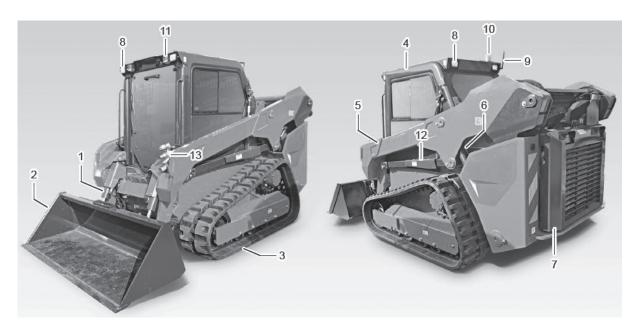
4. CONTROL DEVICES

1. LOCATIONS



TL7O401B

- 1 Tilt cylinder
- 2 Bucket
- 3 Tire
- 4 ROPS cabin
- 5 Boom

- 6 Lift cylinder
- 7 Rear door
- 8 Work lamp
- 9 Antenna
- 10 Beacon lamp
- 11 Turn signal lamp
- 12 Boom lock
- 13 Auxiliary coupler block

2. SWITCHES

1) MOUNTING LOCATION



LF1O402B

- 1 Engine acceleration dial
- 2 Right control lever (Boom & bucket)
- 3 Seat bar
- 4 Relay box (Cabin)
- 5 Instrument panel
- 6 Key switch
- 7 Power outlet
- 8 Stereo
- 9 Driver's seat
- 10 Left control lever (driving)
- 11 Air conditioner controller
- 12 Right control panel
- 13 Left control panel

2) KEY SWITCH

- 1 Key switch
- A OFF
- B ON
- C START

(1) OFF (A)

It allows for inserting or removing the ignition key, and while the engine is running, turn the key to "OFF" to turn off the engine.

(2) ON (B)

The position "B" indicates the "ON" position. It turns on the whole system of the machine.

(3) START (C)

The "C" location is the ignition location, which is used to turn on the engine. Take off your hand as soon as the engine starts.

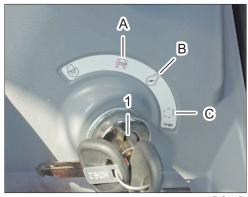
- ▲ Stop the engine immediately if the oil pressure warning lamp does not go off after the engine is started. The engine may be severely damaged.
- ▲ If the battery charge warning lamp does not go off after the engine is started, check the electrical systems, such as the alternator, for damage. Continuing to use the engine under this condition can discharge the battery or damage other electrical devices.
- This machine is equipped with the restart prevention system so that even if the key is on the START position while the engine is running, it won't restart the engine.

3) ENGINE ACCELERATION DIAL

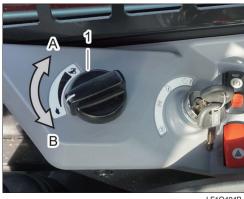
- Engine acceleration dial
- A Acceleration
- **B** Deceleration

This dial controls the RPM of the engine. Turn the dial to the right to increase the RPM, and turn it to the left to decrease the RPM.

To stop the engine, turn the dial to the left to reduce the RPM to its minimum, and turn the ignition key to "OFF".



LF1O403B



LF1O404B

4) HYDRAULIC UNLOCK SAFETY SWITCH

1 Hydraulic unlock switch

Use this switch to unlock (reset) the operation system which is locked for safety.

When you pull up the seat bar while the engine is running or turn off the engine, the machine automatically is set to the parking state. After lowering the seat bar, press the reset switch to release the lock and work is possible.



I F1O409A

5) PARKING SWITCH

1 Parking switch

When parking, press the switch. When the switch is pressed, the parking and driving devices are locked and the parking lamp (P) is turned on.

* If you lift the seat bar or turn off the engine while starting, it automatically enters the parking state.



I F1O404A

6) MAIN LIGHT SWITCH

- Main light switch
- A OFF
- B Step 1
- C Step 2

This switch is in two steps to turn on the front and rear work lamps in sequence.

	•	
Switch	Functions	
OFF	OFF position	
Step 1	The front work lamp (headlamp) comes on.	
Step 2	The front/rear work lamps come on.	



LF1O405A

7) SELF-LEVELLING SWITCH (IF INSTALLED)

Self-levelling switch

This switch is used for the self-levelling operation. When in operation, the self-levelling lamp (\sum_{\text{\frac{1}{2}}}) comes on the instrument panel.

The self-levelling function maintains the parallel position between the bucket and the ground automatically according to the elevation angle of the boom.



LF1O4D1A

8) WIPER/WASHER SWITCH (CABIN TYPE)

- 1 Wiper / washer switch
- A OFF
- B Step 1
- C Step 2

This switch is in two steps to run the wiper and the washer in sequence.

Switch	Functions	
OFF	OFF position	
Step 1	The wipers are on.	
Step 2	The washer fluid is sprayed and the wipers are on. The washer function is activated only when the switch is pressed. When the switch is not pressed, the wipers return to their original location.	



LF10410C

9) BEACON LAMP SWITCH (OPTIONAL)

1 Beacon lamp switch

This switch can be used to warn other vehicles when malfunction occurs in the vehicle while driving on a public road. Press the switch to turn on the beacon lamp on the top of the cabin.

♠ If the beacon lamp is turned on for an extended period of time while the engine is stopped, the battery can be discharged. Therefore, use them only in emergency.



LF10410D

10) HAZARD WARNING FLASHER SWITCH

1 Hazard warning flasher switch

This switch can be used to warn other vehicles when malfunction occurs in the vehicle while driving on a public road. The turn signal lights cannot be operated while the hazard warning flasher is in operation.



LF1O4D2A

11) TURN SIGNAL LAMP SWITCH

- 1 Turn signal lamp switch
- A Right turn
- B Left turn

The turn signal lamp switch is used when you want to change the turning direction of the machine or to warn other vehicle or machine. Press the lower part to have the left turn signal lamp blink, and press the upper part to have the right turn signal lamp blink.

* The turn signal lamp switch is not a self-return type. Therefore, make sure to return the switch manually after turning the machine.

The turn signal lights can be operated without the key inserted.



LF1O4D3B

12) AUX SWITCH

1 AUX switch

This switch controls the external hydraulic pressure and power function and can be used after the implement is installed. When in operation, the AUX lamp () on the instrument panel comes on. When using the external hydraulic pressure, press the switch (ON) and control the pressure by the joystick switch and dial on the right. (refer to page 4-13.)



LF1O4D4B

13) HIGH FLOW SWITCH

- 1 High flow switch
- 2 AUX switch

This switch is used for work that requires flow due to the addition of optional implements, and the system operates by running the AUX pump (high flow pump).

It can be used by pressing the AUX button, which turns on the AUX lamp ($|\underline{\underline{}}|$), AUX hydraulic lamp ($|\underline{\underline{}}|$) and high flow lamp ($|\underline{\underline{}}|$). (refer to page 4-13).



LF1O4D5B

14) HYDRAULIC LOCK SWITCH

1 Hydraulic lock switch

This switch is used to block the hydraulic lines for implements (boom, AU X). When in operation, the hydraulic lock indicator ($\begin{tabular}{c} \bot_0 \\ \end{tabular}$) on the instrument panel comes on.



LF1O4D6B

15) QUICK ATTACHMENT SWITCH (IF INSTALLED)

1 Quick attachment switch

It is used to attach or detach the front implement (loader).

▲ If the lock is released while driving, the loader may fall onto the cabin. Therefore, never use the unlock function while driving.



LF1O4D7A

16) DPF REGENERATION SWITCH

- 1 DPF regeneration switch
- A Activation
- B Deactivation

Activation (upper portion of switch)

Perform the following instructions when the regeneration warning lamp comes on:

- (1) Park the machine on a flat surface.
- (2) Idle the engine.
- (3) Press the parking switch and fix it in place.
- (4) Put all levers into the neutral position.
- (5) Run the engine for 3 to 4 minutes. Then, press the activation portion of the regeneration switch for approx. 2 seconds.
- (6) The regeneration warning lamp goes off and the regeneration process lamp blinks.

Before resuming your work, wait for approx. 30 to 40 minutes until the regeneration process is completed.

* The illumination timing of the regeneration process lamp may differ depending on the DPF temperature.

Deactivation (lower portion of switch)

Do not press the deactivation button while the regeneration process is activated.

However, the switch can be set to the deactivation position to stop the regeneration process in emergency.

▲ To protect the catalyst filter, keep the followings:

- · Make sure to use only genuine fuel.
- · Keep the engine oil replacement schedule.
- · Check the engine oil level frequently to keep it to the specified level.
- · Avoid any unnecessary engine idling.
- · Never stop the engine while driving.
- Do not use any engine oil additive or fuel additive.
- · Avoid prolonged driving with any warning lamp illuminated.
- Do not allow any flammable materials, such as dry grass and paper, to come near the catalyst filter while parked.



I F10/ID8F

17) A/C SWITCH (CABIN TYPE)

1 A/C switch

This switch is used to control the heater. It is only applied to the vehicle equipped with an A/C. (For details, refer to the page 4-36.)



LF10411C

18) INTERIOR LAMP SWITCH

1 Interior lamp ON/OFF switch

Press the button to turn the Interior lamp on or off.



LF1O406A

3. CONTROLS



LF10414A

- 1 Right control lever (boom & bucket)
- 2 Left control lever (driving)
- 3 Throttle pedal

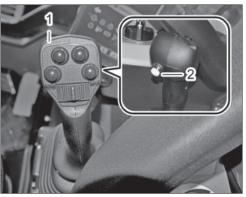


LF1O415A

1) RIGHT CONTROL LEVER (BOOM & BUCKET)

- 1 Right control lever
- 2 AUX electric mode activation button

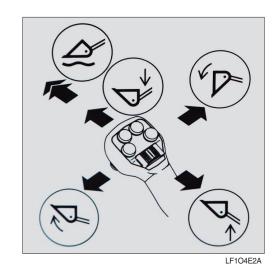
The right control lever is used to control the boom and the bucket. Also, with the AUX button on the joystick pressed, the lever can be used for hydraulic or electric work. (However, any electric work can be performed only after pressing the AUX electric mode activation button.)



LF1O4E1A

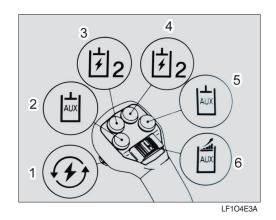
(1) Lever operation

· / · · · · · · · · · · · · · · · · · ·	
Direction	Function
₩	Boom floating
\sqrt{\sq}}}}}}}}}}} \end{\sqrt{\sqnt{\sqrt{\sq}}}}}}}}}}}} \end{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}} \end{\sqrt{\sqrt{\sq}}}}}}}} \end{\sqrt{\sqrt{\sqrt{\sq}}}}}}}} \end{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}} \sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{	Bucket up
₹₽	Bucket down
P	Boom up
₩	Boom down



(2) Lever button operation

,			
No.	Buttons	Functions	
1	(AUX electric mode activation button	
2	AUX	AUX port: Male coupler port (Refer to page 4-16)	
3	岁2	14-pin power supply-E	
4	过2	14-pin power supply-F	
5	AUX	AUX port: Female coupler port (Refer to page 4-16)	
6	AUX	AUX jog dial (M← →F)	



(3) Aux electric mode activation button

With AUX switch ON:

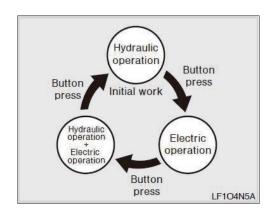
Initially, the auxiliary hydraulic operation mode (| AUX | Dispute | Dispute | AUX | Dispute | Disput

Pressing the button again enables simultaneous auxiliary hydraulic operation and auxiliary electric operation mode ($\left|\frac{1}{h_{\text{MX}}}\right| + \left|\frac{1}{h_{\text{MX}}}\right|$).

When pressing the button again, the activation cycle is reset, starting from the initial auxiliary hydraulic operation mode. The lamp on the instrument cluster also indicates the current operating state.

With AUX switch OFF:

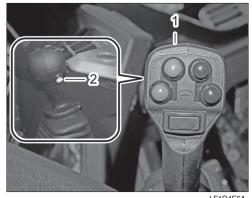
No auxiliary operation mode can be activated.



2) LEFT CONTROL LEVER (DRIVING)

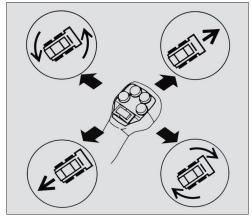
- Left control lever
- 2 2-speed button

With the left control lever, you can move the vehicle forward or backward, and turn it to the left and right. In addition, the AUX power operation, ride control, 2-speed and horn functions can be used by pressing the button on the control lever.



(1) Lever operation

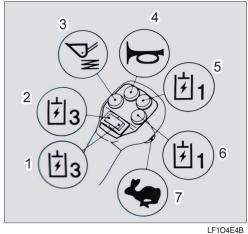
	1
Direction	Functions
	Forward
r Car	Reverse
(D)	Left turn
	Right turn



LF1O4E3A-1

(2) Lever button operation

,				
No.	Buttons	Functions		
1	ઇ 3	14-pin power supply-G		
2	4 3	14-pin power supply-H		
3	3 Ride control			
4	6	Horn button		
5	过1	14-pin power supply-C		
6	过1	14-pin power supply-D		
7	4	2-speed button		



(3) Ride control

1 Ride control button

When driving the loaded machine on an uneven road, the movement delivered to the boom is directly sent to the machine, causing an unstable driving condition. Under this condition, pressing the ride control button allows for the movement delivered from the road surface to the boom to be forcefully controlled by the hydraulic action of the accumulator in the ride control valve, which cancels some vibration, resulting in a stable driving condition.

When in operation, the ride control lamp (\searrow) on the instrument panel comes on.



LF1O4H1A

(4) Horn button

1 Horn button

The horn button can be operated without the key inserted. Pressing this button sounds the horn.

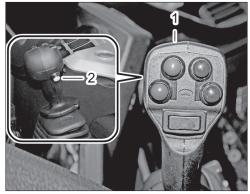


LF104H2A

(5) 2-speed button (selflevelling, quick attachment, high flow model)

- 1 Left control lever
- 2 2-speed button

The vehicle speed can be controlled in two steps by the driving motor. Pressing the button while driving allows for the second (high-speed) driving mode. When in operation, the 2-speed lamp (�) on the instrument panel comes on.



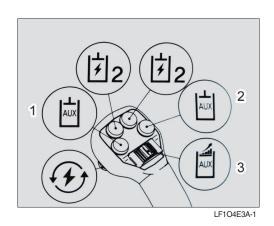
LE104G6

3) HOW TO OPERATE EXTERNAL HYDRAULIC PRESSURE

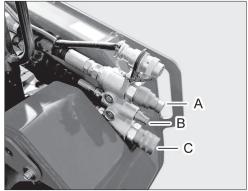
- 1 AUX switch
- (1) Turn the AUX switch ON.
- (2) Press the right control lever button 1 to continue supplying hydraulic pressure to the male coupler.
- (3) Press the right control lever button 2 to continue supplying hydraulic pressure to the female coupler.
- (4) The flow level can be controlled by the jog dial, and more flow will be introduced by pushing it from the center to the edge. Push the jog dial to the left to supply the hydraulic pressure to the male coupler and to the right to supply it to the female coupler.
- (5) It is possible to set the flow level of each button (1, 2). Please refer to the setting function on the instrument panel. (Page 4-38, 'Hydraulic pressure control'.)
- 1 Male coupler operation button
- 2 Female coupler operation button
- 3 Jog dial



LF1O4G2B



- A Male coupler port
- B Return port
- C Female coupler port



LF1O4G4A

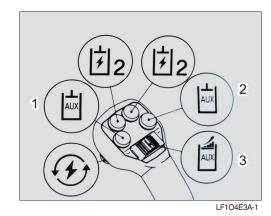
4) HOW TO OPERATE THE HIGH FLOW FUNCTION

- 1 High flow switch
- 2 AUX switch



LF1O4D5B

- 1 Male coupler operation button
- 2 Female coupler operation button
- 3 Jog dial

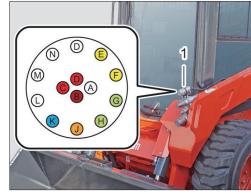


- (1) Turn on the AUX switch and high flow switch.
- (2) Turn the right control lever button 1 or jog dial to the left to operate the high flow function to the male coupler, which allows for more flow supply.
- ♠ The high flow function can be activated by operating the right control lever button 1 or turning the jog dial to the left and is only applied to the male coupler.

5) 14-PIN AUXILIARY POWER OUTLET

1 14-pin auxiliary power outlet

After installing the external implement and connecting the aux. power outlet connector, it is possible to operate the control lever button to control the implement. Turn on the auX switch and press the auX electric mode activation button on the right control lever to activate the aux. power outlet, at which the auX lamp (| and AUX power indicator (| on the instrument panel come on. When pressing the left or right control lever button to output the power, the port lamp to which the power is applied (| one on in the instrument panel.



LF1O4E6A-1

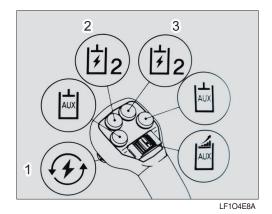
6) HOW TO OPERATE THE AUXILIARY POWER

- Right control lever
- 2 AUX electric mode activation button
- (1) Turn on the AUX switch.
- (2) Press the AUX electric mode activation button (2) on the right control lever to use the auxiliary external power.

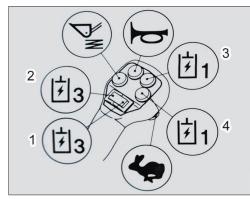


F104E1A

- 1 AUX electric mode activation button
- 2 14-pin power supply-E
- 3 14-pin power supply-F
- (3) Press the right control lever button 2 to supply power to the aux. power outlet E pin.
- (4) Press the right control lever button 3 to supply power to the auxiliary power outlet F pin.



- 1 14-pin power supply-G
- 2 14-pin power supply-H
- 3 14-pin power supply-C
- 4 14-pin power supply-D
- (5) Press the left control lever button 1 to supply power to the auxiliary power outlet G pin.
- (6) Press the left control lever button 2 to supply power to the auxiliary power outlet H pin.
- (7) Press the left control lever button 3 to supply power to the auxiliary power outlet C pin.
- (8) Press the left control lever button 4 to supply power to the auxiliary power outlet D pin.



LF1O4G9A

8) THROTTLE PEDAL

1 Throttle pedal

The engine speed is controlled by the amount of force applied to the throttle pedal. Depressing it further, the engine speed increases; if not, the engine idles at a low speed.



LF1O418A

4. INSTRUMENT PANEL

1) INSTRUMENT PANEL FEATURES

The instrument panel consists of the following LCD and switches. The LCD shows the driver the operating condition of the vehicle and any defect status for the correct use and maintenance of the vehicle. Also, it allows for setting various modes, monitoring or other convenience devices and displays their status. Set the machine's operation mode by using switches.

- A If a warning lamp comes on in the monitor, check the issues immediately and take necessary actions.
- * The monitor does not guarantee the status of the machine. For safe use of the machine, do not rely only on the monitor. Conduct daily checkup procedures according to Chapter 6: Maintenance.



LF1O413U

- 1 Fuel gauge
- 2 AUX. indicator
- 3 Auxiliary hydraulic indicator
- 4 Auxiliary electric port indicator
- 5 High flow indicator
- 6 2-speed lamp
- 7 Hazard flasher, High-temperature hydraulic oil warning lamp
- 8 Consumables management warning lamp
- 9 Engine coolant temp. gauge
- 10 Auxiliary hydraulic port indicator
- AUX. indicator 11
- 12 Ride control indicator

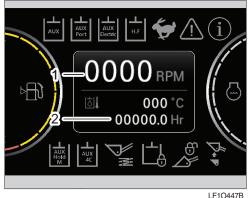
- 13 Hydraulic lock indicator
- 14 Quick attachment unlock warning lamp
- 15 Self-levelling indicator
- 16 Left turn signal indicator
- 17 Right turn signal indicator
- 18 Engine oil pressure warning lamp
- 19 Engine preheat indicator
- 20 CHECK ENGINE warning lamp
- 21
- DPF regeneration warning lamp 22 DPF regeneration process indicator
- 23 Emissions system warning lamp
- 24 Engine stop warning lamp

- 25 Water-In-Fuel warning lamp
- 26 Parking brake warning lamp
- 27 Safety cover warning lamp
- 28 Safety bar warning lamp
- 29 Battery Charge Warning Lamp
- 30 Menu switch
- 31 Left menu button
- 32 Right menu button / Camera button
- 33 Enter button
- 34 ECS/ Buzzer OFF button
- 35 **Tachometer**
- 36 Hour meter

2) TACHOMETER/HOUR METER

- 1 **Tachometer**
- Hour meter

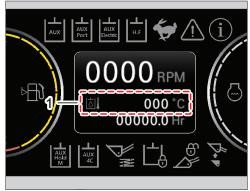
The tachometer indicates the engine rpm. The hour meter cumulates the duration of operation of the engine in hour after it starts



3) HYDRAULIC OIL TEMPERATURE GAUGE

Hydraulic oil temperature gauge

It displays the temperature of the hydraulic oil, and if it exceeds 90°C, the warning lamp ($|\dot{a}|$) will come on and the buzzer will sound. If the lamp comes on, contact a dealer nearby to get it checked.



LF1O447B-1

4) FUEL GAUGE

1 Fuel gauge

This gauge indicates the remaining fuel level after the key switch is turned to the "ON" position.

- · E: It indicates low fuel (requiring refueling).
- · F: Fuel is fully filled.

If driving is continued with the needle below the position "E," air may enter the fuel supply system. In this case, "bleed" the system. (For detailed instructions, refer to "Bleeding fuel system" in the chapter "Maintenance")

- A If the level is in red or the fuel level warning lamp lights in red on the instrument panel, replenish the fuel immediately.
- A If the level continues to be within the red zone or the warning lamp comes on even after no issues were found, check the electric system as it may be due to the defect in sensors, poor connection of connectors, or the gauge's ground issue.
- * Make sure to use only genuine fuel as the engine can be damaged if unqualified fuel is used. Use fuel for winter season in cold weather to start the engine easier.



LF10448B

5) ENGINE COOLANT TEMPERATURE GAUGE

Engine coolant temp. gauge

This gauge indicates the coolant temperature after the key switch is turned to the "ON" position.

- · Amber zone: Low temperature between 55 and 115°C
- · Red zone: High temperature at 115°C or over If the level goes to the red zone or the warning lamp blinks in red and the buzzer sounds while driving, it indicates that the engine is overheated. Reduce the workload immediately.
- Adjust the workload sufficiently so as to not have the level rise up to the red zone.

If the level stays in the red zone, do not stop the engine immediately. Instead, reduce the work load to cool down the engine before stopping the engine.

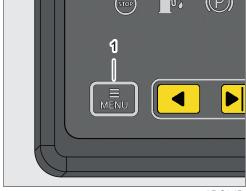


LF10449B

5) MENU SWITCH

Menu switch

Press this switch to return to the main menu from the main screen.



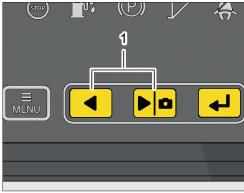
LF10450B

6) LEFT/RIGHT MENU SWITCH/CAMERA SWITCH

1 Left/right menu switch/camera switch

Move to the left up or right down in the menu to increase or decrease the input value.

The rear camera mode is displayed from the main screen.

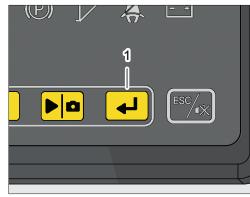


LF10451B

7) ENTER SWITCH

1 Enter switch

Press the Enter switch to display the selected menu.



LF10452B

8) ESC / BUZZER OFF BUTTON

1 ESC / Buzzer OFF button

This switch is used to cancel the other menu (move to the previous menu).

The buzzer sounds when the machine malfunctions. At this point, press the switch to stop the buzzer.



LF10453B

9) HAZARD FLASHER

1 Hazard flasher

This warning lamp blinks in case of the followings:

- · Warning lamp illumination
- · Instrument panel communication data error
- · Error code generated
- High hydraulic oil temperature detected (at 90°C or over)

If the hazard flasher comes on, check for causes and repair it immediately.

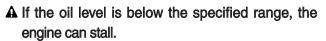


10) ENGINE OIL PRESSURE WARNING LAMP

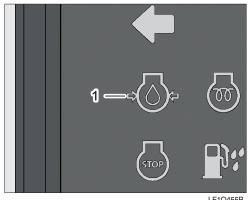
1 Engine oil pressure warning lamp

This lamp comes on and the buzzer sounds when the engine oil pressure or oil level is low.

If this lamp comes on while driving, stop the engine immediately and check the engine oil level. If this lamp comes on even with the specified engine oil level, have the tractor checked by your local Hyundai dealer or workshop immediately.



The engine can be severely damaged if driving or operating the tractor with the engine oil warning lamp ON.

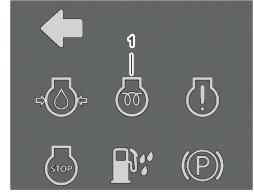


LF10455E

11) ENGINE PRE-HEATING INDICATOR

1 Engine preheat indicator

Once the key switch is on, engine preheating starts automatically. Once this indicator is turned off, start the engine.



LF10457B

12) CHECK ENGINE WARNING LAMP

1 CHECK ENGINE warning lamp

It comes on in case of any defect of engine operation. If the warning lamp comes on, check for causes and repair it immediately.



13) DPF REGENERATION WARNING LAMP

1 DPF regeneration warning lamp

It comes on according to the regeneration order from the ECU. If this warning lamp comes on, press the regeneration button.

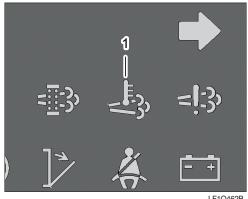


LF10461B

14) DPF REGENERATION PROCESS **INDICATOR**

1 DPF regeneration warning lamp

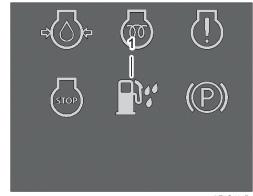
Press the DPF regeneration button when the DPF regeneration warning lamp comes on. Then, the DPF regeneration process indicator comes on, and the DPF regeneration process starts.



15) WATER-IN-FUEL WARNING LAMP

1 Water-In-Fuel warning lamp

When a certain amount of water is accumulated in the fuel filter, the warning buzzer sounds. In this case, stop the engine immediately and drain water from the fuel filter. (Refer to Chapter 6: Maintenance.)



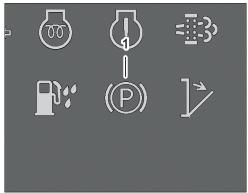
LF1O465B

16) PARKING BRAKE WARNING LAMP

1 Parking brake warning lamp

When lifting the seat bar after parking, the parking brake is automatically engaged, and the warning lamp comes on. When lowering the seat bar and pressing the reset switch, the warning lamp is turned off.

▲ If the warning lamp continues to come on even after having lowered the seat bar and pressed the reset switch, have the machine checked at a dealer or a nearby service center.



LF1O466B

17) SAFETY COVER WARNING LAMP

1 Safety cover warning lamp

It comes on when the rear radiator door of the engine is open. Under this condition, the engine won't start.

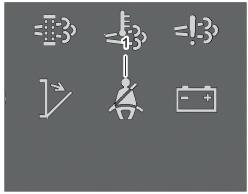


LF1O467B

18) SAFETY BAR WARNING LAMP

1 Safety bar warning lamp

It comes on when the safety bar is lifted.



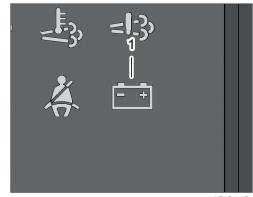
LF1O468B

19) BATTERY CHARGE WARNING LAMP

1 Battery Charge Warning Lamp

This warning lamp comes on when the battery charging voltage is low. If the warning lamp is on, check the battery charging circuit.

▲ If this warning lamp comes on while driving, the charging system, such as the alternator, is malfunctioning. Therefore, turn off all electrical devices and have the tractor checked by your local dealer or workshop as soon as possible.



LF1O458B

20) REAR VIEW CAMERA (OPTION)

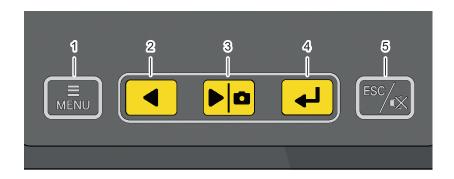
- 1 Main screen on the instrument cluster
- 2 Camera switch

Press the camera switch on the instrument cluster to use the camera function. When the reverse gear-linked function is set to be activated, the rear view is automatically displayed on the main screen when reversing. (for the proper setting, refer to Page 4-28.)



LF1O4N6A

20) MAIN AND SUB-MENU



LF1O469B

- 1 Menu switch
- 2 Left menu button
- 3 Right menu button / Camera
- 4 Enter button
- 5 ECS / Buzzer OFF button

(1) Input buttons

No.	Item	Functions	Remarks
1	MENU	When pressing this button on the home screen, the sub menu is displayed. When pressing this button on the sub-menu screen, the corresponding item is selected and its input value can be adjusted.	While controlling the function within each sub menu, pressing this button lets you move to the next sub menu.
2	The button to select functions and adjust (increase or decease) input values within the sub-menu		When the camera button is selected, the rear camera image is on regardless of the driving direction.
3	4	The button to enter the desired function and set input values within the sub menu	
4	ESC / Buzzer OFF	The button to move back to the previous menu screen or to cancel the current function	Press and hold the button to move to the home screen immediately. Press the button while the buzzer sounds to turn the buzzer off.

(2) Structure

Main menu	Submenu	Description	
	· Machine condition	Displaying coolant temperature, hour meter, RPM, etc.	
Diagnosis function	· Machine information	Displaying instrument panel & MCU version, model name, etc.	
	· Current fault	Displaying current fault status list of the engine and machine	
	· Engine start inhibition setting	Engine start inhibition setting, password change or password display	
Maintenance function	· Consumables management	Changing oil/filters replacement intervals and checking elapsed time	
	· A/S contact	Displaying and changing A/S telephone number	
	· Administrator menu	Displaying fault history and mode change	
	· Brightness settings	· Brightness manual/automatic (day, night) settings	
Configuration	· Time settings	· Current time settings	
	· Unit settings	· Temperature (°F/°C)	
	· Language settings	· Korean, English	
	· Camera settings	· Reverse gear-linked function ON/OFF	

^{*} Press the menu button to activate the sub-menu.

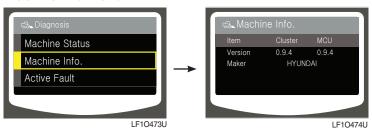
(3) Diagnosis function

1 Machine status



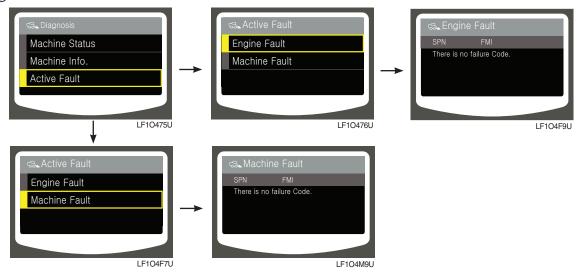
· The status of the machine is displayed.

② Machine information



· You can check the version of the instrument panel and MCU as well as the machine's model name.

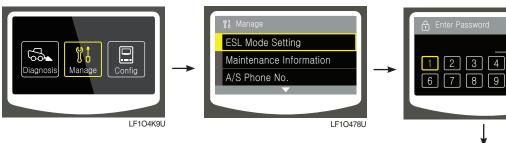
(3) Current fault



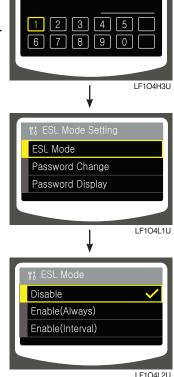
- · You can check the current fault of the engine and machine.
- In case of related codes, contact a dealer nearby to get it checked.

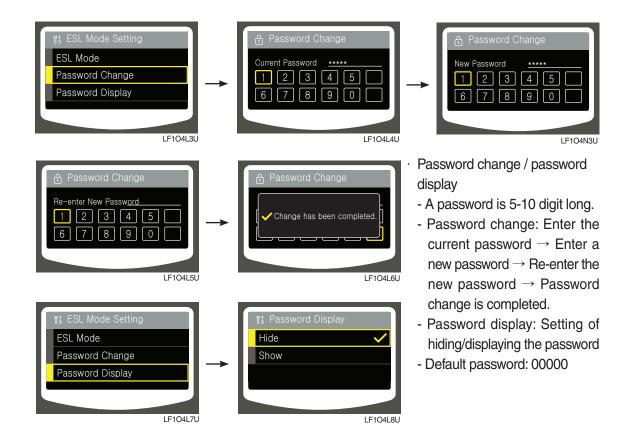
(4) Maintenance function

① Engine start inhibition setting



- · Engine start inhibition setting
 - The engine start inhibition function is designed to prevent theft and unauthorized use of the machine.
 - While the engine start inhibition setting is set to ON, the system requires a password when the key switch is turned on.
 - OFF: the engine start inhibition setting function is not deactivated.
 - ON: whenever a driver tries to start the engine, the preset password needs to be entered.
 - ON after preset time: whenever a driver tries to start the engine, the preset password needs to be entered. However, when the driver tries to start the engine within the preset time, the password is not required. The preset time can be set up to two days.
- **% Default password: 00000**
- Length of the password: 5~10 digits



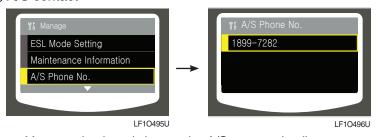


2 Consumables management



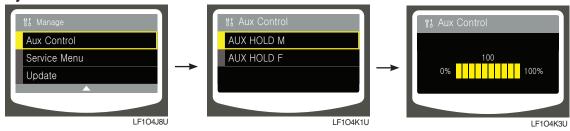
- · Elapsed time: it shows the elapsed time after the maintenance.
- · Replacement interval: the replacement interval can be incremented/decremented in 50 hours.
- · Replacement frequency: it shows the maintenance replacement history.
- · Replacement: the elapsed time is reset to 0.

③ A/S contact



· You can check and change the A/S contact details.

4 Hydraulic control



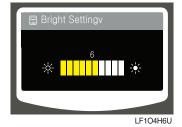
- · Hydraulic control: The amount of hydraulic flow delivered to the external hydraulic implement can be controlled.
- AUX HOLD M: The amount of flow sent to the male coupler can be set by percentage, using the ◀,▶ buttons in the instrument panel.
- AUX HOLD F: The amount of flow sent to the female coupler can be set by percentage, using the ◀,▶ buttons in the instrument panel.
 - Press the auxiliary hydraulic pressure supply button to continue to supply the set hydraulic pressure.
 - When supplying hydraulic pressure via the jog dial, the amount of flow increases as the dial turns from the center towards the end. The maximum possible flow is supplied based on the value set by the jog dial (ex: the maximum value is 50% when 50% is set by the jog dial).
 - When controlling the flow by jog dial, turning it to the left supplies the hydraulic pressure to the male coupler, and turning it to the right supplies the hydraulic pressure to the female coupler.

(5) Configurations

① Brightness settings



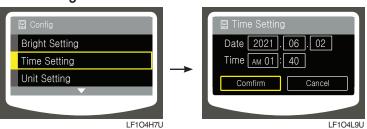




· Manual: The LCD brightness can be set manually.

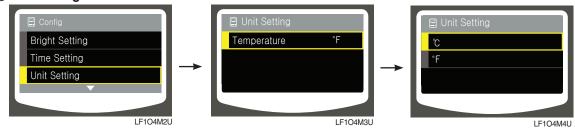
- · Automatic: The LCD brightness is automatically controlled according to the setting level for daytime/nighttime.
- Daytime duration setting: The daytime duration can be set. Once the duration for daytime is set, the remaining duration corresponds to the nighttime.

② Time settings



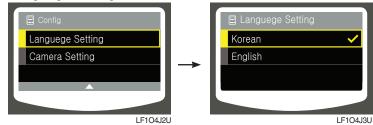
· The time can be set. (Year, Month, Day, Hour, Minute)

③ Unit setting



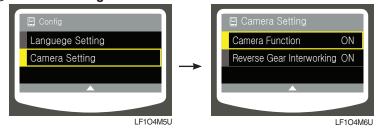
Temperature: Celsius (°C) ← Fahrenheit (°F)

4 Language settings



• The desired language can be selected. Once a language is selected, all information is displayed in that language.

⑤ Camera settings



- · You can set the camera function on or off (optional).
- · You can turn the reverse gear linked function on or off.
- · Reverse gear linked function: When the vehicle is in reverse, the camera mode is automatically displayed on the main screen.

21) MACHINE DIAGNOSIS

(1) Checking the monitor

① Check if the or warning lamp is illuminated on the monitor.



LF1O4C3B

② Press the MENU button.



LF1O4C4U

③ Press the Enter button () to select the 'Diagnosis" function.



LF1O4C5U

④ Press the Enter button (←) to select the "Current fault".



LF1O4C6U

⑤ Press the Enter button () to select the "Machine fault".



LF1O4C7U

⑥ Check the code and press the Enter button (◄).



LF1O4C8U

- $\ensuremath{{\bigcirc}}$ Verify and check the diagnosis details.
- In case of related codes, contact a dealer nearby to get it checked.



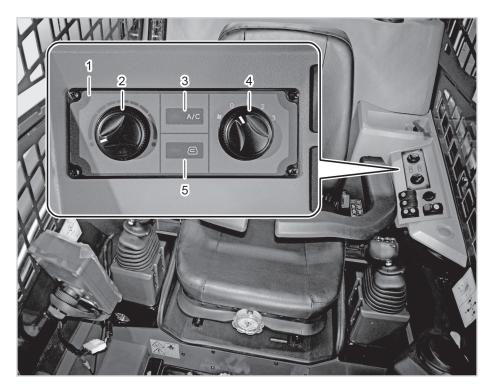
LF1O4C9U

■ Input buttons

Na	No. DTC DDSPN FMI		Description	Doublest winds hours failed
INO.			- Description	Part that might have failed
1	1 101 4		Voltage of the oil temperature sensor and its wiring is higher than normal or they are shorted.	Oil temperature sensor,
'			Voltage of the oil temperature sensor and its wiring is lower than normal or they are shorted.	Oil temperature sensor wiring
	2 301 4		Voltage of the fuel sender circuit is higher than normal, or the circuit is shorted to high voltage or open	Fuel sender
2			Voltage of the fuel sender circuit is lower than normal, or the circuit is shorted to low voltage	Fuel sender wiring
3	705		High battery voltage	Battery
3	3 /05	1	Low battery voltage	Battery wiring
4	707	1	Alternator voltage is low or open.	Fuse (R terminal power), alternator or wiring
5	841	2	ECU communication error	ECU/MCU/Cluster/Wiring

5. CABIN

1) INTERIOR DEVICES



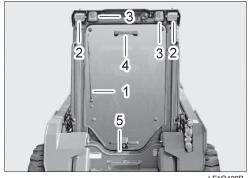
LF1O419B

- Heater / A/C controller 1
- 2 Temperature control dial
- 3 A/C power button

- Blower speed control dial
- 5 Vent mode button

2) EXTERIOR DEVICES

- Wiper 1
- 2 Work lamp
- 3 Turn signal lamp
- Handle
- Door lock 5
- (1) The cabin was design to offer a comfortable and convenient working condition.
- (2) With wide windows and rearview mirrors on the left and right sides, it offers a wide viewing angle for forward/reverse driving.
- (3) With the A/C and heater, a pleasant indoor environment can be maintained in the cabin.
- (4) The ROPS (Roll Over Protection Structure) certified cabin structure guarantees your safety. However, its safety degrades drastically if the driver does not wear the seat belt.

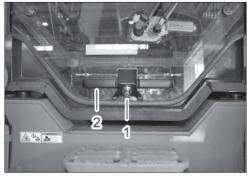


3) DOOR

- 1 Door lock
- 2 Handle

Press the door lock to unlock it. Then, the front door can be raised. To close the door, use the handle to lower the door so that the lock is engaged.

The door can be locked by turning the lock device on the outside of the door with the ignition key.



LF10422A

4) WORK LAMP

1 Work Lamp (front)

The work lamp is installed on the front and rear of the cabin roof, and the button is attached on the right panel inside the cabin.

Press the "ON" section of the work lamp switch (front/rear) to turn on the work lamp.

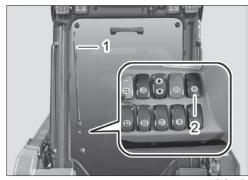
At this point, the key switch should be in the "ON" position.



LF10423B

5) WIPER

- 1 Wiper
- 2 Wiper switch
- (1) While the key switch is on, press the "ON" section of the wiper switch (front/rear) to turn on the wipers.
- (2) While the wiper switch is "ON", press it again to have the washer liquid sprayed from the nozzles connected to the window brushes.



LF1O425E

1 Washer fluid reservoir tank

- (3) The washer fluid reservoir tank for cleaning the windshield is installed on the right side of the driver's seat in the rear of the cabin.
- ▲ While tap water can be used as washer fluid, it would be advised to use washer fluid exclusively for automobiles. In particular, make sure to use the washer fluid for automobiles (for winter season) in winter.

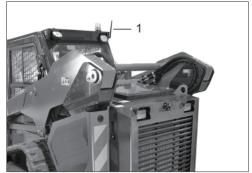


LF1O426A

- ▲ If you keep trying to spray the washer fluid with the washer fluid reservoir tank empty, the washer fluid motor will be damaged.
 - Therefore, make sure to check the washer fluid level before driving.
- ▲ In case of dirt on the windshield, spray a sufficient amount of washer fluid when using the wipers. In winter, using the wipers on the frozen windows may cause blown fuses. In this case, raise the cabin interior temperature and use the wipers.

6) ANTENNA

- 1 Antenna
- If the radio signal reception is poor, check the antenna connection and angle.



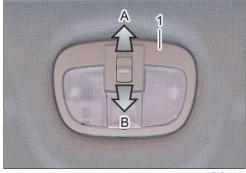
LF10427A

7) INTERIOR LAMP

1 Interior lamp

Turn on the interior lamp by turning the interior lamp switch to "ON". Place the switch to AUTO to have the interior lamp turned on and off automatically.

▲ The interior lamp can be operated without the key inserted. If the interior lamp is left on for a long time, it may cause the battery to be discharged.



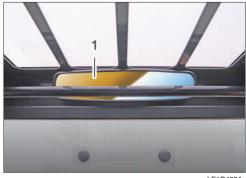
LF10501A

8) ACCESSORIES

(1) Rear view mirror

Rear view mirror

The rear view mirror for automobiles is installed inside the cabin for the convenience of operation. Adjust the angle of the rear view mirror before driving so as to secure sufficient rear view.



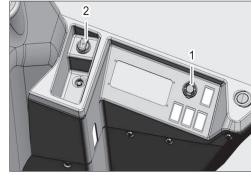
LF1O459A

(2) Power socket & USB socket

- Power socket
- **USB** socket

The power socket and the USB socket are activated when the ignition key is turned to "ON". If these sockets are used for a long time when the engine is off or an electric products with excessive capacity is used on the sockets, the battery may be discharged.

A If emergency power is needed, the power socket can be used. In this case, do not exceed 12V, 100W.



LF1O428B

(3) Cup holder and storage space

- 1 Cup holder
- Storage space

The cup holder and storage space are located on the left and right side of the driver's seat.

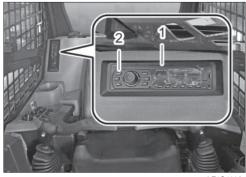


9) RADIO & USB PLAYER (OPTIONAL)

- Bluetooth player / radio player
- Power (PWR) switch

This vehicle is equipped with a Bluetooth player which has an audio/radio function and wireless LAN communication. Using the Bluetooth function, it is possible to pair and use it with other Bluetooth enabled devices. For detailed information, refer to the stereo system's user manual.

▲ Working with the volume of the stereo system excessively high can affect the driver's concentration, leading to possible safety accidents.



HEATER AND A/C (OPTION)

- 1 Temperature control dial
- 2 A/C Switch
- 3 Blower speed control dial
- 4 Vent mode switch
- 10) Use the A/C only after the engine is started.
- ♠ Do not leave children in the cabin alone without a guardian. On hot or sunny days, the cabin temperature may soar rapidly, which may cause casualties.
- ▲ Use the fresh air mode in a normal condition, and use the air recirculation mode only if necessary. Using the air recirculation mode for a long time may lead to lack of oxygen in the cabin, which results in headaches or sleepiness. Or it may also cause frost on the window, blocking views. Therefore, such mode should be used only temporarily.



LF1O4E8A-1

11) BLOWER SPEED CONTROL DIAL

The heater or A/C blower speed is controlled in four steps.

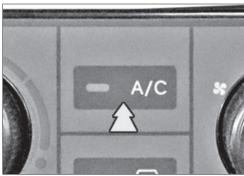


LF1O4E9A

12) A/C SWITCH

Press the A/C switch once to run the A/C and press it again to turn it off.

The heater is controlled by the temperature control dial and blower speed control dial.



U45O432A

13) TEMPERATURE CONTROL DIAL

Use this dial to obtain the desired temperature. Turn it to the right (red) for warm air and to the left (blue) for cool air.

The temperature control dial only controls the blower speed of the air passing through the heater or the A/C.

Therefore, if setting it to high temperature with the A/C on, unnecessary load may be applied to the A/C.

- ▲ Close all windows when using the A/C for effective cooling.
- ♠ When workload soars abruptly, turn off the A/C to improve the engine power.
- ▲ If the A/C is used for a long time while the vehicle is at a stop and is engaged in a high-load work, the engine may overheat. Reduce the duration of the A/ C operation.
- ▲ Even in winter when the A/C is not used, run the A/C 1-2 times every month to prevent the refrigerant from being leaked and to promote the compressor lubrication, resulting in lengthening the service life of A/C parts.
- ▲ If the vehicle is parked in a place with direct sunlight, open the windows to take out hot air inside before turning on the A/C.



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14) A/C MAINTENANCE

To maintain the optimal condition of the A/C, please keep the followings:

(1) Operation in winter

In winter, make sure to run the A/C 1-2 times every month to prevent refrigerant leakage and rust inside the A/C system and to promote the compressor lubrication so as to prevent any malfunctioning in advance.

The A/C does not work if the air temperature is at 2°C or below. Run the heater to increase the cabin temperature before use.

(2) A/C condenser cleaning

Impurities in the A/C condenser or engine radiator may reduce cooling efficiency and should be removed. Clean them using a soft brush or a water hose and be careful not to bend the core of the condenser.

(3) Operation in summer

Before the summer season, make sure to check the A/C belt tension to ensure proper use of the A/C in summer.

- ▲ Inserted in the A/C system is a new type of refrigerant that does not destroy the ozone.
- ▲ Using an unauthorized refrigerant or compressor oil may cause severe damage to the A/C system.
- ▲ Insufficient refrigerant reduces the A/C performance, but excessive refrigerant also damages the A/C system. In case of any malfunction, have it checked by a dealer.

15) A/C REFRIGERANT AND LUBRICANT SPEC.

Item	Refrigerant	Compressor oil
Туре	R134a (GWP : 1,430)	PAG 46
Capacity	600g	150cc
CO ₂ eq.	0.8580t	-

A Have the A/C serviced by a specialist. Any unauthorized repair or service may lead to personal injuries and other accidents due to the high-pressurized refrigerant.

16) AIR RECIRCULATION MODE AND FRESH AIR **MODE**

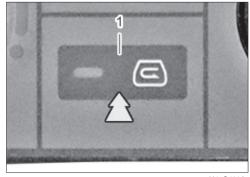
Vent mode switch

While the A/C is running, the air recirculation mode or fresh air mode can be selected as desired.

Even if the air recirculation mode is selected, introduction of external air cannot be completely prevented.

If the fresh air mode is selected, 100% external air is introduced to the cabin.

A This cabin was not designed for spraying pesticide, and it does not offer a function to block polluted external air into the cabin. Therefore, avoid using this machine in a polluted area.



U45O436A

17) ADJUSTING THE SEAT

(1) Seat Sliding

Seat Adjustment Lever

A Pull

To adjust the seat position, pull up the lever under the front of the seat, slide the seat to the desired position (F/R 150 mm), and then release the lever. Make sure that the seat is firmly fixed by moving it gently after adjustment.

♠ Do not put a hand between the seat and the slides when adjusting the seat position. You can get injured unexpectedly.



LF10431A

(2) Seat height adjustment

Seat height adjustment lever

You can adjust the height of the driver's seat as desired. Turn the seat height adjustment lever clockwise to raise the height; turn it counterclockwise to lower the height.



LF10432A

(2) Seat bar

Seat bar

If the seat bar is raised, operating the control lever even with the engine running does not cause the machine to move.

Raising the seat bar engages the parking brake. Lowering the seat bar and pressing the reset switch release the parking brake.

When leaving the cabin, make sure to comply with the followings:

- · Make sure that the control lever is always in neutral.
- · Do not place objects on the driver's seat.
- · Place the key switch to "off".
- · Raise the seat bar.
- · Carefully leave the cabin while holding the handle.



LF10433/

(3) Seat Belt

- 1 Seat belt
- 2 Release button
- A Release

The seat belt is a self-retracting type. Make sure to fasten the seat belt before driving.

- ▲ To prevent accidents, operate the machine only after wearing the seat belt.
- ▲ Before use, make sure to always check for any defect in the seat belt.
- ♠ Make sure that the seat belt is not twisted. It cannot work properly, leading to a dangerous situation.
- ♠ The seat belt should go around your body as low as possible, not your waist or abdomen. Otherwise, the seat belt cannot protect you properly.



- 1 MCU (Machine Control Unit)
- 2 Lamp

It controls various lamps and buzzers by receiving signals from the switches, engine and hydraulic pressure sensors.

19) LED SPEC.

- 1 Green
- A Amber
- R Red

<Error and check items by LED indication>

The are disease to the by LLB indications			
Lamp status			Status
Green	Orange	Status	
ON	OFF	OFF	Normal
OFF	OFF	ON	Faulty CPU
ON	ON	OFF	Faulty communication
OFF	OFF	OFF	No power

20) EMERGENCY EXIT

1 Emergency exit tag

The front exit and the rear window are designed as emergency exit.

To exit through the rear window, please do the following:

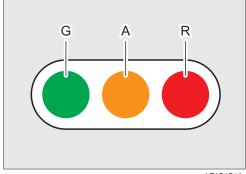
- · Pull the tag on the rear window to pull out the core seal that fixes the window.
- · Push out the window to exit.



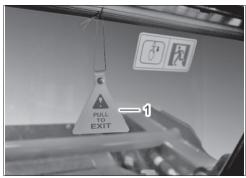
LF10435A



LF1O4F4A



LF1O4G1A

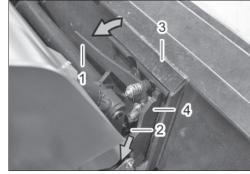


LF10434A

6. OTHER SYSTEMS

1) MANUAL QUICK ATTACH SYSTEM

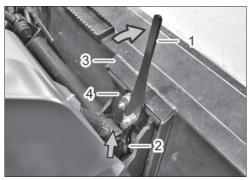
- 1 Hand lever
- 2 Locking pin
- 3 Bucket slot
- 4 Implement holder
- Park the machine on even ground and pull up the both hand levers on the implement holder (quick coupler). (unlocked)
- (2) Place the implement holder (quick coupler) right behind the bucket.
- (3) If you are leaned forward to move into it, you must also lean back to align the plates flat together. You are missing a step after three and before you get out.
- (4) Lower the engine speed and raise the seat bar.
- (5) Carefully remove yourself from the machine using the handle.
- (6) Push down the hand lever and check that the locking pin went completely into the bucket slot (locked).



LF10437A

2) REMOVING THE BUCKET (MANUAL TYPE)

- 1 Hand lever
- 2 Locking pin
- 3 Bucket slot
- 4 Implement holder
- (1) Pull up the hand lever of the implement holder and check that the locking pin is out from the bucket slot. (Unlocked)
- (2) Using the handle, enter the cabin. Lower the seat bar and increase the engine speed.
- (3) Lean the implement holder forward and move the machine backward so that the top of the holder is removed from the bottom of the top lip of the bucket.



LF10436A

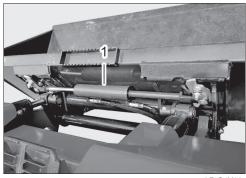
3) INSTALLING AND REMOVING THE BUCKET (HYDRAULIC QUICK ATTACH SYSTEM)

1 Quick attachment switch



LF104D7/

- I Removable cylinder
- (1) While the engine is running, park the machine on even ground.
- (2) Place the implement holder (quick coupler) right behind the bucket.
- (3) Lean the implement holder forward and move the machine toward the bucket so that the rear of the holder goes under top lip of the bucket.
- (4) Press the quick attachment switch to operate the removable cylinder, then the locking pin goes into the bucket slot automatically.
- (5) Raise the seat bar and get off from the machine. Check if the bucket is attached correctly.
- (6) To remove the bucket, place the bucket on even ground, and press the quick attachment switch to pull out the locking pin from the bucket slot.
- (7) Lean the implement holder forward and move the machine backward so that the top of the holder is removed from the bottom of the top lip of the bucket.



LF1O4M8A

4) BOOM LOCK

- 1 Boom lock
- 2 Locking pin
- A. Remove the two (2) attaching bolts from the boom lock. Next remove the snap pin connected to the boom lock and remove the boom lock from it's storage location. The helper who will install the boomlock should now step at least three feet away from the machine and poisition themselves so they can speak to the operator through the left side window.



LF1O438A

▲ To safely and properly install or remove the boom lock, two (2) people are required. One (1) person is the machine operator while the second person installs/removes the lock before the operator exits the machine.

- 1 Boom lock 2 Boom cylinder
- 3 Snap pin

B. The operator should follow these steps next:

- (1) Open the LH window and acknowledge the helper who will be installing the boom lock.
- (2) Buckle the operator's seat belt.
- (3) Lower the operator restraint bars and start the engine.
- (4) Inform the helper to wait for your confirmation before proceeding with the boom lock installation.
- (5) Release the park and raise the boom to full height, remove both hands from the controls, engage the park function and turn the engine off.
- (6) Inform the operator to install the boom lock and await for confirmation.
- (7) The helper should install the narrow end of the boom lock upward covering the cylinder rod and insert the snap pin. The wide end of the boom lock should face downward and rest against the base of the cylinder body.
- (8) With confirmation that the boom lock has been installed make sure the helper has stepped away from the machine and is visble.
- (9) Turn the ignition on but do not start the engine, release the park and lower the boom slowly till it rests against the stop.
- (10) Engage the park function and turn the ignition off.
- (11) Request the helper to perform a visual inspection to confirm the boom lock is properly installed.
- (12) With confirmation, remove the key from the ignition, raise the operator restrain bars, release the seat belt and exit from the cabin.



LF1O439A

5) RELEASING THE BOOM

- 1 Boom lock
- 2 Locking pin
- 3 Boom cylinder rod
- (1) The operator should enter the machine, install their seat belt, lower the operator restraint bars and acknowledge the helper.
- (2) Inform the helper that you will start the machine now and not to approach the machine until you provide confirmation.
- (3) Start the machine and release the park function. Raise the boom to full height and remove both hands from the controls, engage the park function and turn the engine off.
- (4) Inform the helper to remove the boom lock.
- (5) With confirmation the boom lock has been removed and with the helper visible, turn the ignition on (DO NOT START THE ENGINE), release the park function and slowly lower the boom to the ground.
- (6) Engage the park function, turn the ignition off, raise the operator restraint bars, release the seat belt and exit the cabin.
- (7) Install the boom lock in its storage position. Be sure to tighten the two (2) securing bolts and to install the snap pin.
- (8) Perform a visual inspection to be sure all work has been completed and all tools have been stored.
- (9) Remove the wheel chocks.
- (10) The machine should be ready to return to work.



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- ▲ To safely and properly install or remove the boom lock, two (2) people are required.

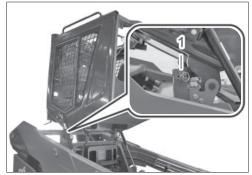
 One (1) person is the machine operator while the second person installs/removes the lock before the operator exits the machine.
- ⚠ The helper who will remove the boomlock should now step within three feet from the machine and poisition themselves so they can speak to the operator through the left side window.

6) RAISING THE CANOPY AND CABIN

- 1 Bolt
- 2 Washer
- (1) Stop the machine on even ground and lower the
- (2) Loosen the mounting nuts on the left and right of the front cabin.
- ♠ When raising the cabin or the boom for maintenance, install a jack stand behind the frame so as to prevent the vehicle from falling backward.
- ▲ If the jack stand is not installed behind the frame of the machine, the machine may fall back.



- 1 Lock
- (3) Raise the cabin slowly and fix it with the lock on the back.



LF10443A

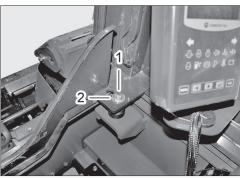
7) LOWERING THE CANOPY AND THE CABIN

- 1 Snap pin
- 2 Locking pin
- 3 Loosen
- (1) Pull out the snap pin and take out the locking pin from the frame.
- (2) Lower the cabin slowly.



LF10444A

- 1 Bolt
- 2 Washer
- (3) Install the washers and bolts on the left and right of the front side of the cabin.



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