## **3. KNOW YOUR TRUCK**

## **1. GENERAL LOCATIONS**



- 1 Mast
- 2 Lift chain
- 3 Lift cylinder
- 4 Backrest
- 5 Tilt cylinder
- 6 Lift bracket
- 7 Forks
- 8 Overhead guard

- 9 Turn signal lamp
- 10 Head lamp
- 11 Operator's seat
- 12 Bonnet
- 13 Counterweight
- 14 Rear wheel
- 15 Front wheel
- 16 Rear combination lamp

- 17 Precleaner
- 18 Silencer
- 19 Air conditioner (opt)
- 20 Beacon lamp (opt)
- 21 Camera (opt)
- 22 Front work lamp
- 23 Rear work lamp (opt)
- 24 Rear handle with horn (opt)

35D9OM54

## 2. DATA/SAFETY PLATES AND DECALS

## 1) TRUCK DATA AND CAPACITY PLATE



#### (1) Truck model number or registered name

#### (2) Truck type

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

#### (3) Truck serial number

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

#### (4) Attachment description (If any installed)

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

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

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

Do not exceed the maximum capacity specified.

#### (6) Truck weight

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

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

## 2) OPERATOR SAFETY WARNING DECAL



35D9SOM09A

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

#### ▲ Operator/Tip-over warning decal

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

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

## **3. CAB DEVICES**

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

#### 2) ELECTRONIC MONITOR SYSTEM

- (1) The centralized electronic monitor system allows the status and conditions of the truck to be monitored at a glance.
- (2) It is equipped with a safety warning system for early detection of truck malfunction.



35D9CD01

## **4. CLUSTER**

## 1) STRUCTURE

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

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

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



35D9CL001

## 2) GAUGE

#### (1) Operation screen

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



35D9CL002

- 1 Speed meter
- 2 Fuel gauge
- 3 Coolant temperature gauge
- 4 Clock
- 5 DEF level gauge

#### (2) Speed meter

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



km/h



mile

35D9SCL003K

## (3) Fuel gauge



lit up in red, please refuel.

35D9CL004

## (4) Coolant temperature gauge



① Display the coolant temperature.

① Display the remains of fuel tank.

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

2 If the gauge displays in the red zone, or warning lamp **m** will be

## (5) Clock



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

## (5) DEF level gauge



- ① Display the remains of the DEF tank.
- ② If the gauge displays in the red zone or warning lamp displays up in red, please fill the DEF.

#### 3) WARNING LAMPS



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

#### (1) Fuel level warning lamp



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

## (2) Coolant temperature warning lamp



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

## (3) Engine oil pressure warning lamp



- ${\ensuremath{\textcircled{}}}$  This warning lamp will be lit up when engine oil pressure is low.
- 2 Stop the engine immediately if the warning lamp is lit up.
- 3 Please check the engine oil.

#### (4) Air cleaner warning lamp



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

## (5) Water in fuel pilot lamp



- ① Light up when water in fuel.
- ② Stop the engine and please drain the water of the prefilter.

## (6) Engine check warning lamp



- ① If the lamp lights ON, check the engine. Refer to the page 3-10.
- 2 Check the failure code of cluster.

## (7) Engine stop warning lamp



- If the lamp lights ON, stop the engine immediately and check the engine.
  - Refer to the page 3-10.
- \* Please contact your Hyundai service center or local dealer.

## (8) SCR cleaning warning lamp



① This warning lamp lights ON when the SCR cleaning is needed and lamp flashes when manual SCR cleaning is activated as table below.

	Warning lamp					
Condition	SCR cleaning lamp	DEF Low Lamp	Engine Check Lamp	Engine Stop Lamp	Remark	
	<u>≣</u> 3)		СНЕСК	۱.		
SCR needs to be cleaned	On	-	-	-	<ol> <li>Change to a more challenging duty cycle.</li> <li>Perform manual SCR cleaning.</li> </ol>	
SCR needs to be cleaned immediately	On	-	On	-	Manual SCR cleaning is required.	
Stationary SCR cleaning status	Flash	-	-	-	-	
DEF level initial warning	-	On	-	-	DEF level 10% Engine error code 3497	
DEF level critical warning	-	Flash	-	-	DEF level 5% Engine error code 3498	
DEF level initial warning	-	Flash	On	-	DEF level 2.5% Engine error code 1673, 25% derate	
DEF level secondary derate warning	-	Flash	On	-	DEF level 0% Engine error code 3547,3714 50% derate, 30 min.	
DEF level final derate warning	-	Flash	On	On	Engine error code 3712 Contact Hyundai service center or dealer.	

## ※ Manual SCR cleaning method



- Manual SCR cleaning applies if the machine is in a fireproof area and there is no plan to turn off the machine during the SCR cleaning.
- 1 Stop and park the machine.
- ② Push the switch to position ② to initiate the manual SCR cleaning.
- $\ensuremath{\overset{\scriptstyle \otimes}{_{\scriptstyle \sim}}}$  Refer to the page 3-45 for the switch operation.
- \* The engine speed may increase during SCR cleaning and it will take approximately 20~60 minutes depending on condition.
- ③ The SCR cleaning lamp flash and HEST warning lamp will light on during the manual SCR cleaning function is operating.
- ④ The SCR cleaning and/or HEST warning lamp will light OFF when the SCR cleaning function is completed.

## (9) TM oil temperature warning lamp



- 1 Transmission oil temperature warning is consisted of two indications.
  - $\cdot$  110°C or higher : Amber is light up
  - · 120°C or higher : Red is flashing
- ② When this lamp light up during operation, stop the engine and check the machine.

#### (10) Brake oil level warning lamp



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

#### (11) Battery charge warning lamp



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

## (12) T/M oil pressure warning lamp



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

#### (13) Communication error warning lamp



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

## (14) Communication error warning lamp



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

## (15) DEF (Diesel Exhaust Fluid) low warning lamp



- ${\rm (I)}$  This warning lamp indicates, when illuminated or flashing, that the diesel exhaust fluid level is low.
- $\ensuremath{\overset{\scriptstyle \otimes}{_{\scriptstyle -}}}$  Add the diesel exhaust fluid into DEF tank.
- \* Refer to the page 3-10 for detail.

## 4) PILOT LAMPS



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

#### (1) Engine warm-up pilot lamp



- (1) The truck senses the engine coolant temperature and warms-up engine when needed. (coolant temperature <  $0^{\circ}$ C).
- O When it is happening, the indicator lamp is ON.

#### (2) SCR cleaning inhibit pilot lamp



- This pilot lamp lights ON when the SCR cleaning switch is pushed inhibit position, therefore automatic and manual SCR cleaning can not occur. It should inhibited, before caused fire due to the exhaust gas in high temperature.
- \* Refer to the page 3-45 for the SCR cleaning switch.

## (3) Exhaust high temperature pilot lamp



- ① This pilot lamp indicates, when illuminated, that exhaust temperatures are high due to SCR cleaning.
- ② The lamp will also illuminate during a manual SCR 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 the SCR cleaning.

## (4) Fuel warmer lamp



① Light up when operation the fuel warmer switch.

## (5) Parking brake pilot lamp



① Light up when parking brake is ON.

## (6) Tilt lock pilot lamp



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

## (7) OPSS pilot lamp



## (8) Driving pilot lamp

## ①Neutral



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

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

## 0 Forward



This pilot lamp is displayed if the forward gear is selected.
 First gear will be displayed as F<sub>1</sub>, and second gear will be displayed as F<sub>2</sub>.

## 3 Reverse



- ① This pilot lamp is displayed if the reverse gear is selected.
- (2) First gear will be displayed as  $\mathbf{R}_1$ , and second gear will be displayed as  $\mathbf{R}_2$ .

## ④ Right or left turning pilot lamp



① This pilot lamp will flash if turns on the right or left turn signal.

## 5) INFORMATION DISPLAY



35D9CL023

#### (1) Mast front/rear tilt (option)



① Display the real time tilt of mast.

## (2) Vehicle front/rear tilt



## (3) Vehicle left/right tilt



- ① Display the front/rear tilt of vehicle in real time.
  - Stop : Tilt angle is higher than 2.3° then the red warning symbol.
  - · Driving : Tilt angle is higher than 10.2° then the red warning symbol.
- ① Display the left/right tilt of vehicle in real time.
  - Stop : Tilt angle is higher than 3.4° then the red warning symbol.
  - · Driving : Tilt angle is higher than 20.8° then the red warning symbol.

## (4) Load weight (option)



1 Display the load weight.

O Screen will display blurry if the weight sensor has not been mounted.

## (5) Total trip distance



Display total trip distance of the truck..
 Unit of distance is kilometer.

## (6) Operation time



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



35D9SCL030K

## (7) Explanation of warning lamp and pilot lamp





35D9CL031

- ① Explanation will be displayed if press the arrow (refer to page 3-18) while warning lamp or pilot lamp is on.
- <sup>(2)</sup> Explanation for warning lamp or pilot lamp that are shown on the screen will be displayed if press the arrow continuously.

## 6) BUTTONS



35D9CL038

## (1) Camera



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



35D9CL040K

## (2) UP/Left



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

## (3) Down/Right



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

(4) Select



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

(5) Cancel (ESC)



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



35D9CL045

## 7) MAIN MENU



A menu consists of main menu and sub-menu.

35D9CL046

## (1) Structure

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

- (2) Model select (a requid setting)
- \* This is a required setting. Some functions may not be worked properly if you do not select the model.
- · How to check the Model Select (Check under the KEY ON status)



35D9CL070



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



- (3) Initialize vehicle tilt (a requid setting)
- · How to check the "Initialize Vehicle Tilt" (Check under the KEY ON status)
- 1) Vehicle that has not applied the mast angle sensor



2) Vehicle that has applied the mast angle sensor



35D9CL072



35D9CL048

#### Initialize vehicle tilt

•

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

#### · Check functions

- (1) Check the real time operation by changing angles of vehicle tilt and mast tilt,
- (2) Auto-leveling (option)
- 1 Tilt mast inward or outward.
- O Start tilting mast toward its vertical position, pushing the auto tilt leveling switch.
- 3 Check if the mast stops traveling when it becomes vertical to ground.
- (3) Front/Rear Tilt Warning (red)
- ① Stop : ±2.3° (1.5 tons~5.0 tons)
- 2 Driving :  $\pm$ 10.2° (1.5 tons~5.0 tons)
- (4) Left/Right Tilt Warning (red)
- ① Stop :  $\pm$ 3.4° (1.5 tons~5.0 tons)
- 0 Driving

Vehicle Weight	Warning Angles (Red)		
1.5 tons~2.0 tons	±20.3°		
2.2 tons~3.3 tons	±20.8°		
3.5 tons~4.5 tons	±24.2°		
5.0 tons	±28.0°		



35D9CL073

(4) Weight sensor set up (optional)

- · How to check the "Weight Sensor Setting" (Check under the KEY ON status)
- 1) Vehicle that has not applied the weight sensor



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



35D9CL074



35D9CL049

#### How to set weight sensor

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



35D9SCL050

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



35D9KCL051

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



How to set weight sensor (initialization)

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

## (5) Weight setup







#### · How to set weight display

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

35D9CL053

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



35D9KCL054

#### · How to set ESL setting

- 1. Device Setup > ESL setting
- 2. Password request screen will be displayed if you select the menu. Default password is "00000".
- 3. Password length must be 5~10 digits.
- 4. Next step is allowed only if password is authenticated.
- 5. Check functions
- 1 Set the mode as active and key-OFF.
- ② Upon key-ON, the password screen pops up and starting is prohibited until the right password has been offered.

(But, driver still can start the vehicle if starts within 10 seconds from key-off)

- ③ Set the mode as 5 min of delay time and key-OFF.
- ④ check if vehicle can start within 5 min and key-OFF.
- (5) check if vehicle requests password after 5 min.
- \* KEY-ON screen (When startup control mode is ON)



35D9KCL075

## (7) Camera setup



35D9CL056

#### · How to set camera

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

## (8) Auto-shift setup (standard)

		AutoShift Setting		AutoShift Setting	
		Mode Manu	al Mode	Auto Mode	
× _		Speed Set (Auto)	— →	Manual Mode	
Equipment					
Select	+ <b>†</b>			<b>↓ ↓</b>	
B Please enter password.		🐱 Equipment		AutoShift Setting	
*****		Camera Setting		Mode	Auto N
12345-	+	AutoShift Setting		Speed Set (Auto)	
6 7 8 9 0 -	-	DSCR Settng			
				ţ.	J
				AutoShift Settin	a

#### · How to set auto-shift

- 1. Device Setup > Auto-Shift setup
- 2. User password is required in order to set this function.
- 3. In automatic mode, the gear is switched automatically by vehicle speed.
- 4. Enable to set the gear switching speed.
- 5. Applied 3.5 tons  $\sim$  5.0 tons T/M 2nd gear.

#### · Check functions

#### 1. Select the "Auto Mode"

① During forward or reverse driving, a gear will be shifted automatically in accordance with gear speed.

(1st gear ► 2nd gear) 7 km/h (2nd gear ► 1st gear) 5 km/h

35D9KCI 057

2 Not interworking with gear select switch (1st gear / 2nd gear) of gear selector.



#### 2. Select the "Manual Mode"

In accordance with gear select switch (1st gear / 2nd gear) of gear selector, T/M gear is shifted.

#### (9) DCSR Setup (standard)





35D9KCL058

#### · How to set DCSR

- 1. Device setup > DCSR setup
- 2. User password is required in order to set this function.
- 3. Set the mode ON. Below is how this feature functions.
- 4. If you are driving at over the block drive speed and then change gear from forward to reverse(or reverse to forward), the gear stays as neutral until the vehicle reaches the restore drive speed.
- 5. The car changes direction and starts to travel.
- **\*\* DCSR : Direction change shock relief**
- \* Restore drive speed cannot be set over the block drive speed.

## (10) Vehicle max speed limit



• How to set vehicle max speed limit

- 1. Equipment > Vehicle max speed limit.
- 2. User password is required in order to set this function.
- 3. The defualt setting is off with the speed of 10 km/h.
- 4. The speed setting range is 8~20 km/h
- 5. The vehicle reaches smoothly to the target speed.

#### (11) MCU/Cluster information



35D9SCL060

#### MCU / Cluster information

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

#### (12) Engine Failure History



#### · Engine failure history

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

(13) Expendables replacement management



35D9CL079



35D9SCL061

#### · How to replace expendables

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

## (14) I/O Information



35D9SCL062

#### · How to set I/O information

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

## (15) User password change



#### · How to change "User Password"

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

## (16) LCD brightness



35D9SCL064

#### · How to set LCD brightness

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



35D9SCL065

#### · How to set current time

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

# (18) Unit setup







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

**Display Setting** 

Manual

Select

Display Setting

LCD Adjustment

**Time Setting** 

Unit Setting

Pressure

Date Type

bar

yy.mm.dd

mm/dd/yy dd-Mar-yy

35D9SCL067

## (19) Language setup



35D9SCL068

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

#### New A/S Phone No. A/S Phone No. 012-345-6789 Change A/S Phone No. 3 ▶ 012-345-6789 Maintenance Select Maintenance A/S Phone No. Maintenace Management Change A/S Phone No. Signal Status ▶ 0809858085 A/S Phone No.

#### (20) A/S Contact Setup

35D9SCL063

#### · How to set A/S contact

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

#### (21) ESL password change





35D9KCL081

#### (22) Maintenance management



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

35D9KCL082

S/No.	Warning lamp types	Symbol	Warning and indicator lamp	Causes and correction
1	Engine oil pressure warning	₽ C	Engine oil pressure warning lamp	Engine oil pressure is low. Please the engine oil refill.
2	Engine warm-up pilot	6	Engine warm-up indicator lamp	Warm-up will be started.
3	Air cleaner warning	C	Air cleaner warning lamp	Replace the filter.
4	Water in fuel warning	1	Water in fuel warning lamp	Please drain the water of water separator.
5	Engine check warning	СНЕСК	Engine check warning lamp	Check the failure code of cluster.
6	Engine stop warning	9	Engine stop warning lamp	Check the failure code of cluster.
7	SCR cleaning warning		SCR cleaning warning lamp	If necessary, display the SCR cleaning.
8	SCR cleaning inhibit pilot		SCR cleaning inhibit pilot lamp	SCR claening status is prohibited.
9	Exhaust high temperature pilot	J.S.	Exhaust system high temperature pilot lamp	High temperature state of exhaust system.
10	Fuel warmer pilot		Fuel warmer pilot lamp	warming up the fuel.
11	TM oil temperature warning	$\odot$	TM oil temperature warning lamp	TM oil is over temperature condition.
12	Parking brake pilot	<b>(</b> P <b>)</b>	Parking brake pilot lamp	Parking brake is operating.
13	Brake oil level warning	$(\bigcirc)$	Brake oil level warning lamp	Brake oil level is low. Please refill the brake oil.
14	Battery charging warning	<u>.</u>	Battery charging warning lamp	Battery is not being charged. Please check alternator and wiring.
15	Tilt lock pilot	TILT Lock	Tilt lock pilot lamp	Auto-leveling is the operational status.
16	OPSS pilot	OP SS	OPSS pilot lamp	OPSS is working : Driving, Tilltig, Lifting locked and truck parked.
17	Fuel warning	⊳⊟€	Fuel warning lamp	Fuel level is low. Please refill the diesel oil.

# 8) CAUSES AND CORRECTION OF CLUSTER WARNING LAMP

S/No.	Warning lamp types	Symbol	Warning and indicator	Causes and correction
18	Coolant temperature warning		Engine coolant temperature warning lamp	Engine coolant is over temperature condition.
19	T/M oil pressure warning	ŧ	Clutch oil pressure warning lamp	Inching operation. Check T/M to find out pressure drop.
20	Communication error warning		Communication error warning lamp	Communication with between MCU and ECU has been failed. Check communication line.
21	Communication error warning	Cluster ++ MCU	Communication error warning lamp	Communication between CLUSTER and MCU has been failed. Check communication line.
22	LH Turn indicator		LH Turning pilot lamp	-
23	RH Turn indicator		RH Turning pilot lamp	-
24	Forward first gear	F <sub>1</sub>	Forward first gear indicator lamp	-
25	Forward second gear	F <sub>2</sub>	Forward second gear indicator lamp	-
26	Reverse first gear	R <sub>1</sub>	Reverse first gear indicator lamp	-
27	Reverse second gear	R <sub>2</sub>	Reverse second gear indicator lamp	-

# **5. SWITCHS**



1) START SWITCH



- (1) There are three positions, OFF, ON and START.
- ※ Before starting, set gear shift lever at N, and pull parking brake.
  - · OFF : None of electrical circuits activates.
  - · ON : All electrical systems are ON.
  - $\cdot$  START : Use when starting the engine.

Release key immediately after starting.

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

# 2) HAZARD LAMP SWITCH (option)



- (1) Use when emergency situation or while loading operation.
- If the switch is left on for a long time while the engine does not run, the battery would be dead(discharged).

# 3) REAR WORK LAMP SWITCH (option)



(1) This switch is used to operate work lamps. Press this switch to turn on work lamps.

#### 4) BEACON SWITCH (option)



(1) This switch turn ON the rotary light.

#### 5) FUEL WARMER SWITCH



(1) This switch is used to heat the fuel of pre-heater.

#### 6) FRONT WIPER/WASHER SWITCH (option)



- (1) This switch is used to operate the front wiper and washer by two steps.
  - · First step : The front wiper operates.
  - Second step : The washer liquid is sprayed and the front wiper is operated only while pressing. If release the switch, return to the first step position.

# 7) SCR (Selective Catalytic Reduction) CLEANING SWITCH



(1) This switch is used to select the cleaning function of the SCR.

#### (2) Inhibit position (11)

- ① The inhibit position disallows any automatic or manual SCR cleaning.
- ② This may be used by operator to prevent SCR cleaning when the machine is operating in a hazardous environment is concerned about high temperature.
- ③ It is strongly recommended that the this position is only activated when high temperatures may cause a hazardous condition.

#### (3) OFF position

This position will initate a automatic SCR cleaning when needed.

#### (4) Manual SCR cleaning position (2)

- ① This position will only initate a manual SCR cleaning and the SCR cleaning lamp is illuminated.
- 2 HEST lamp will be illuminated during the entire SCR cleaning.
- \* Refer to the page 3-14 for details.
- This switch can be move to the manual SCR cleaning position
   (2) only when the safety button is pulled to backward.
- \* Also, this switch return to the OFF position when released the manual SCR cleaning position (2).

# 8) HORN SWITCH



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

# 9) HEATER SWITCH (option)



(1) This switch is used to heat the cabin room.

### 10) MASTER SWITCH (option)



- This switch is used to shut off the entire electrical system.
   When the machine is not operated for a long time, turn OFF the master switch for the safety purpose.
- (2) I : The battery remains connected to the electrical system.O : The battery is disconnected to the electrical system.
- \* Never turn the master switch to O (OFF) with the engine running. Engine and electrical system damage could result.

#### 11) MULTI FUNCTION SWITCH

#### (1) Clearance lamp switch



#### (2) Head lamp switch



#### (3) Turning switch



#### 1 Clearance lamp lights up

Twist the handle beneath steering wheel and make the notch align to  $\operatorname{soce}$ .

- ② Clearance lamp goes out Twist the handle just opposite until the notch being aligned to ○.
- \* When clearance lamp light up, then the clearance lamp and all panel lamps light up too.

#### 1 Head lamp lights up

Twist the handle beneath steering wheel and make the notch align to  $\operatorname{\mathrm{IDS}}$  .

# 2 Head lamp goes out

Twist the handle just the opposite until the notch being aligned to  $\bigcirc.$ 

- This lever makes the turn signal lamp flash.
   Turning left : Push lever forward
   Turning right : Pull lever backward
- When the steering wheel is returned to straight, the turn signal is not cancelled. Return the lever to central position by hand.

# 12) FNR AND HORN SWITCH (option)



(1) FNR switch

(2) Horn switch

The horn sounds when the button is pressed.

# 13) AUTO TILT LEVELING SWITCH (option)



- (1) This switch is used to return mast to upright vertical position.
- \* This function have to be used at the engine low idle rpm and stop position. If this is activated at the high idle rpm or driving status, Don't gurantee the mast stop at upright vertical position.

# **6. CONTROL DEVICE**



35D9CD08

#### 1) GEAR SELECTOR LEVER



#### 2) SREERING WHEEL



- (1) This lever is used for gear selection, forward 2 stages and reverse 2 stages.
- (2) If you push the gear selector lever, the truck moves forward, but pulling the gear selector lever, the truck moves backward.
- (3) If you turn the gear selector lever forward, the truck increases the speed, but if you turn the gear selector lever backward, the truck reduces the speed.
- (1) A steering cylinder in the center of the steering axle will operate the steering function.
- (2) Turning the steering wheel left, the truck moves to the left side and turning it right, the truck moves to the right side.

#### 3) BRAKE PEDAL



### 4) ACCELERATOR PEDAL



#### 5) INCHING PEDAL



#### 6) PARKING BRAKE LEVER



# 7) LIFT LEVER



- (1) If the pedal is pushed, braking force is generated and bring the truck to a stop.
- \* Do not operate the truck with stepping on the brake pedal unnecessarily, or bring premature wear of brake disc.
- (1) This pedal controls the engine speed. The engine speed will increase in proportion to the degree of force applied to this pedal.
- (2) Unless this pedal is pressed, the truck will run at low idling.
- (1) The inching pedal is used for fine control of forward and reverse movement when lifting up or putting down loads.
- \* Do not put your foot on the inching pedal or brake pedal unless using it.
- (1) Position 1

Parking brake is applied and front wheel is locked.

(2) Position 2

Parking brake is released.

- \* Before moving the truck be sure the parking brake is released.
- (1) Lift

PULL the lever BACK to LIFT the load.

(2) Lower

PUSH the lever FORWARD to LOWER the load.

(3) Holding

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

Lifting speed is controlled by accelerator pedal. Lowering speed is controlled by lever only.

# 8) TILT LEVER



#### (1) Tilt forward

PUSH the lever FORWARD to tilt mast FORWARD.

(2) Tilt back

PULL the lever BACK to tilt mast BACKWARD.

#### (3) Holding

When the lever is released, tilting action stops.

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

#### 9) LEVER FOR SIDE SHIFT



#### (1) LH movement

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

#### (2) RH movement

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

# 10) LEVER FOR SIDE SHIFT WITH FORK POSITIONER

#### (1) Fork positioner (synchronizer type)



#### 1 Outstrech the forks

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

2 Pucker up the forks

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

# (2) Fork positioner (independent type)



### ① LH fork movement

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



#### 2 RH fork movement

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

# 11) STEERING WHEEL LOCK LEVER



- (1) The angle of the steering wheel can be adjusted forward and backward.
- 1 **Release** : Pull the lever backward.
- 2 Lock : Release the lever.

# 7. AIR CONDITIONER AND HEATER (OPTION)

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



35D9CD90

# 1) AIR CONDITIONER BUTTON



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

# 2) TEMPERATURE CONTROL KNOB



- This knob regulates the temperature of air.
- 1 Left side (red zone) : Heat up air temperature
- 2 Right side (blue zone) : Cool down air temperature

# 3) FAN SPEED CONTROL KNOB



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

# 7. AIR CONDITIONER AND HEATER (OPTION)

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



# 1) AIR CONDITIONER CONTROLLER



- (1) The A/C button determines whether to perform a cooling function of the air conditioner. Push the button and the A/C lamp is ON or OFF.
  - A/C lamp ON : Air conditioner operation
  - $\cdot$  A/C lamp OFF : Fan only
- (2) The knob is possible to control fan speed to 4 steps.

# 2) HEATER CONTROLLER



- (1) The left knob turns the system ON/OFF and controls fan speed to 3 steps.
- (2) The right knob controls the air temperature of the heater.

# 8. OTHERS



35D9CD09

# 1) 12V SOCKET (OPT)



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

# 2) ENGINE HOOD LOCK BUTTON



- (1) Pull the knob on the dashboard and raise the engine hood to open it.
- (2) Inspection and maintenance can then be carried out easily.

# 3) REAR GRIP WITH HORN (option)



- (1) This grip is used for easily riding.
- (2) The horn sounds when the button is pressed.

# 4) RADIO AND USB PLAYER (OPT)

(MACHINE SERIAL NO. 35D-9 : -#0365, 40D-9 : -#0210, 45D-9 : -#1421, 50DA-9 : -#0988)

# BASIC FUNCTIONS



<sup>2209</sup>S3CD70

- 1 Power (PWR) button
- 2 Volume/Sound setting button
- 3 Mode selection button

- 4 Radio (FM/AM) selection button
- 5 USB slot
- 6 AUX terminal

#### (1) Power (PWR) button



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

#### (2) Volume/Sound setting button

# · Volume (VOL) button



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

#### · Sound setting



Press the SELECT button to conduct sound setting.
 Each press of the button will change the sound setting in the following order.

 $\mathsf{BASS} \to \mathsf{MIDDLE} \to \mathsf{TREBLE} \to \mathsf{BALANCE} \to \mathsf{EQ} \to \mathsf{BEEP}$ 

② After selecting the desired setting, turn the SELECT button clockwise/counter-clockwise to adjust the sound setting value.

#### **3 BASS adjustment**

Turn the SELECT button clockwise to increase the bass and counter-clockwise to decrease the bass. BASS can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

#### ④ MIDDLE adjustment

Turn the SELECT button clockwise to increase the middle and counter-clockwise to decrease the middle. MIDDLE can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

#### **5 TREBLE adjustment**

Turn the SELECT button clockwise to increase the treble and counter-clockwise to decrease the treble. TREBLE can be adjusted from max +10/min -10. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

#### 6 Left/Right BALANCE adjustment

Turn the SELECT button clockwise to increase the right-side speaker volume and counter-clockwise to increase the left-side speaker volume. BALANCE can be adjusted from 10L/10R. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

#### ⑦ EQ (EQUALIZER) adjustment

Turn the SELECT button clockwise/counter-clockwise to select the desired EQ. EQ settings are as shown below.

Cls (classic)  $\rightarrow$  Pop  $\rightarrow$  Rock  $\rightarrow$  Jazz  $\rightarrow$  off

If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

Weight Upon selecting EQ, the BASS, MIDDLE and TREBLE values will be turned off.

The BASS, MIDDLE, TREBLE values can be set only when EQ Off is selected.

#### 8 BEEP sound adjustment

Turn the SELECT button clockwise/counter-clockwise to the beep sound ON/OFF. If there are no adjustments for 3 seconds, the changes will be saved and the previous mode will be restored.

#### (3) MODE selection button



- ① Pres the MODE button to change to RADIO/USB/AUX/iPod modes. However, the mode can be selected only when the respective media is connected.
- 2 If iPod is connected to the audio, the mode will change in the following order.

RADIO  $\rightarrow$  iPod  $\rightarrow$  USB (handfree)

3 If USB, AUX is connected to the audio, the mode will change in the following order.

 $RADIO \rightarrow USB(front) \rightarrow USB(handfree) \rightarrow AUX$ 

- \* USB and AUX mode will operate only when corresponding devices are connected.
- When connecting iPod, AUX and front USB cannot be connected.
- \* The iPod is connected to the USB in the machine handfree.

#### (4) Radio (FM/AM) selection button



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

 $FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow AM$ 

2 Preset memory of up to FM : 18 stations, AM : 6 stations

#### (5) USB slot

Connects USB to play USB music files.

(6) AUX terminal

Connects AUX cable to play AUX music files.

#### **RADIO**



- 1 Radio (FM/AM) selection button
- 2 TRACK/SEEK button 3

- LCD display 4
- 5 BSM (Best Station Memory) button

Saving broadcast frequencies to PRESET numbers

Broadcast manual search (FLDR) button 6

# (1) Radio (FM/AM) selection button



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

 $FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow AM$ 

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

#### 3 Setting regional Radio Frequency

► North America Frequency

Press the FM/AM and Preset 1 button simultaneously to set frequency in accordance to the North America Frequency settings. "nA" will become displayed on the LCD for one second. FM : 87.7 ~ 107.9 MHz (200 KHz) AM : 530 ~ 1710 KHz (10 KHz)

Local/Middle East/Asia Frequency

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

FM: 87.5 ~ 108 MHz (100 KHz)

AM: 531 ~ 1602 KHz (9 KHz)

Europe Frequency

Press the FM/AM and Preset 3 button simultaneously to set frequency in accordance to the North America Frequency settings. "Eu" will become displayed on the LCD for one second. FM: 87.5 ~ 108 MHz (50 KHz) MW: 531 ~ 1602 KHz (9 KHz) LW: 153 ~ 279 KHz (1 KHz)

### (2) TRACK/SEEK button



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

TRACK  $\land$  : Searches frequencies higher than current frequency SEEK  $\lor$ : Searches frequencies lower than current frequency

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

# (3) Broadcast manual search (FLDR) button



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

FLDR  $\land$ : Searches frequencies higher than current frequency FLDR  $\lor$ : Searches frequencies lower than current frequency

#### \* SEEK STEP : FM-100KHz, AM-9KHz

#### (4) LCD display



 The currently received broadcast frequency info and status are displayed.

#### (5) BSM (Best Station Memory) button



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

#### (6) Saving broadcast frequencies to PRESET numbers

1 2 3
4 5 6
21093CD76

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

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

#### **USB CONNECTION**



- 1 USB selection button
- 2 TRACK UP/SEEK DOWN button
- 3 FLDR UP/DOWN button
- 4 FF/REW button
- 5 RPT/FOLDER RPT button
- 6 RDM/FOLDER RDM button

- 7 Scroll (SCR) button
- 8 View music info (INFO) button
- 9 Scan button (BSM)
- 10 Finding and playing file (SELECT) button
- 11 LCD display
- · Operates only when a USB is connected. Connecting a USB to the audio will automatically convert to USB mode.
- Connecting the USB when the starting switch is in ON state will turn the power on and automatically play the songs within the USB.

#### (1) USB selection button



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

#### (2) TRACK UP/SEEK DOWN button



1 While playing USB, press the TRACK  $\wedge$  button to play the beginning of the next song.

Press the SEEK  $\lor$  button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

#### (3) FLDR UP/DOWN button



#### (4) FF/REW button



- If there are more than 2 folders in the USB, pressing the FLDR UP/ DOWN button will move to the previous or next folder.
- ② If there are no folders in the USB, then pressing the button will move up/down within the folder in 10 file increments.
- ① While a USB is operating, press and hold the FF button to fast-forward the song. When fast-forward is complete, the next song will properly play from the beginning even if you continue holding the button. Press and hold the REW button to rewind the song. When rewind is complete, the current song will properly play from the beginning even if you continue holding the button. Shortly pressing the buttons will not operate the FF/REW.

#### (5) RPT/FOLDER RPT button



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

#### (6) RDM/FOLDER RDM button



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

#### (7) Scroll (SCR) button



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

## (8) View music info (INFO) button



# (9) Scan button (BSM)



- Each time the INFO button is pressed, the info on the currently playing song will be displayed in the following order.
   FILE NAME → TITLE → ARTIST → ALBUM → DIR
- ① While music is playing, shortly press the BSM button to scan each song within the USB for 10 seconds in sequential order. (SCN)
- ② Press and hold the BSM button to scan each song within the current folder for 10 seconds in sequential order. (FOLDER SCN, however, music files in the USB must be saved in folder format.)

# (10) Finding and playing file (SELECT) button



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

After entering FILE BROWSER mode, turn the SELECT button left/ ② right to find the desired folder. After finding the folder, press the SELECT button to select the folder. Turn the SELECT button left/ right to find the desired song and press the SELECT button to play.

If there are no adjustments for 3 seconds after pressing the ③ SELECT button, the function will be turned off and the USB play screen will be displayed.

#### (11) LCD display



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

#### ■iPOD CONNECTION



- 1 iPod selection button
- 2 TRACK UP/SEEK DOWN button
- 3 FF/REW button
- 4 Repeat (RPT) button

- 5 Random play (RDM) button
- 6 Scroll (SCR) button
- 7 View music info (INFO) button
- 8 Finding and playing file (SELECT) button
- Operates only when an iPod is connected. Connecting an iPod to the audio will automatically convert to iPod mode. Connecting the USB when the starting switch is in ON state will turn the power on and automatically play the songs within the iPod.
- · The iPod cable is supplied separately.

#### (1) iPod selection button



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

#### (2) TRACK UP/SEEK DOWN button



1 While playing music, press the TRACK  $\land\,$  button to play the beginning of the next song.

Press the SEEK  $\lor$  button to return to the beginning of the current song. Press the button again to play the beginning of the previous song.

### (3) FF/REW button

2 FF
 2209S3CD72A

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

# (4) Repeat (RPT) button



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

# (5) Random play (RDM) button



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

# (6) Scroll (SCR) button



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

# (7) View music info (INFO) button



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

# (8) Finding and playing file (SELECT) button



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

#### ■AUX connection



2209S3CD74

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

#### (1) Connecting an external device using the AUX cable

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

# 4) RADIO AND USB PLAYER (WITH BLUETOOTH, OPT)

(MACHINE SERIAL NO. 35D-9 : #0366-, 40D-9 : #0211-, 45D-9 : #1422-, 50DA-9 : #0989-)







# RADIO AND USB PLAYER (WITHOUT BLUETOOTH, OPT) (MACHINE SERIAL NO. 35D-9 : #0366-, 40D-9 : #0211-, 45D-9 : #1422-, 50DA-9 : #0989-)



9403CD101

# FRONT PANEL PRESENTATION

1		······ Power ON/OFF, Volume UP/DOWN button
2		······· Manual UP/DOWN Tuning, File search, SEL button
3	MODE	······· Mode button, Audio mute button
4	SEEK	······ Radio seek up button
5	SEEK	······ Radio seek down button
6	1 DIS	······ Station preset 1 ······ Display button
7	2	······ Station preset 2
8	3 RPT RPT ···	······ Station preset 3 ······ Repeat play button
9	4 RDM ··	······ Station preset 4 ······ Random play button

10	<sup>5 dir-</sup>	Station preset 5     Directory down button
11	<sup>6 dir₊</sup> DIR+ ··	Station preset 6 Directory up button
12	SCAN	Scan play button (SCAN) Best station memory (BSM) button
13	TRÂCK	······ Track up button
14	TRACK	······ Track down button
15	AUX	USB connector
16	4	······· AUX IN Jack

#### **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 it is 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 slight 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



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

BAS  $\rightarrow$  TREB  $\rightarrow$  BAL L=R  $\rightarrow$  FAD F=R  $\rightarrow$  EQ  $\rightarrow$  LOUD ON  $\rightarrow$ 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 :

 $\mathsf{EQ}\:\mathsf{OFF}\to\mathsf{CLASSIC}\to\mathsf{POP}\to\mathsf{ROCK}\to\mathsf{JAZZ}$ 

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.
- $\cdot$  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





 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 there are no mp3 or wma files in USB device, it will revert to the previous mode after displaying 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



 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



- 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



# (8) ID3 v2 (DISP)



- 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 randomy play the tracks in the current folder.
- RANDOM off : Simply press it again to cancel RANDOM feature.
- 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.
- $\ensuremath{\overset{\scriptstyle \times}{_{\scriptstyle \rm T}}}$  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-CARD 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.
  - % In temperatures below -10  $^{\circ}$ C (14  $^{\circ}$ F), the audio unit with USB hook up may be affected and not 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

- ${\rm (I)}$  Your audio unit supports bluetooth wireless technology. You can set up a wireless link with bluetooth cellular phone.
- ② Continue to pair the cellular phone with the audio unit. Within a few moments the two should be able to connect.
- 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 in battery drainage.
- \* This audio units 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 where it is being used.
- 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 is already equipped with the best bluetooth VR level.



a. Bluetooth icon

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



b. Battery icon It indicates the battery status of the connected bluetooth device.



c. Single strength icon

It indicates the signal strength of the connected bluetooth device.

## (2) Pairing in hands free modes



- Press and hold CALL button (4) for 2 seconds until you hear beep sound, then PAIR STR will appear 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.
- O 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 1234.
- 6 The cellular phone should confirm that it has established a new paired connection.
- $\ensuremath{\overline{\mathcal{O}}}$  Close the menu. The pairing is now completed. It appears PAIR FAIL on the display for 3 seconds.
- \* Each cellular phone type has distinct phone menu so you may need to refer to your manufactures instruction for the correct procedure on how to connect a new bluetooth device.
- \* Please retry the pairing instruction if HYUNDAI does not appear on the cellular phone screen.
- \* Please select authorized, if there is authorized menu in the menu of bluetooth connection in your cellular phone.
- \* Once the bluetooth pairing is completed between your cellular phone and this audio unit, both units will be automatically recognized on its paring like when you turn on the key in your car even though the audio unit is turned off.
- \* This audio unit can store up to 6 phones pairings. If the memory is full, the first stored paired phone will be deleted.
- \* The connecting priority will be given to the last connected cellular phone.
- \* If you want to change the connecting priority, try to connect this audio unit from the cellular phone you want.

# (4) Bluetooth connection and disconnection





Press and hold CALL END button (5) for 2 seconds, it shows DIS CON and bluetooth Icon disappears on the display.



3 To connect bluetooth link

2 To disconnect bluetooth link

Press CALL button (4) briefly, it blinks bluetooth Icon on the display while bluetooth is being connected. If the connection is completed, bluetooth Icon displays 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



2 To accept call

Press CALL button (4), ANSWER CALL followed by TALKING will show in the display.

3 To end call

To end call, press CALL END button (5), REJECT appears 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.



- 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 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 on the display, then simply press CALL button once again, it would make the last call with phone number displayed 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 send button once more. With the first press of button it should show contact list in your phone, then if you press again you should be ready to 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 will be activated automatically when you make a call with 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 may be different depending on cellular phone. Please follow the cellular phone menu. Some types of phones 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

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

- ① press and hold SEEK 5 DR- simultaneously for about 5 seconds. (without Bluetooth)
- 2 Press and hold **5** DR simultaneously for about 5 seconds. (with Bluetooth)
- \* Take out the fuse for the audio system in the vehicle once and then plug it back in.
- 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 operating correctly.

## (2) Precautions

When the inside of the cab is very cold and the player is used shortly 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