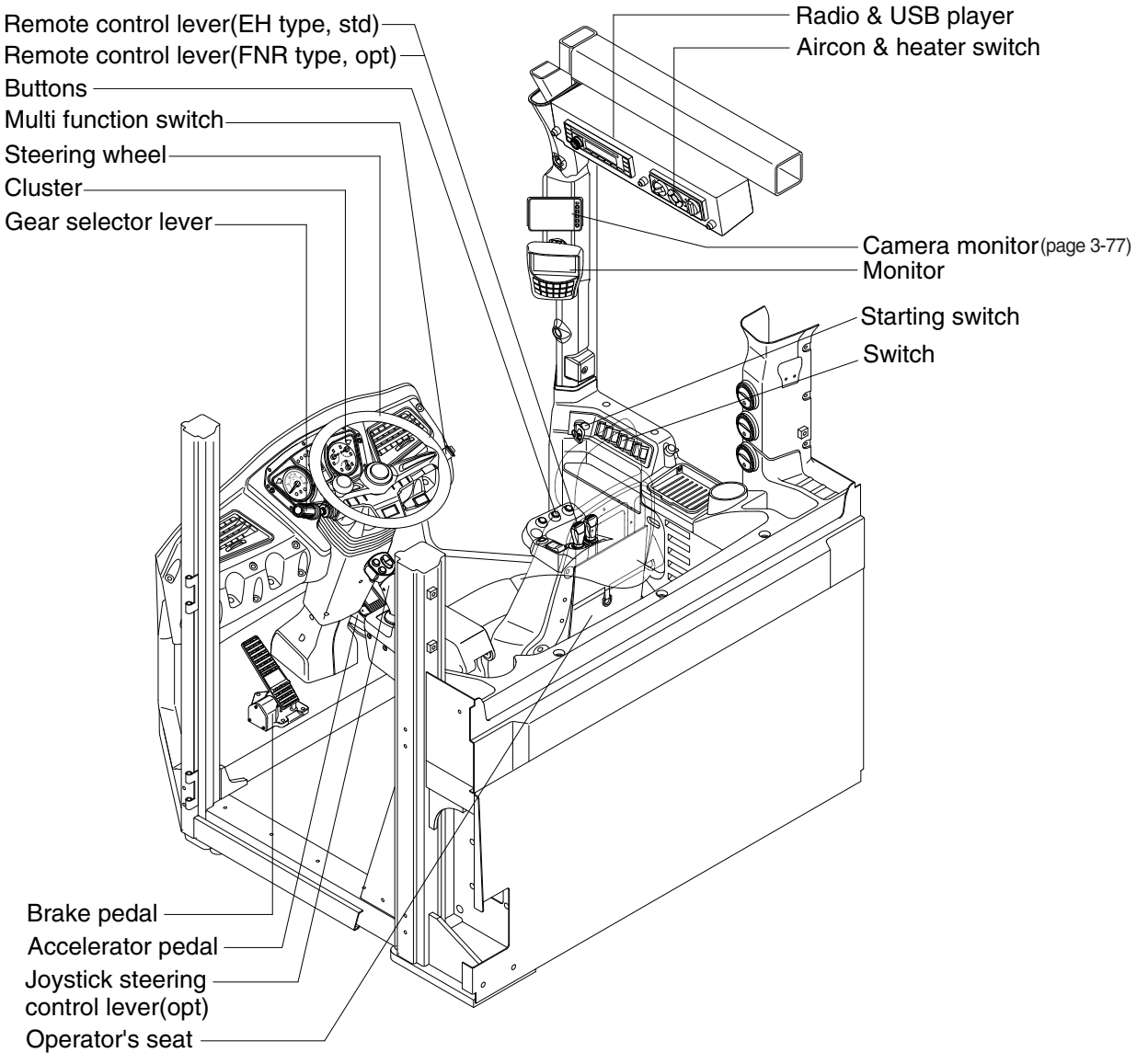
1. CAB DEVICES

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 machine to be monitored at a glance.

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



960A3CD01

2. CLUSTER

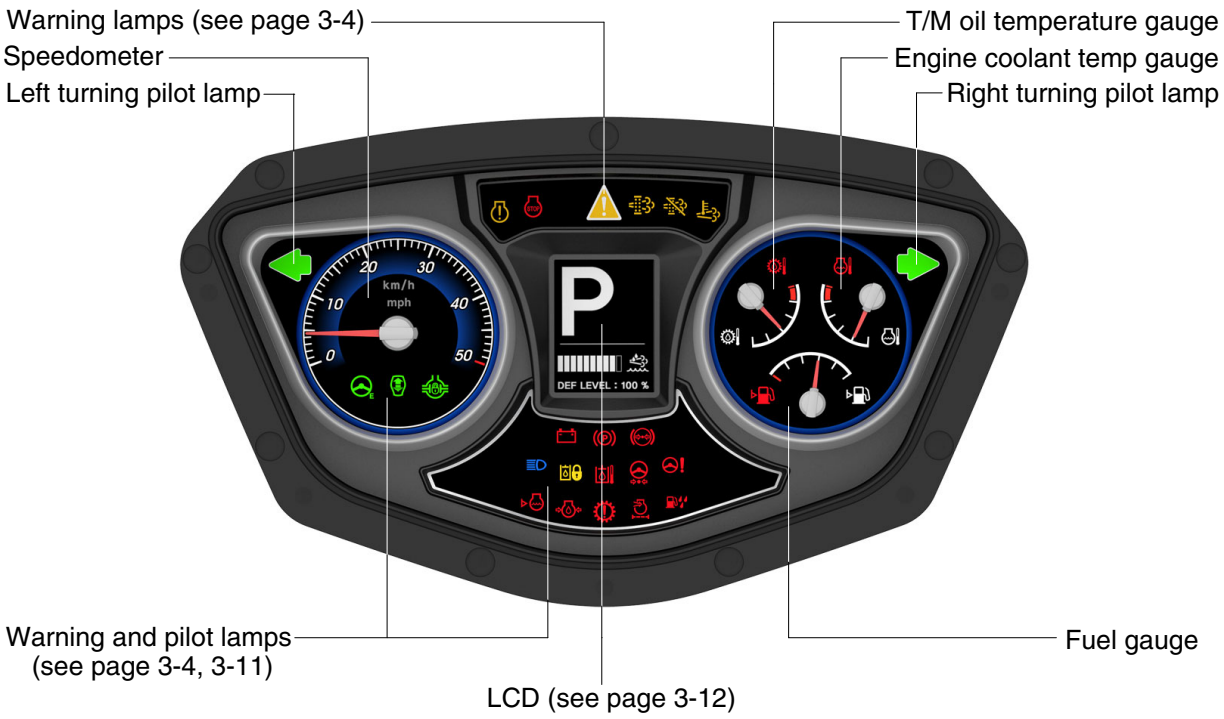
1) STRUCTURE

The cluster consists of gauges, lamps, and LCD as shown below, to warn the operator in case of abnormal machine operation or conditions for the appropriate operation and inspection.

- Gauges : Indicate operating status of the machine.
- Warning lamps : Indicate abnormality of the machine.
- Pilot lamps : Indicate operating status of the machine.
- LCD : Indicates selected the driving speed and direction.

※ The cluster installed on this machine does not entirely guarantee the condition of the machine. Daily inspection should be performed according to chapter 6, MAINTENANCE.

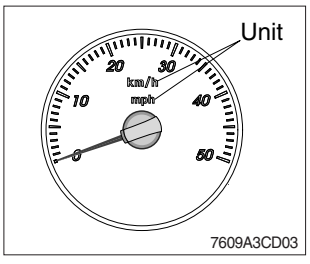
※ When the cluster provides a warning immediately check the problem, and perform the required action.



960A3CD02

2) GAUGE

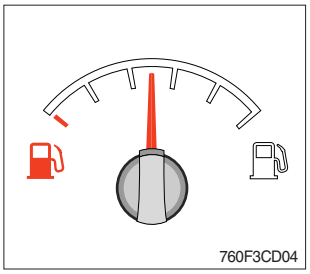
(1) Speedometer



① The speedometer displays the speed of machine in mph and km/h.

※ The unit (km/h or mph) can be set by the display set up menu of the monitor and selected unit is displayed.
Refer to page 3-33.

(2) Fuel gauge

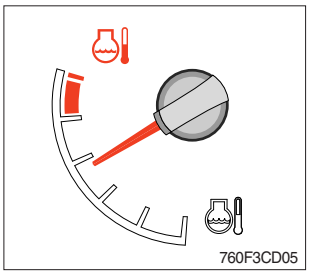


① This gauge indicates the amount of fuel in the fuel tank.

② Fill the fuel when the indicator moves red range or lamp blinks in red, refuel as soon as possible to avoid running out of fuel.

※ If the gauge indicates red range even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.

(3) Engine coolant temperature gauge



① This gauge indicates the temperature of coolant.

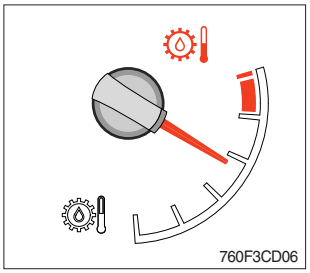
· White range : 40~105˚C (104~221˚F)

· Red range : Above 105˚C (221˚F)

② If the indicator is in the red range or lamp blinks in red, turn OFF the engine and check the radiator and engine.

※ If the gauge indicates red range even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.

(4) Transmission oil temperature gauge



① This gauge indicates the temperature of transmission oil.

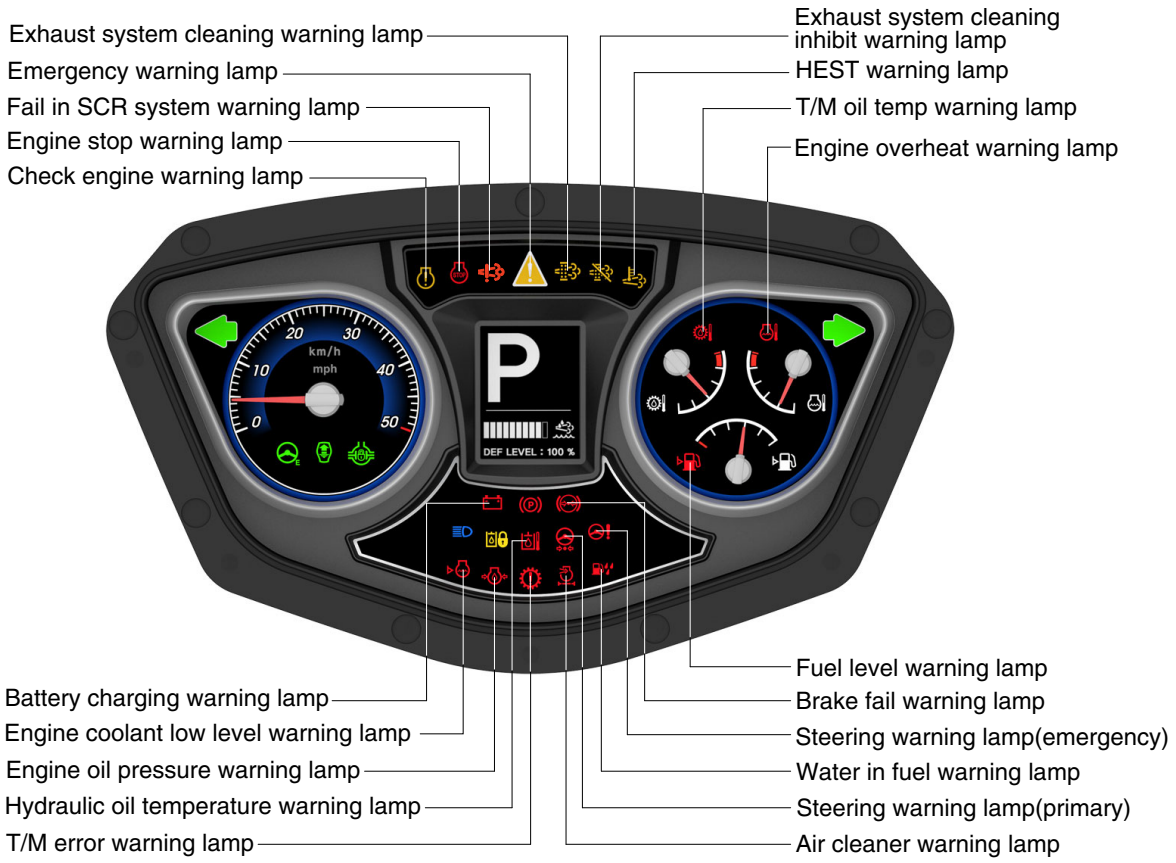
· White range : 40~107˚C (104~225˚F)

· Red range : Above 107˚C (225˚F)

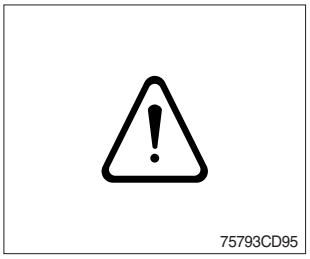
② If the indicator is in the red range or lamp blinks in red, it means the transmission is overheated. Be careful that the indicator does not move into the red range.

※ If the gauge indicates red range even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.

3) WARNING LAMPS



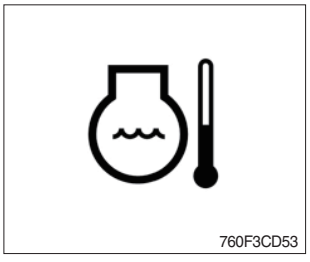
(1) Emergency warning lamp



① This lamp blinks when each of the below warnings is happened.
- Warning lamps light ON
- MCU input voltage abnormal
- Monitor communication data error
- Engine ECM and TCU communication data error

② When this warning lamp blinks, machine must be checked and service immediately.

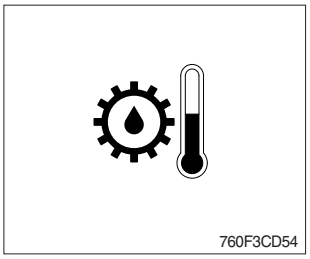
(2) Engine overheat warning lamp



① This lamp is turned ON when the temperature of coolant is over the normal temperature (105˚C, 221˚F).

② Check the cooling system when the lamp is ON.

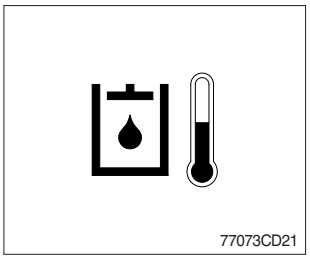
(3) Transmission oil temperature warning lamp



① This lamp is turned ON when the temperature of transmission oil is over the normal temperature (107˚C, 225˚F).

② When this lamp lights up during operation, stop the engine and check the machine.

(4) Hydraulic oil temperature warning lamp



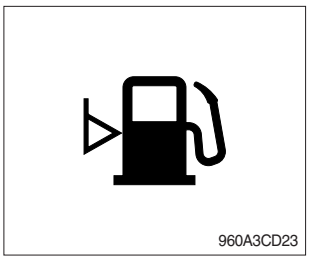
① This warning lamp operates and the buzzer sounds when the temperature of hydraulic oil is over 106˚C (223˚F).

② Check the hydraulic oil level when the lamp is turned ON and the buzzer sounds.

③ Check for debris between oil cooler and radiator.

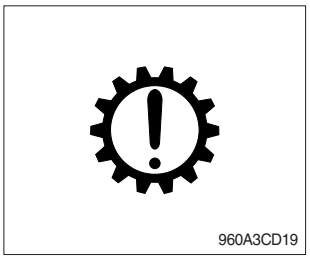
※ If you want to stop buzzer sound, just touch the icon.

(5) Fuel level warning lamp



① This warning lamp lights ON when the fuel level is low.
Refuel the machine as soon as possible.

(6) Transmission error warning lamp



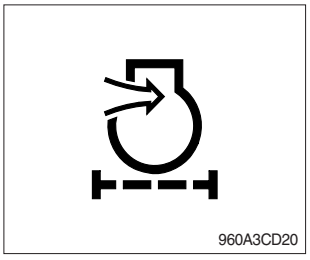
① This lamp lights ON and the LCD display show the error codes when an error occurs in the transmission.

② Immediately pull the machine to a convenient stop. Stop the engine. Investigate the cause.

※ Consult a HD Hyundai Construction Equipment dealer to investigate the cause.

※ Do not operate until the cause has been corrected.

(7) Air cleaner warning lamp



① This lamp lights ON and the buzzer sounds when the filter of air cleaner is clogged.

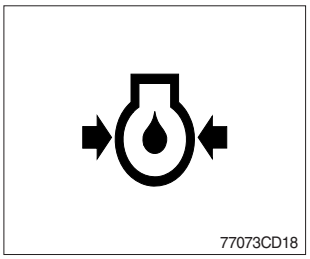
② When the air cleaner warning lamp is ON and the buzzer sounds, check and clean the primary element.

※ If you want to stop buzzer sound, just touch the icon.

※ The primary element should be replaced if the warning lamp is ON after installation of a clean primary element.

※ Replace the primary element after 4 times cleanings.

(8) Engine oil pressure warning lamp

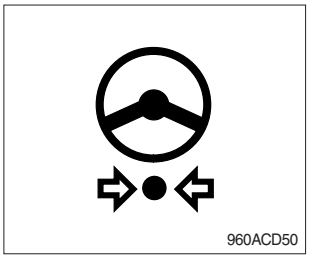


① This lamp is comes ON and the buzzer sounds after starting the engine because of the low engine oil pressure.

② If the lamp comes ON and the buzzer sounds during engine operation, shut OFF engine immediately. Check engine oil level.

※ **If you want to stop buzzer sound, just touch the icon.**

(9) Steering warning lamp

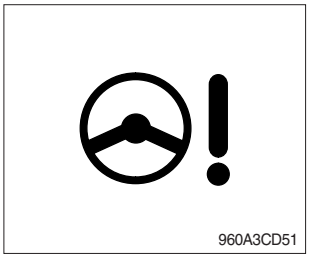


① **Primary**

This lamp indicates that the primary steering has failed. When the indicator comes ON and the action alarm sounds, steer the machine immediately to a convenient location and stop the machine. Stop the engine and investigate the cause.

※ **If you want to stop buzzer sound, just touch the icon.**

※ **Do not operate the machine until the cause has been corrected.**



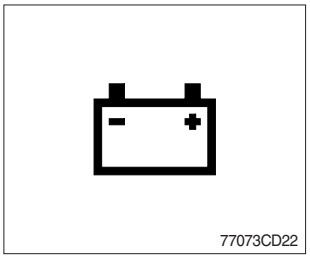
② **Emergency**

This lamp indicates the emergency steering system is active.

※ **Immediately pull the machine to a convenient stop and stop the engine.**

※ **The emergency steering system can be manually tested. Refer to page 3-45.**

(10) Battery charging warning lamp

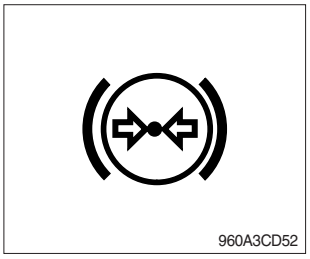


① This lamp is ON and the buzzer sounds when key ON, it is turned OFF after starting the engine.

② Check the battery charging circuit when this lamp comes ON and the buzzer sounds, during engine operation.

※ **If you want to stop buzzer sound, just touch the icon.**

(11) Brake fail warning lamp



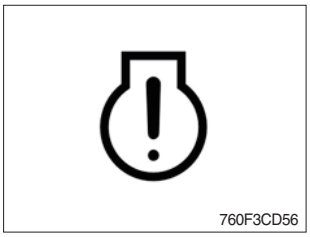
① The lamp lights ON and the buzzer sounds when the oil pressure of service brake drops below the normal range.

② When the lamp is ON and the buzzer sounds, stop the engine and check for its cause.

※ **If you want to stop buzzer sound, just touch the icon.**

※ **Do not operate until any problems are corrected.**

(12) Check engine warning lamp

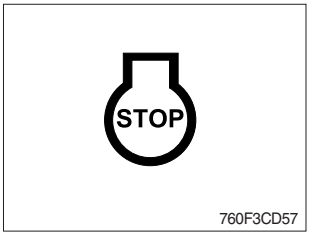


① This lamp lights ON and the buzzer sounds when the communication between MCU and engine ECM on the engine is abnormal, or if the cluster received specific fault code from engine ECM.

② Check the communication line between them.
If the communication line is OK, then check the fault codes on the monitor.

※ If you want to stop buzzer sound, just touch the icon.

(13) Engine stop warning lamp



① This warning lamp pops up and the buzzer sounds when 30 minutes elapsed with empty condition of the DEF/AdBlue® tank, stop the engine immediately and check the DEF/AdBlue® tank.

② Fill the DEF/AdBlue® immediately in the DEF/AdBlue® tank.

※ Refer to page 3-10.

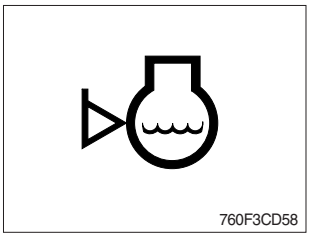
③ This lamp lights ON when the stationary exhaust system cleaning is not performed.

※ Refer to page 3-8.

※ Please contact your HD Hyundai Construction Equipment service center or local dealer.

※ "Engine shutdown" cluster message up when the exhaust gas temperature reaches above 800℃.

(14) Engine coolant low level warning lamp



① This warning lamp lights ON when the level of coolant is low.

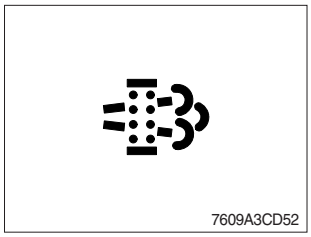
② Fill the coolant immediately when the lamp is ON.

(15) Water in fuel warning lamp

① This warning lamp lights ON when the water separator is full of water or malfunctioning.

※ When this lamp lights ON, stop the machine and spill water out of the separator.

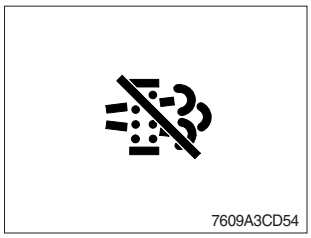
(16) Exhaust system cleaning warning lamp



① This warning lamp lights ON or blinks when the exhaust system cleaning is needed as table below.

Warning lamp			Description
Exhaust	Check engine	Stop engine	
Off	Off	Off	· Automatic exhaust system cleaning
Blink	Off	Off	· The status of a manual (stationary) exhaust system cleaning when the exhaust system cleaning switch has been activated. **※ Refer to page 3-9.**
On	On	Off	· The after-treatment exhaust system needs to be cleaned immediately. · Engine power will be reduced automatically if action is not taken. ※ The exhaust system cleaning can be accomplished by : - Changing to more challenging duty cycle. - Performing a manual exhaust system cleaning.
On	On	On	· These lamps will be ON when a stationary (manual) exhaust system cleaning is not performed. · Stop the engine immediately. · Please contact your HD Hyundai Construction Equipment service center or local dealer.

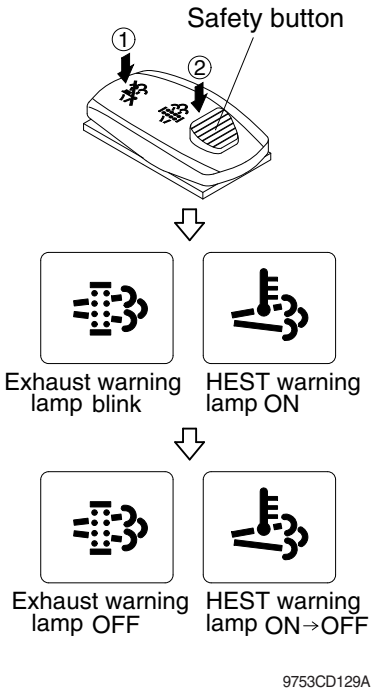
(17) Exhaust system cleaning inhibit warning lamp



① This warning lamp indicates, when illuminated, the exhaust system cleaning switch is pushed inhibit position, therefore automatic and manual exhaust system cleaning can not occur.

※ Refer to the page 3-46 for the exhaust system cleaning switch.

※ Manual exhaust system cleaning



※ Manual exhaust system cleaning applies if the machine is in a fireproof area.

※ To stop a manual exhaust system cleaning before it has completed, set to the exhaust system cleaning switch to the inhibit position or turn OFF the engine.

① Stop and park the machine.

② Pull the safety button and push the switch to position ② to initiate the manual exhaust system cleaning.

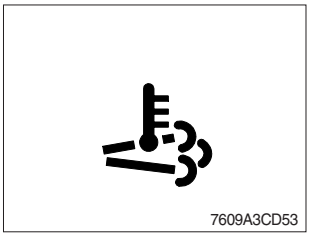
※ Refer to the page 3-46 for the exhaust system cleaning switch operation.

※ The engine speed may increase to 950~1050 rpm and exhaust system cleaning begins and it will take approximately 20~30 minutes.

③ The exhaust system cleaning warning lamp will blink and HEST warning lamp will light ON during the exhaust system cleaning is operating.

④ The exhaust system cleaning and/or HEST warning lamp will light OFF when the exhaust system cleaning is completed.

(18) **HEST** (High exhaust system temperature) **warning lamp**



① This warning lamp indicates, when illuminated, that exhaust temperatures are high due to exhaust system cleaning.

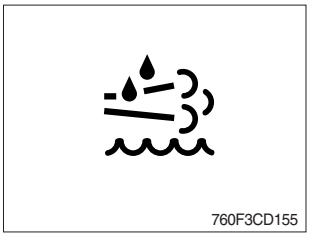
② The lamp will also illuminate during a manual exhaust system cleaning.

③ When this lamp is illuminated, be sure the exhaust pipe outlet is not directed at any surface or material that can melt, burn, or explode.

⚠ When this lamp is illuminated, the exhaust gas temperature could reach 800˚C [1500˚F], which is hot enough to ignite or melt common materials, and to burn people.

※ The lamp does not signify the need for any kind of equipment or engine service; It merely alerts the equipment operator to high exhaust temperatures. It will be common for the lamp to illuminate on and off during normal equipment operation as the engine completes exhaust system cleaning.

(19) DEF/AdBlue® level warning lamp

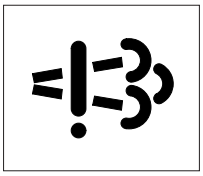

760F3CD155

① This warning lamp indicates when ON or blinking, that the DEF/AdBlue® level is low as table below.

※ **It is recommended that the DEF/AdBlue® tank be filled completely full of the DEF/AdBlue® in order to correct any fault conditions.**

Warning lamp				Description
Fail in SCR system	DEF/AdBlue® level	Check engine	Stop engine	
On	On	Off	Off	· The DEF/AdBlue® level has fallen below the initial warning level (10%).
On	On	On	Off	· The DEF/AdBlue® level has fallen below the initial derate level (2.5%). · The engine power will be limited automatically.
On	Blink	On	On	· This is happened when 30 minutes elapsed with empty conditions (0%) of the DEF/AdBlue® tank. · The engine will enter the final derate level which may include low idle lock or engine shutdown with restart limitations. · In order to remove the final derate, the DEF/AdBlue® tank must be filled to above 10 persent gauge reading.

(20) Fail in SCR system warning lamp


300A3CD15

① This warning lamp indicates there are faults related to SCR system.

② The lamp lights ON when each of the below warnings is happened.

a. Low DEF/AdBlue® level

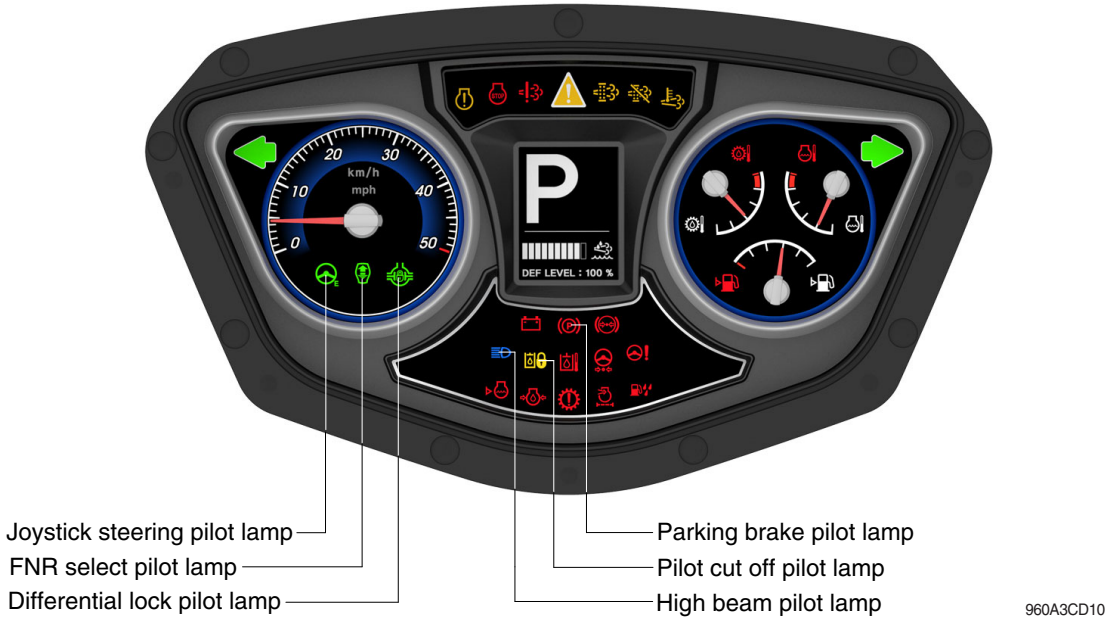
b. Poor quality of DEF/AdBlue®

c. Tempering or malfunction in the after-treatment system

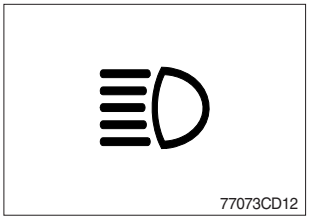
③ Once the lamp lights ON, the engine will derate shortly.

※ **Please contact your HD Hyundai Construction Equipment service center or local dealer.**

4) PILOT LAMPS



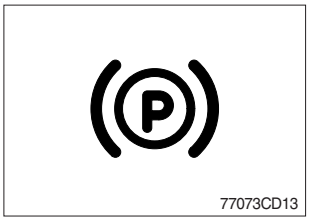
(1) High beam pilot lamp



① This lamp works when the illuminating direction is upward.

② This lamp comes ON when the dimmer switch is operated, e.g., when passing another vehicle.

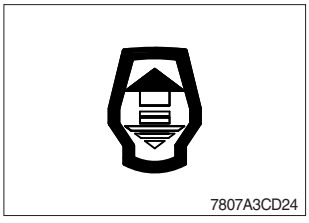
(2) Parking brake pilot lamp



① When the parking brake is actuated, the lamp lights ON.

※ **Check the lamp is OFF before driving.**

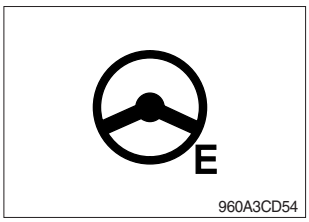
(3) FNR select pilot lamp (option)



① The lamp comes ON when FNR select button on the optional FNR remote control lever is pressed.

※ **Refer to page 3-47.**

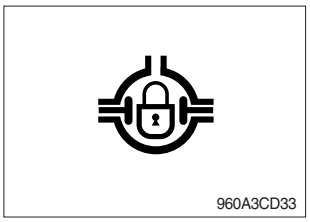
(4) Joystick steering pilot lamp (option)



① This lamp lights ON when joystick steering is activated.
It is then possible to steer the machine and select gears from the armrest to the left of the operator's seat.

※ **Refer to page 3-51.**

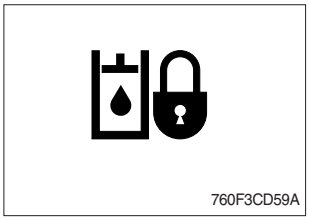
(5) Differential lock pilot lamp (option)



① This lamp lights ON when the differential lock function is operating.

※ Refer to page 3-45.

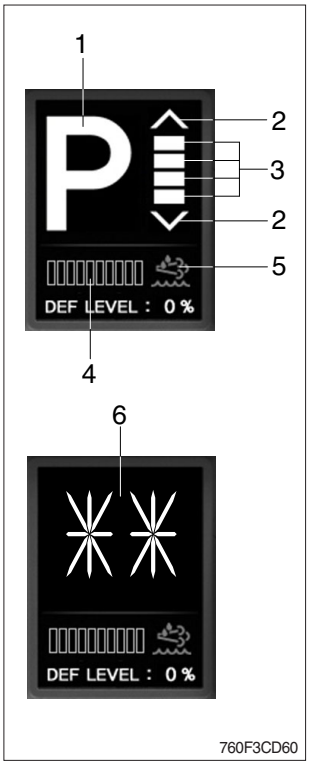
(6) Pilot cut off pilot lamp



① This lamp lights ON when the pilot cut off switch is pressed.

※ Refer to page 3-45.

5) LCD



(1) The LCD can be used with the gear selector.
It indicates speed, driving direction, DEF/AdBlue® level and transmission warning.

No	Symbol	Meaning	Remark
1	△, ▽, N	Actual gear display	Forward, reverse, neutral
	1, 2, 3, 4, 5		Actual gear
	P		Parking brake mode active
2	^, v	Forward, reverse	^ FWD 1 ~ FWD 5 / v REV 1 ~ REV 5
3	▮	Gear range display	
4	▮▮▮▮▮▮▮▮▮▮	DEF/AdBlue® level	Dispaly the amount of liquid in the DEF/AdBlue® tank
5		DEF/AdBlue® level warning lamp	Fill the DEF/AdBlue® when the lamp ON or blinks in red. - ON : DEF/AdBlue® level 5~10% - Blink : DEF/AdBlue® level below 5% ※ If the lamp ON or blinks in red even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.
6	LF, LR	Limp home gear	-
	✳✳	Oil temperature too low, no gear available	Warm up engine / transmission
	WS	Warning sump temperature	Alternate between WS and actual gear / direction while driving in neutral only displayed WS if no fault is detected ※ Cool down transmission
	WT	Warning torque converter temperature	Alternate between WS and actual gear / direction while driving, in neutral only displayed WS if no fault is detected ※ Cool down transmission

3. MONITOR (7 inch touch screen)

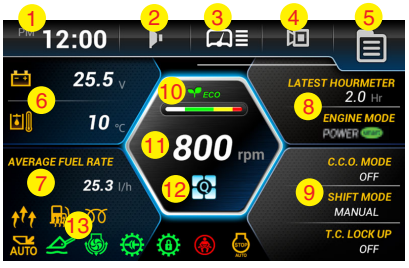
· The monitor is adjustable.
- Vertical : 30˚
- Horizontal : 15˚

760F3CD20-1

1) MAIN DISPLAY

※ You can select or set the menu by the switches or touch screen.
※ Please refer to switch, page 3-39 for selection and change of menu and input value.
※ Display type can be changed by operator. See page 3-34 for details.

Main display

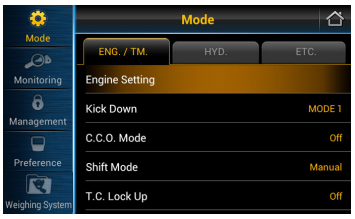


TYPE A (default)

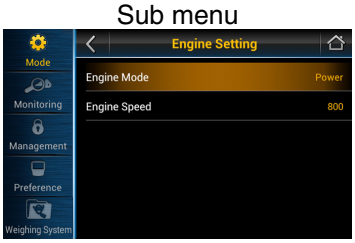
TYPE B

Press
MENU HOME
Tap

Main menu



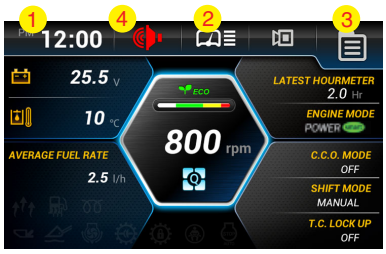
Sub menu



760F3CD11-1

1	Clock	6	Machine monitoring	11	Engine rpm
2	Buzzer	7	Fuel rate	12	Quick menu
3	Wiper speed	8	Engine mode/Operation history	13	10 lamps
4	Camera screen	9	Transmission mode		
5	Menu	10	ECO gauge		

(1) Menu bar



760F3CD07-1

※ In main display, you can move to right side menu by touching each icon.

① Clock setting

Set the time (hour, minute and AM or PM)

② Wiper speed

Set the wiper speed (slow, normal, fast and very fast)

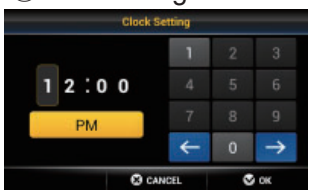
③ Menu

Move to main menu.

④ Buzzer stop

If you want to stop buzzer sound, just touch the  icon.

① Clock setting



760F3CD07A-1

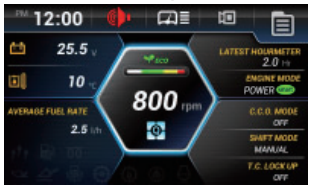
② Wiper speed

760F3CD07B-1

③ Menu

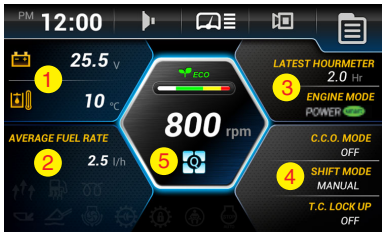
760F3CD07C-1

④ Buzzer stop



760F3CD07E-1

(2) Change display information



760F3CD08-1

※ In main display, you can check the data and setup what you want by touching each window area or icon.

① Machine monitoring

To display the item in main display, select two items of them.

※ Priority in the machine monitoring display

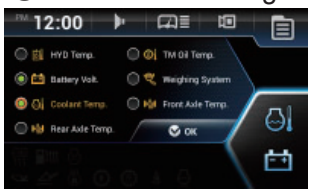
The priority of the weighing system is the highest.

If the weighing system is selected, the other items are not available.

To display the other items, the weighing system should not be selected.

※ Weighing system : see page 3-22.

① Machine monitoring

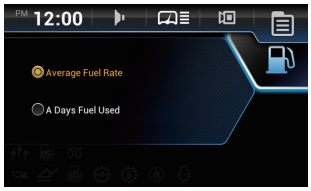


960A3CD08A

② Fuel rate

- Set average fuel rate or a days fuel used on main display screen.
- Refer to page 3-29.

② Fuel rate

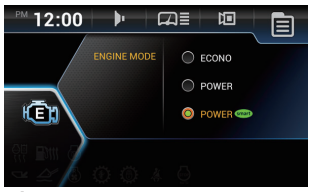


760F3CD08B-1

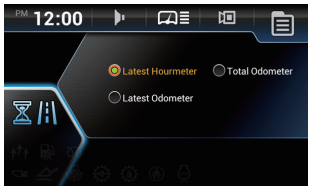
③ Engine mode and operation history

- Set the engine mode (A).
- Refer to page 3-19.
- Set Hour meter / ODO meter (B).
- Refer to page 3-28.

③ Engine mode



A 960A3CD08D

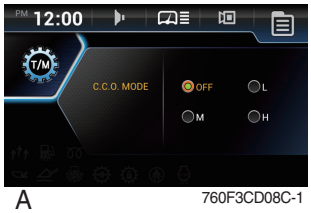


B 760F3CD08K-1

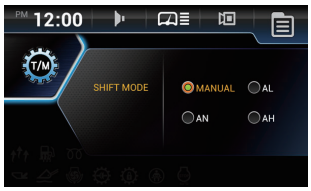
④ Transmission mode

- Set the C.C.O. (A) or I.C.C.O. (D) mode.
- Set the shift (B) and torque converter lock up mode (C).
- Refer to page 3-20.

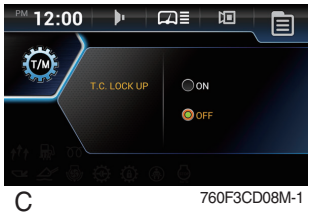
④ Transmission mode



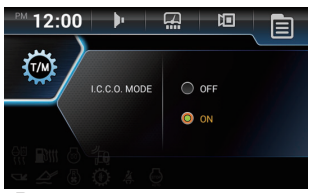
A 760F3CD08C-1



B 760F3CD08L-1

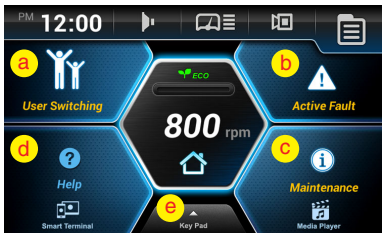


C 760F3CD08M-1



D 960SA3CD08C-1

⑤ Quick menu



960A3CD08F

※ Move the quick menu screen by touching  .

ⓐ User switching

- When multiple users share a machine, it allows users to switch user settings of machine.
- User can apply or save the setting of monitor easily.

ⓑ Active fault

- Display the fault code of MCU/ECU/TCU/EHCU.
- Refer to page 3-28.

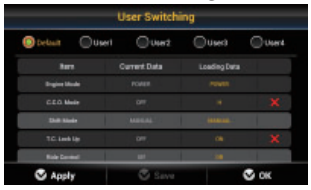
ⓒ Maintenance

- Elapsed time, change or replace cycle can be changed.
- Refer to page 3-31.

ⓓ Help

- Read the monitor manual as a PDF file on the monitor.

ⓐ User switching



760F3CD08H-1

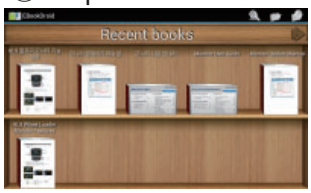
ⓑ Active fault

760F3CD16-1

ⓒ Maintenance

960A3CD08J

ⓓ Help

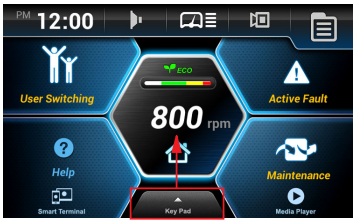


960A3CD08

ⓔ Virtual keypad

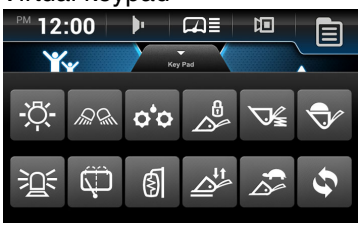
To display the virtual keypad, drag the button () to top of the screen.

※ **Refer to the page 3-39 for details.**



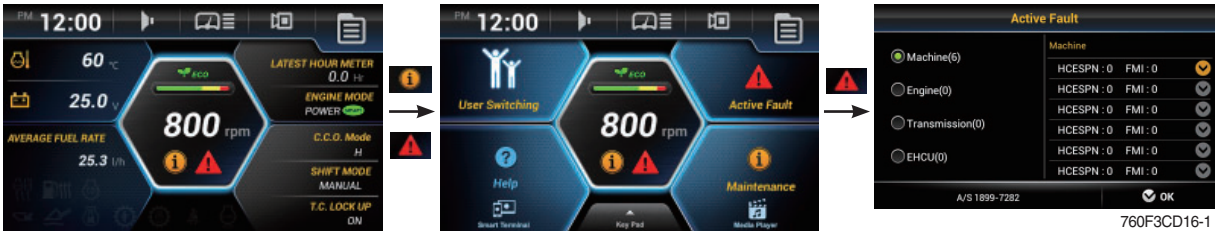
760F3CD68A-1

Virtual keypad



760F3CD68B-1

(3) Fault and maintenance warning



960A3CD14 960A3CD15 760F3CD16-1

① If you touch the warning sign (red icon), move to the quick menu.

② You can check the fault message and move the maintenance screen by touching relevant area.

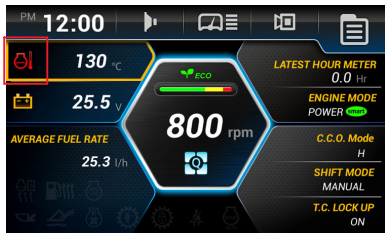
960A3CD08J

(4) Machine monitoring warning

① Warning sign (red icon) will be shown when the temperature of hydraulic oil, cooling water, transmission oil or battery voltage is not normal state.

② Case of warning sign

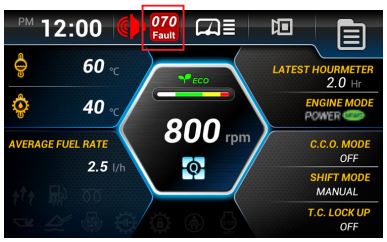
Icon	Description
	Above 106˚C of hydraulic oil temperature
	Above 105˚C of cooling water temperature
	Above 107˚C of transmission oil temperature
	Below 24.5 voltage of battery (for 3 minutes)
	Above 100˚C of axle oil temperature (option)



960A3CD18

(5) Communication error

① MCU could not communicate with monitor over 10 seconds, error message will be show on the screen.



760F3CD19-1

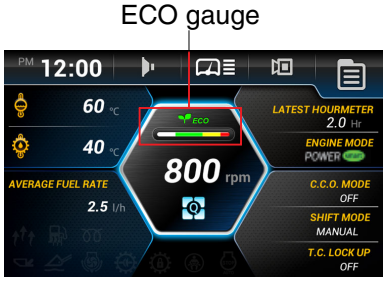
(6) Eco gauge

① This gauge indicates the fuel consumption rate and machine load status. So that operators can be careful with fuel economy.

② The fuel consumption rate or machine load is high, the segment is increased.

③ The color of Eco gauge indicates operation status.

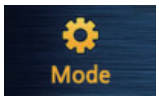
- White : Idle operation
- Green : Economy operation
- Yellow : Non-economy operation at a medium level.
- Red : Non-economy operation at a high level.



760F3CD113-1

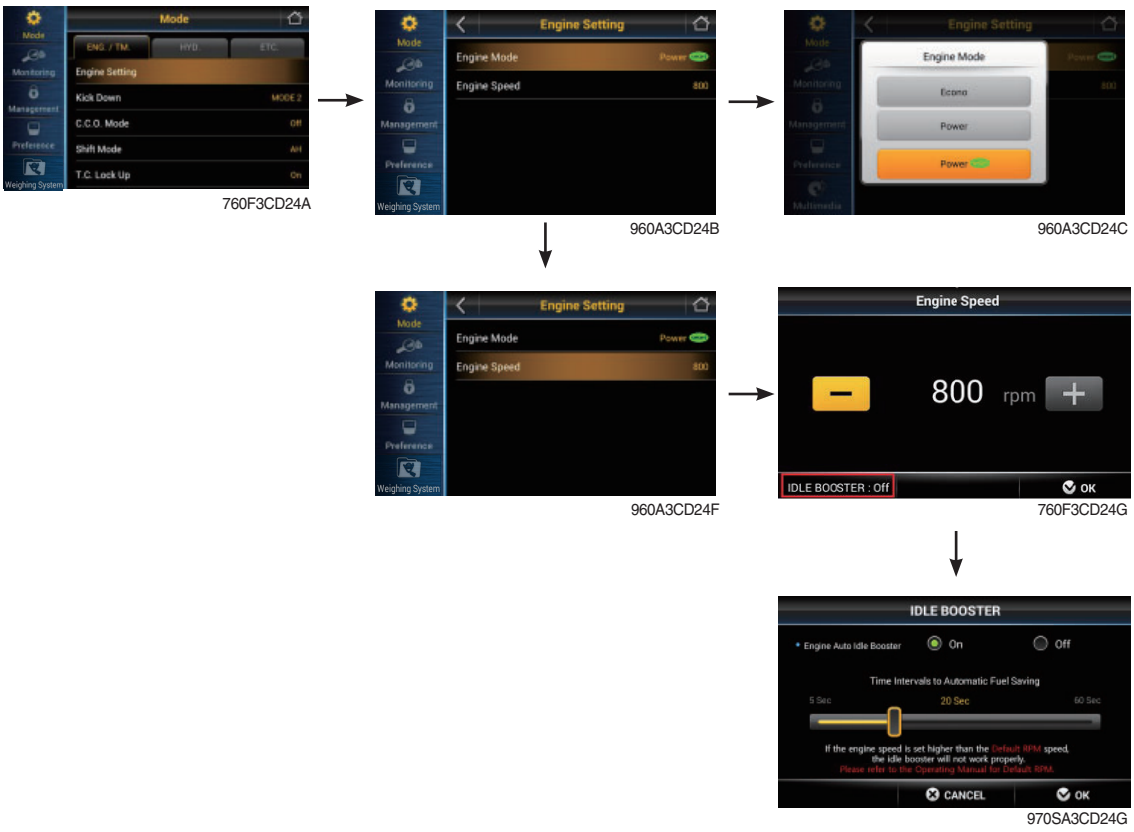
2) MAIN AND SUB MENU

(1) Structure

No	Main menu	Sub menu	Description
1	Mode  760F3CD25A	Engine setting Kick down I.C.C.O mode Shift mode T.C. lock up Work load Boom/bucket detent mode Bucket priority Auxiliary attach max flow level Soft end stop Cooling fan reverse mode Wiper level setting Calibration Engine auto shutdown Electric steering speed setting	Engine mode, Engine speed Mode 1 (down/up), Mode 2 (down only) Clutch cut off mode ON/OFF Transmission shift mode (manual, AL, AN, AH) Torque converter lock-up ON/OFF Weighing system, Weighing display, Error detection Boom pressure calibration, Weighing system compensation Boom/bucket detent ON/OFF, Save position Bucket priority ON/OFF Max oil flow level setting Boom up/down, Bucket in/dump ON/OFF Off, Manual, Automatic Slow, Normal, Fast, Very fast Boom/bucket angle, Boom pressure, Brake pedal sensor, AEB Once, On/Always, Disable, ESL system setting Electric steering speed setting (Fast, Normal, Low)
2	Monitoring  760F3CD25B	Machine monitoring Operation history Fault history Fuel consumption history Machine information	Hyd, Coolant, axle and TM oil temp, Battery voltage Hour meter, ODO meter Active/Logged fault (MCU, ECU, TCU, EHCU, AAVM) General record, Hourly record, Daily record, Mode record, Operation efficiency record TCU, ECM, MCU, RMCU, EHCU, Monitor, Cluster
3	Management  760F3CD25C	Machine security Maintenance Service menu Change A/S phone number Software update Owner menu editing	ESL system setting, Change password Elapsed time, Cycle, Maintenance history Sensor monitoring, Speed limit setting, Weighing system compensation, EHCU I/O information Check and change of contact information Update file in USB memory Owner menu editing, Menu list, Password change
4	Preference  760F3CD25D	Brightness setting Clock setting Unit setting Display style/Language Camera setting AAVM setting	Manual, Automatic Clock setting Temp (˚F/˚C), Distance (km, mile), Weight (ton, lb), Pressure (bar, Mpa, kgf/m^2, psi), Volume (l, gal) Type A, Type B, 14 multiple languages Active camera, Display order, Reverse mode AAVM camera reverse mode

(2) Mode

① Engine setting mode



760F3CD24A 960A3CD24B 960A3CD24C

960A3CD24F 760F3CD24G

970SA3CD24G

· **Engine mode**

The operator can adjust the machine's performance.

- Econo : Maximum fuel efficiency for general loading.
- Power : Maximum power output for hard digging operation or hill climb.
- Smart power : Fuel efficient operation with same performance as power mode.

· **Engine speed**

Setting engine default rpm.

※ Idle booster

If your engine speed is under 1,000rpm, low rpm will be 1,000 rpm during work.

	Engine speed	⇨ Idle booster 'ON'	Idle booster 'OFF'
Low RPM	Low idling speed	1,000 rpm (working state)	Low idling speed
	Over 1,000 rpm	Over 1,000 rpm	
* Time interval setting		If machine doesn't have any action for time interval setting value (~60s), engine rpm is decreased to engine speed.	X (Not applied)

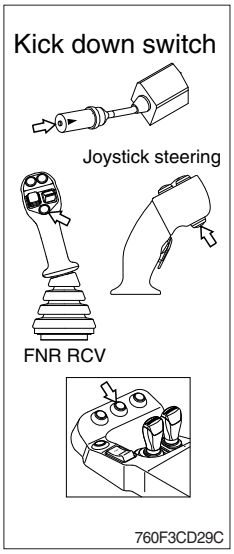
*** Idle booster operation with parking brake signal,**

- **Parking ON : Decrease engine speed to low idle rpm instantly.**
- **Parking OFF : Increase engine speed to 1,000 rpm instantly.**

② Kick down mode

760F3CD29A

760F3CD29B



760F3CD29C

· **Manual mode** (shift mode: manual)
It is effective 2nd speed to 1st speed only. Recover to 2nd speed quickly when pushing the switch one more time.

· **Automatic mode** (shift mode: AL, AN, AH)

- **Mode 1** (down/up)
It shifts down quickly from current gear to one step lower speed by pushing the switch and recover to current speed quickly when pushing the switch one more time.
- **Mode 2** (down only)
It shifts down from current gear to one step lower speed when pushing the switch every time.
The kick down function is released in only 1st speed.

※ **The normal autoshift function continues after the kick-down switch is released.**

③ I.C.C.O. (Intelligent Clutch Cut Off) mode

9803CD26A

· OFF : The clutch cut off function is disable.
· ON (I.C.C.O) : It will cut off the clutch when brake pedal operation.

※ The clutch cut off function is automatically adjusted depending on slope angle or machine load, And inching fuction becomes possible by using the brake pedal.

④ Shift mode

760F3CD28A 760F3CD28B

· Four modes are available for operator's preference and job condition.
  - Manual : Machine is operated by selected gear on lever.
  - AL (Auto Light) : Automatic shifting point is fast for long-distance transportation and fuel efficiency.
  - AN (Auto Normal) : Automatic shifting point is normal without automatic kick-down to 1st gear for general digging and loading operation.
  - AH (Auto Heavy) : Automatic shifting point is normal with automatic kick-down to 1st gear for more powerful operation.

⑤ Torque converter (T.C.) lock up mode (5-speed transmission)

760F3CD32A 760F3CD32B

· If you select ON, the lock-up clutch on the torque converter will automatically activate according to load.

· **Lock-up clutch function** (option)
  To prevent power loss in the torque converter, the pump rotor and turbine rotor on the torque converter lock together through a direct lock-up clutch.

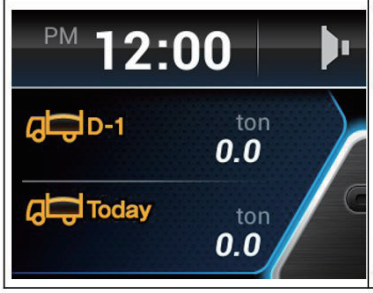
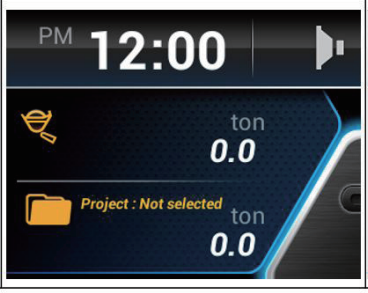
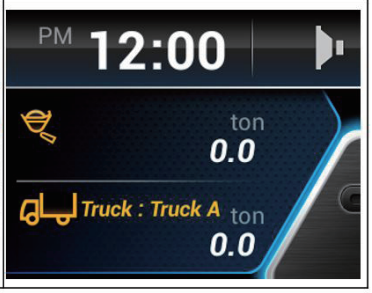
⑥ Work load

760F3CD33A

960A3CD33A

· Weighing system : Set the workload measurements.
· Weighing display : Set the display on main display screen.

- Type A : Project & Truck

Press Work mode switch on keypad shortly to shift weighing display.**		
Weighing display - Daily	Weighing display – Project	Weighing display - Truck
		

D-1	Work weight (Previous day)
Today	Work weight (Today)
	Current weight
Project	Total weight accumulated in selected Project**.
Truck	Total weight accumulated in selected Truck**.

** Refer to page 3-42 for details

- Type B : Truck Preset

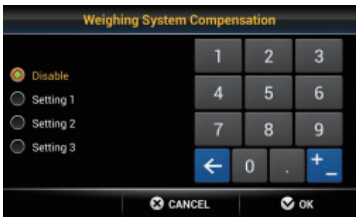
Today	Work weight (today)
D-1	Work weight (previous day)
A Total A B Total B C Total C	Total weight accumulated in memory A, B, C individually redardless of date
	Current weight

※ **Initialization daily, total A, B, C**
Initialize accumulated value at memory daily, A, B and C.

· Error detection : Set error detection ON/OFF.
  - OFF : Errors are not displayed.
  - ON : ⓐ,ⓑ and ⓒ are displayed on main display screen.
    ⓐ The boom lift was performed too fast.
    ⓑ The bucket was not in the fully tilted back position while bucket was in the weigh range.
    ⓒ The hydraulic temperature is low (below 40 ˚C).

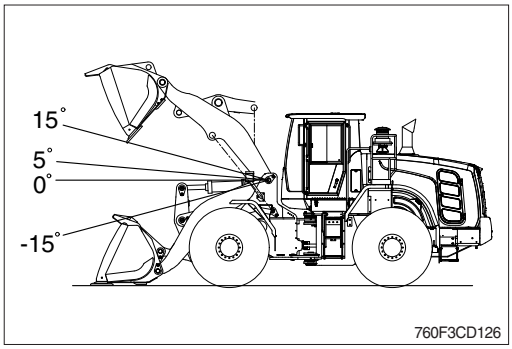
930A3CD33

· Boom pressure calibration : See the page 3-26 for details.
· Weighing system compensation
  - Calibration workload depending on work tool.
  ※ **Only for the service person. Do not adjust arbitrary.**



9603CD75G

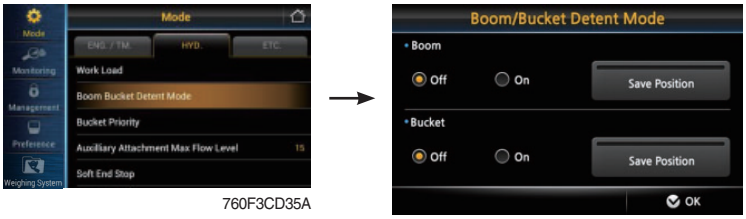
※ **Weighing system**
  - The weight indication in bucket is calculated by measuring boom position and boom pressure.
  ⓐ The weight is '0.0 ton' when the boom is placed at below -15˚.
  ⓑ The weight is indicated when the boom is placed at the range (5˚→15˚).
  ⓒ The weight is calculated when the boom is placed at above 5˚ and boom is lowered below -15˚ after dumping operation.



760F3CD126

  In order to recheck weight, go to the ⓑ after changing boom position (below -15˚).
  - Dump operation : It is checked by bucket cylinder's stroke change (below 250 mm).
  ※ The temperature for the hydraulic oil must be raised to at least 40 ˚C (104 ˚F) before operation.

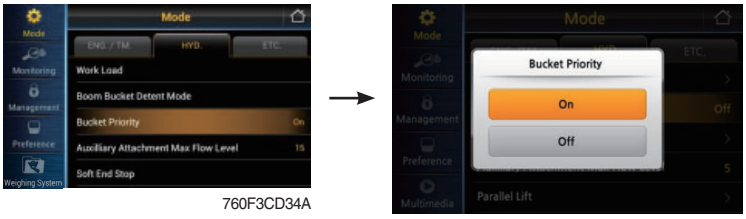
⑦ Boom/bucket detent mode



760F3CD35A 760F3CD35B

- OFF : Detent functions are not operated.
- ON : Boom or bucket detent functions are operated.
- Save position : Refer to page 4-22.

⑧ Bucket priority mode (option)



760F3CD34A 760F3CD34B

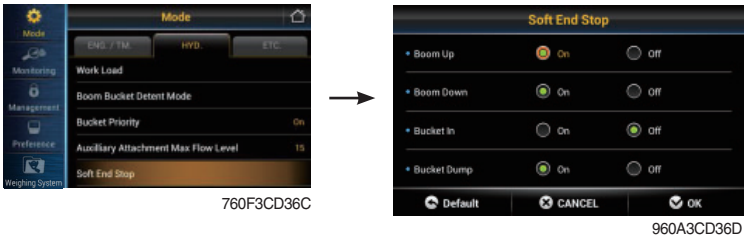
- Bucket priority function is to be more convenient for operator to load materials.
  Bucket-in (roll back) operation takes priority over the boom-up (raise) operation in case of using both operations at the same time and therefore boom (raise) operation is stopped and only bucket (roll back) is operated.
- Set the bucket priority function ON/OFF.

⑨ Auxiliary attachment max flow level mode (option)

760F3CD36A 760F3CD36B

- If the machine is equipped with auxiliary attachment, auxiliary attachment flow can be easily adjusted and controlled.
- Set the oil flow level from 0 to 15 level by using +/- button.

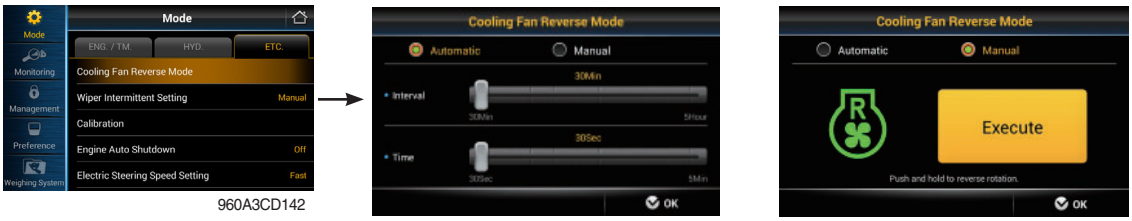
⑩ Soft end stop mode (option)



760F3CD36C 960A3CD36D

- This function gives shock free operation by reducing the speed of attachment near the end stroke.
- Set the soft end stop function ON/OFF.

⑪ Cooling fan reverse mode



960A3CD142 960A3CD40D 960A3CD40C

· **Manual** : Rotate the fan with reverse direction while pressing the button "Execute".

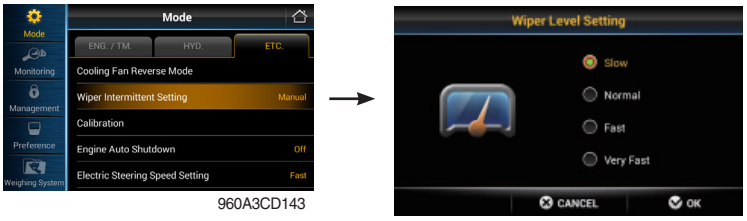
· **Automatic** : Rotate the fan with reverse direction by preset cycle.

- Interval : 30 min ~ 5 hrs
- Time : 30 sec ~ 5 min

※ **Default : Interval (60 min), time (120 sec)**

※ **When the fan is in reverse mode, the AC compressor will not be functional and cab cooling will be disabled.**

⑫ Wiper level setting (Intermittent mode)

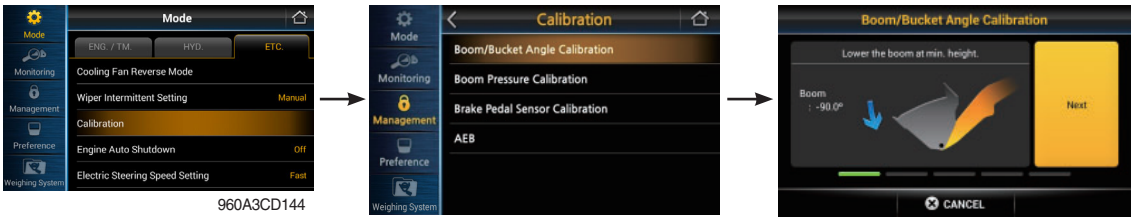


960A3CD143 960A3CD36F

· Setting wiper speed in J position of multi function switch (slow, normal, fast and very fast)

※ Refer to the page 3-48.

⑬ Calibration



960A3CD144 760F3CD49B 960A3CD49C

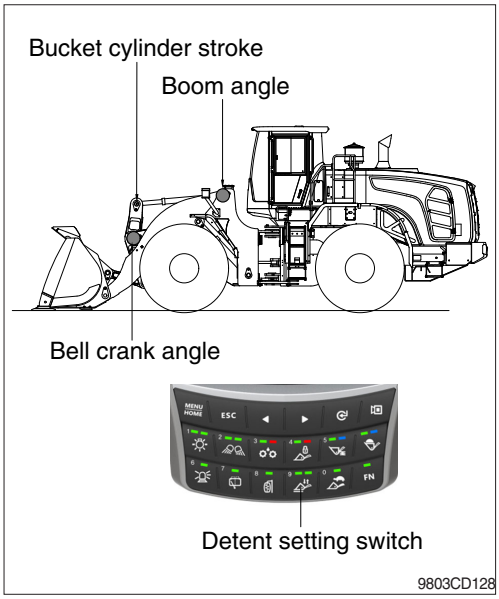
· You should turn OFF " Soft end stop " before start calibration.
· Press NEXT button after following the instruction at each step.
· If correction is right, NEXT button will be activated, then go to next stage.
· After following each step correctly, the message "Calibration completed" will be shown. Press OK button, then process be ended.

※ Using switch

- Using ↵ instead of NEXT, complete button.

· **Boom / Bucket angle calibration**

- MCU get sensing signal from boom angle and bell crank angle and calculate bucket cylinder stroke and boom link position angle from a ground real-time basis.
- Boom angle position and bucket cylinder stroke is set by detent setting switch on monitor.
- The individual setting position is done the lever (detent, release operation).
- Angle sensor calibration is basically carried out before delivery of the machine. When angle sensor is replaced or actual value is different compared to setting value, this function can be done.



9803CD128

- The calibration must be carried out as follows :

① Lower the boom at maximum low position and press the NEXT button or ↵ (bucket must be max tilting position).
② Raise boom at maximum high position and press the NEXT button (or ↵).
③ Position boom at -5˚ and press the NEXT button (or ↵).
④ Retract bucket cylinder length (to minimum position) at -5˚ boom position and press the NEXT button (or ↵).
⑤ Extend bucket cylinder length (to maximum position) at -5˚ boom position and press the NEXT button (or ↵).
⑥ In case above steps are carried normally, "Calibration is done" message is shown. Then angle sensor calibration is finished.

※ Boom down / boom up / bucket position setting : Refer to page 4-22.

· **Boom pressure calibration**

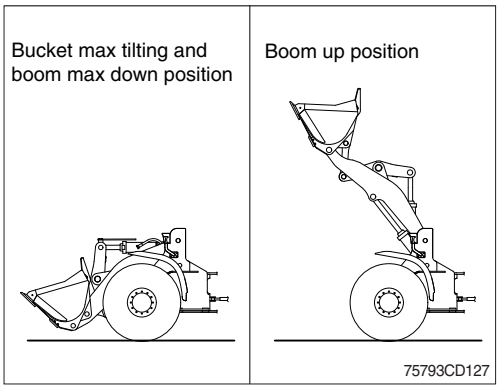
760F3CD70A

Display A

960A3CD70B

· **Boom pressure calibration**

- It is used when bucket weight is changed or measured weight is inaccurate.
- The calibration must be carried out as follows :



75793CD127

① Increase hydraulic temperature (about 40~60˚C).
② Turn off "Soft End Stop".
③ Set a boom raise dentent position when the boom is in the fully raises position.
④ Select "Boom-pressure".
⑤ Roll-in the bucket at maximum range and lower the boom at minimum height.
⑥ Press START button. Raise boom to maximum position.
Boom up must be finished before stepping advance in "display A".
⑦ If it show "Calibration success" message in a moment, press complete button (or).

※ Raise hydraulic temperature enough when checking work load / boom pressure sensor calibration (recommendation : about 40 ~ 60˚C).
※ Check if pressure sensor or angle sensor is in normal condition for accurate work load algorism or pressure sensor calibration [pressure sensors at boom cylinder head area and rod area, boom angle sensor (CD-80), bell crank angle sensor (CD-81)].
Sensor error message during pressure sensor calibration : sensor need to be checked.

· **Brake pedal sensor calibration**

760F3CD71A

760F3CD71B-1

- Turn the engine OFF and turn the starting switch ON position.
- Press OK button, then calibration will be started.
- When display " IP " on main display, press slowly the brake pedal completely.
- Release the brake pedal when display " IP " on main display.
- For cancel, press MENU/HOME switch.

※ When the brake pedal or sensor is replaced, **brake pedal sensor calibration must be performed.**

· **AEB**

- AEB mode controls the disk clearance of the transmission, automatically.
- To start AEB setting, press AEB bar (or ↵) for 3 seconds.
- If you press ↵ or ESC, AEB setting will be canceled. Machine need to restart.
- If "OK" in actual gear window, press ↵ to complete AEB setting.
- **Display during AEB mode**

Symbol	Meaning
ST	Start AEB
K1~K4, KV, KR	Calibrating clutch K1~K4, KV or KR respectively
OK*	Calibration for all clutches finished
Spanner and Kx*	Kx couldn't be calibrated, AEB finished
△E	Engine speed too low - Raise engine speed
▽E	Engine speed too high - Lower engine speed
△T	Transmission oil temperature too low - Heat up transmission
▽T	Transmission oil temperature too high - Cool down transmission
FO*	Output speed not zero
FN*	Shift lever not in neutral position
FP*	Parking brake not applied

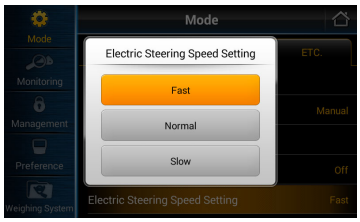
* : Transmission stays in neutral, you have to restart the TCU (starting switch off/on).

⑭ Engine auto shutdown mode

· The engine auto shutdown function can be activated or cancelled.
· If machine is idling for the setting time (2~40 minutes), then engine will shutdown automatically.

⑮ Electric steering speed setting (option)

960A3CD146



960A3CD147

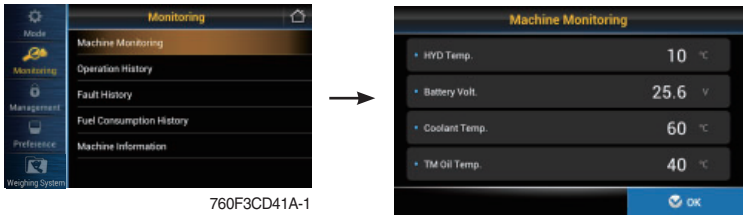
· This is a function that can adjust the electric steering speed in 3 steps (high/normal/low) only for equipment with electric steering option.

※ If step is changed during electric steering manipulation, the steering speed may change duing steering, so it is recommended to operate in neutral state of the electirc steering joystick (LH).

※ The electric steering speed setting function menu does not appear for equipment without electric steering option applied.

(3) Monitoring

① Machine monitoring

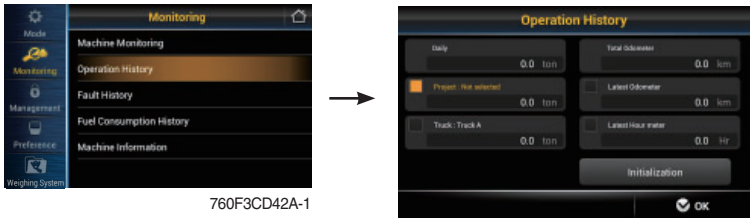


760F3CD41A-1

760F3CD41B-1

· Monitor the status of the machine.

② Operation history



760F3CD42A-1

960A3CD42B

· **Hour meter / ODO meter**

· **Total**

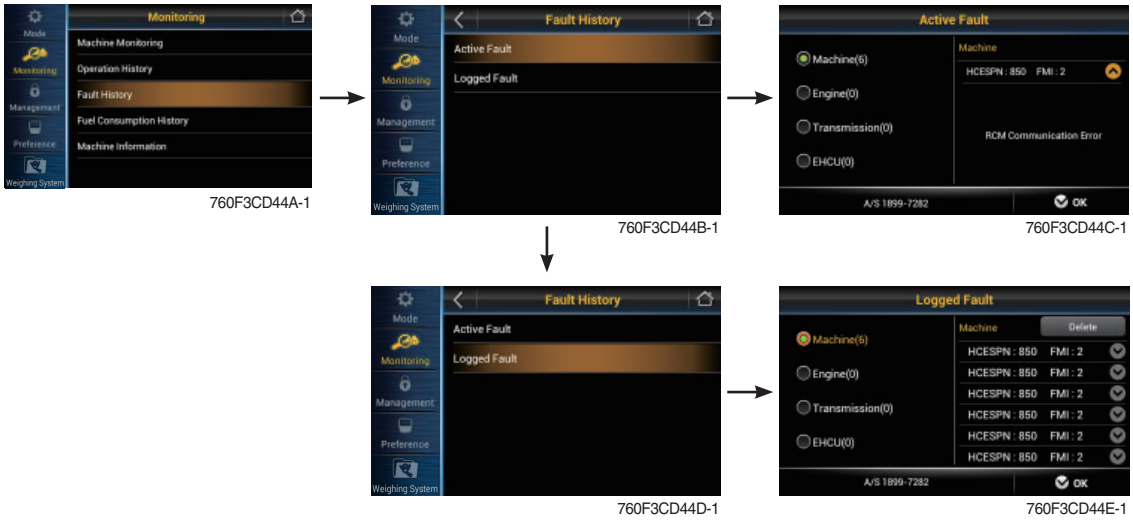
- Total distance (this item cannot be initialized).
- Total working hour can check on service meter. See page 3-59.

· **Latest**

- Working hour/distance after reset.
- If you select **Initialization**, working hour/distance start zero.

· To display the item in main display, select the item in main display. See the page 3-13.

③ Fault history



760F3CD44A-1

760F3CD44B-1

760F3CD44C-1

760F3CD44D-1

760F3CD44E-1

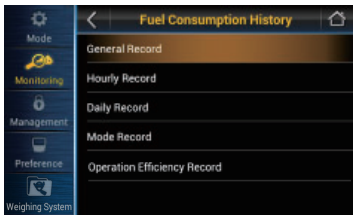
· Display the fault code of MCU/ECU/TCU/EHCU and delete logged fault.

※ **Refer to service manual for HCESPN/FMI of engine and transmission.**

※ **EHCU : Electro Hydraulic Control Unit AAVM : All Around View Monitoring**

④ Fuel consumption history

760F3CD141



760F3CD141A

960A3CD141B

960A3CD141C

960A3CD141G

960A3CD141E

960A3CD141F

· Dispaly the fuel consumption history.
  - General record (average fuel rate and a days fuel used)
  - Hourly record - Daily record - Mode record : P, P(smart), E mode
  - Operation efficiency record (Shuttle shift, Idle, Relief)

⑤ Machine information

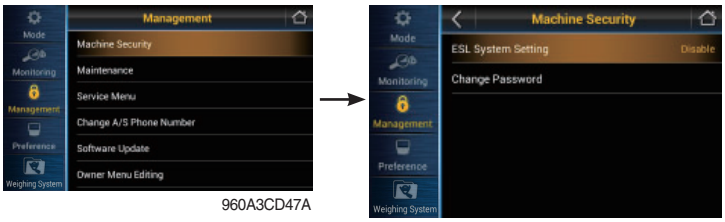
760F3CD46A-1

960A3CD46B

· Software versions of MCU, ECM, TCU, EHCU, RMCU, Cluster and monitor can be checked.

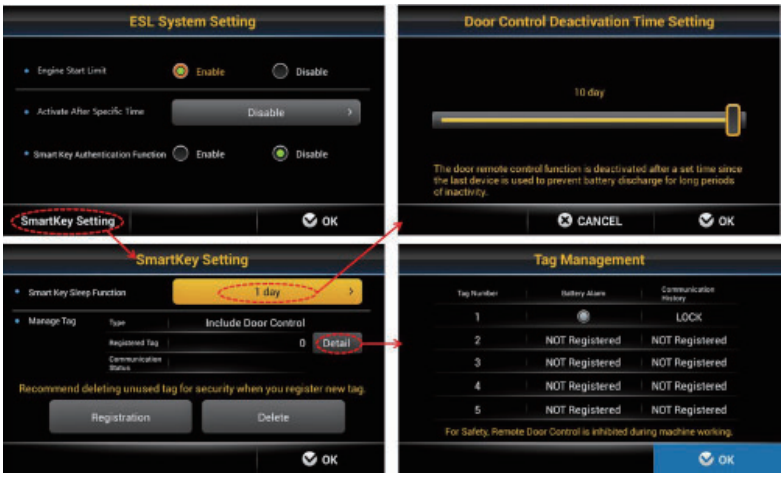
(4) Management

① Machine security



960A3CD47A

960A3CD47B



· **ESL system setting**

- ESL : Engine Starting Limit
- ESL mode is designed to be a theft deterrent or can prevent the unauthorized operation of the machine.
- If the ESL mode is enabled ON, the password will be required when the start switch is turned ON.
- **Engine start limit**

  . **Disable** : ESL is not in use

  . **Enable :** The password is required whenever the operator start engine.
- **Activate after specific time**

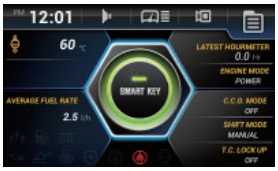
  The password is required when the operator first starts the engine. The operator can restart the engine within the specific time setting without inputting the password. The maximum specific time setting is 2 days.
- **Smart key authentication function (option)**

  . **Enable :** Set the using or not of smart key. If you using smart key, ESL function always be activated.

  . **Disable :** Register or delete user tag and display registered user tag. When delete user tag, all user tag will be deleted.

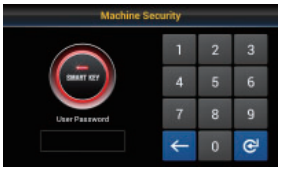
※ **Using smart key**

- **Verification success**
  Green smart key icon is displayed on the main display screen.
- **Verification failure**
  Red smart key icon and password input screen is displayed.



7609A3M50D

Verification success



7609A3M50E

Verification failure

※ **Remote door control system (option)**

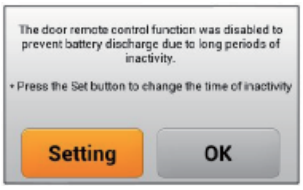
- The machine operator can lock, unlock and open the cab door by means of the remote key tag, as long as he is within a range of 15 meters from the machine.
- Please note that the door cannot be closed using the Remote Key Tag.

1 Door lock
2 Door unlock
3 Door open (press and hold for 2 seconds)

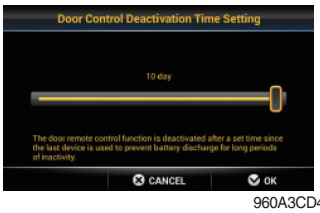
⚠ Do not activate this function if there is person nearby the door and when machine work or travel.

· **Door control deactivation time setting**

- There is a limited period of a maximum of 10 days that can be set during which the ‘ Remote Door Functionality ’ can be used if the machine has been parked or at a standstill.
- If the machine is parked or at a standstill for a period that exceeds the period in days set by the operator without any activity, then to prevent the machine batteries from draining, the ‘ Remote Door Functionality ’ will be disabled.
- When this happens, the operator will be able to only use the machine Key to open the cab door, after which the ‘ Remote Door functionality ’ can be enabled again during first start-up.
- During the first start-up after the machine was inactive for a period that exceeds the period in days set by the operator, the operator will be able to see the below pop-up on the monitor, by which the operator can then enable the ‘ Remote Door functionality ’ again by clicking the ‘ Setting ’ tab and confirming the settings thereafter.



960A3CD47H



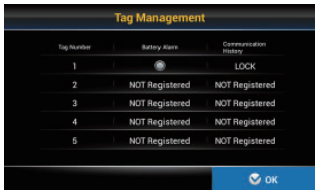
960A3CD47G

※ **When door control is deactivated, the door lock once automatically for machine security.**

※ **During the deactivation, remote door control function is not work.**

· **Tag management**

- Tag number
  . Max 5 tags can be registered.
- Battery alarm
  . Check tag's battery status. (normal or low)
- Communication history (check, lock, unlock, open)



960A3CD47K

· **Engine Starting Condition**

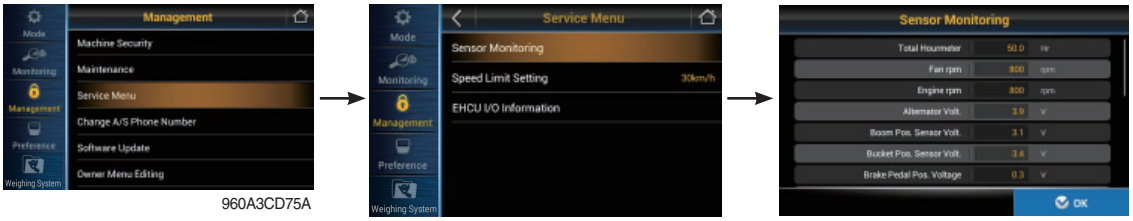
Case	ESL Mode	Smart Key	Condition
1	Disable	Disable	- With registered tag : Engine can be started without password input. - Without registered tag : Engine can be started without password input.
2	Disable	Enable	If Smart Key is enabled, ESL Mode is automatically enabled. This Case 2 work the same as the Case 4.
3	Enable	Disable	- With registered tag : Engine can be started with password input. - Without registered tag : Engine can be started with password input.
4	Enable	Enable	- With registered tag : Engine can be started without password input. - Without registered tag : Engine can be started with password input.

② Maintenance

960A3CD48A 960A3CD48B 960A3CD48C

· Replacement : The elapsed time will be reset to zero (0).
Change cycle : The change or replace cycle can be changed in the unit of 50 hours.
· Show the maintenance history below 10.
When history have more than 10, delete the old item.
· **Change or replace interval : Refer to the page 6-10.**

③ Service menu



960A3CD75A

760F3CD75B-2

760F3CD75C-1

760F3CD75D-2

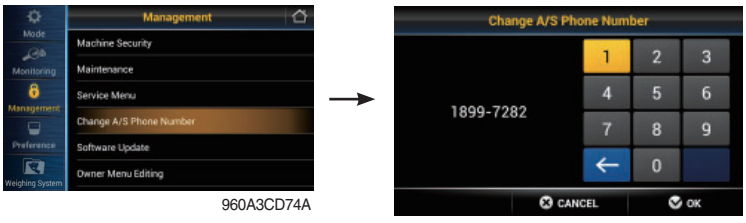
760F3CD75E

760F3CD45A-2

760F3CD45B-1

- **Sensor monitoring** : Display information of each sensors.
- **Speed limit setting** : 20~40 km/h (5 km/h intervals)
- **EHCU I/O information**
  - Real time monitoring (joystick stroke, EPPR current).

④ Change A/S phone number



960A3CD74A

760F3CD74B-1

- Check and change of contact information for customer service.

Software update

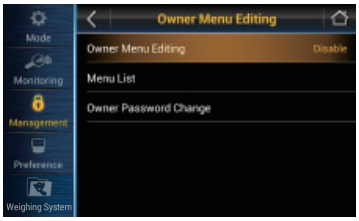
960A3CD74C

960A3CD74C-1

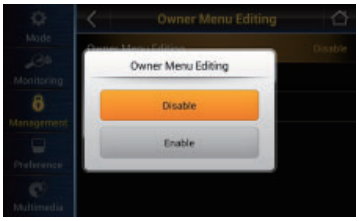
- Update file in USB memory.

⑤ Owner menu editing

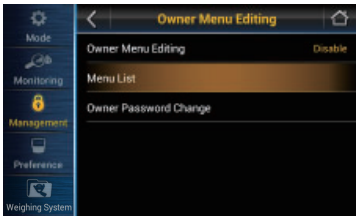
960A3CD74E



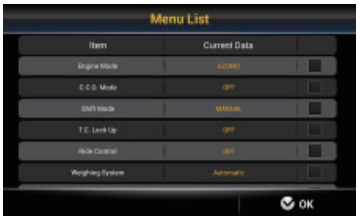
960A3CD74F



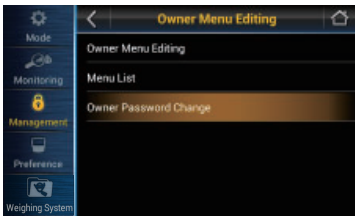
960A3CD74F-1



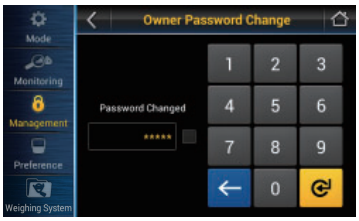
960A3CD74G



960A3CD7G-1



960A3CD74H

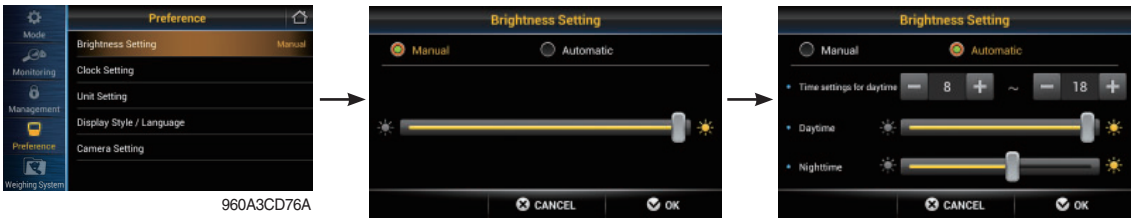


960A3CD74H-1

- **Owner menu editing** : Owner can set the status of the function. (Enable / Disable)
- **Menu list** : In the menu, owner can set the list of the function to lock or unlock it.
- **Owner password change** (Default password : 11111)
  - Owner can manage and change the password.
  - Necessary to input the password to access the set of function.

(5) Preference

① Brightness setting



960A3CD76A 960A3CD76B 960A3CD76C

- **Manual**
  - Manual setting for LCD brightness.
- **Automatic**
  - Automatic control of LCD brightness as set level of day/night.
- **Setting day time**
  - Set the time for daylight.
  - If you set the time for daylight, the rest time will be night.

② Clock setting

960A3CD77A 960A3CD77B

- Set the time (hour, minute and AM or PM)

③ Unit setting

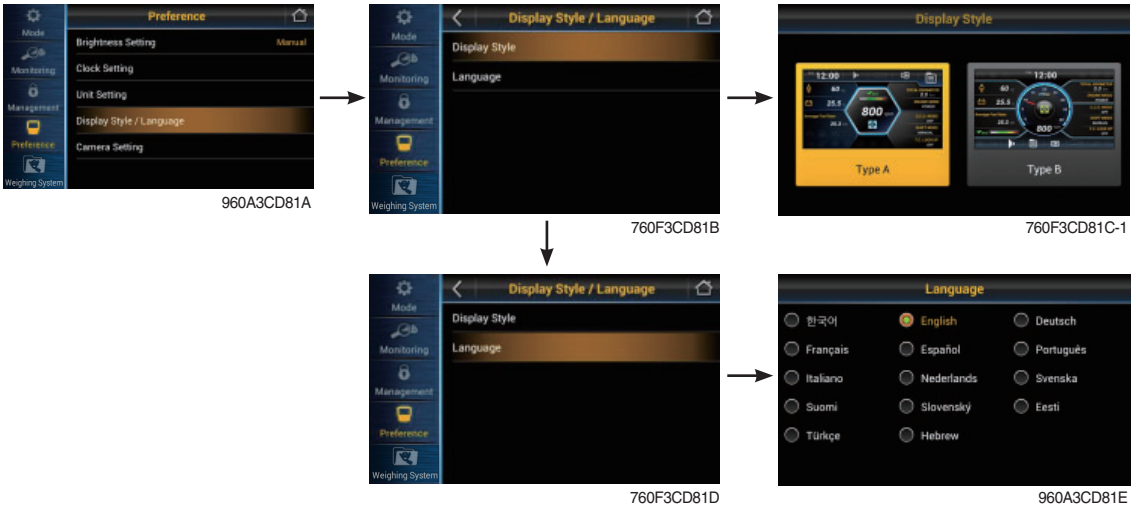
960A3CD78A 960A3CD78B

- Volume : ℓ ↔ gal
- Temperature : ˚C ↔ ˚F
- Distance : km ↔ mile
- Weight : ton ↔ lb
- Pressure : bar ↔ Mpa ↔ kgf/m² ↔ psi

※ **Using button**

- Move to other item by ↵.

④ Display style/ Language

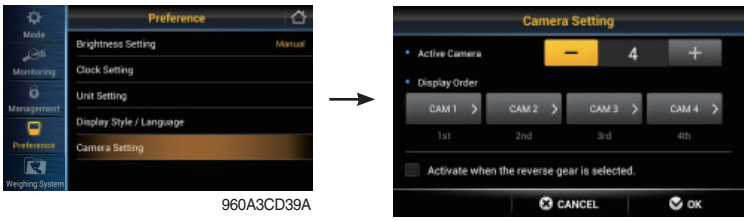


960A3CD81A 760F3CD81B 760F3CD81C-1

760F3CD81D 960A3CD81E

- Set the display type A or B.
- User can select preferable language and all display are changed the selected language.
- 14 different languages available.

⑤ Camera setting



960A3CD39A

760F3CD39B-1

· **Active camera**
  - Four cameras can be installed on the machine.
· **Display order**
  - Set the channel sequence of each camera.
· **Active when the reverse gear is selected**
  - If transmission engages the reverse gear (R1~R3), the camera mode is displayed automatically in main display.

· If the camera was not equipped, this menu is not applicable.
· In main display, if the ▣ is touched (or ▣ switch is pushed), the first ordered display camera will be viewed.

※ **If AAVM is equipped, this menu will be changed to AAVM setting.**

⑥ AAVM (Advance Around View Monitoring, option)

· The AAVM switchs of the cluster consist of Camera, ESC and Buzzer stop.

760F3CD95-5

- **Camera switch**
· It will enter into the AAVM mode from the main display if the AAVM is installed.
· While in the AAVM mode, select the ESC switch to return to the main display.

760F3CD08R

Main display

760F3CD08S

AAVM mode

- **Buzzer stop switch**
· In AAVM mode, it detects surrounding pedestrians or objects and the warning buzzer sounds.
· User can turn OFF the warning sound by pressing buzzer stop switch.

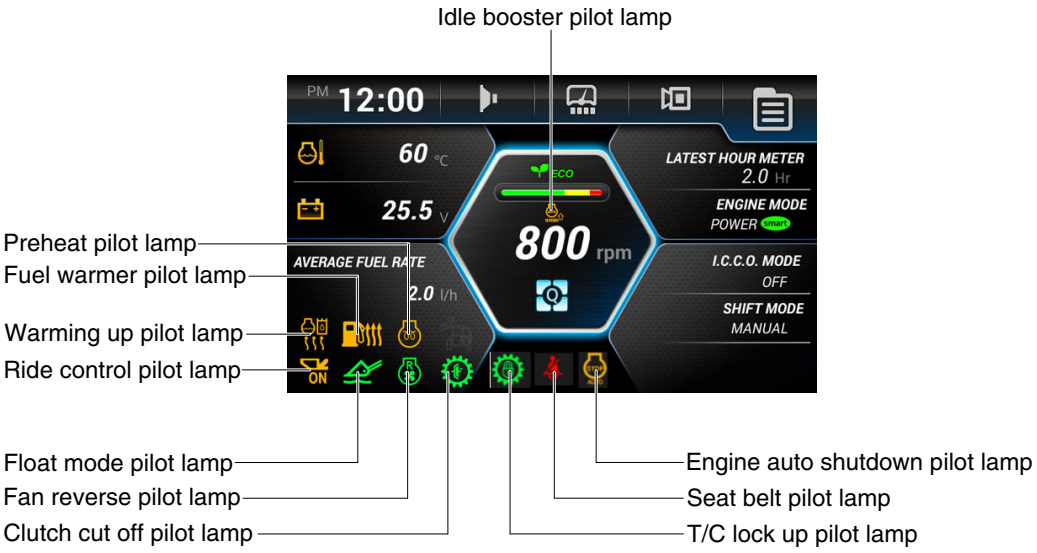
290F3CD246

· When the worker or pedestrian go near the danger area line (green, radius 3 m), an external danger area of equipping on the main display, the warning buzzer sounds and it displays the green rectangular box for the recognition of the worker and pedestrian. At this time, the operator should stop work immediately, and stop the buzzer by pressing the buzzer stop switch. And then, please work after you check whether the danger factors are solved.

290F3CD247

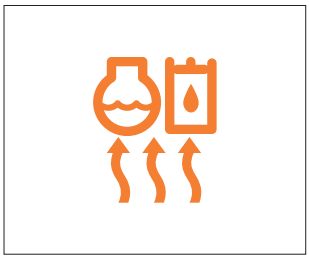
· When the worker or pedestrian go inside of the danger area line (red, radius 3 m), an internal danger area of equipping on the main display, the warning buzzer sounds and it displays the red rectangular box for the recognition of the worker and pedestrian. At this time, the operator should stop work immediately, and stop the buzzer by pressing the buzzer stop switch. And then, please work after you check whether the danger factors are solved.

3) PILOT LAMPS



980A3CD90

(1) Warming up pilot lamp



① This lamp lights ON when the coolant temperature is below 30˚C (86˚F).

② The automatic warming up is cancelled when the engine coolant temperature is above 30˚C, or when 10 minutes have passed since starting the engine.

(2) Seat belt pilot lamp

① This lamp lights ON for the first five seconds after starting the engine.

(3) Preheat pilot lamp

① This lamp lights ON when start switch is turned clockwise to the ON position. Light will turn off after approximately 5~45 seconds, depending on engine temperature, indicating that preheating is completed.

② When the lamp goes out the operator should start cranking the engine.

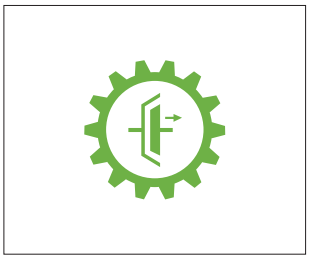
※ Refer to page 4-5.

(4) Engine auto shutdown pilot lamp

① This lamp lights ON when the engine auto shutdown function is activated.

※ **Refer to page 3-27.**

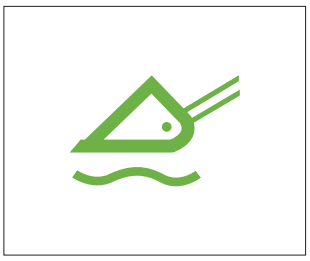
(5) Clutch cut off pilot lamp



① This lamp lights ON when clutch cut off mode is set L, M, H.

※ **Refer to page 3-20.**

(6) Float mode pilot lamp



① This lamp lights ON when the boom float is activated.

※ **Refer to page 4-9.**

(7) Ride control pilot lamp (option)

① Auto ride control

This lamp lights ON when the automatic ride control function is activated (**ON, Conditional speed** setting).

※ **Refer to page 3-41.**

② Manual ride control

This lamp lights ON when the manual ride control function is activated (**ON, Always** setting).

※ **Refer to page 3-41.**

(8) Fan reverse pilot lamp

① This lamp lights ON when the cooling fan reverse mode is activated

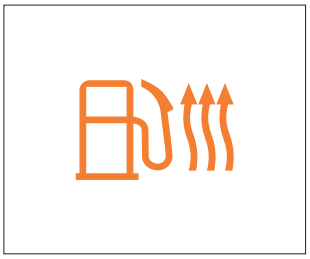
※ **Refer to page 3-24.**

(9) Torque converter lock up pilot lamp (option)

① This lamp lights ON when the torque converter lock up function is operating.

※ **Refer to page 3-21.**

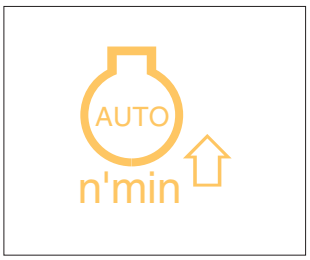
(10) Fuel warmer pilot lamp



① This lamp is turned ON when the coolant temperature is below 10˚C (50˚F) or the hydraulic oil temperature 20˚C (68˚F).

② The automatic fuel warming is cancelled when the engine coolant temperature is above 60˚C and the hydraulic oil temperature is above 45˚C since the start switch was ON position.

(11) Idle booster pilot lamp (option)



① This lamp lights ON when Idle booster is activated.

※ **Refer to page 3-19.**

3) SWITCHES

760F3CD95-1

※ If you push left or right switch (◀ ▶) on main display, show the select box on current time. Move to next item in order by using left / right button.
(① Time → ② Buzzer → ③ Wiper → ④ Camera → ⑤ Menu → ⑥ Machine monitoring → ⑦ Fuel rate → ⑧ Engine mode/Operation history → ⑨ Transmission mode → ⑩ Quick menu)

※ Move to selected setting screen by using enter switch ( ).

※ When keypad is not pressed for 3 seconds, convert screen to main display.

※ If you push left and right switch (◀ ▶) at the same time, move language settings.

(1) Menu / Home switch

760F3CD21

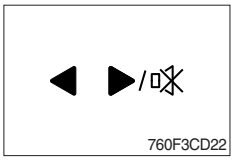
① Main display to main menu, main menu to main display.

(2) ESC switch

760F3CD23

① For other menu, this is used for cancellation (move to previous menu).
② AEB cancel or finish button in AEB.

(3) Left / Right move switch

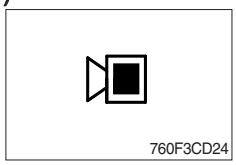


① Move in menu (left, up / right, down).
② Decrease / Increase input value.
③ Stop buzzer sound when sound is on.

(4) Enter switch

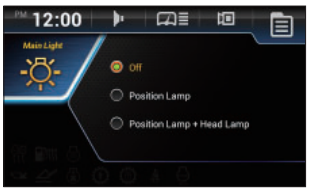
① Select menu (enter).

(5) Camera switch



① Enter camera or AAVM mode in main display.

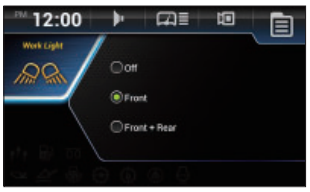
(6) Main light switch



760F3CD83-1

① This switch use to operates the clearance lamp and head light.
- **Position lamp** : Clearance lamp and cluster illumination lamp come ON. The green pilot lamp is turned ON.
- **Head lamp + Position lamp** : Clearance lamp, cluster illumination lamp and head light come ON. The green pilot lamp is turned ON.

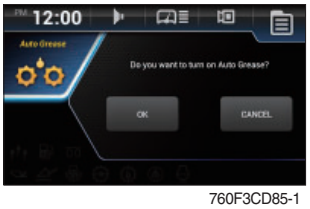
(7) Work lamp switch



760F3CD84-1

① This switch use to operates the front and rear work lamps.
- **Front** : Front work lamp located on the cab comes ON. The green pilot lamp is turned ON.
- **Front + Rear** : Front work lamp located on the cab and rear work lamp located on the cowl come ON. The green pilot lamp is turned ON.

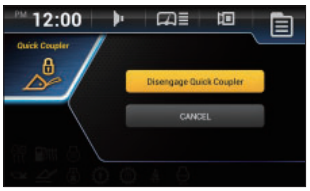
(8) Central grease lubrication switch (option)



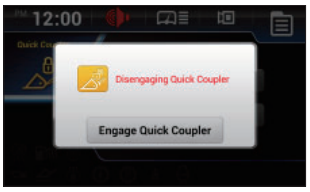
760F3CD85-1

① This switch is used to operate the central grease lubrication system.
② The central grease lubrication system is operated for set period. The green pilot lamp is turned ON.
※ **When a malfunction occurs in the auto grease lubrication system, the red pilot lamp is turned ON.**
※ **Refer to page 8-1.**

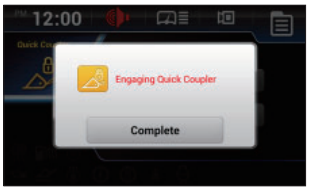
(9) Quick coupler switch (option)



960A3CD86A



960A3CD86C



960A3CD86B

① **Disengage quick coupler**

- The quick coupler pins move in the disengaged position and buzzer sounds.
- The red pilot lamp is turned ON.

⚠ **Always check that the attachment is properly secured to the attachment quick coupler by pressing the front part of the attachment against the ground.**

⚠ **Never use an attachment before you have checked its mounting.**

② **Engage quick coupler**

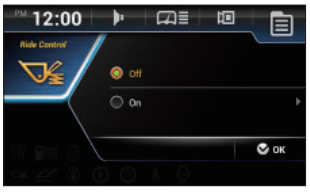
- The quick coupler pins move in the engaged position and buzzer sounds.
- The green pilot lamp is turned ON.

※ **Check for engagement as followings.**

a. Put down pressure on the attachment.

b. Back up the machine and make sure that there is no movement between the quick coupler and attachment.

(10) Ride control switch (option)



960A3CD87A

960A3CD87C

① **ON/OFF**

- Select ON/**OFF** in order to turn on/off the system for the ride control.

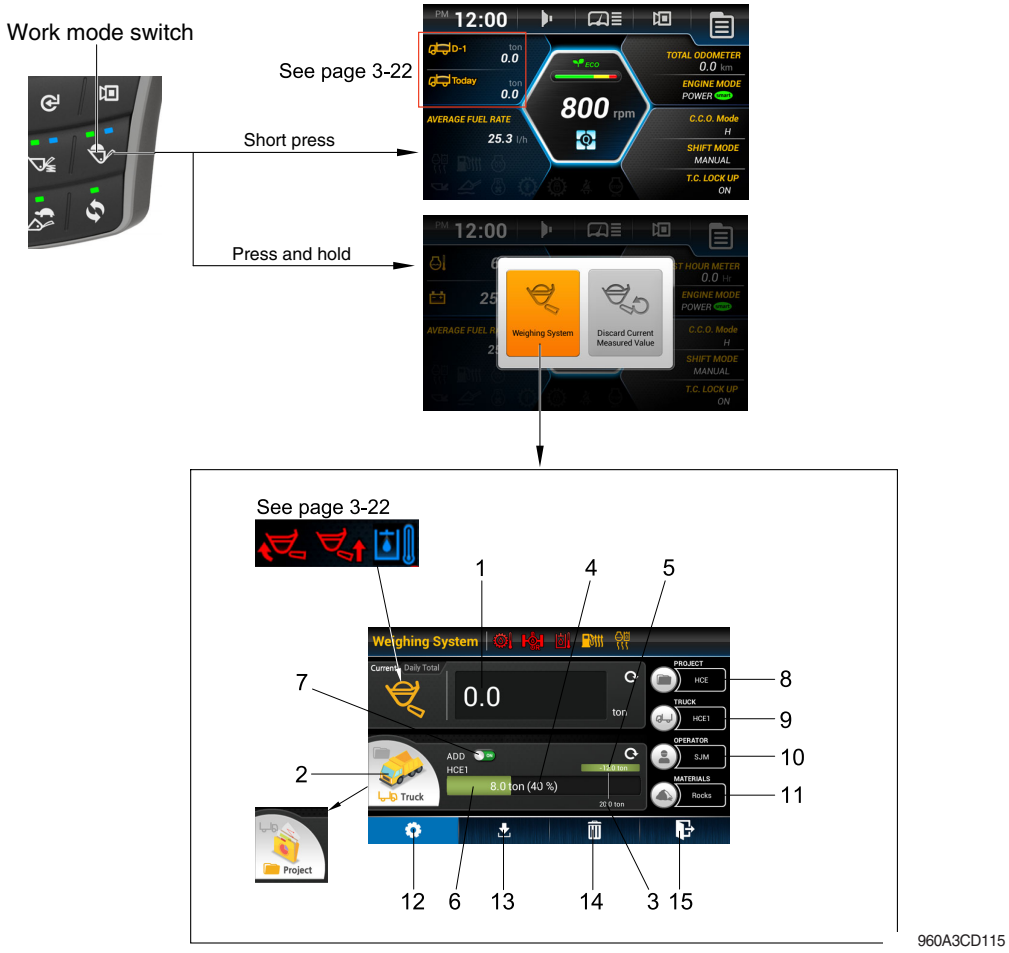
② **Forward / Backward 6~15 km/h**

- The ride control automatically turns on when the travel speed exceeds a preset speed. (forward / backward 6~15 km/h)
- The blue pilot lamp is turned ON.

③ **ON, Always**

- When **ON, Always** is selected, the ride control system is on regardless of travel speed. The ride control will smooth the ride of the machine during travel.
- The green pilot lamp is turned ON.

(11) Work mode switch



1 Current weight in the bucket / Daily total weight
2 Select button (Click gray icon) for status (Project status / Truck status)
3 Target weight
4 Loaded weight
5 Remaining weight to complete job / Over weight to complete job
6 Progress bar / Total weight
7 Select button for mode (Standby mode / Weigh mode)
8 Project name
9 Truck name
10 Operator
11 Materials
12 Go to Work load setting menu
13 Save Work log to USB
14 Delete Work log
15 Go to Main menu

① **Current weight in bucket/ Daily total weight**

- This window displays the measured current weight information of the current bucket. Daily Total information accumulated up to today is displayed.
- Current / Daily Total changes the display status by clicking the tab
- The unit of weight depends on the monitor settings.

940A3CD10

② **Select Button(Click gray icon) for status (Project status/Truck status)**

- This button can select the cumulative weight of the project or the cumulative weight of the truck
- If you click on the gray icon, the icon will be changed Project →Truck or Truck →Project.

940A3CD11

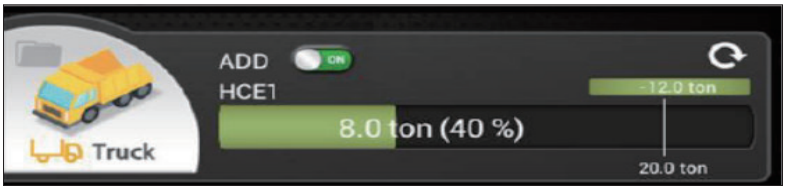
940A3CD12

③ **Target Weight**

- It displays the set target weight value of Project or Truck. It can be set in the pop-up window.

④ **Loaded weight (Progress bar or Total weight)**

- It displays the set target weight value of Project or Truck. It can be set in the pop-up window.
- In the case of Truck status, percentage symbol (%) of the target value is displayed after the accumulated value. (Loaded weight / Target weight * 100)
- In the case of Truck status, it is displayed in the form of a Progress bar. The size of the entire bar is set to 120% of the target value, and the color of the bar is green when the target value is below and red when the target value is exceeded.



940A3CD13

- In the case of project status, it is displayed as 'Loaded weight / Target weight'.
  In the case of project status, if the accumulated value exceeds the target value, the text of the accumulated value is displayed in red.

940A3CD14

⑤ **Remaining weight to complete job (or Over weight to complete job)**

- This setting is displayed only when Truck status is selected.
- Displays the amount of work remaining from the current accumulated value to the target value. (Current cumulative value - Truck target value)

⑥ **Progress bar/ Total weight**

- If the current cumulative value is below the target, it is marked with negative number and green, and if it exceeds the target, it is marked with positive number and red.

⑦ **Select button for mode (Standby mode / Weigh mode)**

- In the Standby mode, the measured current weight value is not added to the accumulated value.
- In Weigh mode, the measured current weight value is added to the accumulated value. Set to Weigh mode when 'ON' is displayed and Standby mode when 'OFF' is displayed

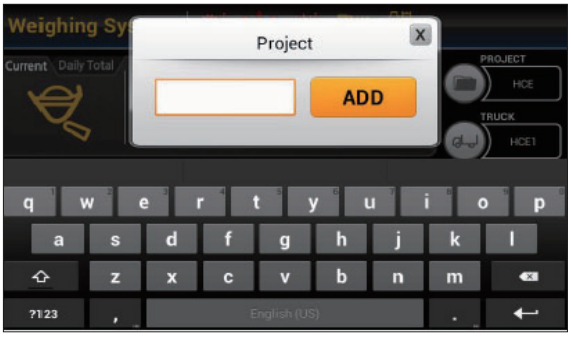
940A3CD15

⑧ **Project Name**

- If you touch the right Project icon and text on the Weighing System main screen,the following pop-up is created.

940A3CD16

- Select the 'None' Project in advance as the initial default value. The project cannot be deleted.
- Touch one of the input projects and press 'Select' to select the project. After multi-selection, press 'Select' to display a warning message to select only one
- Touch one of the input projects and press 'Select' to select the project. (Multi selectable)
- Touch one of the input projects and press 'Delete' to delete the project. (Multi selectable)
- When you touch '+ Add', a qwerty keyboard appears so you can enter a new Project Name.



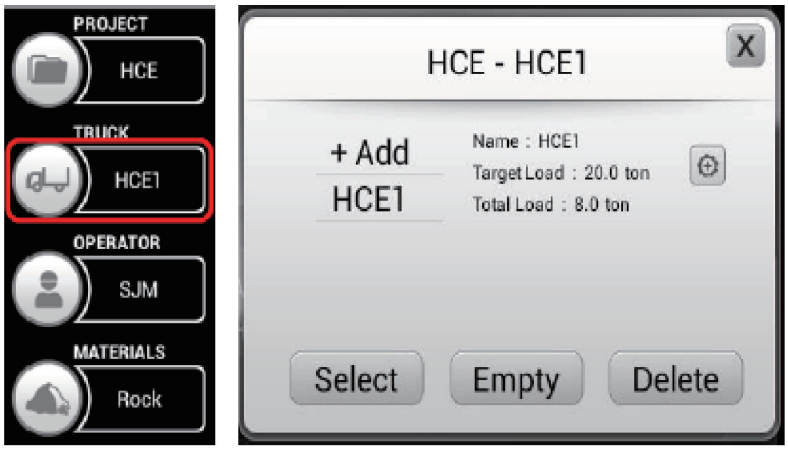
940A3CD17

- If you touch the red circle, a window for entering the target value appears.
  After entering the target value, touch 'Save' to complete the setting.
- The unit of weight follows the setting of the monitor.
- When the number of items is exceeded, a 'You cannot add more.' toast message is generated.
- When adding an item with the same name, a 'You cannot add same item.' toast message is generated

940A3CD18

⑨ **Truck Name**

- If you touch the right truck icon and text on the Weighing System main screen,the following pop-up is created. (The current Project Name and Truck Name are displayed at the top)



940A3CD19

- Initially, Total A, Total B, and Total C are created in advance in the Truck List of the 'None' project. 'Total A' is selected as the default value. Trucks cannot be added or
- deleted in the 'None Project'. Display warning message that adding/removing is
- impossible.
- Touch one of the entered trucks and press 'Select' to select the truck. After multi-selection, press 'Select' to display a warning message to select only one.
- Touch the entered truck and press 'Delete' to delete the truck (multi selectable)
- Touch the entered truck and press 'Empty' to delete all information in the truck.(multi selectable)
- Touching '+ Add' brings up a qwerty keyboard to enter a new Truck Name.
- If you touch the red circle, a window for entering the target value appears.After entering the target value, touch 'Save' to complete the setting.
- The unit of weight follows the setting of the monitor.
- When the number of items is exceeded, a 'You cannot add more.' toast message is generated.
- When adding an item with the same name, a 'You cannot add same item.' toast message is generated.

940A3CD20

⑩ Operator

- The pop-up below is created by touching the right operator icon and text on the Weighing System main screen.
- Touch one of the input operators and press 'Select' to select the operator.
- Touch the entered operator and press 'Delete' to delete the operator. (multi-selectable)
- When you touch '+ Add', a qwerty keyboard appears to enter a new operator.
- When the number of items is exceeded, a 'You cannot add more.' toast message is generated.

940A3CD21

⑪ Materials

- The pop-up below is created by touching the right operator icon and text on the Weighing System main screen.
- Touch one of the input materials and press 'Select' to select the material.
- Touch the input material and press 'Delete' to delete the material. (multi selectable)
- Touching '+ Add' brings up a qwerty keyboard to enter a new material.
- The related contents are saved in the monitor, and the material is limited to 20.
- Send, Gravel, Aggregate, and Rocks are saved in advance as default material values.
- When the number of items is exceeded, a 'You cannot add more.' toast message is generated.
- When adding an item with the same name, a 'You cannot add same item.' toast message is generated

940A3CD22

⑫ **Go to Work load setting menu**

- Move to the Work load setting menu below.

940A3CD23

⑬ **Save Work log to USB**

- Touch the red marked part on the monitor to execute the USB storage function. If the USB is not plugged in, a pop-up will notify you.

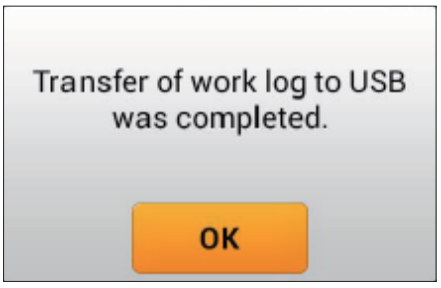
940A3CD24

940A3CD25

- **When the USB is plugged in, the pop-up notifies that the USB workload measurement record data is automatically saved.**

940A3CD26

→



940A3CD27

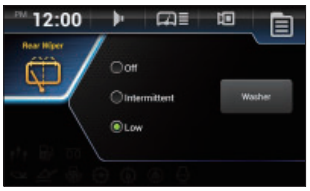
⑭ **Delete Work log**

- Clicking the trash can icon deletes all stored workload measurement data.

⑮ **Go to Main menu**

- Click the exit icon to move to the monitor main menu screen.

(12) Rear wiper and washer switch



760F3CD89-1

① This switch use to operates the rear wiper and washer.
When pressing the switch, the mode is changed sequence base.
(OFF → intermittent → Low → OFF)
- **Intermittent** : The rear wiper operates intermittently.
- **Low** : The rear wiper is operated lower speed.
- **Washer** : The washer liquid is sprayed while long pressing the button.

② The green pilot lamp is turned ON.

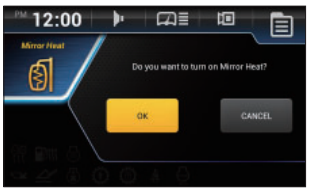
(13) Beacon lamp switch (option)

760F3CD88

① This switch turns ON the rotary light on the cab.

② The green pilot lamp is turned ON.

(14) Mirror defrost switch (option)

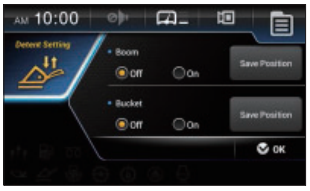


960A3CD65A

① **ON**
- When turned ON, it will operate for 15 minutes. After 15 minutes, the defrost function stops automatically.
- The green pilot lamp is turned ON.

② **OFF**
- Stops defrost function.

(15) Detent setting switch



760F3CD66

① **Boom and bucket**
- Set the boom and bucket detent function ON/OFF.

② **Save position**
- Press and hold save position until you hear an audible alarm noting the current position has been saved.
- Refer to page 4-22.

※ **The green pilot lamps are turned ON.**

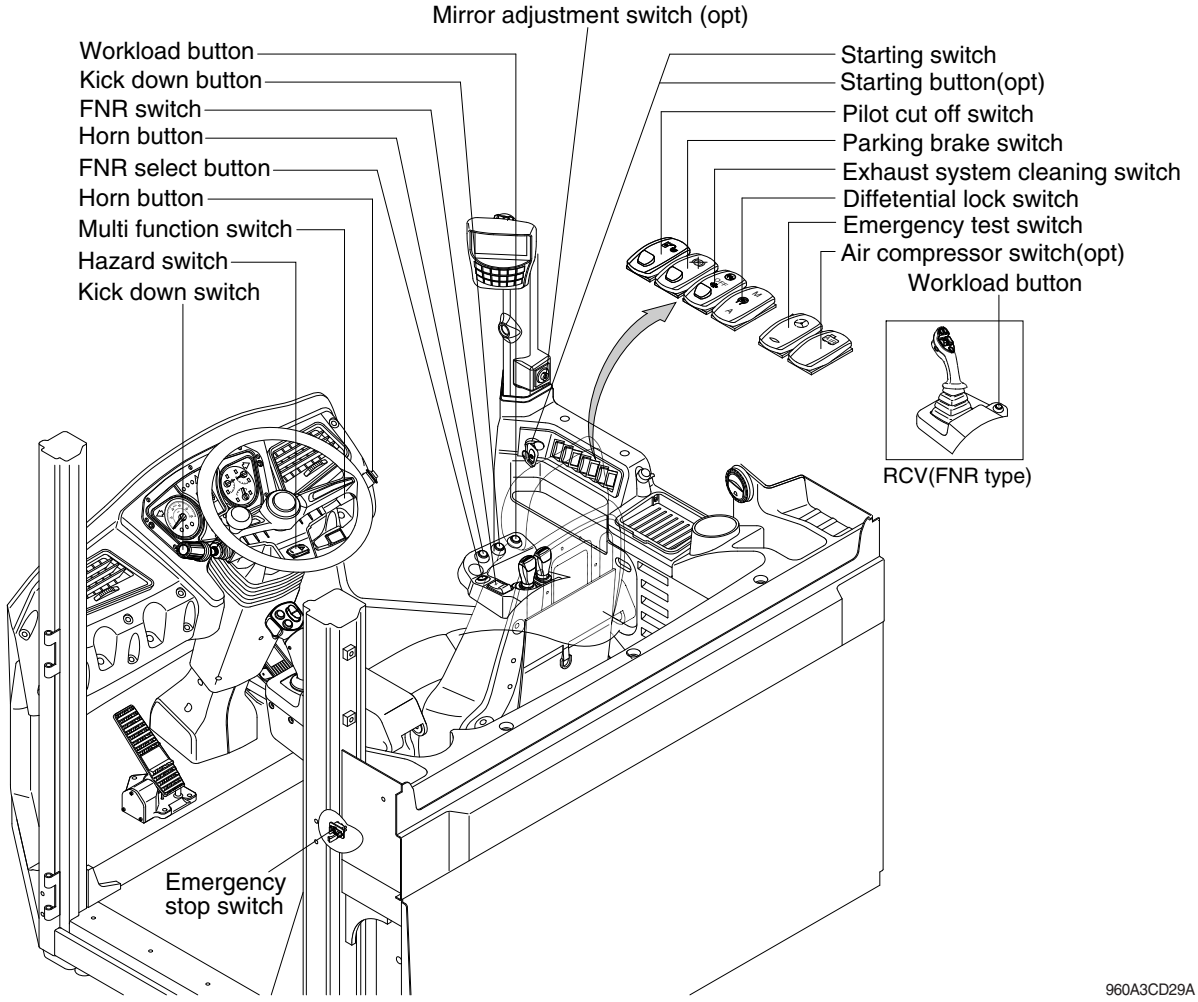
(16) Fine modulation switch

760F3CD67

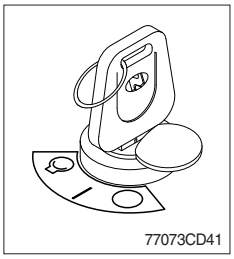
① **ON**
- When on, speed of the boom and bucket is significantly slowed for more precise control of the attachment.
- The green pilot lamp is turned ON.

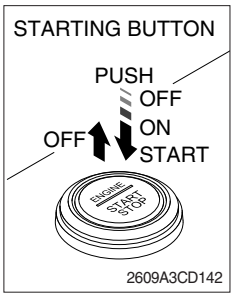
② **OFF**
- Full operation speed of the boom/bucket is enabled.

4. SWITCHES



1) STARTING SWITCH & STARTING BUTTON (OPT)





Starting button with smart key tag (opt)

(1) There are three positions, OFF, ON and START.
- ◯ (OFF) : None of electrical circuits activate.
- | (ON) : All the systems of machine operate.
- ⏻ (START) : Use when starting the engine.
  Release key immediately after starting.

※ When you turn the switch to ON in cold weather, the fuel warmer is automatically enabled to heat the fuel by sensing the coolant temperature. Start the engine in 1~2 minutes after turn the switch to ON. More time may be needed according to ambient temperature.

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

2) PILOT CUT OFF SWITCH

(1) When the switch is pressed to the OFF position, the hydraulic pilot line will be disabled and the work equipment will no operate.

(2) Press the ON position to enable the hydraulic pilot line.

※ **This switch can be set to ON or OFF position only when the safety button is pulled to the unlock position.**

3) PARKING BRAKE SWITCH

(1) When the switch is pressed to the ON position, the parking brake will start to operate and the cluster warning lamp will illuminate.

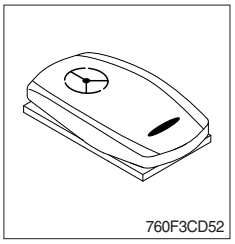
(2) Press the switch into the release position to disengage the parking brake.

※ **When operating the gear selector lever, be sure to release the parking brake. If the machine is operated with the parking brake engaged, the brake will overheat and may cause the brake system to fail.**

※ **The switch can be set from ON to the Release position when the safety button is pulled to the unlock position.**

※ **If you turn ON the starting switch with the parking brake disengaged (release position), the parking brake will be engaged.**
To release the parking brake, press the parking brake switch to ON and Release position.

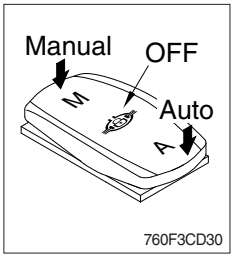
4) EMERGENCY STEERING TEST SWITCH (option)



(1) The emergency steering system can be manually tested. Push the switch in order to determine if the emergency steering and the emergency steering lamp are functional.

(2) When the switch is pressed, the emergency steering pump motor will run. The emergency steering lamp will illuminate. If the emergency steering lamp does not illuminate, do not operate the machine.

5) DIFFERENTIAL LOCK SWITCH (option)



(1) This switch is used to apply differential lock.
The differential lock gives equal power to both front wheels and is used in conditions when traction is poor.

(2) Manual mode

Depressing the M (Manual) side of the switch will manually engage the differential lock, illuminating the differential lock pilot lamp and the buzzer will sound. Manual mode will temporarily engage as long as the operator maintains pressure on the M (Manual) side of the switch. When the switch is released, the differential lock function is disengaged and the switch returns to the OFF position.

(3) Auto mode

Press the A (Auto) side of the switch for the auto mode of the differential lock function. In A (Auto) mode, the axle differential lock will automatically engage when wheel slippage is detected.

※ **While the axle differential lock function is operating, the differential lock pilot lamp lights ON.**

※ **Refer to page 3-12 and 3-52 (diff lock foot switch).**

6) EXHAUST SYSTEM CLEANING SWITCH

(1) This switch is used to select the exhaust system cleaning.

(2) Inhibit position (①)

⚠ The inhibit position disallows any automatic or manual exhaust system cleaning.

① Engaging will prevent exhaust system cleaning. Only use when operating in a hazardous environment where high exhaust temperatures are a concern.

② Only activated when high temperatures may cause a hazardous condition. Avoid extensive operation of the machine in the Inhibit position

(3) Auto position (③)

The exhaust system cleaning will perform automatically.

(4) Manual position (②)

① This position will only initiate a manual exhaust system cleaning when the machine is in a stationary condition, engine running at low idle speed and exhaust system levels are high enough to allow cleaning.

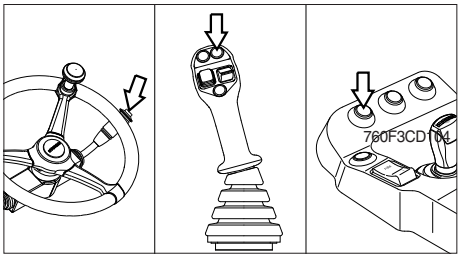
② HEST lamp will be illuminated during the entire exhaust system cleaning.

※ **Refer to the page 3-9 for ditails.**

※ **This switch can be move to the manual position (②) only when the safety button is pulled to backward.**

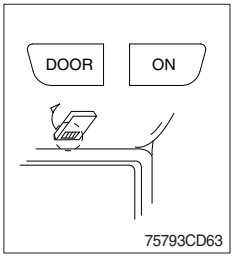
※ **Also, this switch return to the auto position when released the manual position (②).**

7) HORN BUTTON



(1) Depressing the horn button(s) will engage the horn.

8) CAB LAMP SWITCH



(1) This switch turns ON the cab room lamp.

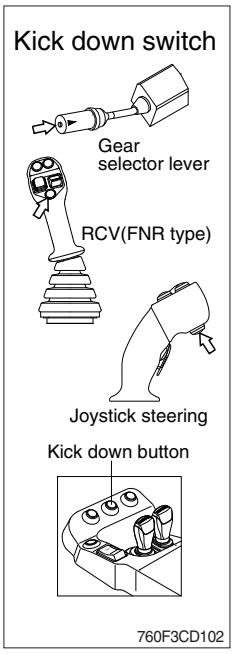
① DOOR

The lamp comes ON when the door is opened.
When the door is closed the lamp is OFF.

② ON

This switch is used to turn the lamp ON or OFF.

9) KICK DOWN SWITCH



(1) Manual mode

Depressing the Kick Down Switch will shift from 2nd gear to 1st gear only and upshift from 1st gear to 2nd gear when pressed a second time.

(2) Automatic mode

① **Mode 1** (down/up)

Depressing the Kick Down will shift from current gear to one step lower speed by pushing the switch. Depressing a second time will upshift one gear.

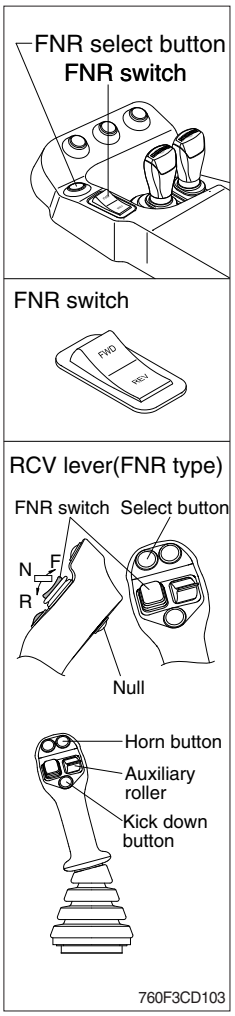
② **Mode 2** (down)

Depressing the Kick Down switch will down shift from the current gear to the next lower gear each time depressed.
The kick down function is released in only 1st speed.

※ **Refer to page 3-20 for the kick down mode.**

※ **The normal autoshift function continues after the kick down switch is released.**

10) FNR SELECT BUTTON AND SWITCH



(1) This button and switch is used to select forward and reverse range.

※ **Gear range is selected on the gear selector lever and transmission mode is selected on the monitor.**

(2) FNR select button

① When the FNR select button is pressed, the indicator lamp on the dash cluster will illuminate and the FNR switch will be functional.

※ **To engage the FNR the following conditions must be met: engine is running, the machine is at a standstill, parking brake is released, gear selector lever in neutral position, FNR switch in neutral position.**

(3) FNR switch

· F : Forward drive
· N : Neutral
· R : Reverse drive

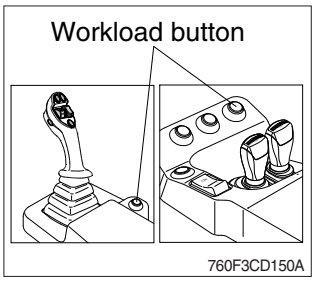
① If the upper side (F, FWD) of this switch is pushed, the machine moves forward.

② If the down side (R, REV) of this switch is pushed, the machine moves backward.

③ The FNR switch is disengaged when either the engine is stopped, parking brake is ON or the gear selector lever is moved from the neutral position.

(4) Auxiliary roller : If the machine is equipped with auxiliary hydraulics, this roller is used for the attachments.

11) WORKLOAD BUTTON

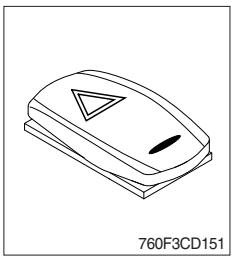


(1) This button is used to calculate the weight manually.
If the button is not pushed, the weight of the weighing system is not calculated.

(2) This button is pushed for one second more, calculated weight will be accumulated.

※ **Refer to the page 3-22, weighing system.**

12) HAZARD SWITCH

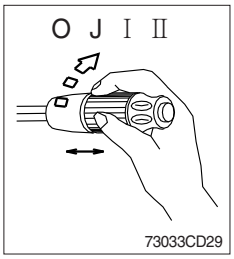


(1) Use for parking or loading the machine.

(2) Will illuminate the Hazard Lights when depressed.

※ **If the switch is left ON for a long time, the battery may be discharged.**

13) MULTI FUNCTION SWITCH



(1) Front wiper and washer switch

① When the switch is in **J** position, the wiper moves intermittently.

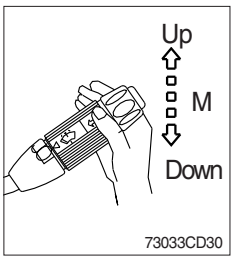
※ **Refer to the page 3-24 (Wiper level setting).**

② When placed in Ⅰ or Ⅱ position, the wiper moves continuously.

③ If you push the grip of the lever, washer liquid will be sprayed and the wiper will be activated 2-3 times.

※ **Check the quantity of washer liquid in the tank. If the level of the washer liquid is LOW, add the washer liquid (in cold, winter days) or water. The capacity of the tank is 1 liter.**

※ **If the wiper does not operate with the switch in ON (J, Ⅰ, Ⅱ) position, turn the switch OFF (O) immediately and check the cause. If the switch remains ON, motor failure can result.**



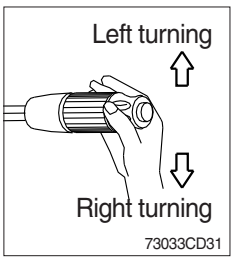
(2) Dimmer switch

① This switch is used to turn the head lights direction.

② Switch positions

- Up : To flash for passing
- Middle : Head lights low beam ON
- Down : Head lights high beam ON

③ If you release the switch when it's in up position, the switch will return to middle.

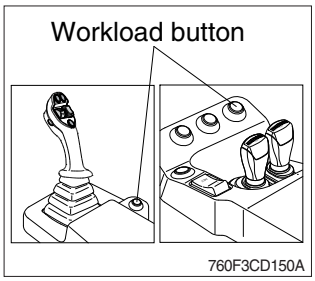


(3) Turning switch

① This switch is used to warn or signal the turning direction of the machine to other vehicles or equipment.

② Push the lever up for turning left, pull the lever down for turning right.

11) WORKLOAD BUTTON



(1) Auto weighing mode

① This button is used to reset the current counter.

② When this button is pushed for one more second, the calculated weight will be resetted to 0.

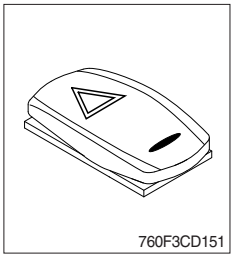
(2) Manual weighing mode

① This button is used to calculate the weight manually.
If the button is not pushed, the weight of the weighing system is not calculated.

② When this button is pushed for one second more, calculated weight will be accumulated.

※ Refer to page 3-22 for the weighing system.

12) HAZARD SWITCH

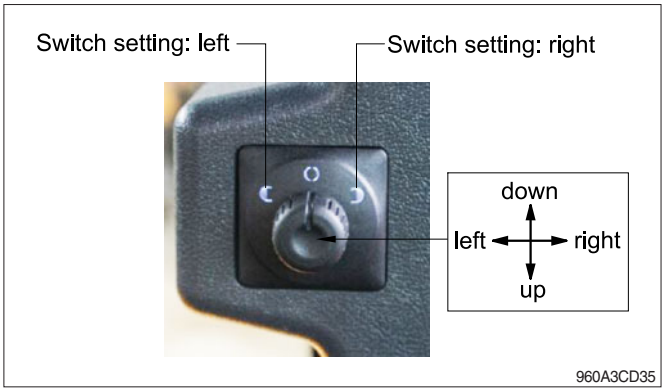


(1) Use for parking or loading the machine.

(2) Will illuminate the Hazard Lights when depressed.

※ If the switch is left ON for a long time, the battery may be discharged.

13) MIRROR ADJUSTMENT SWITCH (OPT)

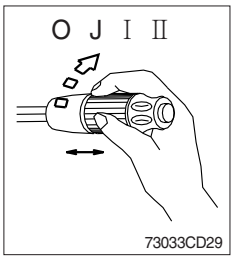


(1) This switch is used to adjust the electric side mirror.

① Adjustable side mirror angle using switch indoors

② Up, down, left and right can be adjusted by 8 degrees

14) MULTI FUNCTION SWITCH



(1) Front wiper and washer switch

① When the switch is in **J** position, the wiper moves intermittently.

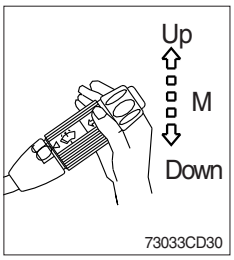
※ **Refer to the page 3-24 (Wiper level setting).**

② When placed in Ⅰ or Ⅱ position, the wiper moves continuously.

③ If you push the grip of the lever, washer liquid will be sprayed and the wiper will be activated 2-3 times.

※ **Check the quantity of washer liquid in the tank. If the level of the washer liquid is LOW, add the washer liquid (in cold, winter days) or water. The capacity of the tank is 1 liter.**

※ **If the wiper does not operate with the switch in ON (J, Ⅰ, Ⅱ) position, turn the switch OFF (O) immediately and check the cause. If the switch remains ON, motor failure can result.**



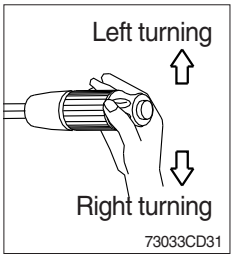
(2) Dimmer switch

① This switch is used to turn the head lights direction.

② Switch positions

- Up : To flash for passing
- Middle : Head lights low beam ON
- Down : Head lights high beam ON

③ If you release the switch when it's in up position, the switch will return to middle.

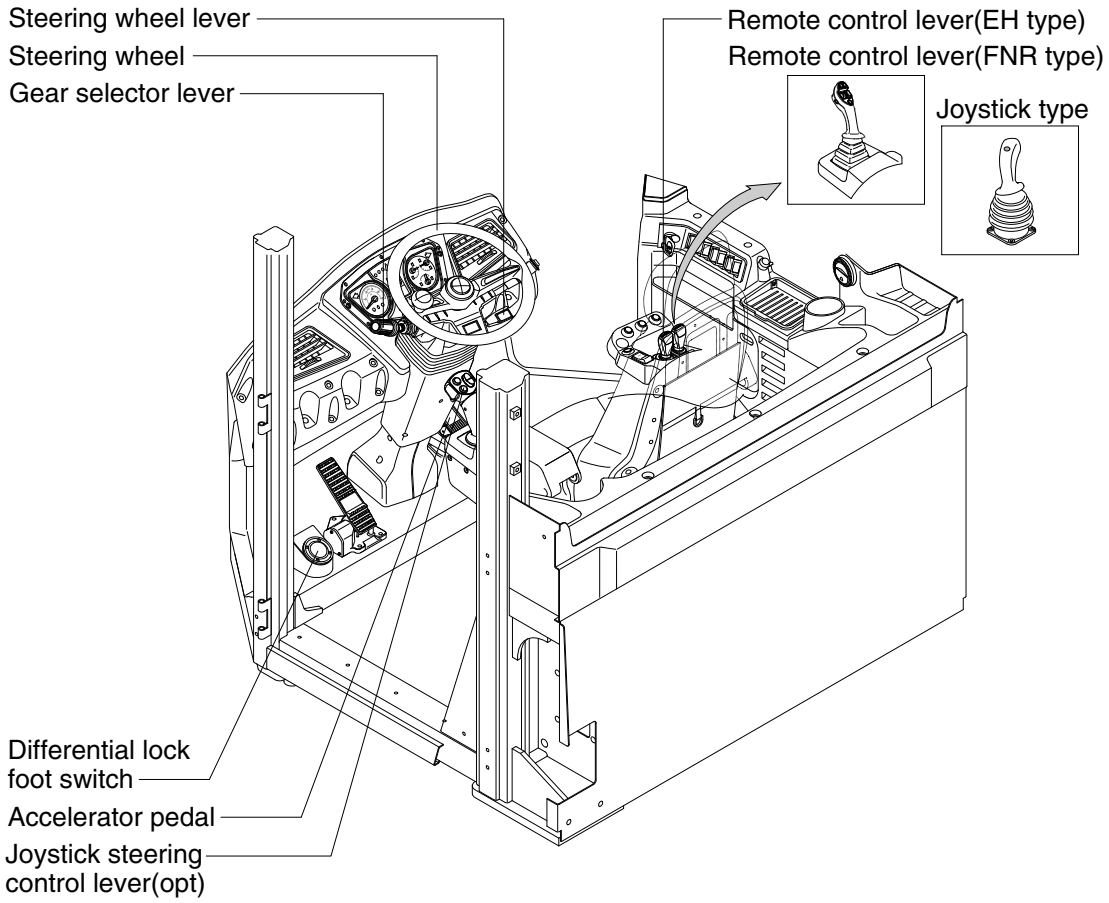


(3) Turning switch

① This switch is used to warn or signal the turning direction of the machine to other vehicles or equipment.

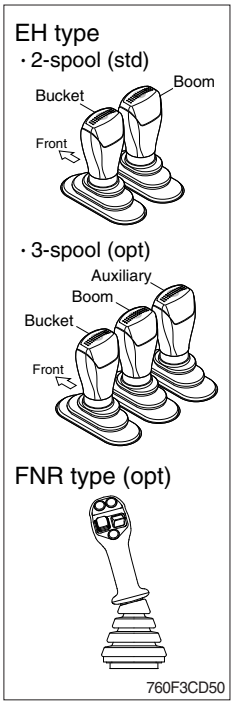
② Push the lever up for turning left, pull the lever down for turning right.

5. CONTROL DEVICE

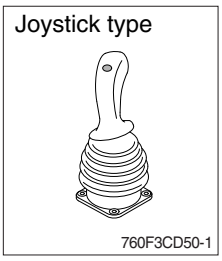


760F3CD28-1

1) REMOTE CONTROL LEVER



760F3CD50



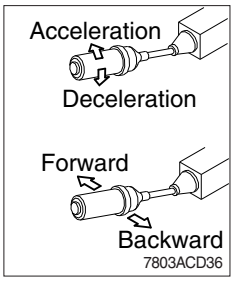
760F3CD50-1

(1) These levers are used to control the boom and the bucket.

(2) Refer to operation of working device in chapter 4 at page 4-9.

※ **EH : Electro-hydraulic**
FNR : Forward - Neutral - Reverse

2) GEAR SELECTOR LEVER

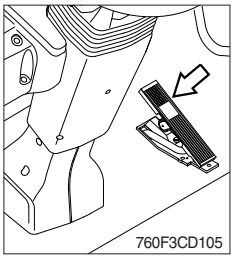


(1) This lever is used for gear selection, forward 4 stages and reverse 3 stages.

(2) The lever has 3 positions, Forward - Neutral - Reverse. If you push the selector lever forward the machine will move forward. If you pull the selector lever toward the operator, the machine will move backwards. The middle position is neutral.

(3) Turning the gear selector lever will select the gear the machine will operate in during Manual transmission mode. When in AL, AN or AH, the gear selected will be the fastest gear the transmission can operate in automatic mode.

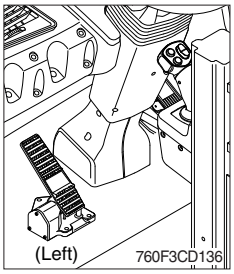
3) ACCELERATOR PEDAL

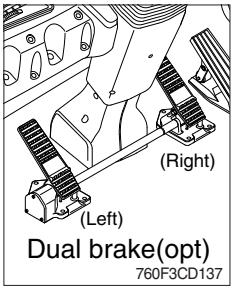


(1) This pedal controls the engine speed. The engine speed will increase in proportion to the degree of force applied to this pedal.

(2) The machine will operate at low idle unless the accelerator pedal is depressed.

4) BRAKE PEDAL





(1) Left brake pedal (service brake + clutch cut off function)

① If the pedal is pushed down, this will generate braking force and bring the machine to a stop.

② If the power train operation is to be cut off, set the clutch cut off mode to ON (L, M, H) and press the pedal.

⚠ Even if the brake is applied while clutch cut off mode is OFF, power train will not cut off.

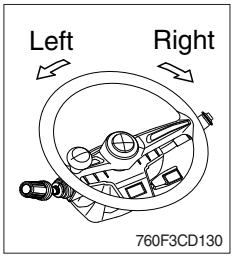
※ Operating the machine with the brake pedal unnecessarily depressed will cause premature wear to the disc brakes.

③ Clutch cut off function : Refer to page 3-20.

(2) Right brake pedal (service brake function only)

This pedal functions as service brake only.

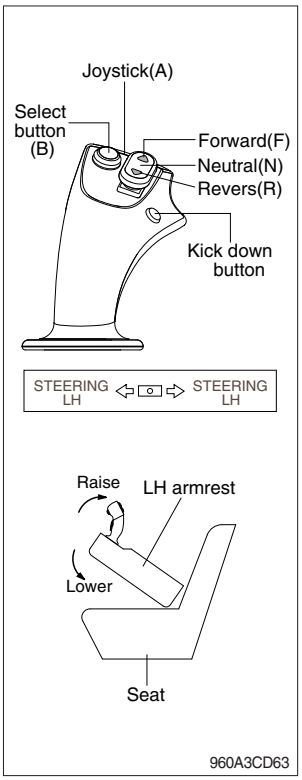
5) STEERING WHEEL



(1) Two multi-motion cylinders in the center of the machine will operate the steering function.

(2) If the steering wheel is turned to the left, the machine will move to the left. If the steering wheel is turned to the right, the machine will move to the right.

6) JOYSTICK STEERING CONTROL LEVER (option)



(1) The system has the following functions concentrated to a collapsible arm rest : steering, forward/reverse drive and kickdown function.

(2) During normal operation, the operator does not need to touch the steering wheel or gear selector lever.

(3) The joystick steering and FNR pilot lamps will be illuminated on the cluster when joystick steering is activated.

⚠ When operating on a public road, the steering wheel should always be used and the joystick steering be disconnected. Also when operating at high speeds (above 20 km/h) on a work site, always use the steering wheel.

(4) Joystick (A)

① Joystick steering can be enabled after following conditions have been satisfied.
- Engine is running. - Operator is seat on the seat.
- LH armrest is placed to the lowered position.
- Gear selector lever is in neutral.
- RCV is deactivated. - Joystick (A) is placed in normal position.
- Parking brake is disengaged, but the machine speed is zero.

② After the previous conditions are met, press the select button (B). Then the joystick steering pilot lamp on the cluster will be ON and joystick steering can be activated.

③ Steering will remain enabled until machine speed is zero and one of the following conditions is met.
- LH armrest is raised. - Parking brake is engaged.
- Gear selector lever is in forward or backward position.
- Operator is not seated on the seat. - Press the select button (B).

※ The steering wheel works as usual, even if the joystick steering is activated.

(5) Forward/reverse selection button

F : Forward drive
N : Neutral
R : Reverse drive

① To be able to operate the forward/reverse drive, the system must first be activated using select button (B).

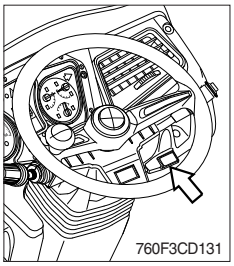
※ The gear selector lever should be in neutral.

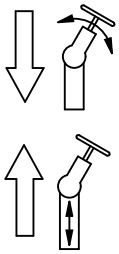
② When this function is engaged, it is possible to operate the forward -reverse drive. If the ordinary gear selector control is activated at the same time as the joystick steering is activated, the ordinary gear selector control overrides any selection made by the joystick steering.
To reactivate the joystick steering, the ordinary gear selector control must first be moved to neutral and the system again be activated.

③ The FNR select pilot lamp on the cluster will be ON when the forward/ reverse selection is activated.

(6) Kick-down button : Refer to page 3-47.

7) STEERING WHEEL LEVER

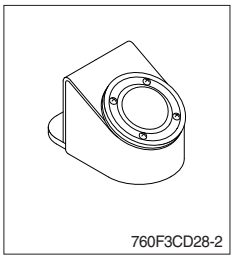




(1) Pushing down on the lever, the steering wheel is able to be tilted 40˚.

(2) Pulling up on the lever allows the steering column to telescope 80mm.

8) DIFFERENTIAL LOCK FOOT SWITCH (OPT)



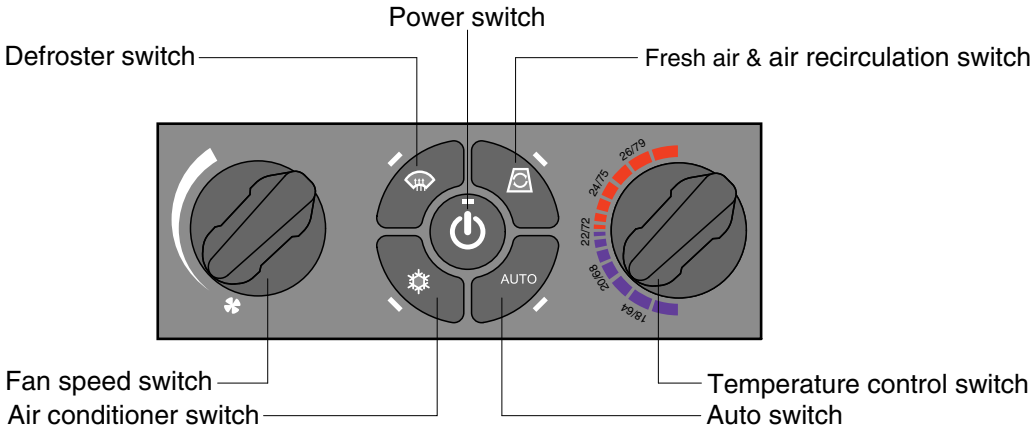
(1) Press the foot switch for the differential lock function. When pressed, the differential lock will engage immediately, the differential lock pilot lamp will illuminate and buzzer will sound.

(2) The differential lock function is temporarily engaged as long as the operator continues to press the foot switch. When the foot switch is released, differential lock is disengaged.

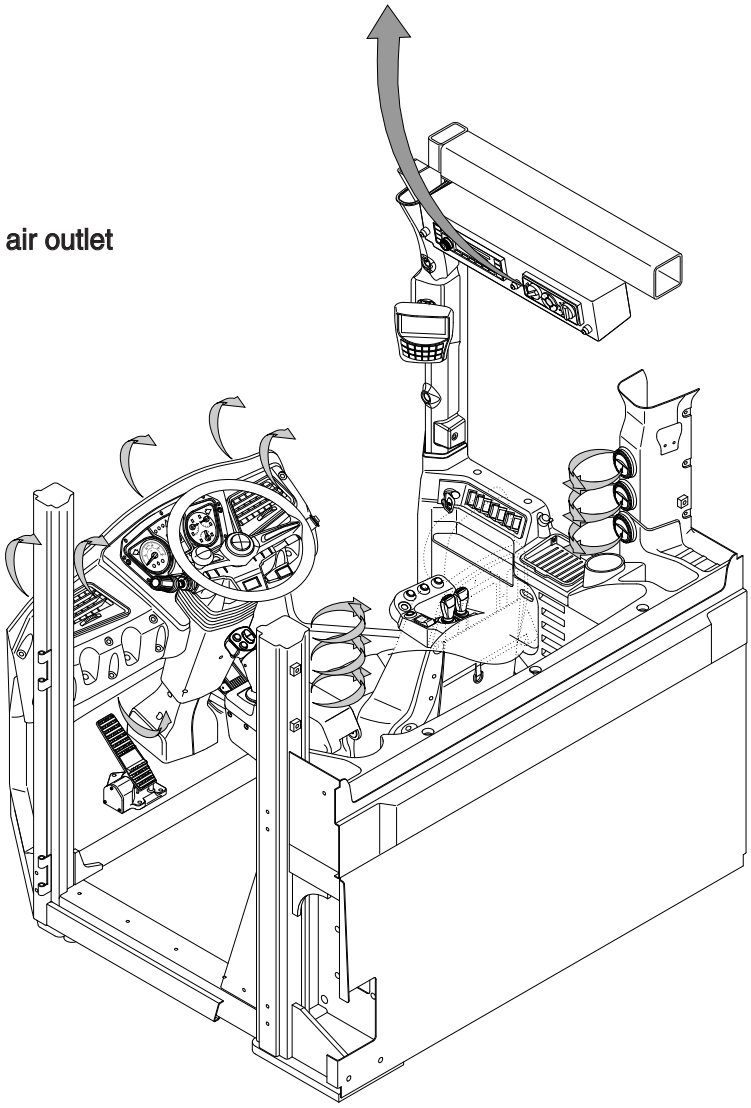
6. AIR CONDITIONER AND HEATER

■ FULL AUTO AIR CONDITIONER AND HEATER

Full auto air conditioner and heater system automatically keeps the optimum condition in accordance with operator's temperature configuration sensing ambient and cabin inside temperature.

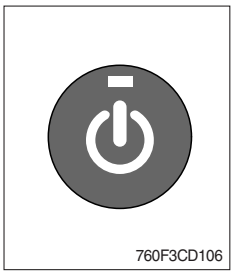


· **Location of air outlet**



760F3CD37

1) POWER SWITCH



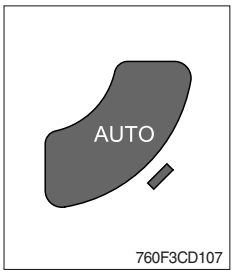
(1) This switch turns the system ON or OFF.
Just before the power OFF, set values are stored.

(2) Default setting values

Function	Air conditioner	In/outlet	Temperature
Value	OFF	Inlet	Previous sw OFF

※ **The green pilot lamp is turned ON.**

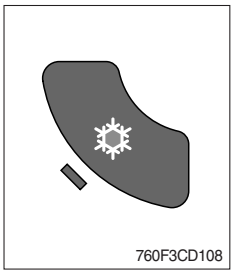
2) AUTO SWITCH



(1) This switch sets the air conditioner and heater system to automatic temperature control.
Auto air conditioner and heater system automatically keeps the optimum condition in accordance with operator's temperature configuration sensing ambient and cabin inside temperature.

※ **The green pilot lamp is turned ON.**

3) AIR CONDITIONER SWITCH (compressor switch)

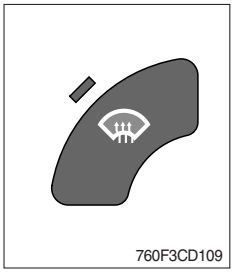


(1) This switch turns the compressor for the air conditioning.

(2) In accordance with the temperature sensed by duct (evaporator) sensor, compressor turns ON or OFF automatically.

※ **The green pilot lamp is turned ON.**

4) DEFROSTER SWITCH



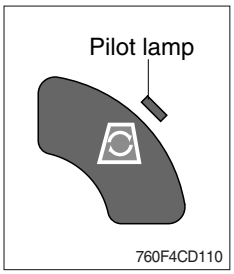
(1) Defroster and ventilation nozzles at window open and directed toward the windows.

(2) Default setting values

Function	Air conditioner	In/outlet	Blower
Value	ON	Outlet	Max for 15 minutes

The green pilot lamp is turned ON.

5) FRESH AIR/AIR RECIRCULATION SWITCH



(1) It is possible to change the air-inlet method.

① **Fresh air (pilot lamp OFF)**

Fresh cabin air is pulled through the cabin inlet filter, pressurizing the cabin.

※ **Check the cabin air filter periodically to maintain cabin filtration.**

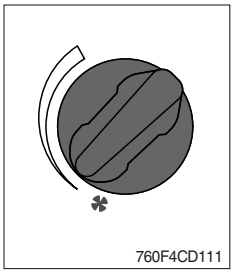
② **Air recirculation (pilot lamp ON)**

It recycles the heated or cooled air to increase the energy efficiency.

※ **Alternate between recirculation and fresh air when operating for extended periods of time.**

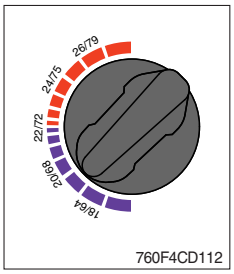
※ **Change the recirculation filter periodicaly to maintain cabin filtering efficiency.**

6) FAN SPEED KNOB



(1) This knob controls fan speed manually.
There are 9 steps to control fan speed.

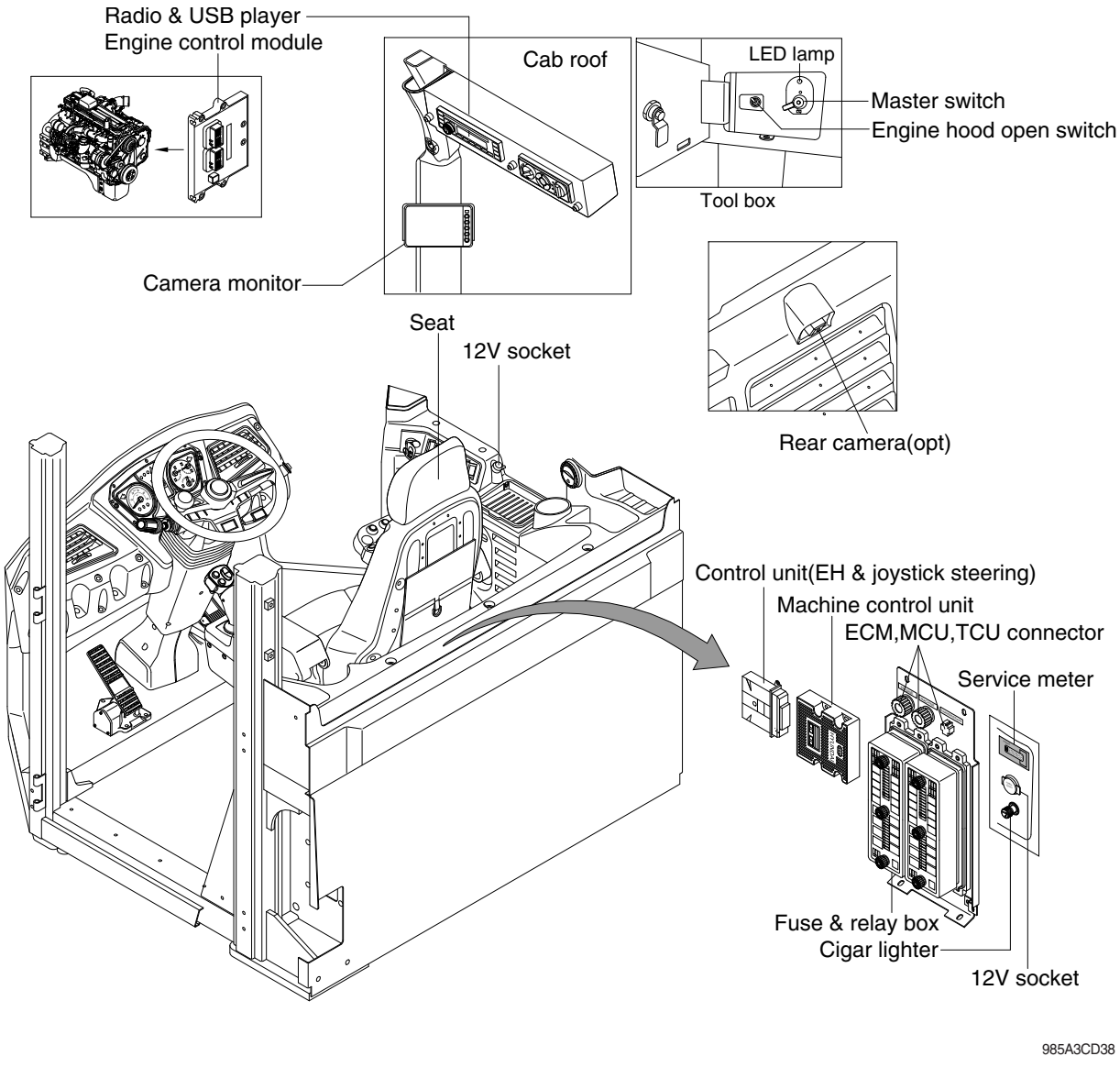
7) TEMPERATURE CONTROL KNOB



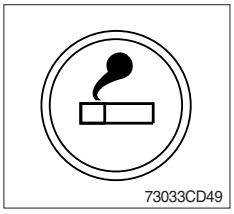
(1) This knob controls the position of the water valve when the air conditioner switch is ON or OFF.

(2) When the AUTO switch is ON, the temperature control knob determines the desired cab temperature. The temperature range is 18˚C (64˚F) in the full cold position and 26˚C (79˚F) in the full hot position.

7. OTHERS



1) CIGAR LIGHTER



(1) This can be used when the engine starting switch is ON.

(2) The lighter can be used when it springs out in a short while after being pressed down.

※ Service socket 24V, 100W
Use cigar lighter socket when you need emergency power.
Do not use the lighter socket for items requiring below 24V

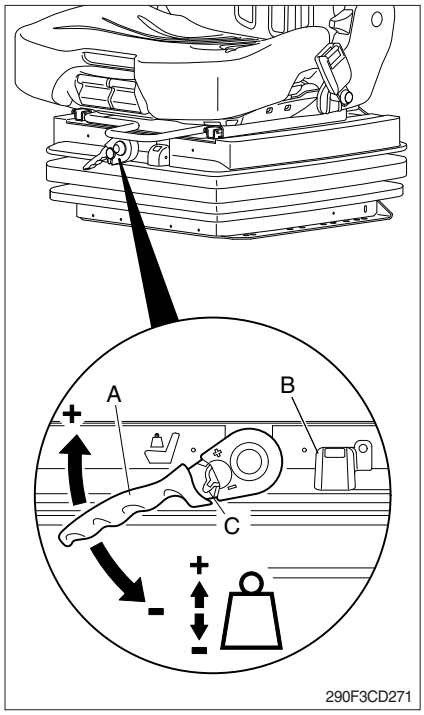
2) SEAT

The seat is adjustable to fit the contours of the operator's body. Operator fatigue can be reduced and work efficiency improved if properly configured.

⚠ Always check the condition of the seat belt and mounting hardware before operating the machine.

⚠ Failure to wear a seat belt during operation may result in serious injury or death in the event of an accident or machine rollover.

(1) Weight and height adjustment



With socket wrench (A) :

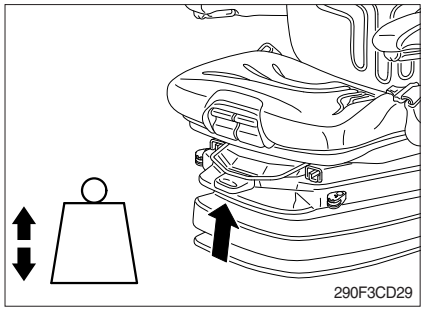
① The seat has to be adjusted for the operator's weight and height by tilting the handle (+) up or down (-) with the operator not sitting on the seat.

② The rotational direction is reversed by toggling the ratchet with the switch (C).

③ The operator's weight and the seat height are adjusted correctly when the green marking is completely visible in the indicator window (B) for weight and height.

④ The height can be adjusted individually as long as the green marking is visible.

Weight adjustment (AIR SUSPENSION, OPT)



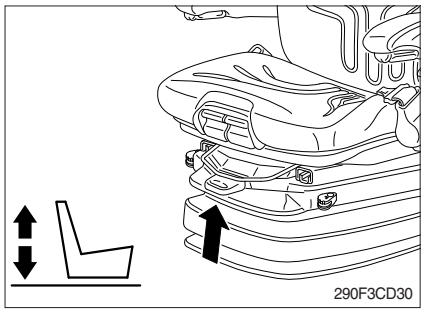
① The seat should be adjusted for the operator's weight by briefly pulling the actuator lever of the automatic weight and height adjuster (arrow) with the machine at a standstill and the operator's sitting on the seat.

The operator must sit absolutely still during adjustment.

※ Before adjusting the weight, adjust shock absorbers to the position "soft".

※ The setting of the seat should be adjusted to the operator's weight before the machine is operated.

Height adjustment (AIR SUSPENSION, OPT)



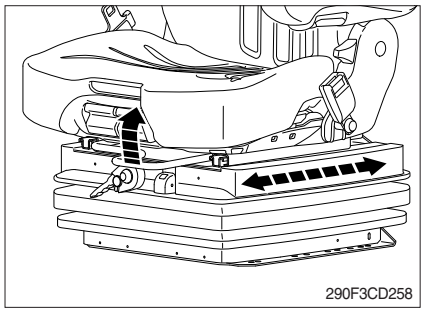
① The seat height can be set pneumatically and is continuously adjustable.

② The seat height can be altered by pulling or pressing the actuator lever fully out or in (arrow). If the adjustment reaches the top or bottom endstop, the height is adjusted automatically in order to guarantee a minimum spring travel.

※ Before adjusting the weight, adjust shock absorbers to the position "soft".

※ In order to avoid damage, do not operate the compressor continuously for more than 1 minute.

(2) Fore/after adjustment



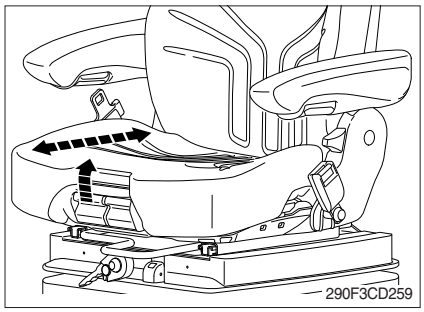
① The fore/after adjustment is released by lifting the locking lever.

⚠ Do not operate the locking lever while operating.

※ After the adjustment, the locking lever must latch into the desired position with an audible click. It should not be possible to move the operator's seat into another position when it is locked.

※ Do not lift the locking lever with your leg or calf.

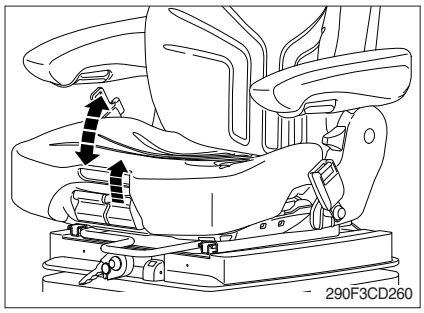
(3) Seat depth adjustment



① The depth of the seat pan can be individually adjusted.

② To adjust the depth of the seat cushion, pull the right handle upwards. By moving the seat pan backwards or forwards the desired seating position can be reached.

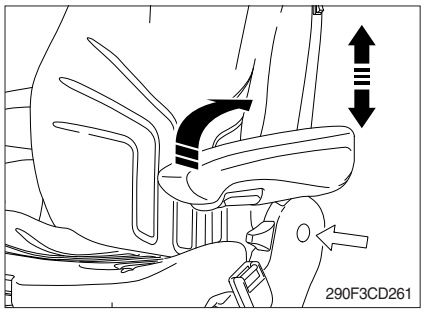
(4) Seat pan angle adjustment



① The angle of the seat pan can be individually adjusted.

② To adjust the angle of the seat pan, pull the left handle upwards. By exerting pressure on or off the front or rear part of the seat pan it can be moved to the desired angle position.

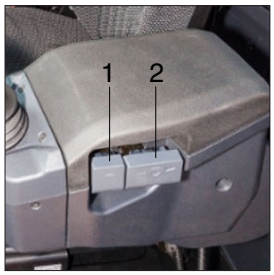
(5) Armrest (LH)



① The armrests can be folded up if required and the height can be individually adjusted.

② To adjust the armrest for height, separate the round cap (see arrow) from the cover and loosen the hexagon nut (size 13 mm) behind it adjust the armrests to the desired position (5 steps) and tighten the nut again (25 Nm).
Replace the cap onto the nut.

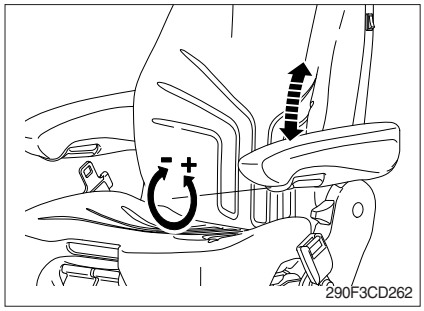
Joystick & Joystick Steering Armrest (LH, RH)



1. Tilt lever
   Pull up and hold to tilt armrest maximum 70 degrees.

2. Adjust lever
   Pull up, hold and slide forward or rearward or up or down.

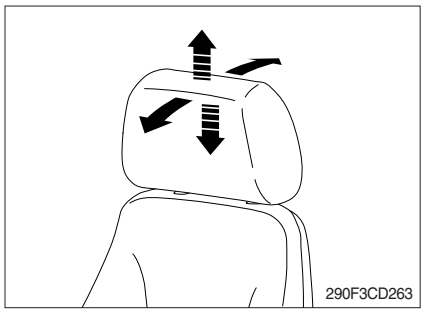
(6) Armrest adjustment



① The inclination of the armrest can be modified by turning the adjustment knob.

② When turning the knob to the outside (+), the front part of the armrest will be lifted; when turning the knob to the inside (-), it will be lowered.

(7) Headrest

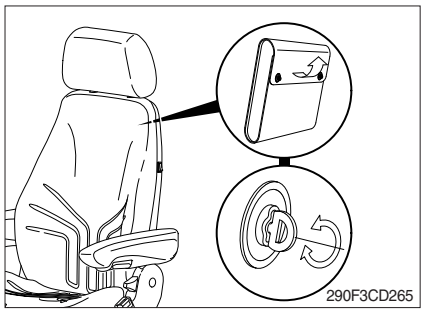


① The headrest can be individually adjusted for height by pulling it upward over the various increments up the end stop.

② By pushing forwards or rearwards the angle of the headrest can be adjusted individually.

③ To remove the headrest, pull it over the end stop.

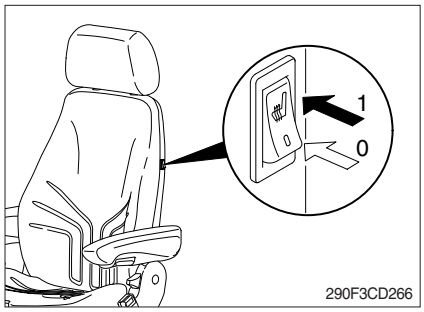
(8) Document box



① The document box is placed on the rear side of the backrest.

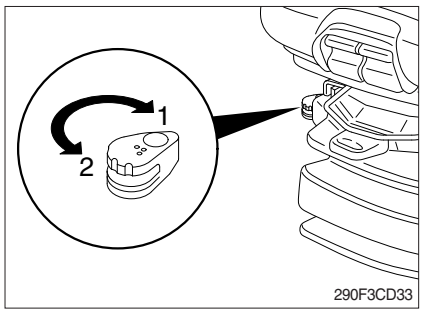
② To open the document box, first twist the turn lock closures 90° to the left or the right and then fold the cover of the document box upwards.

(9) Seat heater switch



① The seat heater can be turned on/off by pressing the switch.

(10) Absorber

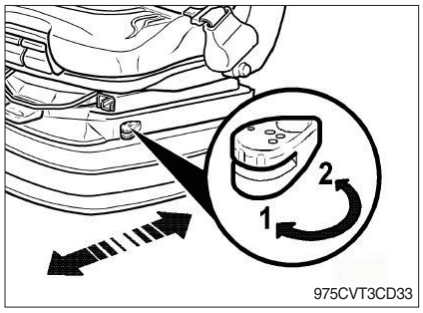


① The absorber setting of the seat can be varied to suit the on and off-road working conditions.
The cushioning effect can be individually adjusted for this purpose.

Turn the lever to the desired position and release.

1 Soft
2 Hard

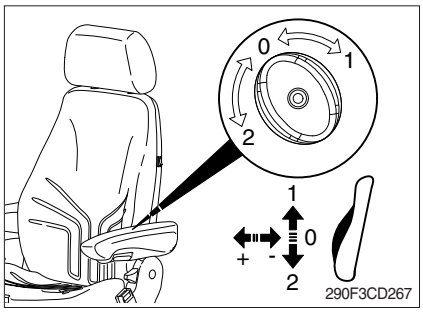
(11) Fore/aft isolator



① It is useful to activate the fore/aft isolator. This means that shock impacts in the driving direction can be better absorbed by the seat.

1 Fore/aft isolator off
2 Fore/aft isolator on

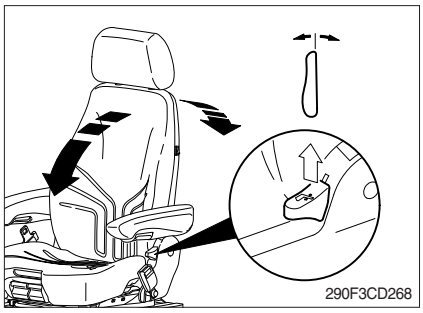
(12) Lumbar support



① By turning the adjustment knob to the left (2) or right (1), both the height and curvature of the back-rest cushion can be individually adjusted.

② This increases or decreases lumbar support for the operator.

(13) Backrest adjustment

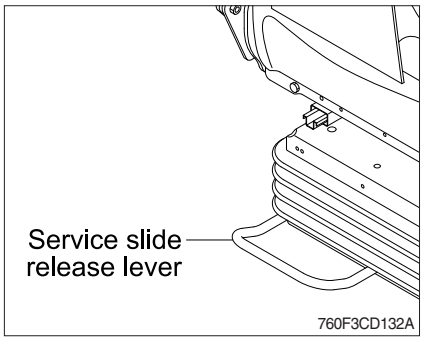


① Pull up the locking lever to adjust the angle of the backrest. When releasing the backrest, do not apply pressure by pressing against it.

② Exert pressure on or off the front or rear part of the seat pan to adjust the backrest. Release the locking lever once the backrest is in a comfortable position.

※ It should not be possible to move the backrest into another position after it has been locked.

(14) Service slide release lever



① Moves the seat top & suspension fore/aft (for use of service & maintenance in back of cab only).
② Pull, hold & slide forward.
③ Release to stop slide.
④ Maximum travel : 100 mm forward.

※ Do not move the service slide backwards.
Use only for service inspection and repair on cab rear. If you move the service slide backwards with the armrest lifted, the armrest and cab rear may interfere.

(15) Maintenance

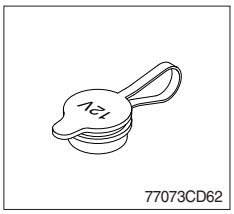
Dirt can impair the function of the seat, so make sure you keep your seat clean.
Upholstery does not need to be removed from the seat frame for cleaning.

⚠ **Be careful when adjusting the backrest - it may jerk forward and cause injury. When cleaning the backrest cushion, the backrest must be held in place if operating the backrest lever**

※ **Do not clean the seat with a pressure washer.**

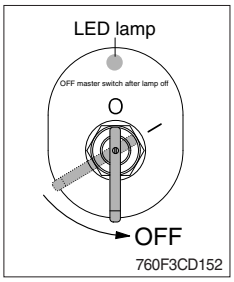
During cleaning, the upholstery must not be soaked through.
Use standard commercially available upholstery or plastics cleaning agent.
Test first for compatibility on a small, concealed area.

3) 12V SOCKET



(1) 12V, 30W power outlet providing DC power for accessories.

4) MASTER SWITCH



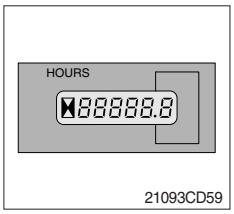
(1) This switch is used to shut off the entire electrical system.

(2) I : The battery remains connected to the electrical system.
O : The battery is disconnected to the electrical system.

※ **OFF master switch after LED lamp off.**

⚠ **Do not turn the master switch to the OFF position until the red LED light is OFF. Engine and electrical system damage could result.**

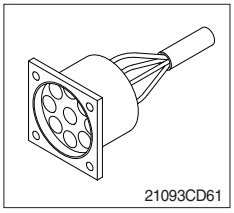
5) SERVICE METER



(1) This meter shows the total operation hours of the machine.

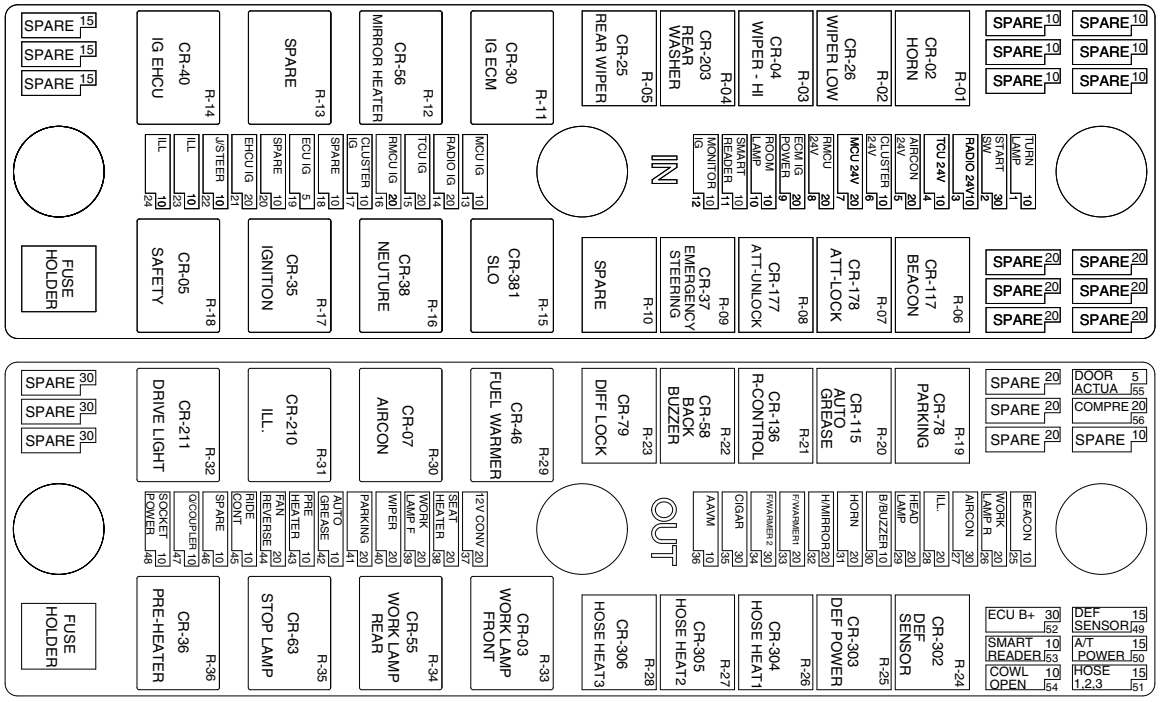
(2) Always ensure the operating condition of the meter during the machine operation. Inspect and service the machine based on hours as indicated in chapter 6, maintenance.

6) MCU/ECM/TCU CONNECTOR



(1) Service tool connection for communication with the engine (ECM), transmission (TCU) and machine (MCU).

7) FUSE & RELAY BOX



960A3CD55

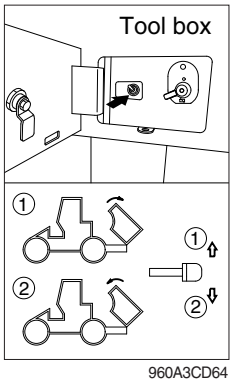
(1) The fuses protect the electrical parts and wiring from damage.

(2) The fuse box cover indicates the capacity of each fuse and circuit it protects.

⚠ Only replace fuses with fuses of the same capacity.

⚠ Before replacing a fuse, be sure to turn OFF the starting switch.

8) ENGINE HOOD TOGGLE SWITCH



960A3CD64

(1) Move the toggle switch up to position ① to open the hood.

(2) Move the toggle switch down to position ② to close the hood.

(3) Hold the switch until the hood is fully opened or closed. Once the hood is fully opened or closed release the switch as it will return to the neutral position.

(4) Rear hood panel can only be opened prior to opening hood.

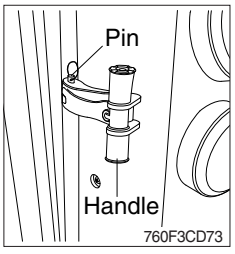
※ Refer to the page 4-28.

※ After stopping the engine, open or close the engine hood.

⚠ Hood side doors should be closed prior to opening.

⚠ If rear door is opened, insure swinging cooler is closed prior to opening or closing hood. Damage could occur from interference while.

9) RIGHT HAND TILT WINDOW & ESCAPE HATCH



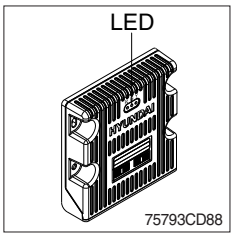
760F3CD73

(1) Push the handle forward and then outward to open the window. The handle will lock into the open position.

(2) To use as an escape hatch, pull the pin from the handle and swing open the window frame.

※ Open the window periodically to ensure proper operation. Lubricate or repair the window as necessary.

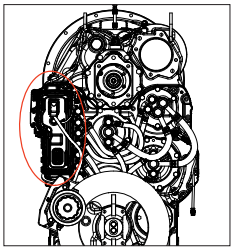
10) MACHINE CONTROL UNIT (MCU)



(1) Electronic control unit receiving input from the ECM, TCU, engine and hydraulic sensors and transmits this data to control all indicators and buzzers in the cluster and monitor.

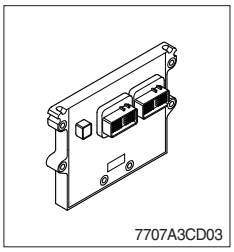
(2) Three LED lamps on the MCU display service operating conditions.

11) TRANSMISSION CONTROL UNIT (TCU)



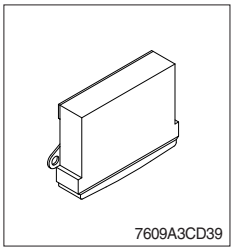
(1) The TCU uses sensors from the transmission, gear selector lever, as well as data provided by the ECU to calculate how and when to change gears.

12) ENGINE CONTROL MODULE (ECM)



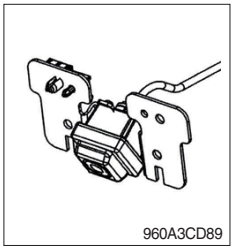
(1) The engine control module (ECM) reads values from a multitude of sensors and adjusts engine output for optimal performance.

13) CONTROL UNIT (electro hydraulic & joystick steering, EHCU)



(1) The control unit is the control center of the EH control lever and joystick steering system.

14) REAR CAMERA (option)



(1) Located at the rear of the hood, the camera provides a ?degree view with two proximity lines on the monitor.

※ **Refer to page 3-35.**

15) RADIO AND USB PLAYER (WITH BLUETOOTH)

9403CD100

■FRONT PANEL PRESENTATION

1 ····· Power ON/OFF,
Volume UP/DOWN button

2 ····· Manual UP/DOWN Tuning,
File search, SEL button

3 ····· Mode button,
Audio mute button

4 ····· Call & Pair button

5 ····· Call end button

6 ····· Station preset 1
DIS ····· Display button

7 ····· Station preset 2

8 ····· Station preset 3
RPT ····· Repeat play button

9 ····· Station preset 4
RDM ····· Random play button

10 ····· Station preset 5
DIR- ····· Directory down button

11 ····· Station preset 6
DIR+ ····· Directory up button

12 ····· Scan play button (SCAN)
Best station memory (BSM) button

13 ····· Auto tune up, Seek up button

14 ····· Auto tune down, Track down button

15 ····· USB connector

16 ····· AUX IN Jack

17 ····· MIC hole

■GENERAL

(1) Power and volume button

① Power ON / OFF button

Press power button (1) to turn the unit on or off.

② Volume UP/DOWN control knob

Turn VOL knob (1) right to increase the volume level.
Turn VOL knob (1) left to decrease the volume.
After 5 seconds the display will return to the previous display mode.

③ Initial volume level set up

I-VOL is the volume level the unit will play at when next turned on. To adjust the I-VOL level, press and hold VOL button (1) for longer than 2 seconds. The current volume level displays on the display panel.
Then turn button (1) right or left to set the volume level as the I-VOL level.

④ Clock ON/OFF control

The CLOCK was default at off status. To turn CLOCK ON, press and hold VOL button (1) for longer than 2 seconds to display I-VOL, then short press VOL again, turn VOL knob while CLOCK OFF display, then the CLOCK ON will be displayed.

※ Due to time tolerance, the clock display on the Audio unit might have little difference.

⑤ Clock adjustment

With CLOCK ON selected, press VOL knob again after CLOCK ON display, the hour will blink, turn VOL knob right or left to adjust hour.
Simply press VOL again, the minute will blink, turn VOL knob to adjust minute. Then press VOL again to confirm the clock once finished.

(2) Menu Selection

① This button can adjust the sound effect and other things.
Each time you press this button (2), LCD displays as follows :

BAS → TREB → BAL L=R → FAD F=R → EQ → LOUD ON → BEEP 2ND

On each setting, the level can be controlled by turning TUNE knob (2). When the last adjustment is made, after 5 seconds, the display will automatically return to the previous display mode.

② Bass control

To adjust the bass tone level, first select the bass mode by pressing SEL button (2) repeatedly until BASS appears on the display panel. Then turn knob (2) right or left within 5 seconds to adjust the bass level as desired. The bass level will be shown on the display panel from a minimum of BASS-7 to a maximum of BASS+7.

③ Treble control

To adjust the treble tone level, first select the treble mode by pressing SEL button (2) repeatedly until TREB appears on the display panel. Then turn knob (2) right or left within 5 seconds to adjust the treble level as desired. The treble level will be shown on the display panel from a minimum of TREB -7 to a maximum of TREB +7.

④ Balance control

To adjust the left-right speaker balance, first select the balance mode by pressing SEL button (2) repeatedly until BAL indication appears on the display panel. Then turn knob (2) right or left within 5 seconds to adjust the balance as desired. The balance position will be shown by the bars on the display panel from BAL 10R (full right) to BAL 10L (full left).

⑤ Fader control

To adjust the front-rear speaker balance, first select the fader mode by pressing SEL button (2) repeatedly until FADER indication appears on the display panel. Then turn knob (2) right or left within 5 seconds to adjust the front-rear speaker level as desired. The fader position will be shown by the bars on the display panel from FAD 10F (full front) to FAD 10R (full rear).

⑥ EQ control

You can select an equalizer curve for 4 music types (CLASSIC, POP, ROCK, JAZZ). Press button (2) until EQ is displayed, then turn knob (2) right or left to select the desired equalizer curve. Each time you turn the knob, LCD displays as follows :

EQ OFF → CLASSIC → POP → ROCK → JAZZ

※ When the EQ mode is activated, the BASS and TREBLE modes are not displayed.

⑦ **Loud control**

When listening to music at low volume levels, this feature will boost the bass and treble response. This action will compensate for the reduction in bass and treble performance experienced at low volume.

To select the loudness feature, press button (2) until LOUD is displayed, then turn knob (2) right or left to activate or deactivate loudness.

⑧ **Beep control**

To adjust the BEEP mode, first select the BEEP mode by pressing button (2) repeatedly until BEEP indication appears on the display panel. Then turn knob (2) left or right within 5 seconds to select BEEP 2ND, BEEP OFF or BEEP ON.

- BEEP 2ND : You will only hear the beep sound when the buttons are held down for more than 2 seconds.
- BEEP OFF : You can not hear the sound beep when you press the buttons.
- BEEP ON : You can hear the beep sound each time you press the buttons.

(3) Mute control

① Press and hold MUTE button (3) for over 2 seconds to mute sound output and MUTE ON will blink on the LCD. Press the button again to cancel MUTE function and resume to normal playing mode.

(4) Mode selection

① Repeat press MODE button (3) to switch between FM1, FM2, AM, USB, AUX, BT MUSIC.

※ If there is no USB, AUX, Bluetooth Phone connected, it would not display USB, AUX, BT when you press button (3).

■RADIO

(1) Mode button

① Repeat press MODE button to select FM1, FM2 or AM.

(2) Manual tuning button

① To manually tune to a radio station, simply turn encoder TUNE (2) left or right to increase or decrease the radio frequency.

(3) Auto tuning button

① To automatically select a radio station, simply press Seek up or Track down button.

(4) Station preset button

① In radio mode, pressing buttons (6) to (11) will recall the radio stations that are memorized. To store desired stations into any of the 6 preset memories, in either the AM or FM bands, use the following procedure :

a. Select the desired station.
b. Press and hold one of the preset buttons for more than 2 seconds to store the current station into preset memory. Six stations can be memorized on each of FM1, FM2, and AM.

(5) Preset scan (PS) / Best station memory (BSM) button

① Press BSM button (12) momentarily to scan the 6 preset stations stored in the selected band. When you hear your desired station, press it again to listen to it.
Press BSM button (12) for longer than 2 seconds to activate the Best Station Memory feature which will automatically scan and enter each station into memory.

※ If you have already set the preset memories to your favorite stations, activating the BSM tuning feature will erase those stations and enter into the new ones. This BSM feature is most useful when travelling in a new area where you are not familiar with the local stations.

■USB PLAYER

(1) USB playback

① The unit was equipped with a front USB jack and also a rear USB Jack.
With a USB device plugged in the front USB jack, it will be detected as front USB mode. And with a USB device plugged in the rear USB jack, it will be detected as rear USB. To get to a USB mode, press MODE (3) button momentarily or insert the USB device in front or rear USB jack.

※ If no mp3 or wma files in USB device, it will convert to the previous mode after display NO FILE.

(2) Track Up / Down button

① Press SEEK up (13) or TRACK down (14) to select the next or previous track. Press and hold the buttons to advance the track rapidly in the forward or backward direction.

(3) MP3 directory / File searching

① Button (2) is used to select a particular directory and file in the device. Turn button (2) right or left to display the available directories. Press button (2) momentarily when the desired directory is displayed, then turn button (2) right or left again to display the tracks in that directory. Press button (2) to begin playback when the desired file is displayed.

(4) Directory Up / Down button

① During MP3/WMA playback, simply press DIR- button (10) to select the previous directory (if available in the device); simply press DIR+ button (11) to select the next directory (if available in the device).

※ If the USB device does not contain directories, it would play MP3/WMA tracks at 10- file when you press DIR- button (10), and play MP3/WMA tracks at 10+ file when you press DIR+ (11) button.

(5) Track Scan Play (SCAN) button

- SCAN playback : Simply press SCAN (12) button to play the first 10 seconds of each track.
- SCAN folder : Press and hold SCAN button for longer than 2 seconds to scan play the tracks in current folder.
- SCAN off : Simply press it again to cancel SCAN feature.

(6) Track Repeat Play (RPT) button

- REPEAT playback : Simply press RPT (8) button to play current track repeatedly.
- REPEAT folder : Press and hold RPT for longer than 2 seconds to repeat play the tracks in current folder.
- REPEAT off : Simply press it again to cancel REPEAT feature.

(7) Track Random Play (RDM) button

- RANDOM playback : Simply press RDM (9) button to play the tracks in the device in a random sequence.
- RANDOM folder : Press and hold RDM button for longer than 2 seconds to random play the tracks in current folder.
- RANDOM off : Simply press it again to cancel RANDOM feature.

(8) ID3 v2 (DISP)

① While a MP3 file is playing, press DISP button (6) to display ID3 information. Repeat push DISP button (6) to show directory name / file name and album name / performer / title.

※ If the MP3 disc does not have any ID3 information, it will show NO ID3.

* USB Information and Notice

a. Playback FILE SYSTEM and condition allowance.
   - FAT, FAT12, FAT16 and FAT32 in the file system.
   - V1.1, V2.2 and V2.3 in the TAG (ID3) version.

b. Display up to 32 characters in the LCD display.

c. No support any of MULTI-CAED Reader.

d. No high speed playback but only playing with normal full speed.

※ DRM files in the USB may cause malfunction to playback in the radio unit.

※ The temperature below -10 Celsius, the audio unit with USB hook up would be affected to play well.

■AUX OPERATION

It is possible to connect your portable media player to the audio system for playback of the audio tracks via the cab speakers.

To get the best results when connecting the portable media to the audio system, follow these steps :

- Use a 3.5 mm stereo plug cable to connect the media player headphone socket at each end as follows.
- Adjust the portable media player to approximately 3/4 volume and start playback.
- Press the MODE button (3) on the audio unit to change into AUX mode.
- The volume and tone can now be adjusted on the audio unit to the desired level.

※ The audio quality of your media player and the audio tracks on it may not be of the same sound quality as the audio system is CD Player.

※ If the sound of the media player is too low compared with the radio or CD, increase the volume of the player.

※ If the sound of the media player is too loud and/or distorted, decrease the volume of the player.

※ When in AUX mode, only the Volume, Bass, Treble, EQ and Mode functions of the audio unit can be used.

■BLUETOOTH (if equipped)

1) Using a bluetooth wireless connection

(1) Your audio unit supports bluetooth wireless technology. You can set up a wireless link with bluetooth cellular phone.

(2) Keep PAIRING the cellular phone with audio unit in a few minutes as the phone are being switched on well enough.

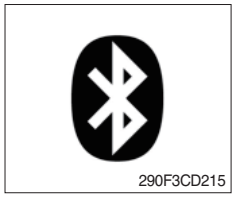
※ Since this audio unit is on standby to connect with your cellular phone via bluetooth wireless technology, using this audio unit without running the engine can result battery drainage.

※ This audio unit phone call reception is on standby when ignition switch is set to ACC OFF or ON.

※ The line-of-sight distance between this audio unit and your cellular phone must be 10 meters or less for sending and receiving voice and data via bluetooth wireless technology. However the transmission distance may become shorter than the estimated distance depending on the environment in use.

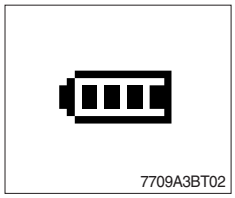
※ Digital Noise & Echo suppression system provides the best sound clarity with little or no distortion (Echo & side tone will happen depending on cellular phone or service network).

※ To ensure the quality of calling, you should select a proper bluetooth VR level. This audio unit has already set with the best bluetooth VR level.



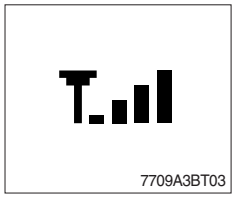
① Bluetooth icon

It will blink while establishing the bluetooth pairing.
It will light after a bluetooth device connected.



② Battery icon

It indicates the battery status of the connected bluetooth device.



③ Single strength icon

It indicates the signal strength of the connected bluetooth device.

2) Pairing in hands free modes

(1) Press and hold CALL button (4) for 2 seconds until you hear beep sound, then appears PAIR STR on the display.

(2) For the next procedure, go to cellular phone pairing mode.

(3) If it is in pairing status with audio unit and cellular phone, PAIRING will show on the display.

(4) If you want to exit pairing mode, press CALL END button (5) briefly while pairing, then it will show PAIR CLR on the display.

(5) Bluetooth Icon and PAIR OK appear on the display when pairing is successful.

3) Cellular phone pairing mode

(1) Browse your cellular phone menu and find the connectivity or bluetooth connection section.

(2) Select search for a new handsfree device function and allow the phone to find the mobile.

(3) HYUNDAI should appear on your cellular phone screen.

(4) Press connect menu among the handsfree option on your cellular phone.

(5) The cellular phone should prompt for a pin code. Insert the pin code 0000.

(6) The cellular phone should confirm that it has established a new paired connection.

(7) Close the menu. The pairing is now completed. It appears PAIR FAIL on the display for 3 seconds.

※ Each cellular phone type has a distinct phone menu. Please refer to your cellular phone instructions regarding the correct procedure on how to connect a new bluetooth device.

4) Bluetooth connection and disconnection

(1) When established bluetooth connection between this audio unit and the cellular phone, bluetooth icon on the display appears and then the display shows HF/AV CONN when handsfree & AV profile connected.


9403CD118

(2) To disconnect bluetooth link
Press and hold CALL END button (4) for 2 seconds, it shows DIS CON and disappears bluetooth Icon on the display.


9403CD117

(3) To disconnect bluetooth link
Press CALL button (3) briefly, it blinks bluetooth Icon on the display while bluetooth is being connected. If the connection is completed, it appears bluetooth Icon on the display.

※ When your cellular phone battery is at low charge, the bluetooth connection may occasionally be lost. To maintain good connectivity ensure that your phone battery is adequately charged.

※ In case of failure of bluetooth pairing :
- Delete item in paired list on your phone.
- Reset both phone by power off/on and the audio unit by ACC off/on.

※ Connecting priority of handsfree profile is higher than headset profile.

※ The headset mode does not support caller ID, reject call and call Transfer.

5) Using the audio unit as a handsfree device

(1) When the audio unit is ringing, it shows CALL and follows with the phone number ********** on the display.


9403CD117/8

(2) To accept call
Press CALL button (4), it appears ANSWER CALL and follows TALKING on the display.

(3) To end call
To end call, press CALL END button (5), it appears REJECT on the display.

※ If reject call is activated in your phone, then your cellular phone does not support reject call function.

6) Audio transfer between the audio unit and phone

The audio transfer function is for switching the call from the audio unit to the cellular phone for private conversation.

(1) Press CALL button (4) briefly during conversation, it appears CALL TRANS on the display. To switch back to the audio unit, press button (4) briefly during private conversation, then it appears CALL TRANS on the display again.

※ This function will be a cause of disconnection of bluetooth link in some nokia phones, but you do not worry just press button (4) during private conversation, then switch back to the audio unit automatically.

※ The quality of calling between cellular phone and audio unit is better than calling between one audio unit and another one.

7) Last call number dialing

(1) Press CALL button (4) briefly, it appears CALL TO, then simply press CALL button once again, it would make the last call with phone number display on LCD.
If Reject call is activated in your phone, then your cellular phone does not support Reject Call function.

※ If you are using SAMSUNG phone, then you may need to press once more send button. First press button shows phone contact list in your phone, then second press make the last call.

8) To make a call by cellular phone

The audio transfer function is for switching the call from the audio unit to the cellular phone for private conversation.

(1) The audio unit activated automatically when you make a call by cellular phone.
(2) When you make a call processing by cellular phone, it shows CALLING on the display.
(3) When you receive a call, the phone number ******** appears on the display.

9) Using the audio unit as bluetooth music

The audio unit supports A2DP (Audio Advanced Distribution Profile) and AVRCP (Audio Video Remote Control Profile), and both profiles are available to listen music at the audio unit via cellular phone which is supporting the two profiles above.

(1) To play music, search the menu on your cellular phone as below :
i.e : Menu → File manager → Music → Option → Play via bluetooth.
It appears BT MP3 on the display.

(2) During BT MP3 playing, you could select the previous or next track by pressing SEEK up or TRACK down button on audio unit or operate via your cellular phone.

(3) To stop music, press button (5) briefly and it will automatically switch into the previous mode.

(4) To resume music playing, press the play button on your cellular phone.

※ This function maybe different depends on cellular phone. Please follow the cellular phone menu. Some kinds of phone need to pair once more for bluetooth MP3 connection.

※ This function will be caused to disconnect A2DP, AVRCP depends on cellular phone.

※ Information about songs (e.g.: the elapsed playing time, song title, song index, etc.) cannot be displayed on this audio unit.

■RESET AND PRECAUTIONS

1) Reset function

Interfere noise or abnormal compressed files in the MP3 disc or USB instrument may cause extraordinary operation (or unit frozen/locking up). It's strongly recommended to use appropriate USB storage not cause any malfunction to the audio unit. In the unlikely event that the player fails to operate correctly, try out to reset unit by any of following two methods.

(1) press and hold 

simultaneously for about 5 seconds. (without Bluetooth)

Press and hold 


simultaneously for about 5 seconds. (with Bluetooth)

(2) Take out the fuse for the audio system in the vehicle once and then plug again.

※ It will be necessary to re-enter the radio preset memories as these will have been erased when the microprocessor was reset.

After resetting the player, ensure all functions are operation correctly.

2) Precautions

When the inside of the car is very cold and the player is used soon after switching on the heater, moisture may form on the disc or the optical parts of the player and proper playback may not be possible.

If moisture forms on the optical parts of the player, do not use the player for about one hour. The condensation will disappear naturally allowing normal operation.

(1) Operation voltage : 9~32 volts DC, negative

(2) Output power : 40 watts maximum (20 watts x 2 channels)

(3) Tuning range

Area	Band	Frequency range	Step
USA	FM	87.5~107.9 MHZ	200K
	AM	530~1710 KHZ	10K
EUROPE	FM	87.5~108.0 MHZ	50K
	AM	522~1620 KHZ	9K
ASIA	FM	87.5~108.0 MHZ	100K
	AM	531~1602 KHZ	9K
LATIN	FM	87.5~107.9 MHZ	100K
	AM	530~1710 KHZ	10K

● AREA Selection :

- To select an area, press and hold related buttons at FM1 band for about 3 seconds.
- USA Area: Press and hold mode + 1DIS buttons for 3 seconds
- EUROPE Area: Press and hold mode + 2 buttons for 3 seconds
- ASIA Area: Press and hold mode + 3RPT buttons for 3 seconds
- LATIN Area: Press and hold mode + 4RDM buttons for 3 seconds.

(4) USB version : USB 1.1

(5) Bluetooth version : V2.1

(6) Bluetooth supported profile :

- A2DP : Advanced Audio Distribution Profile
- AVRCP : Audio/Video Remote Control Profile
- HFP : Hands-Free Profile

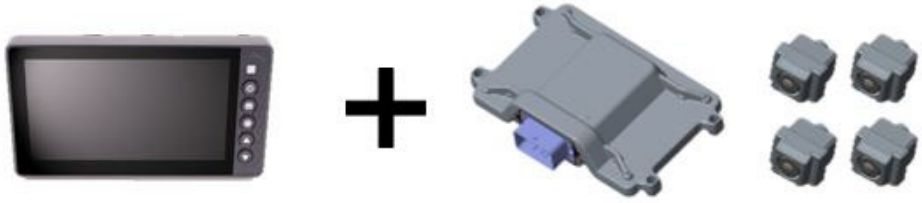
16) CAMERA MONITOR (OPTION)

960A3CD65

(1) Front panel description

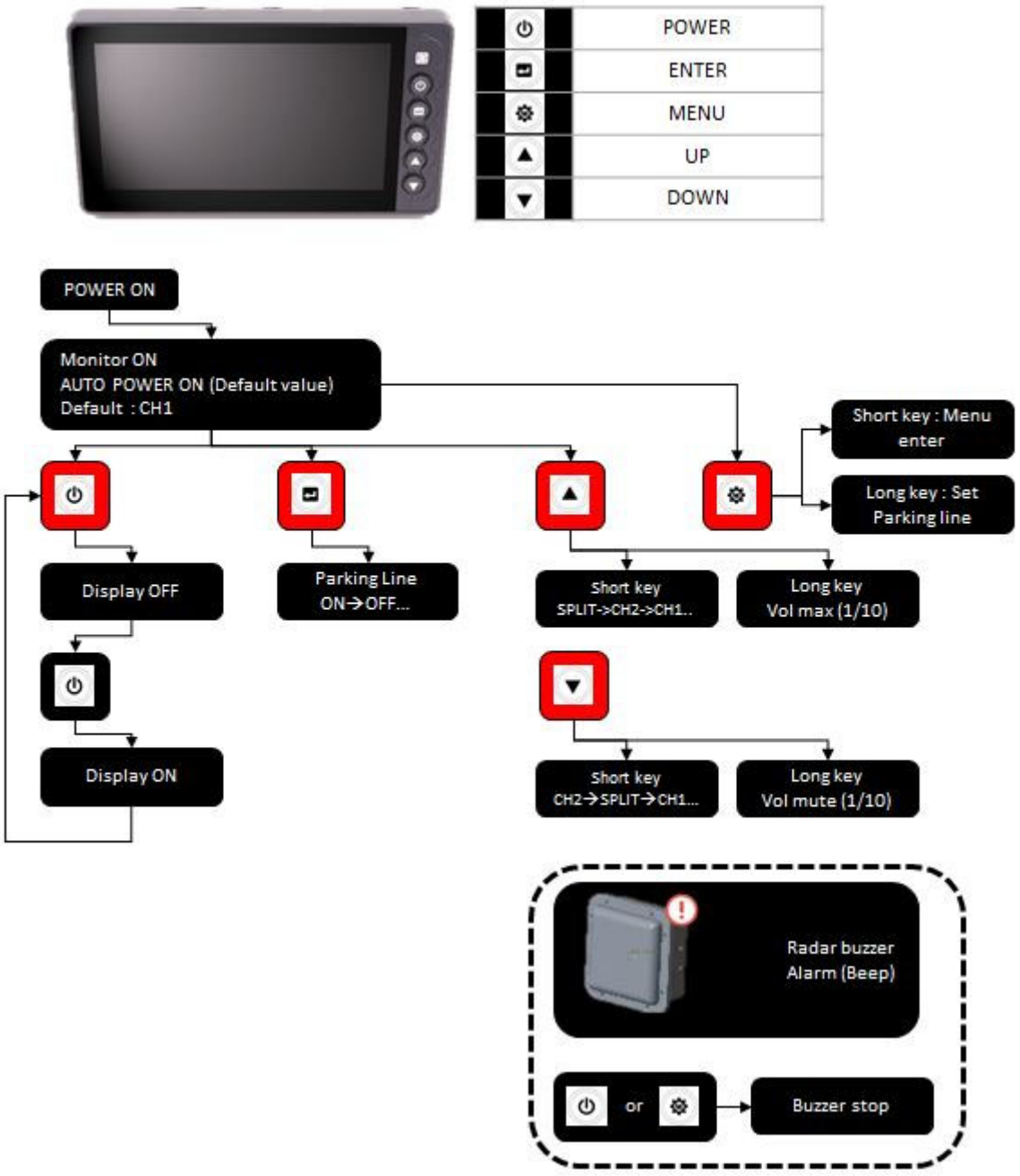
Button	Description	Single Cam mode	Function menu - Single Cam	AAVM mode	Function menu - AAVM
⏻	POWER	- Beep stop - Display On / Off	- Beep stop - Display On / Off - Menu escape (save & exit)	- Beep stop * - Display On / Off	- Beep stop - Display On / Off - Menu escape (save & exit)
↵	SELECT	Parking guide line On / Off	- Menu select - Adjust menu escape	Favorite view (menu preset)	- Menu select - Adjust menu escape
Ⓜ	**MENU**	- Menu enter - Parking guide line adjust (long key/2 sec)	Menu next page	Menu enter	Menu next page
▲	**UP**	- Previous view (short key) - Adjust to the volumn set in the menu (long key)	- Menu Up - Menu Adjust Up	- Previous view (short key) - Adjust to the volumn set in the menu (long key)	- Menu up - Menu adjust up
▼	DOWN	Next view	- Menu Down - Menu Adjust down	Next view	- Menu down - Menu adjust down

(2) Interlocked with other devices

CASE 1	
	Monitor + Rear cam
CASE 2	
	Monitor + AAVM
CASE 3	
	Monitor + Rear cam + Radar
CASE 4	
	Monitor + AAVM + Radar

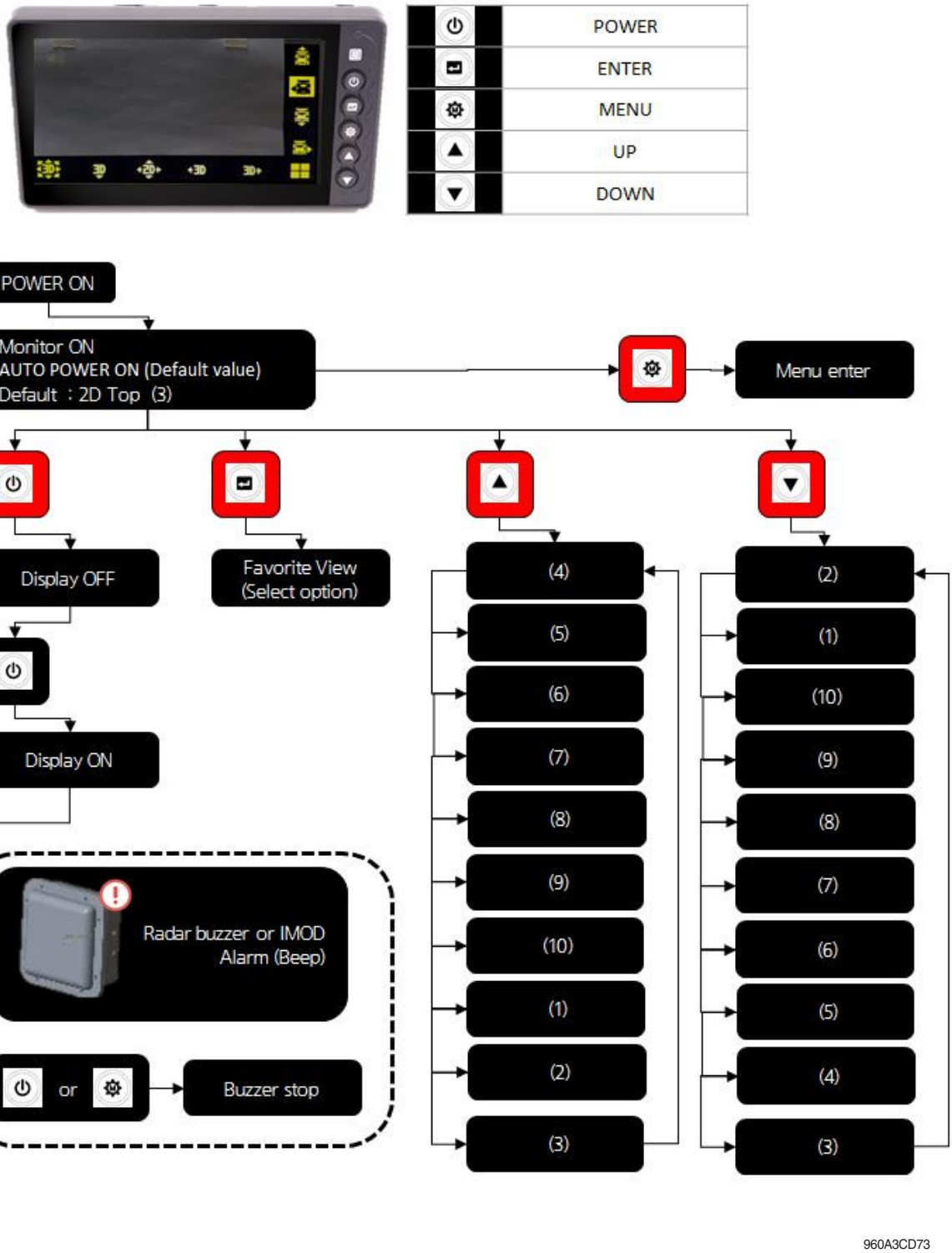
960A3CD71

(3) Operation scenario (Single camera mode)



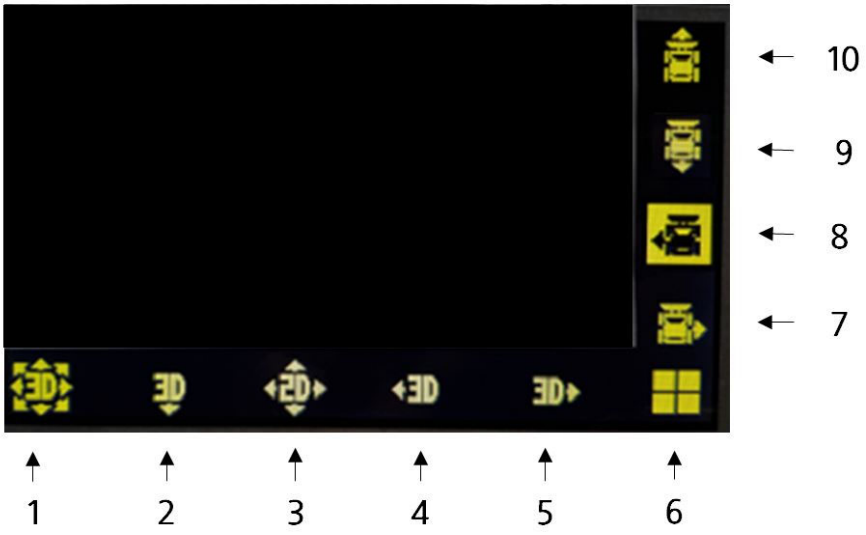
960A3CD72

(4) Operation scenario (AAVM mode)



960A3CD73

(5) AAVM view mode type



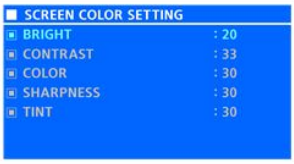
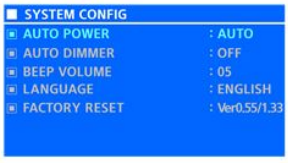
NO	Name
1	3D TOP
2	3D Rear
3	2D TOP
4	3D LEFT
5	3D RIGHT
6	4CH
7	RIGHT
8	LEFT
9	REAR
10	FRONT

UP & DOWN KEY ORDER

- UP : 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 → 9 →10
- DOWN : 10 → 9 → 8 → 7 → 6 → 5 → 4 → 3 → 2 → 1

960A3CD74

(6) Function menu tree (Single cam mode)

SHORT KEY					
NO	MENU	Pop-up menu	Background video	SETTING VALUE	비고
1	SCREEN COLOR SETTING		Previous view	BRIGHT : 0~60 / 1STEP	Default : 20
				CONTRAST : 0~60 / 1STEP	Default : 33
				COLOR : 0~60 / 1STEP	Default : 30
				SHARPNESS : 0~60 / 1STEP	Default : 30
				TINT : 0~60 / 1STEP	Default : 30
2	CAMERA1 SETTING		CAMERA 1	MIRROR : ON/OFF	
				UPSIDE DOWN : ON / OFF	
				TRIGER ENABLE : ON / OFF	
				TRIGGER SUSTAIN : 1~20 sec / 1sec	
				MARKER DISPLAY : ALWAYS / TRIGGER / OFF	
				MARKER TYPE : TYPE A / TYPE B	
				MARKER POSITION : ENTER	MARKR WIDTH / HIGHT ADJUST
3	CAMERA2 SETTING		CAMERA 2	MIRROR : ON/OFF	
				UPSIDE DOWN : ON/OFF	
				TRIGER ENABLE : ON/OFF	
				TRIGGER SUSTAIN : 1~20 sec / 1sec	
				MARKER DISPLAY : ALWAYS / TRIGGER / OFF	
				MARKER TYPE : TYPE A / TYPE B	
				MARKER POSITION : ENTER	MARKR WIDTH / HIGHT ADJUST
4	SPLIT1 SETTING		SPLIT VIEW	SPLIT TYPE : TYPE A / TYPE B	
				CH1 : CAM1/CAM2	
				CH2 : CAM1/CAM2	
5	SYSTEM CONFIG		SPLIT VIEW	AUTO POWER : AUTO / ON / OFF	
				AUTO DIMMER : ON / OFF	
				BEEP VOLUME : 0~10 / 1 STEP	Default : 5
				LANGUAGE : 한국어 / ENGLISH	Default : ENGLISH
				FACTORY RESET : Version	

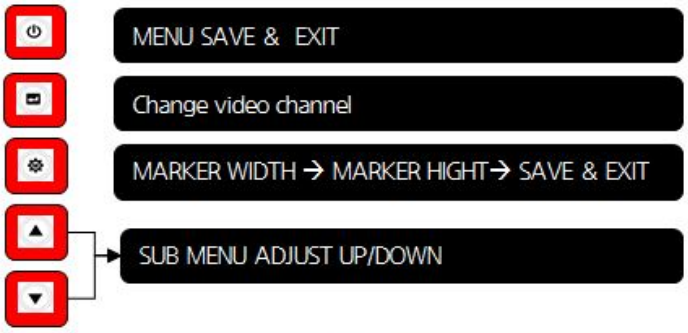
(7) Function menu tree (AAVM mode)

SHORT KEY					
NO	MENU	Pop-up menu	Background video	SETTING VALUE	비고
1	SCREEN COLOR SETTING		Previous view	BRIGHT : 0~60 / 1STEP	Default : 20
				CONTRAST : 0~60 / 1STEP	Default : 33
				COLOR : 0~60 / 1STEP	Default : 30
				SHARPNESS : 0~60 / 1STEP	Default : 30
				TINT : 0~60 / 1STEP	Default : 30
3	SYSTEM CONFIG		Previous view	AUTO POWER : AUTO / ON / OFF	
				AUTO DIMMER : ON / OFF	
				BEEP VOLUME : 0~10 / 1 STEP	Default : 5
				LANGUAGE : 한국어 / ENGLISH	Default : ENGLISH
				FACTORY RESET : Version	
				Favorite view : [Click]AAVM View mode	Displayed when AAVM is installed Default : 4ch (6)
4	RADAR SETTING		Previous view	RADAR DISPLAY : ON/OFF	Enable menu when radar mounted
				RADAR AUTO TRIGGER : ON / OFF	•Activate menu with radar and AAVM •Non-adjustable when radar is not installed* •Can not be set when Radar Display off* •Default : ON

(8) Parking guide line adjust

❖ How to Enter

<table>
<tr>
<td> 
</td>
<td> 
</td>
</tr>
<tr>
<td>Menu BUTTON LONG KEY Enter</td>
<td>CAMERA 1, 2 SETTING [MARKER POSITION] SELECT and Enter</td>
</tr>
</table>



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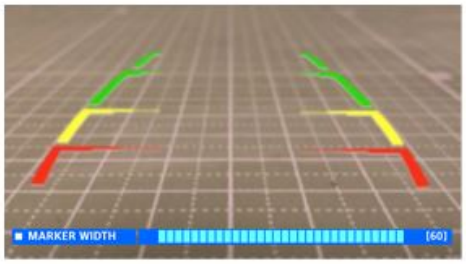
<tr>
<td>TYPE A</td>
<td> 
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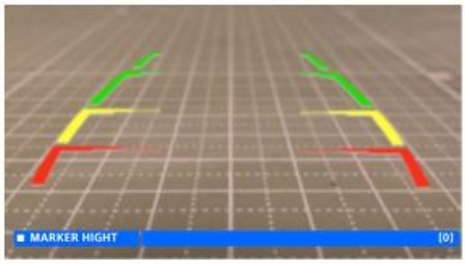
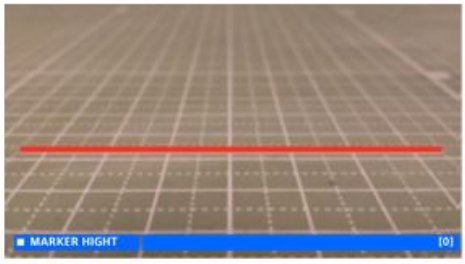
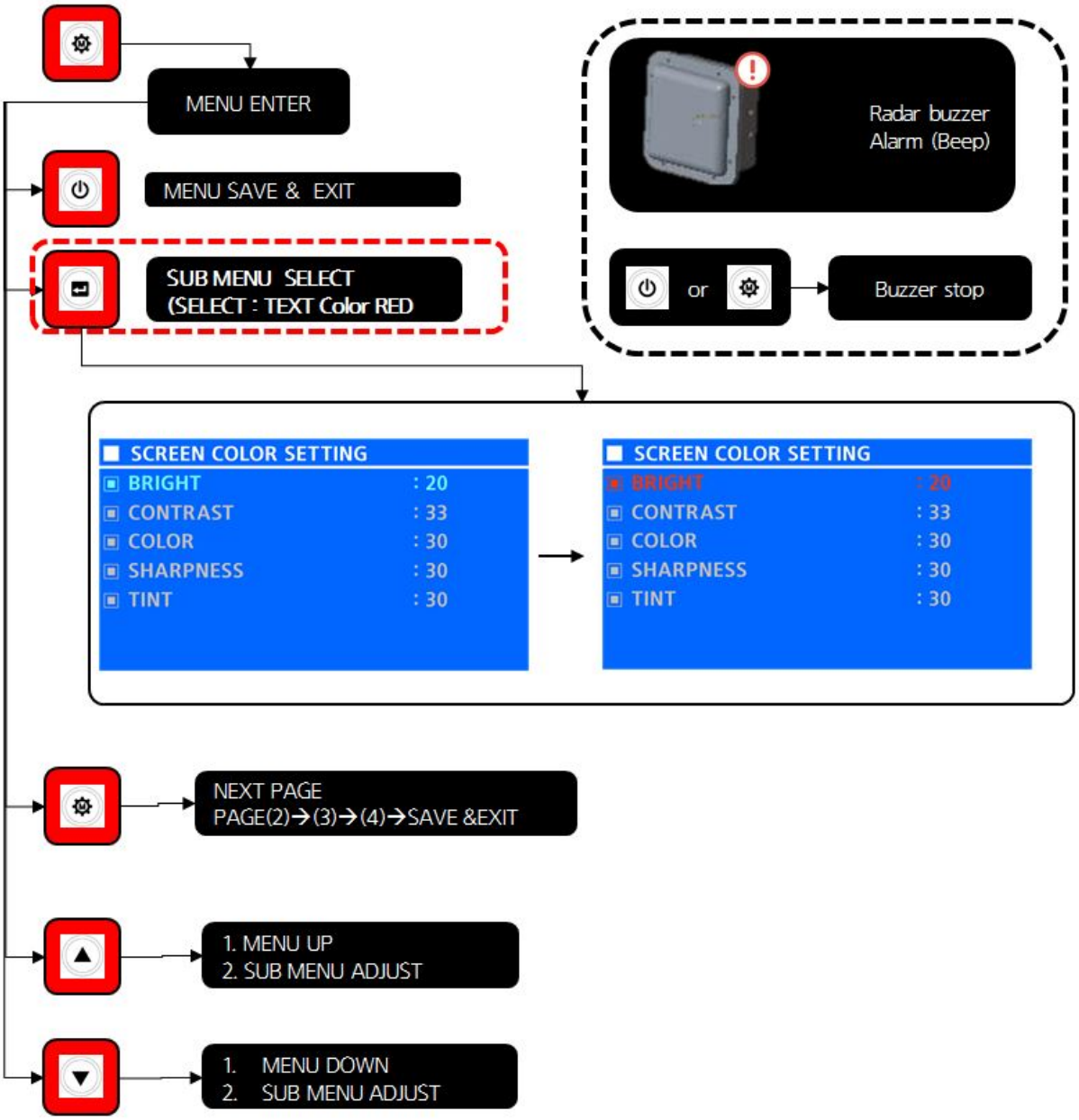
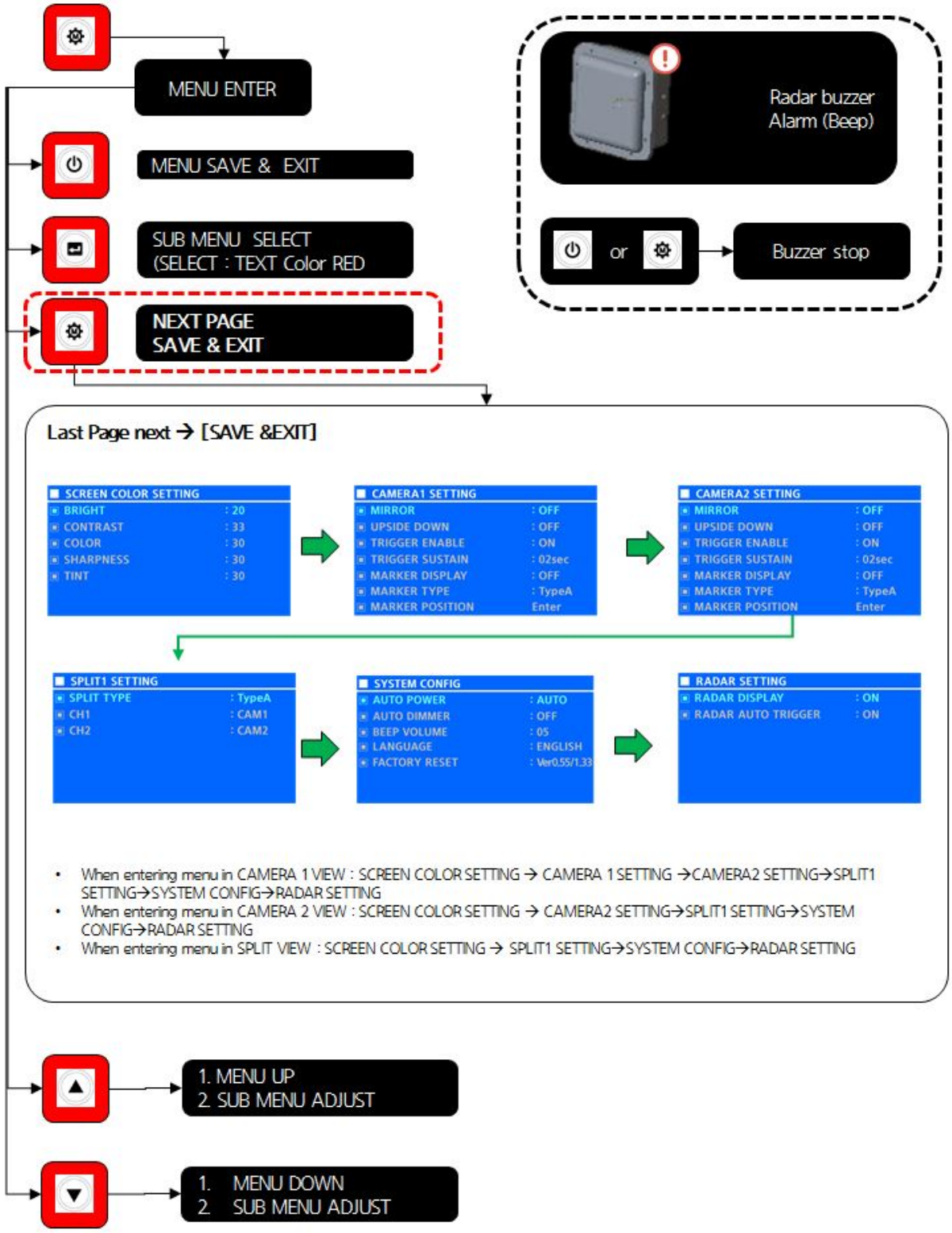
<td> 
</td>
</tr>
<tr>
<td>TYPE B</td>
<td></td>
<td> 
</td>
</tr>
<tr>
<td colspan="3">1. To set the parking line, [MARKER DISPLAY: ALWAYS or TRIGGER] must be set in Camera 1 or Camera 2 setting.
2. In other modes, the parking line can not be set.
3. [MARKER DISPLAY : OFF]
1. The parking line positioning menu should not be selected.
2. Do not enter LONG KEY with the menu button.</td>
</tr>
</table>

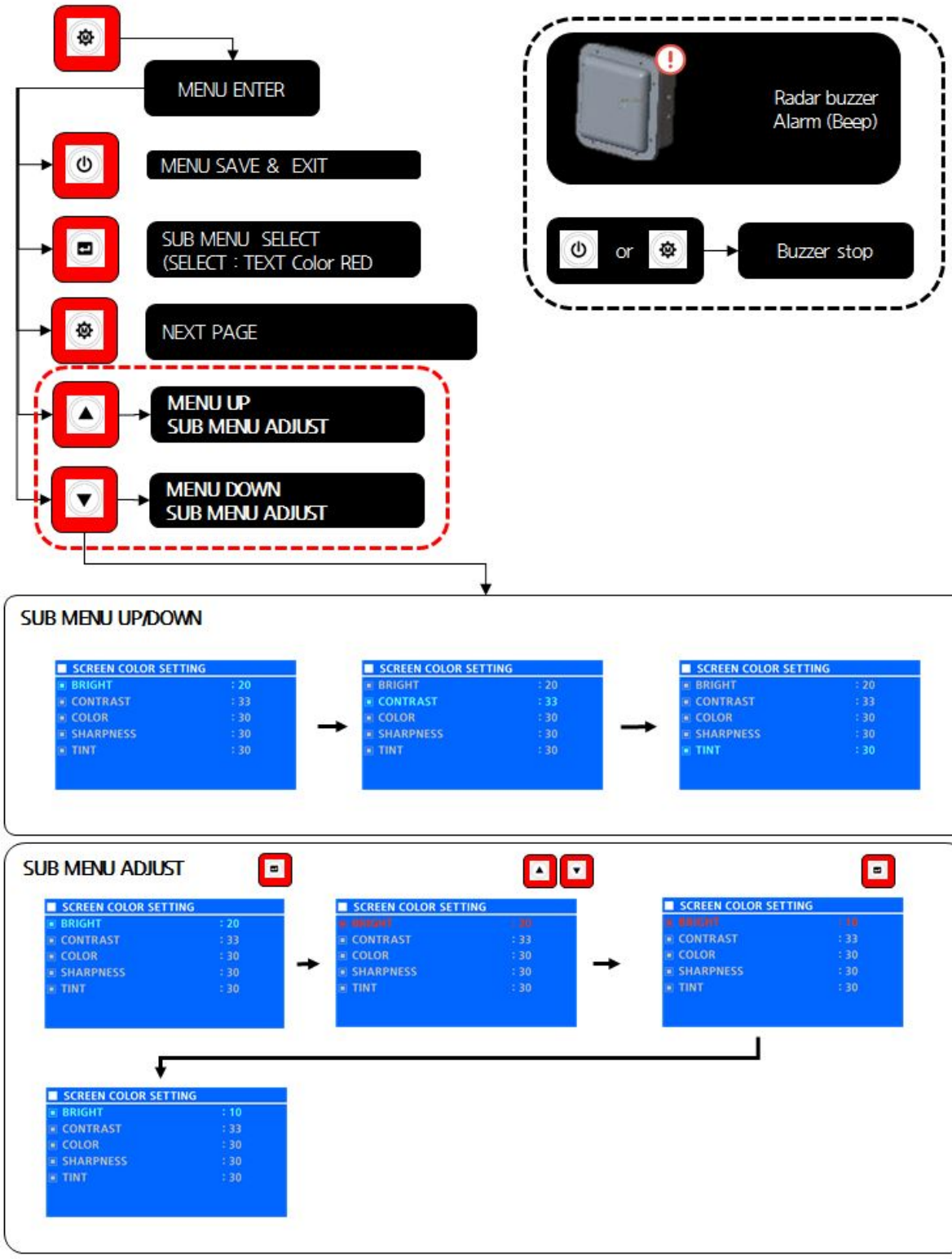
(9) How to set function menu



(10) Composition of menu screen



(11) Value adjustment



(12) When radar mounted, monitor display

ICON	Status
Not Display	Radar Off
	Radar On (Mode : Normal)
	Radar Error
	No detection for more than(30 min)

Distance Display	Status	Beep
	0~2 m Target	Alarm 200 millisecond
	2~4 m Target	Alarm 500 millisecond
	4~6 m Target	Alarm 500 millisecond
	6~8 m Target	Alarm 1000 millisecond
	8~10 m Target	Alarm 1000 millisecond
Not Display	Non Target	Not Beep