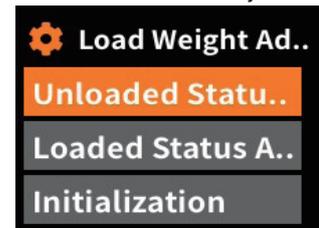
2. Load weight adjust



35L93KY42

Choose load weight adjust and enter.

3. Unloaded status adjustment



35L93KY43

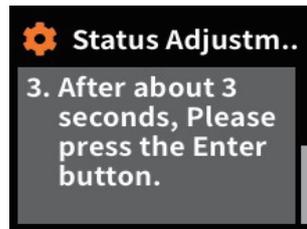
Choose unloaded status adjustment and enter.

4. Instruction



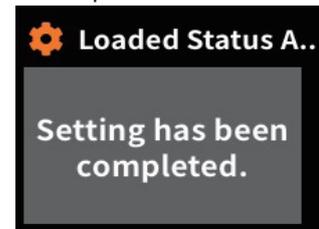
35L93KY44

Follow the instruction showing in the screen. After finish setting and press enter button



35L93KY45

5. Completion



35L93KY46

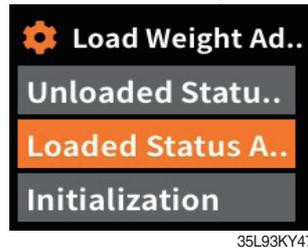
c. Loaded status adjustment

1. Weight sensor setting



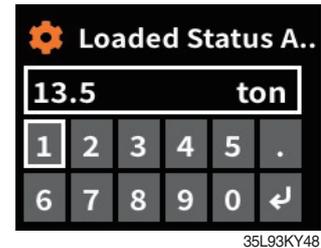
Choose weight sensor setting and enter.

2. Loaded status adjustment



Choose loaded status adjustment and enter.

3. Value



Enter load weight using up/down buttons.

4. Instruction



Follow the instruction showing in the screen. After finish setting and press enter button. Please proceed the operation within 30 seconds.

5. Completion



- ※ **Must be prepared to lift up by locating the load on the fork before enter the weight.**
- ※ **MCU recognizes the weight automatically by detecting the pressure change.**
- ※ **Must be performed only the load lift task within 30 seconds. If it is not completed within 30 seconds, this process will be canceled automatically.**
- ※ **Accurate weight value is not recognized if other pressure changes that are occurred besides salvage work.**
- ※ **Re-perform the "Load/No-Load Adjustment", if the measurement malfunction is occurred.**

d. Weight sensor reset

Initialize the all values of "No-Load Adjustment" and "Local Adjustment" that were entered previously. (Cylinder cross-sectional area is not initialized.)

1. Weight sensor setting



Choose weight sensor setting and enter.

2. Reset



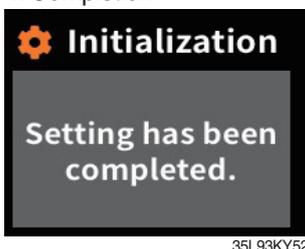
Enter to reset.

3. Check



Press the enter button.

4. Completion



e. Weight display

Enable to adjust the digit-number of weight of main screen. Weight will be displayed as 0.5 tons if set as 100 kg unit. Weight will be displayed as 0.52 tons if set as 10 kg unit.

1. Weight sensor setting



Choose weight sensor setting and enter.

100 kg unit



2. Weight display setting



Enter to weight display setting.

10 kg unit



3. Unit



Choose unit what you want to use.

f. Overload alarm

1. Weight sensor setting



Choose weight sensor setting and enter.

2. Overload alarm



Enter to overload alarm.

3. Select



Select on/off.

④ ESL setting (Startup control setting, standard) : Default is "inactive"

1. ESL setting



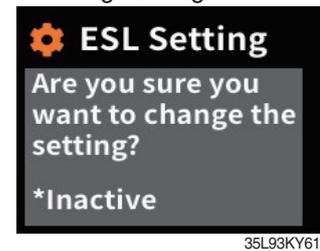
Choose ESL setting and enter.

2. Inactive



Choose inactive.

3. Change setting



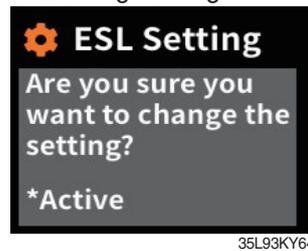
If you want to change setting, press enter button.

2-1. Active



Choose active.

3-1. Change setting



If you want to change setting, press enter button.

4. Completion



a. Check functions

- (a) Set the active mode can be set when engine is starting.
- (b) Upon start switch ON, the password screen pops up and starting is prohibited until the right password has been offered. (But, driver still can start the truck if starts within 10 seconds from start switch OFF)
- (c) Set the mode as 5 min of delay time and start switch OFF.
- (d) check if the truck can start within 5 min and start switch OFF.
- (e) check if the truck requests password after 5 min.

※ **Start switch ON screen (when startup control mode is ON)**



b. Delay time

1. ESL setting



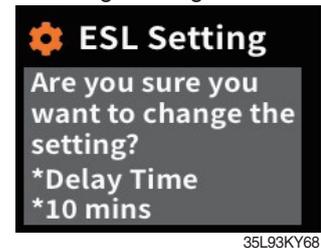
Choose delay time.

2. Select value



Select value you want to apply.

3. Change setting



If you are sure to change ESL, press enter.

6. Completion



⑤ DCSR setting (Direction Change Shock Relief)

Set the mode ON. Below is how this feature functions.

- If you are driving at over the block drive speed and then change gear from forward to reverse (or reverse to forward), the gear stays as neutral until the truck reaches the restore drive speed.
- The car changes direction and starts to travel.

※ **Restore drive speed cannot be set over the block drive speed.**

1. DCSR setting



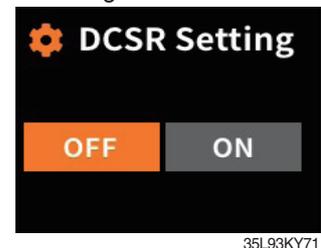
Choose DCSR setting and enter.

3. Mode



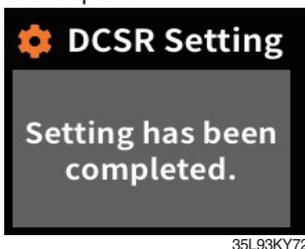
Select mode.

4. Setting

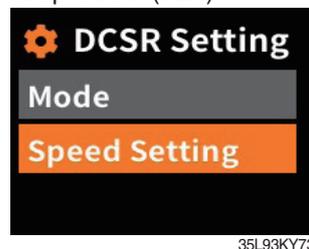


Select on/off.

5. Completion



6. Speed set (auto)



If you want to change speed set, enter speed setting.

6. Set road speed



⑥ HAC setting (option)

Set the mode ON. Below is how this feature functions.

- If you are trying to drive in stop status on hill, the truck does not move backward.

1. HAC setting



Choose HAC setting.

2. Setting



Select on/off.

3. Completion



⑦ Vehicle maximum speed limit

1. Vehicle max speed limit



Choose vehicle max speed limit.

2. Mode



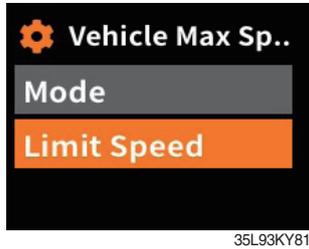
Enter to mode function.

3. Setting



Select on/off.

4. Speed limit



Enter to limit speed menu.

5. Setting limit speed



Set limit speed.

6. Completion



- Driving speed < 10 km/h



- Driving speed ≥ 10 km/h



⑧ Clutch protection alarm

1. Clutch protection alarm



Choose clutch protection alarm.

2. Setting



Select on/off.

3. Completion



⑨ Zero start setting

1. Zero start setting



Choose zero start setting.

2. Mode



Enter to mode function.

3. Setting



Select on/off.

4. Completion



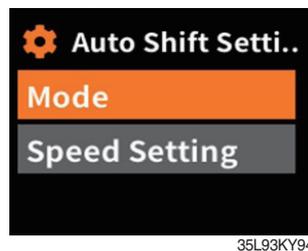
⑩ Auto shift setting (only LPG)

1. Auto shift setting



Choose auto shift setting.

2. Mode



Enter to mode function.

3. Setting



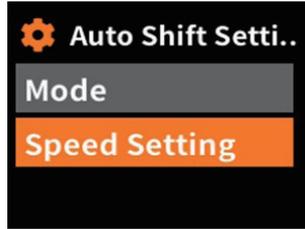
Select on/off.

4. Completion



35L93KY96

5. Speed setting



35L93KY97

Enter to speed setting.

6. Gear shift setting



35L93KY98

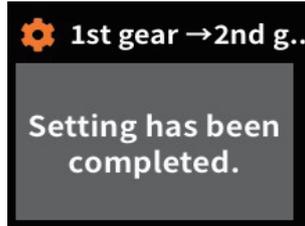
Select the desired change value.

7. Speed setting



35L93KY99

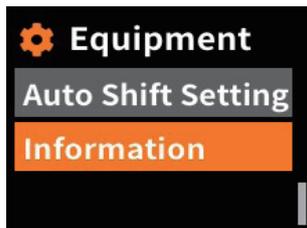
8. Completion



35L93KY100

⑪ Cluset information

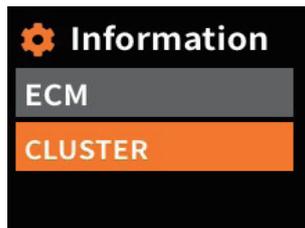
1. Information



35L93KY101

Choose information.

2. Cluster



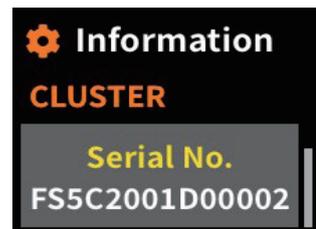
35L93KY102

Enter to cluster.

3. Checking.



25L9A3KY103

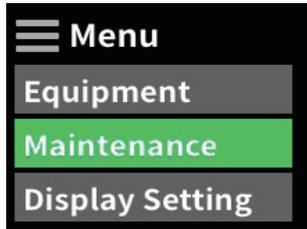


35L93KY104

(3) Maintenance

① Engine failure history

1. Maintenance



35L93KY105

Enter to maintenance menu.

a. Check active fault

4. Active fault



35L93KY108

Enter to active fault.

b. Check logged fault

4. Logged fault

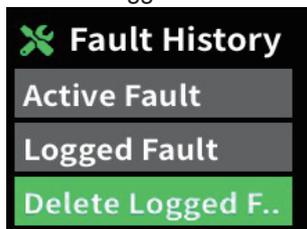


35L93KY110

Enter to logged fault.

c. Delete logged fault

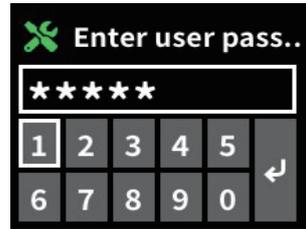
4. Delete logged fault



35L93KY112

Enter to delete logged fault.

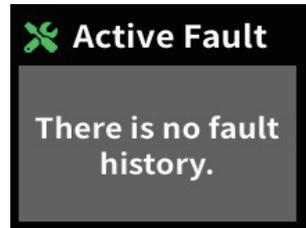
2. Password



35L93KY106

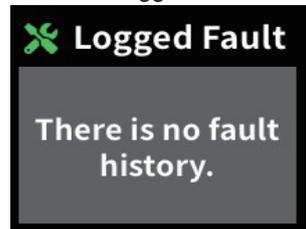
Enter the password.

5. Check active fault



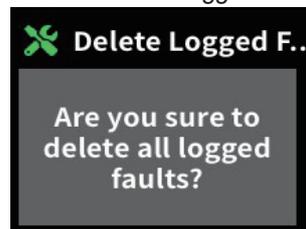
35L93KY109

5. Check Logged fault



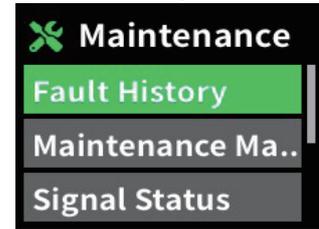
35L93KY111

5. Check delete logged fault



35L93KY113

3. Failure history



35L93KY107

Choose failure history.

② Maintenance management

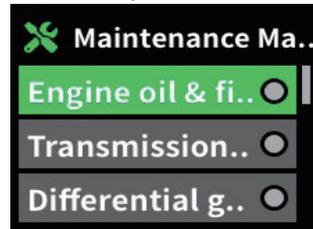
- If the consumables replacement cycle has been passed, alarm will be displayed as ON.
- Press the "Replacement" if replaced the consumables.
- Information about recent replacement (Max. 9) will be displayed.
- If you want to change the cycle, please press the "Change cycle" button.

1. Maintenance mangement



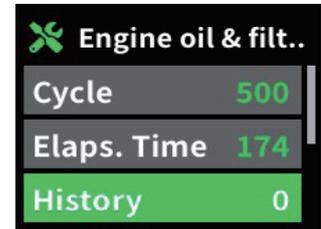
Choose maintenance management and enter.

2. Select replacement item.



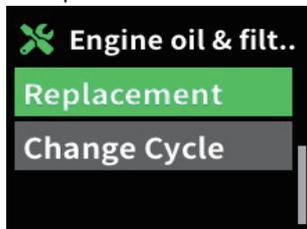
Select the replace item.

3. Check



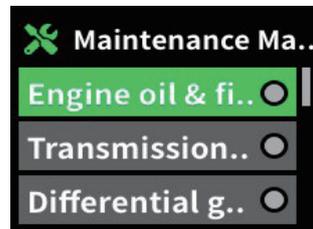
Select replacement using Up/Down button and press enter button.

4. Replacement



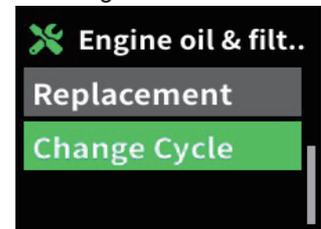
If you are sure to replace supplies, press enter button.

5. Select the item.



Select the item you want to change maintenance interval.

6. Change



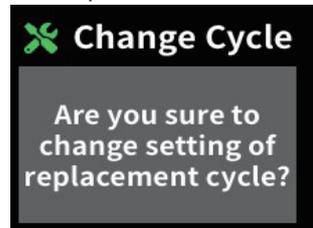
Select using Up/Down button and press enter button.

7. Setting



Set the item value using Up/Down button and press enter button

8. Completion



③ I/O information

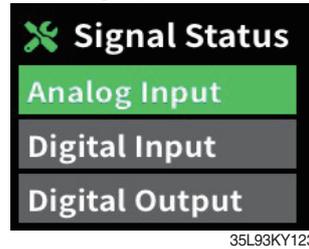
a. Analog input

1. I/O information



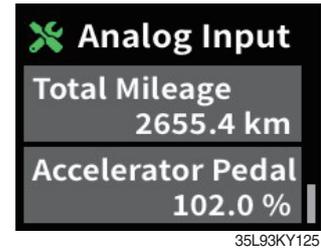
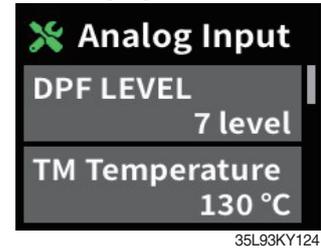
Choose I/O information.

2. Analog input



Enter to analog input.

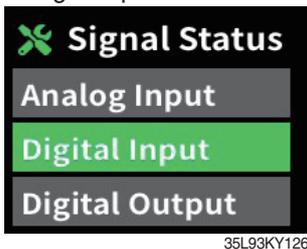
3. Analog signal list



You can check the analog signal list.

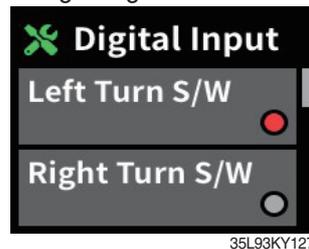
b. Digital input

1. Digital input

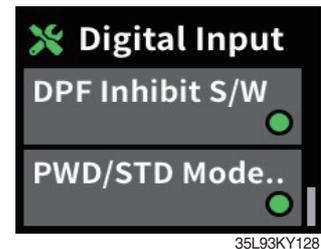


Enter to digital input.

2. Digital signal list

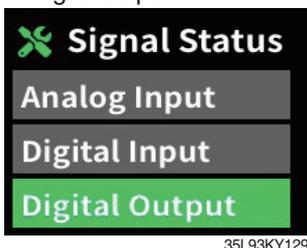


You can check the digital signal list.



c. Digital output

1. Digital output



Enter to digital output.

2. Digital signal list



You can check the digital signal list.

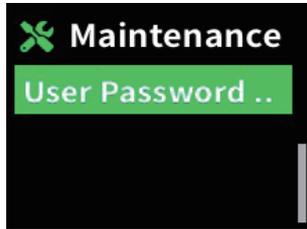


④ User password change

- This function is to allow to change password from default password to user defined password.
- Password length must be 5~10 digits.

※ Since, if you forget the password, you must request the A/S, do not forget the password.

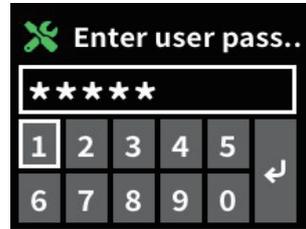
1. User password change



35L93KY132

Choose password change.

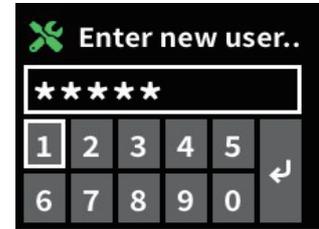
2. Enter current user password



35L93KY133

Enter current user password.

3. Enter new user password



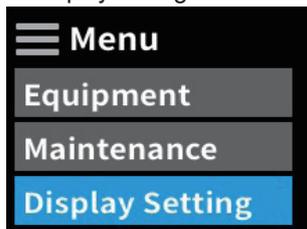
35L93KY134

Enter new user password.

(3) Display setting

① Time setting

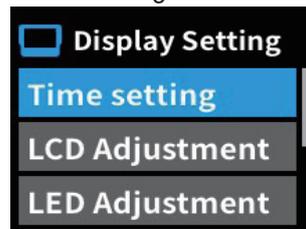
1. Display setting



35L93KY135

Enter to display setting.

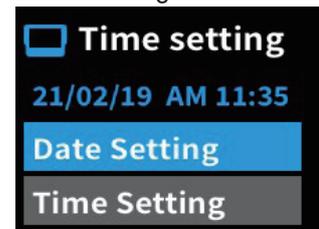
2. Time setting



35L93KY136

Choose time setting.

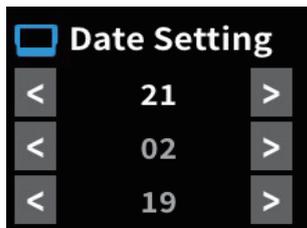
3. Date setting



35L93KY137

Choose date setting.

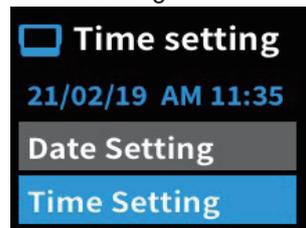
4. Date



35L93KY138

Change time using R/L button and enter button.

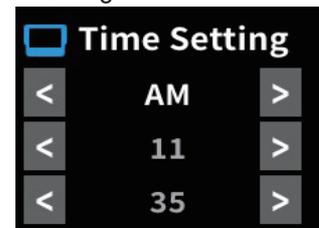
5. Time setting



35L93KY139

Choose time setting.

6. Change

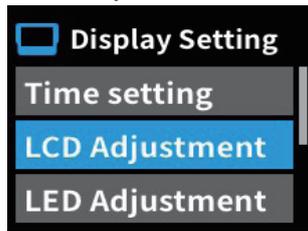


35L93KY140

Change time using R/L button and enter button.

② LCD brightness adjustment

1. LCD adjustment



Choose LCD brightness adjustment

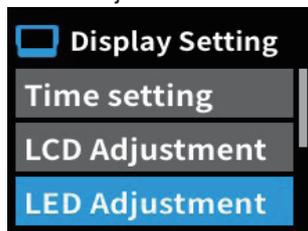
2. LCD brightness



You can see this display when you choose Display Brightness is automatic.

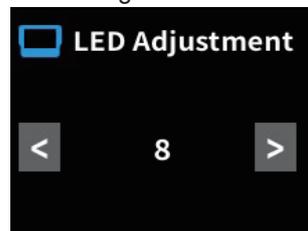
③ LED brightness adjustment

1. LCD adjustment



Choose LED brightness adjustment

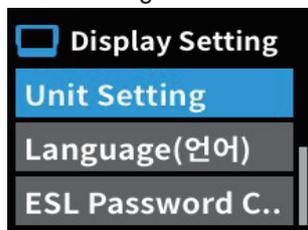
2. LCD brightness



You can see this LED when you choose LED Brightness is automatic.

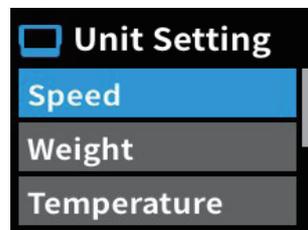
④ Unit setting

1. Unit setting



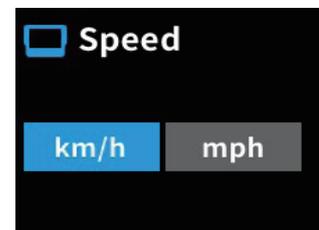
Enter to unit setting.

2. Select unit



Select the unit you want to change.

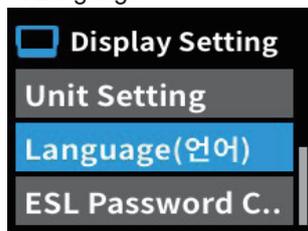
6. Unit



Select the unit.

⑤ Language

1. Language



Enter to language.

2. Select



Select language.

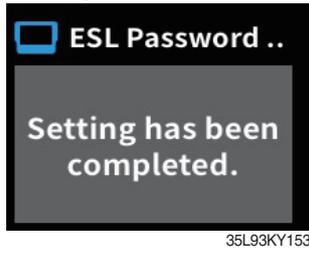
⑥ ESL password change

1. ESL password change

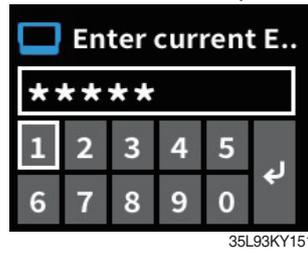


Enter ESL password change and enter.

4. Completion



2. Enter current ESL password



Enter current user password.

3. Enter new ESL password



Enter new ESL password.

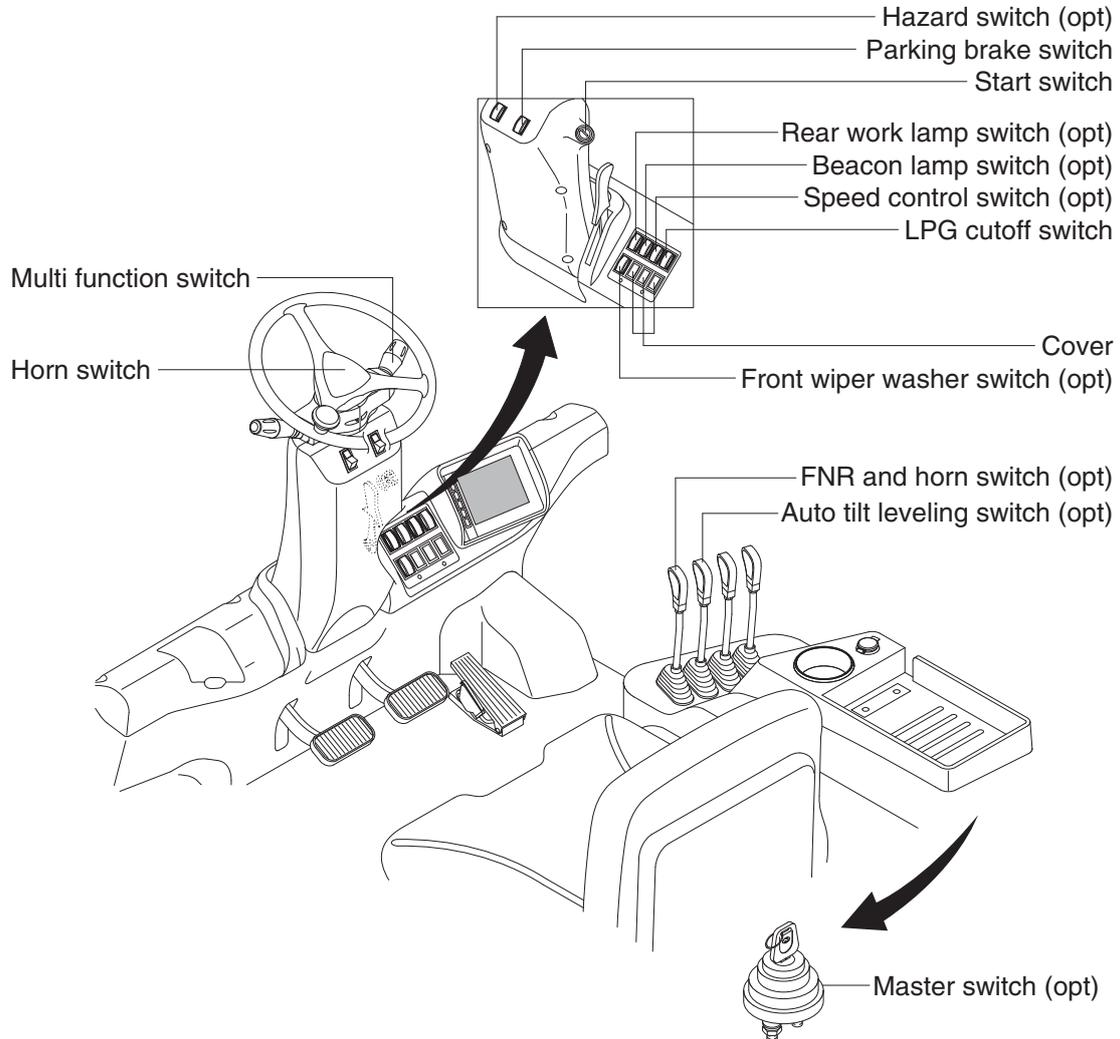
8) CAUSES AND CORRECTION OF CLUSTER WARNING LAMP

No.	Warning lamp types	Symbol	Warning and indicator lamp	Causes and correction
1	Engine oil pressure warning		Engine oil pressure warning lamp	Engine oil pressure is low. Please the engine oil refill.
2	Engine warming up indicator		Engine warming up indicator lamp	Warming up will be started.
3	Water in fuel warning		Water in fuel warning lamp	Please drain the water of the fuel filter. (only diesel)
4	Engine check warning		Engine check warning lamp	Check the failure code of cluster.
5	DPF regeneration warning		DPF regeneration warning lamp	DPF regeneration is required. (only diesel)
6	DPF inhibit warning		DPF inhibit warning lamp	DPF regeneration is inhibited. (only diesel)
7	High Exhaust System Temperature		Exhaust system high temperature warning lamp	Exhaust system high temperature will be started. (only diesel)
8	Fuel warmer indicator		Fuel warmer indicator lamp	Warming up the fuel. (only diesel)
9	TM oil temperature warning		TM oil temperature warning lamp	TM oil is over temperature condition.
10	Parking brake indicator		Parking brake indicator lamp	Parking brake is operating.
11	Battery charging warning		Battery charging warning lamp	Battery is not being charged. Please check alternator and wiring.
12	OPSS indicator		OPSS indicator lamp	Lights up when the operator leaves the seat.
13	Fuel warning		Fuel warning lamp	Fuel level is low. Please refill the diesel oil.
14	Coolant temperature warning		Engine coolant temperature warning lamp	Engine coolant is over temperature condition.
15	Air cleaner filter warning		Air cleaner filter warning lamp	When the air cleaner needs to be checked and replaced.
16	Consumables replacement indicator		Consumables replacement indicator lamp	Consumables replacement cycle has been passed.
17	Communication error warning		Communication error warning lamp	Communication with between MCU and ECU has been failed. Check communication line.

No.	Warning lamp types	Symbol	Warning and indicator lamp	Causes and correction
18	Break oil level warning		Brake oil level warning lamp	Brake oil level is low. Please top up brake oil.
19	LH/RH turn		LH/RH turn indicator lamp	-
20	Forward 1st/2nd gear		Foward 1st/2nd gear lamp	-
21	Reverse gear		Reverse gear indicator lamp	-
22	Neutral gear		Neutral gear indicator lamp	-

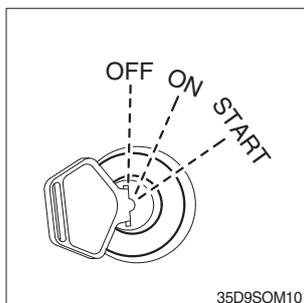
5. SWITCHES

· Parking brake switch type



25L9ACD02

1) START SWITCH



(1) There are three positions, OFF, ON and START.

※ Before starting, set gear shift lever at N, and press parking brake switch to LOCK position.

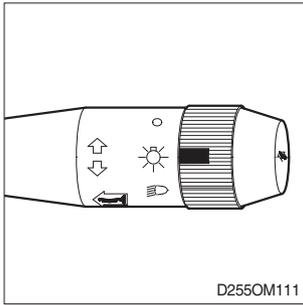
- OFF : None of electrical circuits activates.
- ON : All electrical systems are ON.
- START : Use when starting the engine.

Release key immediately after starting.

※ Key must be in the ON position with engine running to maintain electrical and hydraulic function and prevent serious truck damage.

2) MULTI FUNCTION SWITCH

(1) Clearance lamp switch



(1) Clearance lamp lights up

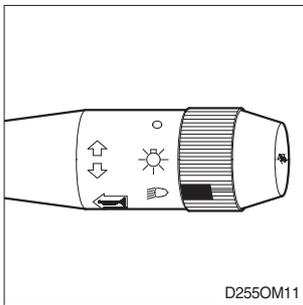
Twist the handle beneath steering wheel and make the notch align to ☀ .

(2) Clearance lamp goes out

Twist the handle just opposite until the notch being aligned to ○ .

※ When clearance lamp light up, then the clearance lamp and all panel lamps light up too.

(2) Head lamp switch



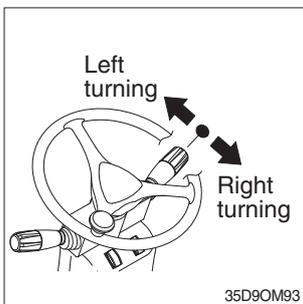
(1) Head lamp lights up

Twist the handle beneath steering wheel and make the notch align to ☞ .

(2) Small lamp goes out

Twist the handle just the opposite direction described as above.

(3) Turning signal switch

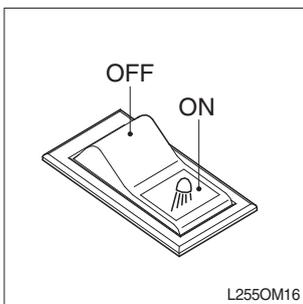


(1) This lever makes the turn pilot lamp flash.

- ① Turning LEFT : Push lever forward
- ② Turning RIGHT : Pull lever backward

※ When the steering wheel is returned to straight, the turn signal is not cancelled. Return the lever to central position by hand manually.

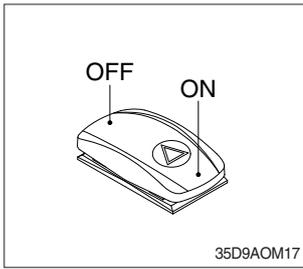
3) REAR WORKING LAMP SWITCH (OPTION)



(1) This switch is used to operate work lamps.

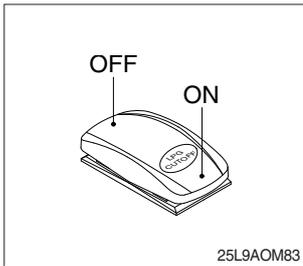
Press this switch to turn on work lamps.

4) HAZARD SWITCH (OPTION)



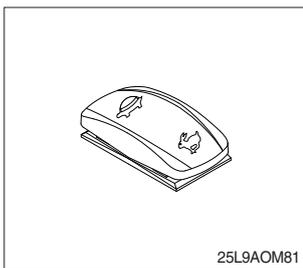
- (1) Use when emergency situation or while loading operation.
※ If the switch is left ON for a long time, the battery may be discharged.

5) LPG CUTOFF SWITCH



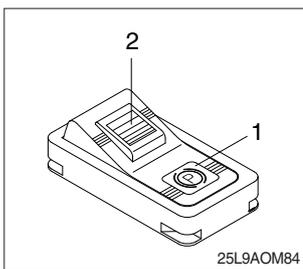
- (1) This switch is used to cutoff the LPG fuel system when maintaining the truck.
※ Use only if you remove the fuel of the fuel line in check or maintenance.

6) SPEED CONTROL SWITCH



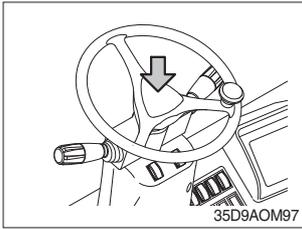
- (1) This switch is used to select of speed control for high travel speed or low travel speed.
When the switch is pressed to symbol of rabbit, the truck is traveled with high speed.
On the contrary, when the switch is pressed to symbol of turtle, the truck is traveled with low speed.

7) PARKING BRAKE SWITCH



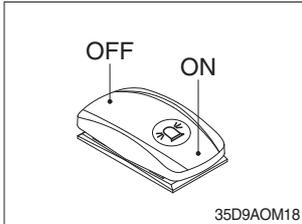
- (1) Position 1
Parking brake is applied and front wheel is locked.
(2) Position 2
Parking brake is released.
※ Before moving the truck be sure the parking brake is released.

8) HORN SWITCH



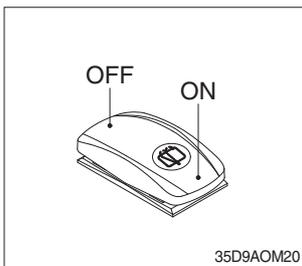
(1) The horn sounds when the button is pressed.

9) BEACON LAMP SWITCH (option)



This switch turn ON the rotary light.

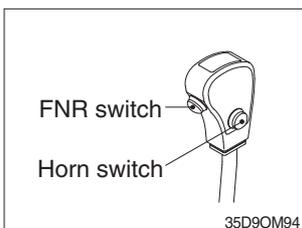
10) FRONT WIPER/WASHER SWITCH (option)



(1) This switch is used to operate the front wiper and washer by two steps.

- ① First step : The front wiper operates.
- ② Second step : The washer liquid is sprayed and the front wiper is operated only while pressing. If release the switch, return to the first step position.

11) FNR AND HORN SWITCH (option)

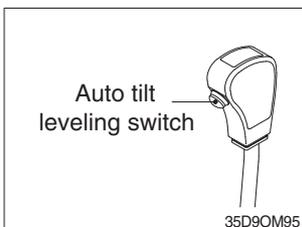


(1) FNR switch

(2) Horn switch

The horn sounds when the button is pressed.

12) AUTO TILT LEVELING SWITCH (option)



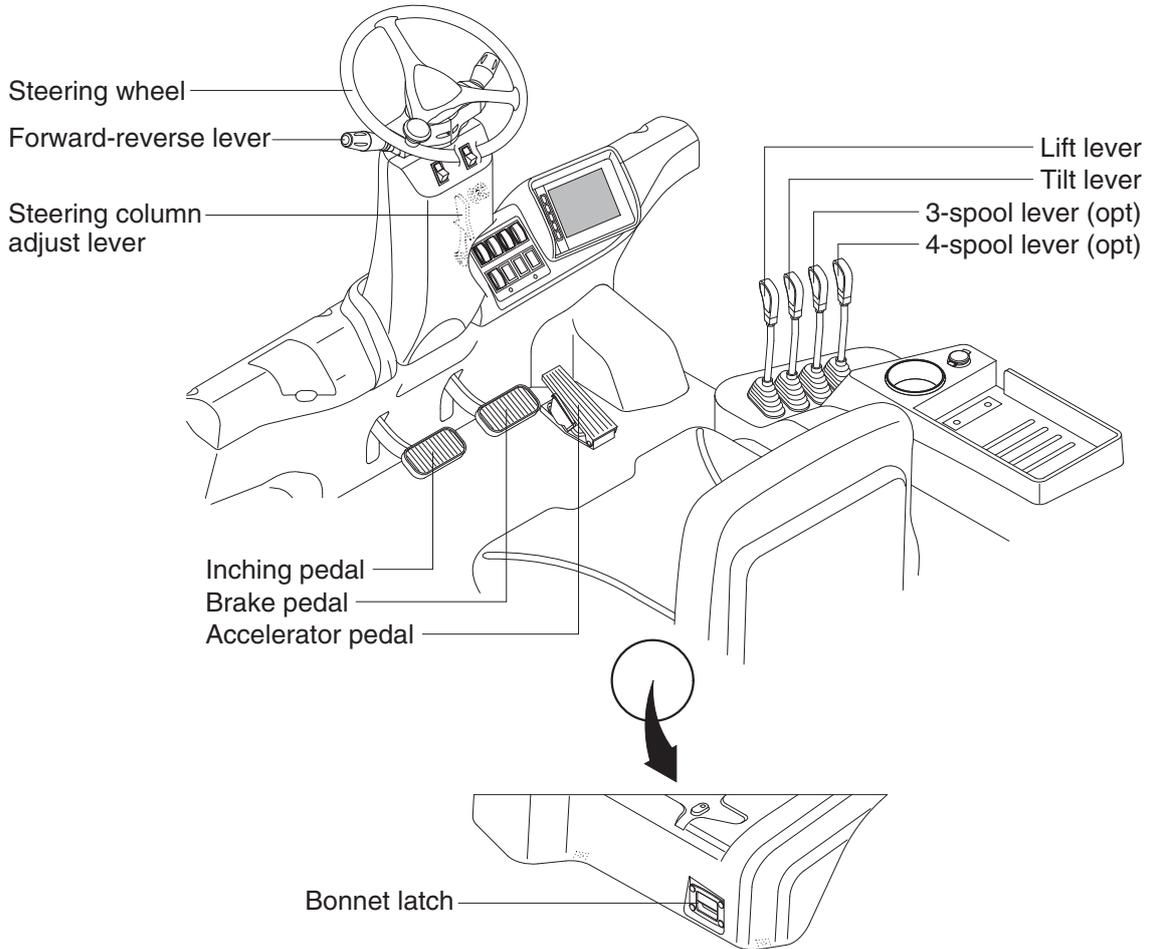
(1) When the lever is operated on pressing this auto tilt leveling switch, auto tilt leveling function activated.

(2) Auto tilt leveling function

This function is mast tilt angle adjust to zero (0) degree (refer to the truck position).

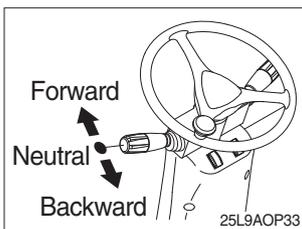
※ This function have to be used at the engine low idle rpm and stop position. If this function is activated at the high idle rpm or during starts, do not guarantee the mast stop at upright vertical position.

6. CONTROL DEVICE



25L9ACD08

1) FORWARD-REVERSE LEVER

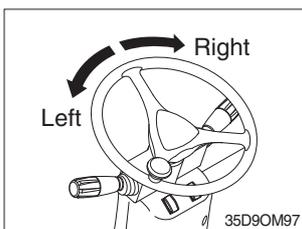


(1) Push the lever for forward driving.

(2) Pull the lever for reverse driving.

※ **When changing direction or speed, there can be some sound but it's nothing to do with performance.**

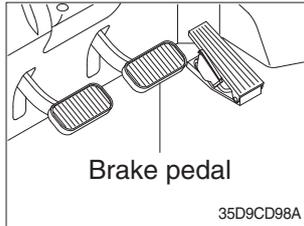
2) STEERING WHEEL



(1) A steering cylinder in the center of the steering axle will operate the steering function.

(2) Turning the steering wheel left, the truck moves to the left side and turning it right, the truck moves to the right side.

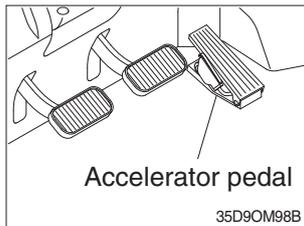
3) BRAKE PEDAL



(1) If the pedal is pushed, braking force is generated and bring the truck to a stop.

※ **Do not operate the truck with stepping on the brake pedal unnecessarily, or bring premature wear of brake disc.**

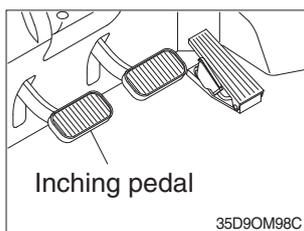
4) ACCELERATOR PEDAL



(1) This pedal controls the engine speed. The engine speed will increase in proportion to the degree of force applied to this pedal.

(2) Unless this pedal is pressed, the truck will run at low idling.

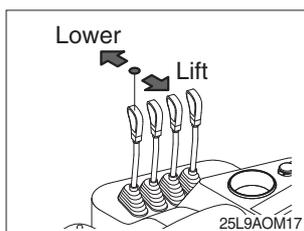
5) INCHING PEDAL



(1) The inching pedal is used for fine control of forward and reverse movement when lifting up or putting down loads.

※ **Do not put your foot on the inching pedal or brake pedal unless using it.**

6) LIFT LEVER



(1) Lift

PULL the lever BACK to LIFT the load.

(2) Lower

PUSH the lever FORWARD to LOWER the load.

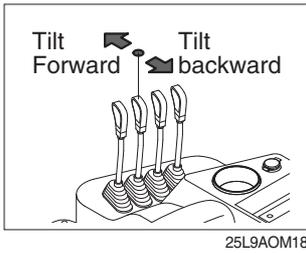
(3) Holding

When the lever is released, the lifting or lowering action stops.

※ **Lifting speed is controlled by accelerator pedal.**

Lowering speed is controlled by lever only.

7) TILT LEVER



(1) Tilt forward

PUSH the lever FORWARD to tilt mast FORWARD.

(2) Tilt back

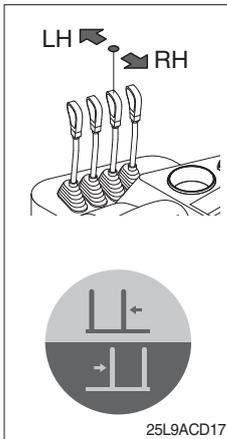
PULL the lever BACK to tilt mast BACKWARD.

(3) Holding

When the lever is released, tilting action stops.

※ Forward and backward tilting speeds are controlled by tilt lever and accelerator pedal.

8) LEVER FOR SIDE SHIFT



(1) LH movement

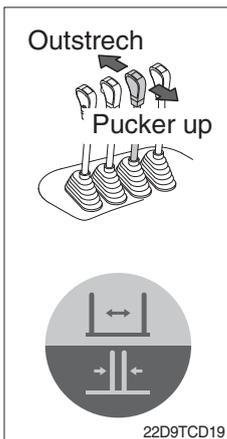
Push the lever forward to move the left hand for the side shift.

(2) RH movement

Pull the lever backward to move the right hand for the side shift.

9) LEVER FOR SIDE SHIFT WITH FORK POSITIONER (OPTION)

(1) Fork positioner (synchronizer type)



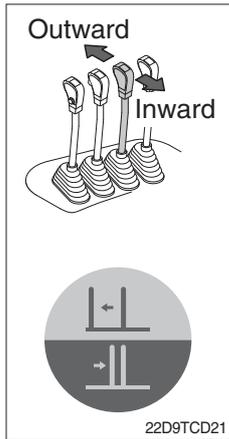
① Outstreach the forks

Push the lever forward to outstreach simultaneously outward of the both forks.

② Pucker up the forks

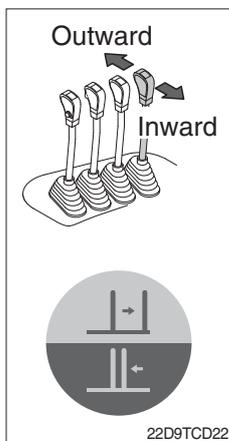
Pull the lever backward to pucker up simultaneously inward of the both forks.

(2) Fork positioner (independent type)



① LH fork movement

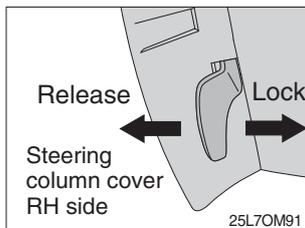
- Push the lever forward to move outward for the LH fork.
- Pull the lever backward to move inward for the LH fork.



② RH fork movement

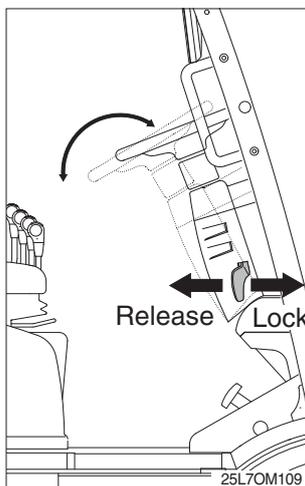
- Push the lever forward to move outward for the RH fork.
- Pull the lever backward to move inward for the RH fork.

10) STEERING CLOUMN ADJUST KNOB



(1) The angle of the steering column can be adjusted forward and backward to 13 degree.

- ① **Release** : Pull the knob backward.
- ② **Lock** : Release the knob



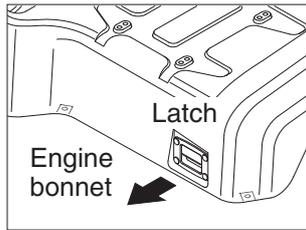
※ METHOD OF ADJUSTING STEERING COLUMN ANGLE

- (1) Pull the lock knob backward.
- (2) Move the steering column forward or backward to select the most suitable position.
- (3) Release the knob to lock the steering column in the desired position.

※ After adjusting, try to move the steering column backward and forward to check that it is locked in the selected position.

▲ Always carry out the adjustment with the truck stopped. Never try to adjust the steering column when the truck is moving.

11) ENGINE BONNET LATCH

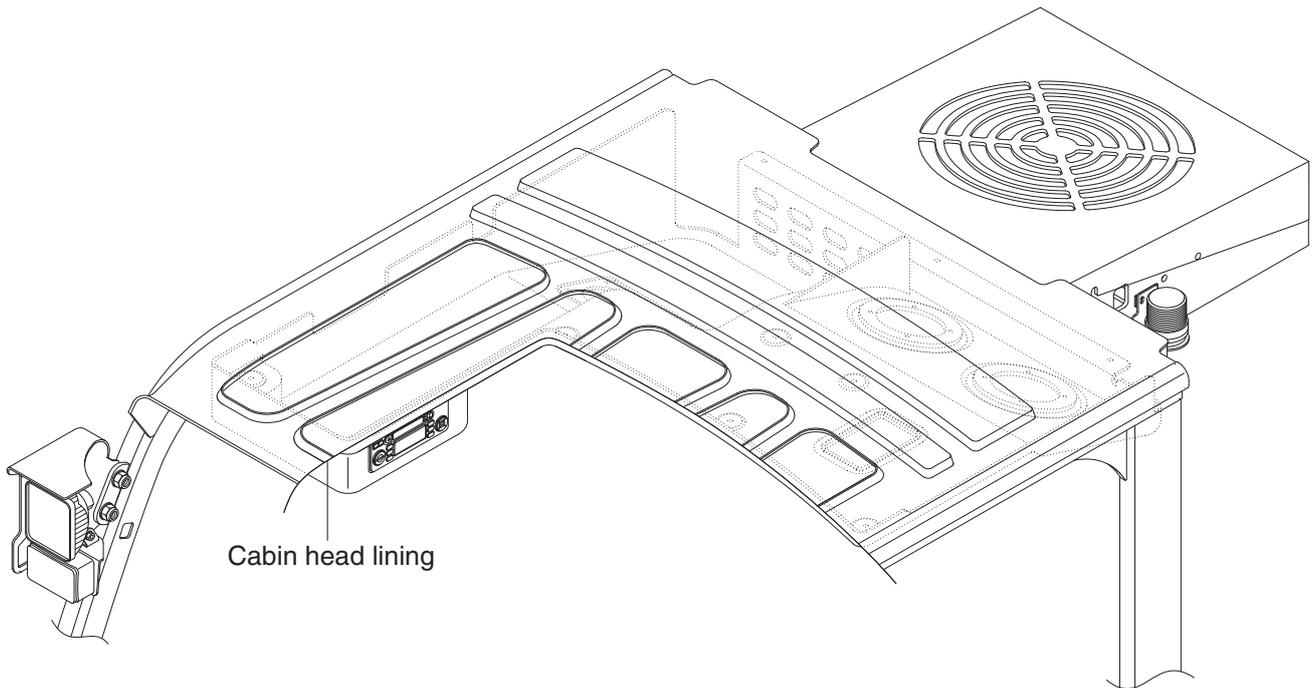


25L9AOM112

- (1) Pull the latch and raise the engine bonnet to open it.
- (2) Inspection and maintenance can then be carried out easily.

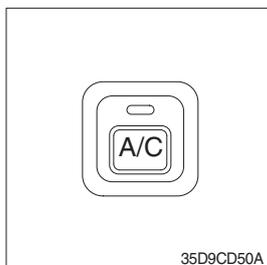
7. AIR CONDITIONER AND HEATER (OPTION)

Full auto air conditioner and heater are equipped for pleasant operation against outside temperature and defrost on window glass.



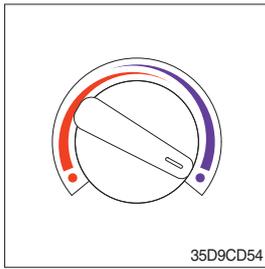
25L9ACD90

1) AIR CONDITIONER BUTTON



- (1) When you push this button, air conditioner system is operated.
 - (2) Determines whether to perform a cooling function of air conditioner.
 - ① Pilot lamp ON : Air conditioner operation
 - ② Pilot lamp OFF : Fan only
- ※ The pilot lamp ON when this button is pushed.

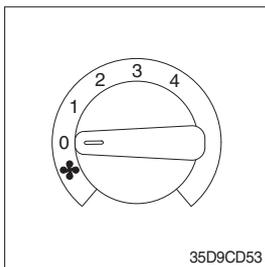
2) TEMPERATURE CONTROL KNOB



This knob regulates the temperature of air.

- ① Left side (red zone) : Heat up air temperature
- ② Right side (blue zone) : Cool down air temperature

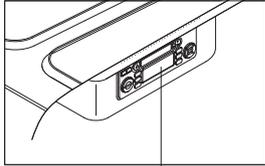
3) FAN SPEED CONTROL KNOB



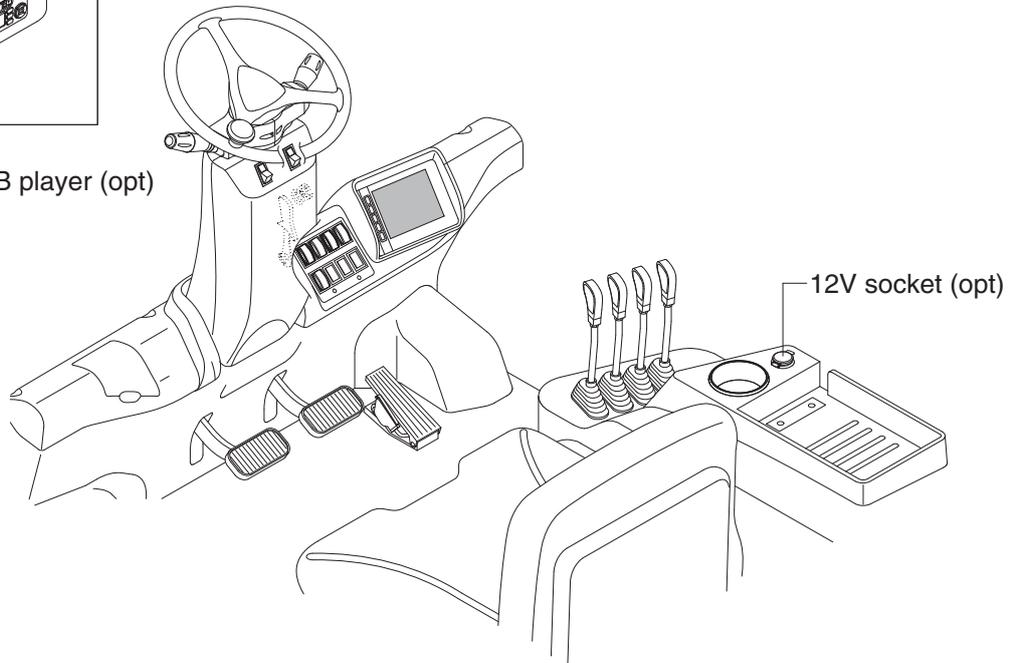
- ① It is possible to control the fan speed to four steps.

8. OTHERS

Cabin room RH top

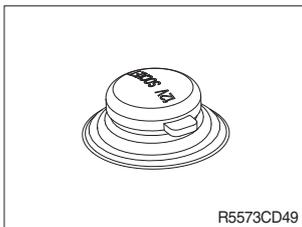


Radio & USB player (opt)



25L9ACD09

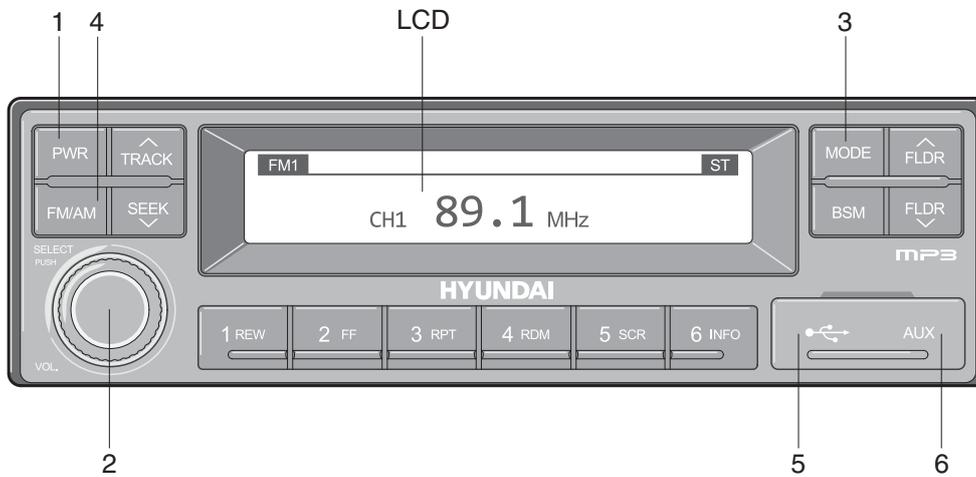
1) 12V SOCKET (OPT)



(1) Utilize the power of 12 V as your need and do not exceed power of 12 V, 120 W.

2) RADIO AND USB PLAYER

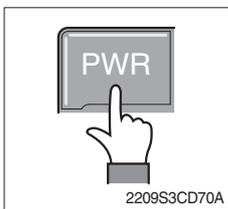
■ BASIC FUNCTIONS



2209S3CD70

- | | |
|-------------------------------|----------------------------------|
| 1 Power (PWR) button | 4 Radio (FM/AM) selection button |
| 2 Volume/Sound setting button | 5 USB slot |
| 3 Mode selection button | 6 AUX terminal |

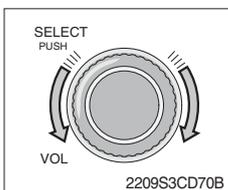
(1) Power (PWR) button



- ① Press the PWR button to turn on the audio. While the audio is operating, press the button to turn the power off.

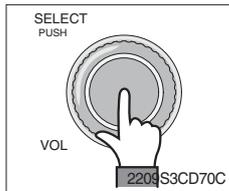
(2) Volume/Sound setting button

· Volume (VOL) button



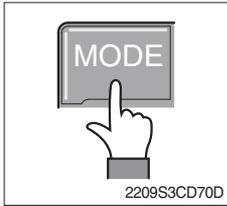
- ① Turn the VOL button clockwise to increase the volume and counter-clockwise to decrease the volume.

• Sound setting



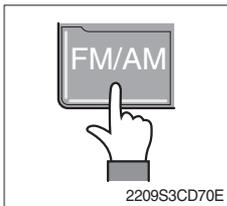
- ① Press the SELECT button to conduct sound setting.
Each press of the button will change the sound setting in the following order.
BASS → MIDDLE → TREBLE → BALANCE → EQ → BEEP
- ② After selecting the desired setting, turn the SELECT button clockwise/counter-clockwise to adjust the sound setting value.
- ③ **BASS adjustment**
Turn the SELECT button clockwise to increase the bass and counter-clockwise to decrease the bass. BASS can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.
- ④ **MIDDLE adjustment**
Turn the SELECT button clockwise to increase the middle and counter-clockwise to decrease the middle. MIDDLE can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.
- ⑤ **TREBLE adjustment**
Turn the SELECT button clockwise to increase the treble and counter-clockwise to decrease the treble. TREBLE can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.
- ⑥ **Left/Right BALANCE adjustment**
Turn the SELECT button clockwise to increase the right-side speaker volume and counter-clockwise to increase the left-side speaker volume. BALANCE can be adjusted from 10L/10R. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.
- ⑦ **EQ (EQUALIZER) adjustment**
Turn the SELECT button clockwise/counter-clockwise to select the desired EQ. EQ settings are as shown below.
Cls (classic) → Pop → Rock → Jazz → off
If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.
※ **Upon selecting EQ, the BASS, MIDDLE and TREBLE values will be turned off.**
The BASS, MIDDLE, TREBLE values can be set only when EQ Off is selected.
- ⑧ **BEEP sound adjustment**
Turn the SELECT button clockwise/counter-clockwise to the beep sound ON/OFF. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

(3) MODE selection button



- ① Press the MODE button to change to RADIO/USB/AUX/iPod modes. However, the mode can be selected only when the respective media is connected.
 - ② If iPod is connected to the audio, the mode will change in the following order.
RADIO → iPod → USB (handfree)
 - ③ If USB, AUX is connected to the audio, the mode will change in the following order.
RADIO → USB(front) → USB(handfree) → AUX
- ※ **USB and AUX mode will operate only when corresponding devices are connected.**
 - ※ **When connecting iPod, AUX and front USB cannot be connected.**
 - ※ **The iPod is connected to the USB in the machine handfree.**

(4) Radio (FM/AM) selection button



- ① Each press of the FM/AM button will change the radio mode in the following order.
FM1 → FM2 → FM3 → AM
- ② Preset memory of up to FM : 18 stations, AM : 6 stations

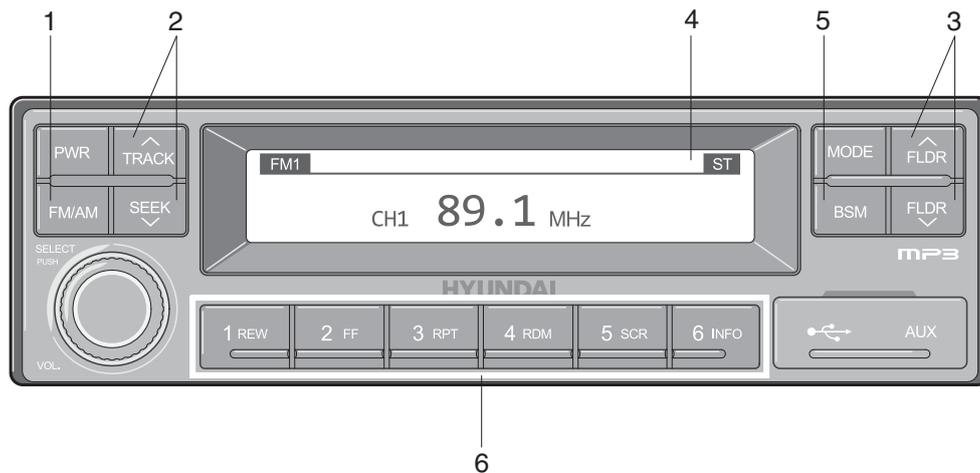
(5) USB slot

Connects USB to play USB music files.

(6) AUX terminal

Connects AUX cable to play AUX music files.

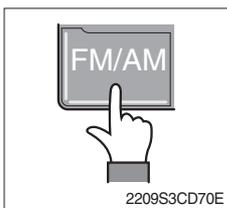
■ RADIO



2209S3CD71

- | | | | |
|---|---------------------------------------|---|--|
| 1 | Radio (FM/AM) selection button | 4 | LCD display |
| 2 | TRACK/SEEK button | 5 | BSM (Best Station Memory) button |
| 3 | Broadcast manual search (FLDR) button | 6 | Saving broadcast frequencies to PRESET numbers |

(1) Radio (FM/AM) selection button



2209S3CD70E

- ① Each press of the FM/AM button will change the radio mode in the following order.

FM1 → FM2 → FM3 → AM

- ② In addition, pressing the FM/AM button when the starting switch is in ON state will turn the power on and activate the radio.

③ Setting regional Radio Frequency

▶ North America Frequency

Press the FM/AM and Preset 1 button simultaneously to set frequency in accordance to the North America Frequency settings. "nA" will become displayed on the LCD for one second.

FM : 87.7 ~ 107.9 MHz (200 KHz)

AM : 530 ~ 1710 KHz (10 KHz)

▶ Local/Middle East/Asia Frequency

Press the FM/AM and Preset 2 button simultaneously to set frequency in accordance to the Local/Middle East/Asia Frequency settings. "InT" will become displayed on the LCD for one second.

FM: 87.5 ~ 108 MHz (100 KHz)

AM: 531 ~ 1602 KHz (9 KHz)

▶ Europe Frequency

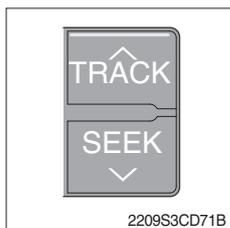
Press the FM/AM and Preset 3 button simultaneously to set frequency in accordance to the North America Frequency settings. "Eu" will become displayed on the LCD for one second.

FM : 87.5 ~ 108 MHz (50 KHz)

MW : 531 ~ 1602 KHz (9 KHz)

LW : 153 ~ 279 KHz (1 KHz)

(2) TRACK/SEEK button



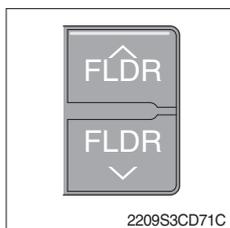
- ① As buttons used to automatically search broadcasts, pressing the button will automatically search and stop at a frequency with superior reception.

TRACK \wedge : Searches frequencies higher than current frequency

SEEK \vee : Searches frequencies lower than current frequency

- ※ **When frequencies cannot be properly found due to weak broadcast reception, try using manual FLDR button. (Refer to manual FLDR button explanation below)**

(3) Broadcast manual search (FLDR) button



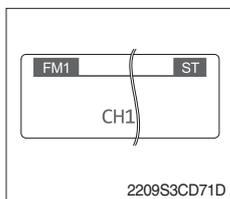
- ① As button used to search frequencies manually, a press of the SEEK step (refer to note below) will change the frequency. Pressing and holding the button will continue changing the frequency. Releasing the button will stop the search at the current frequency.

FLDR \wedge : Searches frequencies higher than current frequency

FLDR \vee : Searches frequencies lower than current frequency

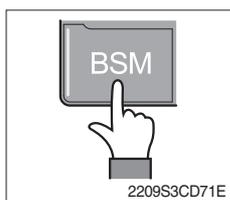
- ※ **SEEK STEP : FM-100KHz, AM-9KHz**

(4) LCD display



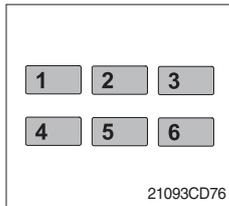
- ① The currently received broadcast frequency info and status are displayed.

(5) BSM (Best Station Memory) button



- ① Press and hold the BSM button to listen to the presets saved in FM BAND FM1, FM2, and FM3 or AM BAND AM for 5 seconds each. When you find a station you wish to listen to, press the BSM button again to receive the selected broadcast.
- ② Shortly press the BSM button to automatically save frequencies with superior reception in presets (1REW~6INFO). The BSM feature will save AM frequencies in AM mode and FM frequencies in FM mode.

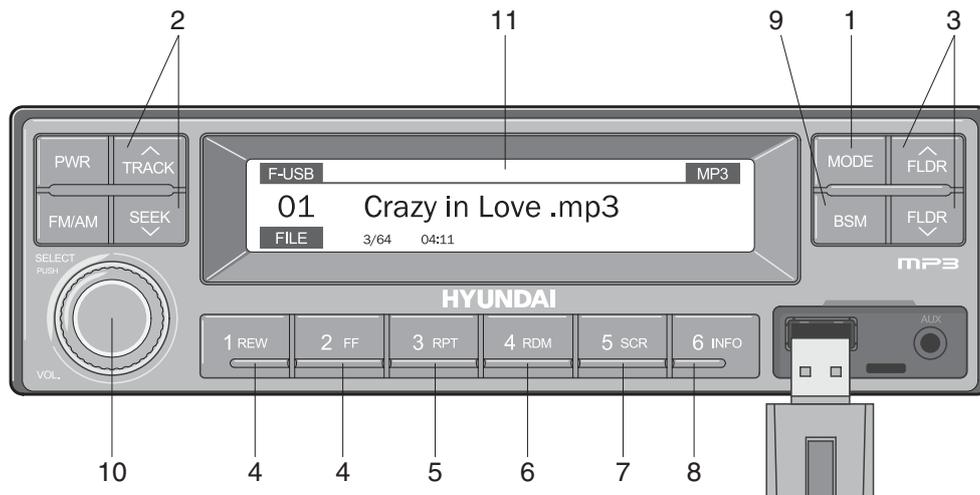
(6) Saving broadcast frequencies to PRESET numbers



Up to 18 FM broadcasts and 6 AM broadcasts can be saved.

- ① Use the auto/manual search buttons to find the desired frequency.
 - ② Select the preset button (1REW~ 6INFO) to which you wish to save the selected frequency. Press and hold the preset button.
 - ③ The frequency will be saved to the preset button to a sound of a beep. The saved frequency number will be displayed on the LCD DISPLAY. (However, the beep will not sound if the beep function has been turned off in sound setting.)
 - ④ After saving is complete, pressing the preset button will play the corresponding broadcast frequency.
- ※ **No beep sound signifies that the preset has not been saved. In this case, try again from the first step. (However, the beep will not sound if the beep function has been turned off in sound setting.)**

■ USB CONNECTION

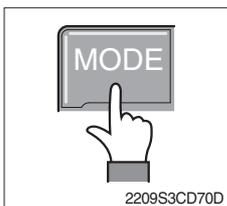


2209S3CD72

- | | |
|-----------------------------|---|
| 1 USB selection button | 7 Scroll (SCR) button |
| 2 TRACK UP/SEEK DOWN button | 8 View music info (INFO) button |
| 3 FLDR UP/DOWN button | 9 Scan button (BSM) |
| 4 FF/REW button | 10 Finding and playing file (SELECT) button |
| 5 RPT/FOLDER RPT button | 11 LCD display |
| 6 RDM/FOLDER RDM button | |

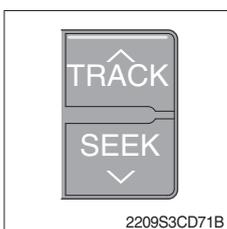
- Operates only when a USB is connected. Connecting a USB to the audio will automatically convert to USB mode.
- Connecting the USB when the starting switch is in ON state will turn the power on and automatically play the songs within the USB.

(1) USB selection button



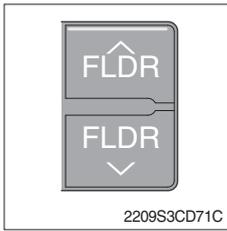
- ① While playing a different mode, press the MODE button to convert to USB mode. Connecting a USB to the audio will automatically convert to USB mode even if another mode is playing and automatically play the songs within the USB.
- ② If the USB is connected to both the front USB and handfree, then MODE is converted in the following order.
RADIO → USB (front) → USB (handfree)

(2) TRACK UP/SEEK down button



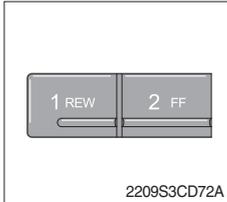
- ① While playing USB, press the TRACK ^ button to play the beginning of the next song.
Press the SEEK v button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

(3) FLDR UP/DOWN button



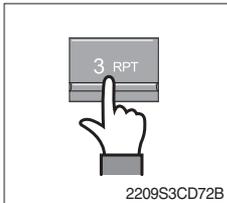
- ① If there are more than 2 folders in the USB, pressing the FLDR UP/DOWN button will move to the previous or next folder.
- ② If there are no folders in the USB, then pressing the button will move up/down within the folder in 10 file increments.

(4) FF/REW button



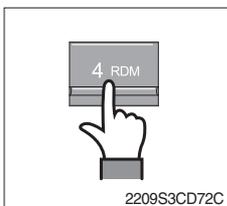
- ① While a USB is operating, press and hold the FF button to fast-forward the song. When fast-forward is complete, the next song will properly play from the beginning even if you continue holding the button. Press and hold the REW button to rewind the song. When rewind is complete, the current song will properly play from the beginning even if you continue holding the button. Shortly pressing the buttons will not operate the FF/REW.

(5) RPT/FOLDER RPT button



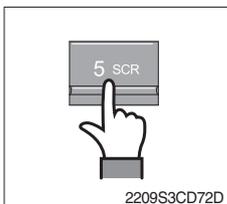
- ① While music is playing, shortly press the RPT button to repeat the currently playing song.
- ② (RPT function) Press and hold the RTP button to sequentially repeat all songs within the current folder. (FOLDER RPT, however, music files in the USB must be saved in folder format.)

(6) RDM/FOLDER RDM button



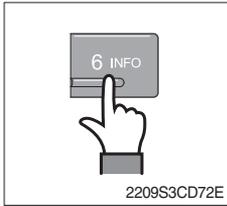
- ① While music is playing, shortly press the RDM button to randomly play the songs in the current folder. (RDM)
- ② While music is playing, press and hold the RDM button to randomly play the songs in the current folder. (FOLDER RDM, however, music files in the USB must be saved in folder format.)

(7) Scroll (SCR) button



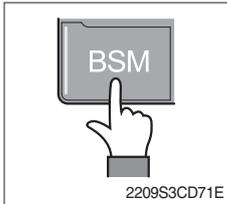
- ① Press the SCR button to turn ON/OFF the scroll function which scrolls the file name of the currently playing song on the LCD from right to left.

(8) View music info (INFO) button



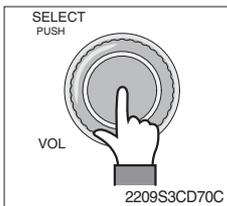
- ① Each time the INFO button is pressed, the info on the currently playing song will be displayed in the following order.
FILE NAME → TITLE → ARTIST → ALBUM → DIR

(9) Scan button (BSM)



- ① While music is playing, shortly press the BSM button to scan each song within the USB for 10 seconds in sequential order. (SCN)
- ② Press and hold the BSM button to scan each song within the current folder for 10 seconds in sequential order. (FOLDER SCN, however, music files in the USB must be saved in folder format.)

(10) Finding and playing file (SELECT) button



- ① While USB is playing, press and hold the SELECT button for over 3 seconds to enter FILE BROWSER mode and search for desired files.

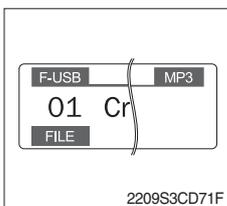
After entering FILE BROWSER mode, turn the SELECT button left/

- ② right to find the desired folder. After finding the folder, press the SELECT button to select the folder. Turn the SELECT button left/right to find the desired song and press the SELECT button to play.

If there are no adjustments for 3 seconds after pressing the

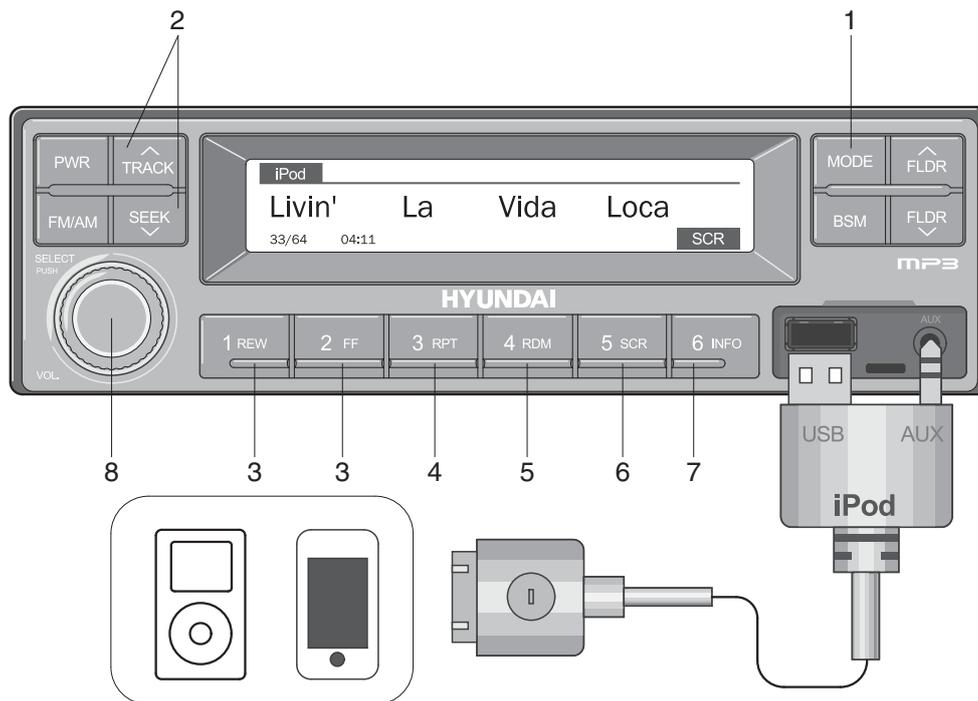
- ③ SELECT button, the function will be turned off and the USB play screen will be displayed.

(11) LCD display



- ① Displays the info of the currently playing song.
 - F-USB : Displays USB is connected to the Audio Front
 - R-USB : Displays USB is connected to the handfree
 - RPT : Displays that repeat function is turned on
 - 📁 RPT : Displays that folder repeat function is turned on
 - RDM : Displays that random play is turned on
 - 📁 RDM : Displays that folder random play is turned on
 - SCR : Displays that SCROLL is turned on

■ iPod Connection

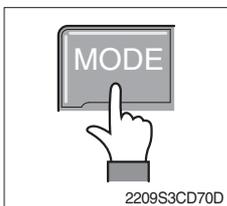


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- | | |
|-----------------------------|--|
| 1 iPod selection button | 5 Random play (RDM) button |
| 2 TRACK UP/SEEK DOWN button | 6 Scroll (SCR) button |
| 3 FF/REW button | 7 View music info (INFO) button |
| 4 Repeat (RPT) button | 8 Finding and playing file (SELECT) button |

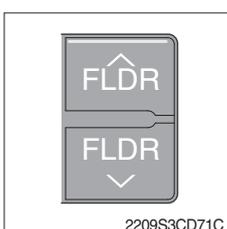
- Operates only when an iPod is connected. Connecting an iPod to the audio will automatically convert to iPod mode. Connecting the USB when the starting switch is in ON state will turn the power on and automatically play the songs within the iPod.
- The iPod cable is supplied separately.

(1) iPod selection button



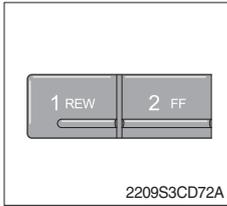
- ① While playing a different mode, press the MODE button to convert to iPod mode. Connecting an iPod to the audio will automatically convert to iPod mode even if another mode is playing and automatically play the songs within the iPod.

(2) TRACK UP/SEEK DOWN button



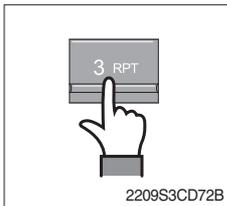
- ① While playing music, press the TRACK ^ button to play the beginning of the next song. Press the SEEK v button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

(3) FF/REW button



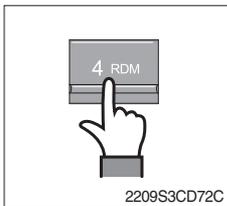
- ① While an iPod is operating, press and hold the FF button to fast-forward the song.
- ② When fast-forward is complete, the next song will properly play from the beginning even if you continue holding the button. Press and hold the REW button to rewind the song.
- ③ When rewind is complete, the current song will properly play from the beginning even if you continue holding the button.
- ④ Shortly pressing the buttons will not operate the FF/REW.

(4) Repeat (RPT) button



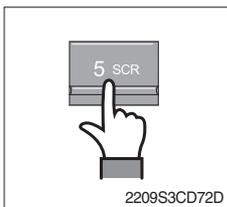
- ① While music is playing, press the RPT button to repeat the currently playing song.

(5) Random play (RDM) button



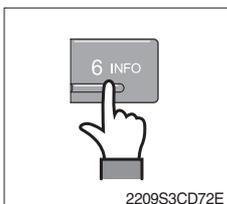
- ① While music is playing, press the RDM button to randomly play the songs.

(6) Scroll (SCR) button



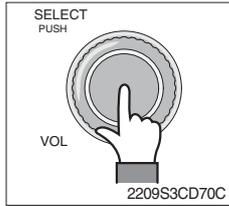
- ① Displays the file name of the currently playing song on the LCD. Here, the SCR button turns the file name SCROLL ON/OFF.

(7) View music info (INFO) button



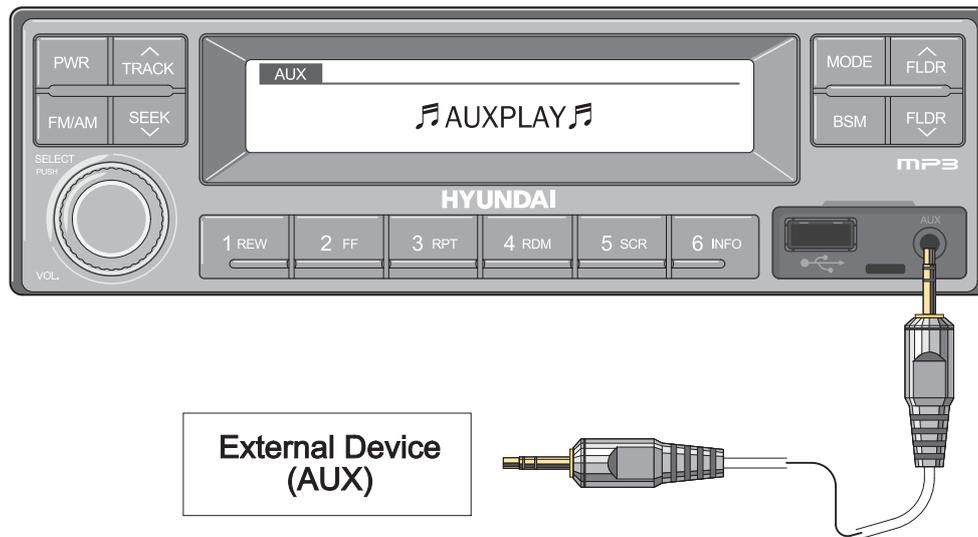
- ① Each time the INFO button is pressed, the info on the currently playing song will be displayed in order of ARTIST → ALBUM → TITLE.

(8) Finding and playing file (SELECT) button



- ① While iPod is playing, press and hold the SELECT button for over 3 seconds to enter CATEGORY mode and search for desired files.
- ② After entering CATEGORY mode, turn the SELECT button left/right to find the desired category.
- ③ Category will be displayed in the following order.
PLAYLISTS → ARTISTS → ALBUMS → GENRES → SONGS →
COMPOSERS → AUDIOBOOKS → PODCASTS
- ④ After finding the category, press the SELECT button to select the category. Turn the SELECT button left/right to find the desired song and press the SELECT button to play.
- ⑤ If there are no adjustments for 3 seconds after pressing the SELECT button, the function will be turned off and the iPod play screen will be displayed.

■ AUX connection



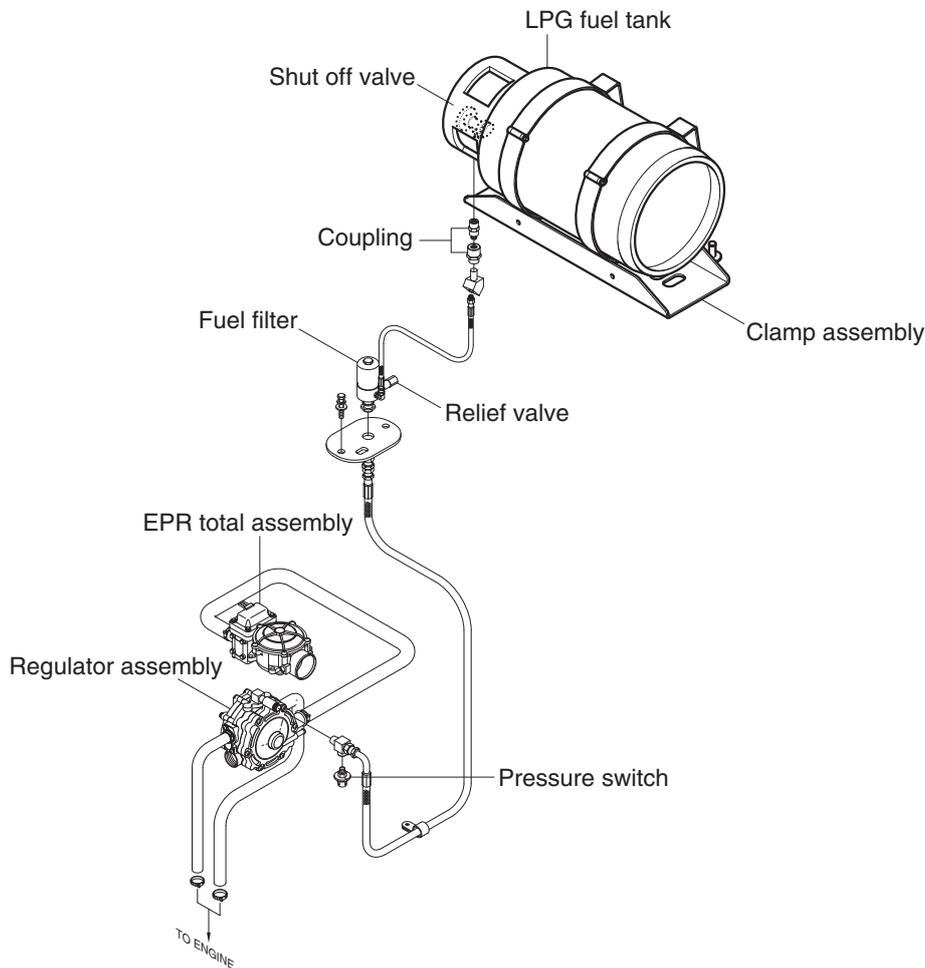
2209S3CD74

- Operates only when an external device is connected to AUX. Connecting an AUX device to the audio using the AUX cable will automatically convert to AUX mode.
- When an external device is connected, only the PWR, FM/AM, MODE, and VOL buttons can be operated.
- Settings can be made only through the external device connected to AUX.
- The AUX cable is supplied separately.

(1) Connecting an external device using the AUX cable

- ① While playing a different mode, press the MODE button to convert to AUX mode.
- ② If an external device is connected to the Audio through the AUX terminal, AUX mode will automatically be converted and play music from AUX. Connecting the AUX when the starting switch is in ON state will turn the power on and automatically play the songs within the AUX.

9. FUEL SYSTEM



25L9AOM104A

▲ LPG is HIGHLY FLAMMABLE. Never smoke when changing tank. Never change tank with the engine running.

▲ LPG is HEAVIER THAN AIR. It settles on your clothes and the ground around you, displacing oxygen vital for breathing. Open flames can cause fires.

If your truck uses liquefied petroleum gas (LPG), the fuel is stored in a tank mounted on the truck. A shut-off valve, a safety check valve and a pressure gauge are attached to the tank.

You manually operate the shut-off valve to control the flow of fuel from the tank. You must close this valve when the engine is not running. Close this valve by hand only to a firm tightness. Do not over-tighten.

When you open the shut-off valve before starting the engine, turn the handle slowly : otherwise, the check valve will block fuel-flow for a two to three minute period.

▲ The tank must lock onto the locator pin before the fastener is secured. This is to make sure that the relief valve is in the proper orientation.