CONTROL DEVICES

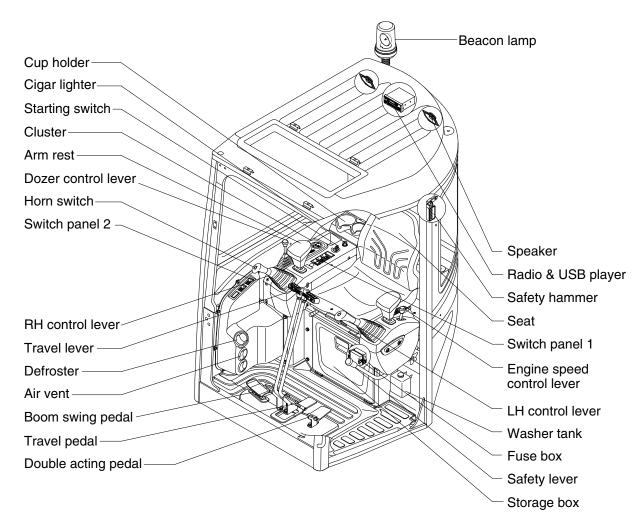
1. CAB DEVICES

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

2) ELECTRONIC MONITOR SYSTEM

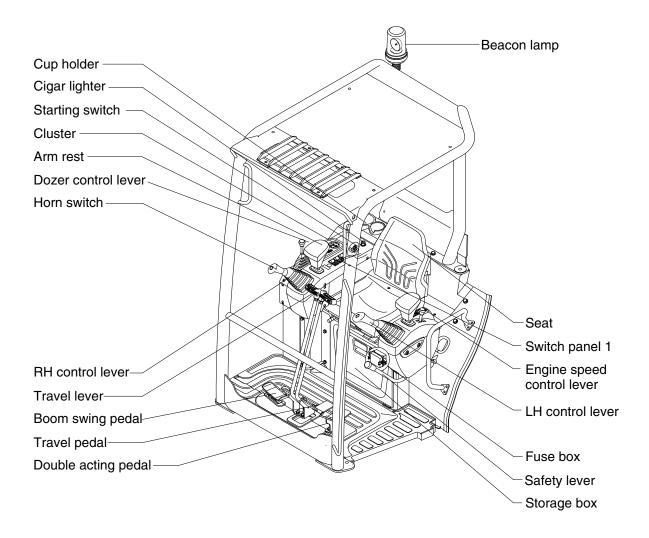
- (1) The centralized electronic monitor system allows the status and conditions of the machine to be monitored at a glance.
- (2) It is equipped with a safety warning system for early detection of machine malfunction.

■ CAB TYPE



30Z9AK3CD11

■ CANOPY TYPE



30Z9AK3CD80

2. CLUSTER

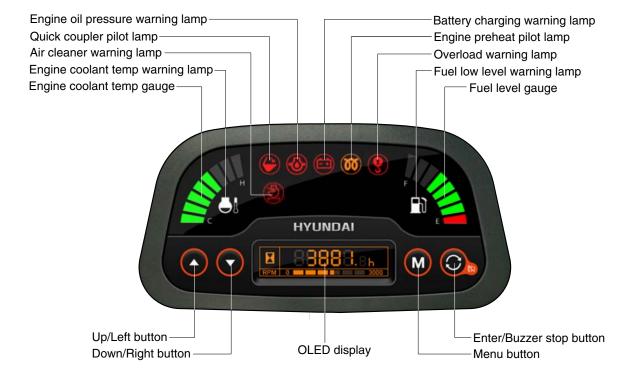
The cluster consists of gauges and lamps as shown below, to warn the operator in case of abnormal machine operation or conditions for the appropriate operation and inspection.

· Gauges : Indicate operating status of the machine.

· Warning lamp: Indicate abnormality of the machine (red).

· Pilot lamp : Indicate operating status of the machine.

- * 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.



R25Z9AK3CD03

1) GAUGES AND DISPLAYS

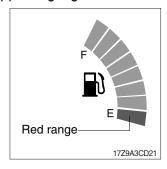
(1) Service meter



- ① This meter shows the total operation hours of the machine.
- ② Always ensure the operating condition of the meter during the machine operation.

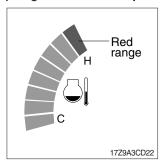
Inspect and service the machine based on hours as indicated in chapter 6, maintenance.

(2) Fuel gauge



- ① This gauge indicates the amount of fuel in the fuel tank.
- 2 Fill the fuel when the red range or warning lamp 1 ON.
- * If the gauge illuminates the red range or warning lamp ON 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 indicates the temperature of coolant.
 - · Red range : Above 115°C (239°F)
- ② When the red range pointed or warning lamp 🍑 ON, engine do not abruptly stop but run it at medium speed to allow it to cool gradually, then stop it.
 - Check the radiator and engine.
- * If the engine is stopped without cooled down running, the temperature of engine parts will rise suddenly, this could cause severe engine trouble.

2) WARNING AND PILOT LAMPS

(1) Fuel low level warning lamp



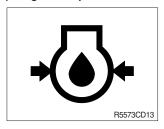
- ① This lamp ON and buzzer sounds when the level of fuel is below 5.5 ι (1.5 U.S. gal).
- ② Fill the fuel immediately when the lamp ON.

(2) Engine coolant temperature warning lamp



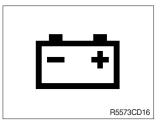
- ① This lamp ON and buzzer sounds when the temperature of coolant is over the normal temperature 115°C (239°F).
- ② Check the cooling system when the lamp ON.

(3) Engine oil pressure warning lamp



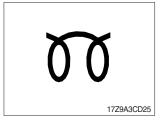
- ① This lamp ON and buzzer sounds after starting the engine because of the low oil pressure.
- ② If the lamp ON during engine operation, shut OFF engine immediately. Check oil level.

(4) Battery charging warning lamp



- ① This lamp ON and buzzer sounds when the starting switch is ON, it is turned OFF after starting the engine.
- ② Check the battery charging circuit when this lamp blinks during engine operation.

(5) Engine preheat pilot lamp



- ① When the start switch turn to HEAT position, pilot lamp comes ON.
- ② Refer to the page 4-4 for details.

(6) Quick coupler lock pilot lamp



- ① When the quick coupler switch turned ON, this lamp turn ON and the buzzer sounds.
- ② This lamp turned OFF and the buzzer stop when the quick coupler switch turned OFF.

(7) Overload warning lamp



- ① When the machine is overload, this lamp ON during the overload switch is ON.
- 2 Reduce the machine load.

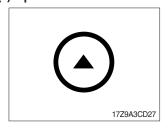
(8) Air cleaner warning lamp



- ① This lamp ON when the filter of air cleaner is clogged.
- ② Check the filter and clean or replace it.

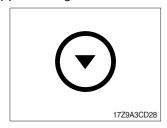
3) BUTTONS

(1) Up/left button



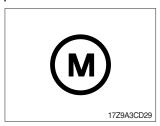
- ① Move in menu (up, left)
- ② Increase input value.

(2) Down/right button



- ① Move in menu (down, right)
- $\ensuremath{@}$ Decrease input value.

(3) Menu button



① Current display to next display.

(4) Enter and buzzer stop button



- ① Select menu (enter).
- ② Stop buzzer sound when sound is ON.

4) OLED display

(1) Main display



- ① **Service meter**: This meter shows the total operation hours of the machine.
- * Always ensure the operating condition of the service meter during the machine operation.
- ② **Engine rpm**: This displays the engine speed.
- ③ **Engine run status**: This displays the engine run ststus.

(2) Machine security



① ESL (Engine Starting Limit) mode setting

- ESL mode is designed to be a theft deterrent or will prevent the unauthorized operation of the machine.
- If the ESL mode was selected Always, the password will be required when the start switch is turned ON.
- Disable : Not used ESL function.
 - Always: The password is required whenever the operator start engine.

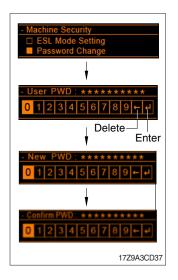
Interval: The password is required when the operator start engine first. But the operator can restart the engine within the interval time without inputting the password.

The interval time can be set maximum 2 days.

Interval time

 If set interval time to 5 minutes, ESL system is activated after 5 minutes. Therefore, the password does not need to restart engine within 5 minutes.

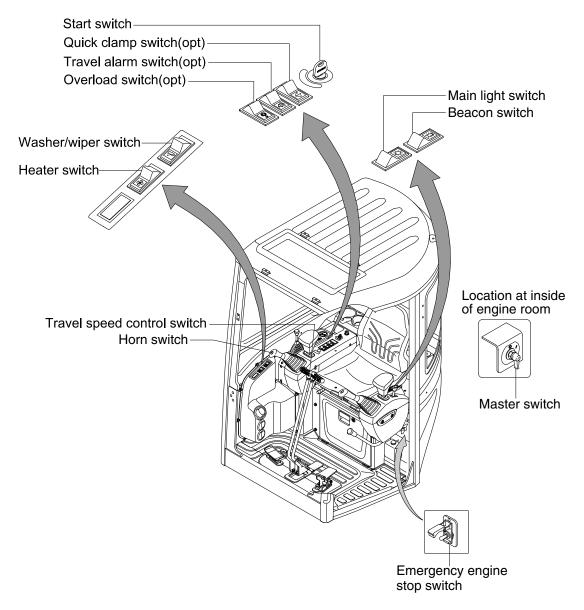
Default password: 00000



2 Password change

- Input 5 to 10 digits and press Enter.

3. SWITCHES



30Z9AK3CD13

1) STARTING SWITCH



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

· O (OFF) : None of electrical circuits activate.

· (ON) : All the systems of machine operate.

 $\cdot \ \bigcirc$ (START) : Use when starting the engine. Release key imme-

diately after starting.

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

2) MAIN LIGHT SWITCH



- (1) This switch use to operates the head light and work light by two step.
 - · First step : Head light and cluster illumination lamp comes ON.
 - Second step: Work light comes ON. Also, the below indicator lamp comes ON.

3) HEATER SWITCH



(1) This switch use to operates the heater by two step.

First step: Low fan speedSecond step: High fan speed

4) WIPER AND WASHER SWITCH



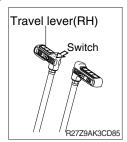
- (1) The switch use to operates the wiper and washer by two step.
 - · First step : The wiper operates.
 - · Second step: The washer liquid is sprayed and the wiper is operated only while pressing. If release the switch, return to the first step position.

5) TRAVEL ALARM SWITCH (option)



- (1) This switch is the signal to alarm surroundings when the machine travels to forward and backward.
- (2) On pressing this switch, the alarm operates only when the machine is traveling.

6) TRAVEL SPEED CONTROL SWITCH



- (1) This switch is to control the travel speed which is changed to high speed by pressing the switch and low speed by pressing it again.
- (2) When the machine travel high speed, the travel speed pilot lamp lights ON.

7) BEACON SWITCH (option)



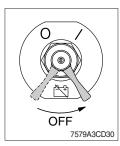
- (1) This switch turns ON the rotary light on the cab.
- (2) The below indicator lamp is turned ON when operation this switch.

8) QUICK COUPLER SWITCH (option)



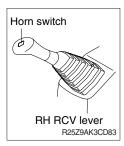
- (1) This switch is used to engage or disengage the moving hook on quick coupler.
- Refer to the page 8-6 for details.

9) 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.
- Never turn the master switch to O (OFF) with the engine running. It could result in engine and electrical system damage.

10) HORN SWITCH



(1) This switch is at the top of right side control lever. On pressing, the horn sounds.

11) OVERLOAD SWITCH (option)



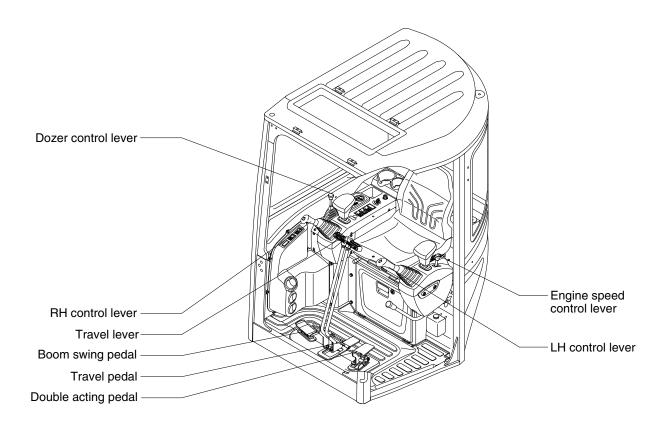
- (1) When this switch turned ON, buzzer makes sound and overload warning lamp comes ON in case that the machine is overload.
- (2) When it turned OFF, buzzer stops and warning lamp goes out.

12) EMERGENCY ENGINE STOP SWITCH



- (1) This switch is used to emergency stop the engine.
- ** Be sure to keep the emergency switch on the release position when restart the engine.

4. LEVERS AND PEDALS



R27Z9AK3CD12

1) LH CONTROL LEVER



- (1) This joystick is used to control the swing and the arm.
- (2) Refer to operation of working device in chapter 4 for details.

2) RH CONTROL LEVER



- (1) This joystick is used to control the boom and the bucket.
- (2) Refer to operation of working device in chapter 4 for details.

3) SAFETY LEVER



- (1) All control levers are disabled from operation by locating the lever to lock position as shown.
- * Be sure to raise the lever to LOCK position when leaving from operator's seat.
- (2) By pushing lever to UNLOCK position, machine is operational.
- * Do not use the safety lever for handle when getting on or off the machine.

4) TRAVEL LEVER



- (1) This lever is mounted on travel pedal and used for traveling by hand. The operation principle is same as the travel pedal.
- (2) Refer to traveling of the machine in chapter 4 for details.

5) TRAVEL PEDAL



- (1) This pedal is used to move the machine forward or backward.
- (2) If left side pedal is pressed, left track will move. If right side pedal is pressed, right track will move.
- (3) Refer to traveling of machine in chapter 4 for details.

6) ENGINE SPEED CONTROL LEVER



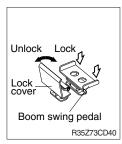
- (1) This lever is used to increase or decrease the rotation speed of engine.
- (2) Move the lever backward to increase engine RPM. Move the lever forward to decrease engine RPM.
- (3) When stopping the engine, move the engine speed control lever forward completely and turn key OFF.

7) DOZER CONTROL LEVER



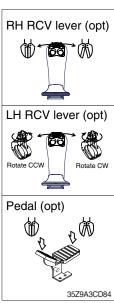
- (1) This lever is used to operate the dozer blade.
- (2) If the lever is pushed forward, the dozer blade will be going down. If the lever is pulled back, the dozer blade will be going up.

8) BOOM SWING PEDAL



- (1) This pedal is used to swing the boom to the right and left direction.
- (2) Move the lock cover to unlock position by foot.
- (3) The pedal is pressed to left side, boom will swing to the left direction. The pedal is pressed to right side, boom will swing to the right direction.

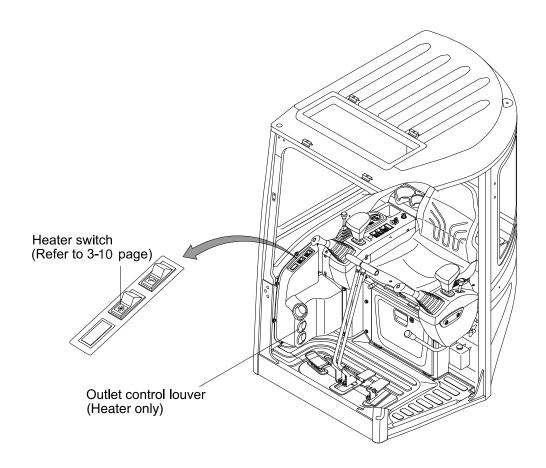
9) DOUBLE ACTING SWITCH AND PEDAL (option)



- (1) This switch and pedal operate the breaker or clamshell or shear if equipped.
- * This switch applies to double action hydraulic attachment circuit.
- * This pedal applies to single or double action hydraulic attachment circuit.
- * Refer to page 4-23.

5. HEATER

Heater is equipped for pleasant operation against outside temperature.



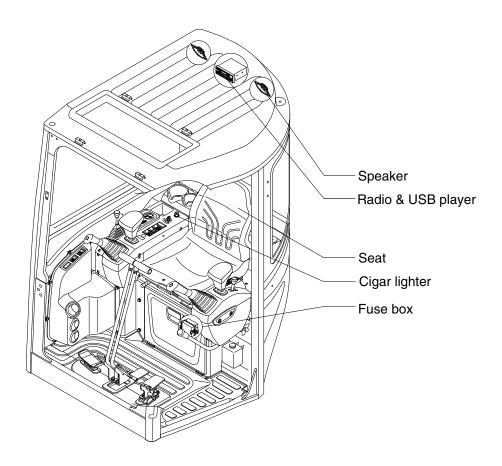
R25Z9AK3CD81

1) OUTLET CONTROL LOUVER



(1) The direction of air can be controlled. It can be closed or opened.

6. OTHERS



R25Z9A3CD14

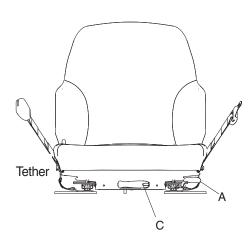
1) CIGAR LIGHTER

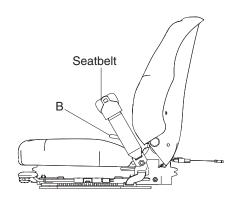


- (1) This can be used when the engine starting switch is ON.
- (2) The lighter can be used when it springs out in a short while after being pressed down.
- Service socket
 Use cigar lighter socket when you need emergency power.
 Do not use the lighter exceeding 12V, 120W.

2) SEAT

The seat is adjustable to fit the contours of the operator's body. It will reduce operator fatigue due to long work hours and enhance work efficiency.





R27Z93CD16

(1) For/aft adjustment (A)

The seat can be positioned over a range 52mm, giving you plenty of room to maneuver in every height and work situation.

(2) Seatback angle adjustment (B)

The seatback adjusts over a range of -5 ° to +25 ° with 18 locking positions, to give your back full support for every job and make sure you feel best.

(3) Weight adjustment (C)

Just sit down, press the smooth-action lever, click, and you're primed for action, with optimum suspension for all operator weights between 45 and 136 kg (99 and 300 lb). Design comfort with driver appeal-it only takes one simple action to adjust the suspension to the ideal sitting position that's best for you and your back.

(4) Seatbelt system

The seatbelt provides freedom of movement, yet ensure that you're safety restrained in your seat, even if your vehicle should crash or tip over.

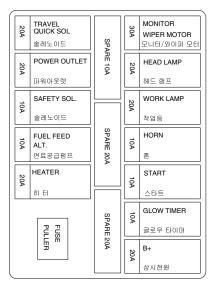
- Always check the condition of the seat belt and mounting hardware before operating the machine.
- ▲ Replace the seat belt at least once every three years, regardless of appearance.

3) UPPER WINDSHIELD



- (1) Perform the following procedure in order to open the upper windshield.
- ① Hold both grips that are located both side of the windshield frame.
- ② Move grips to inside in order to release the lock latches. Hold both grips and push the windshield upward.
- ③ Hold both grips and back into the storage position.
 Release both grips carefully until lock latches are into the locking position.
- ④ Hold both grips and back into the storage position.
- ⑤ Release both grips carefully until lock latches are into the locking position.
- ⚠ When working, without having locked the windshield by the auto lock (by pushing the windshield to the rear untill it's completely fixed), please be careful as it can cause personal injury if the windshield is not fixed or falls off.
- (2) Perform the following procedure in order to close the upper windshield. Reverse step ① through step ⑤ in order to close the upper windshield.

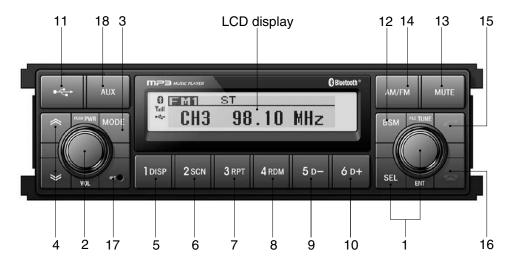
4) FUSE BOX



R25Z9AK3CD60

- (1) The fuses protect the electrical parts and wiring from burning out.
- (2) The fuse box cover indicates the capacity of each fuse and circuit it protects.
- * Replace a fuse with another of the same capacity.
- ▲ Before replacing a fuse, be sure to turn OFF the starting switch.

5) RADIO AND USB PLAYER (MACHINE SERIAL NO.: ~#0021)



75793CD62-2

- **FRONT PANEL PRESENTATION** Audio selection button Audio selection knob Power and volume button 3 Mode button (select RADIO / USB / AUX) UP / DOWN tuning button 4 Preset memory button 1 DISP ID3 v2 display
- Preset memory button 3 RPT Repeat play selector ······ Preset memory button 4

SCN File scan

······ Preset memory button 2

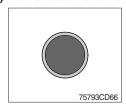
······ Preset memory button 5 D- Directory down

RDM Random play selector

- 10 6 Preset memory button 6 D+ ····· Directory up ······ Aux function BSM ······ Preset scan (PS) 12
- Best station memory (BSM)
- MUTE 13 Audio mute button 14 AM/FM AM / FM button (radio)
- ······ Send 15 16 ······ End
- 17 ······ MIC (microphone)
- 18 AUX ······ Aux connector

■ GENERAL

(1) Power and volume button



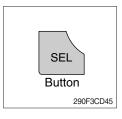
① Power ON/OFF button

Press power button to turn the unit ON or OFF shortly. When the power is ON, the previous mode (last memory) will appear.

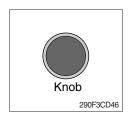
Volume up / down control

Turn volume up / down button right to increase the volume level. The level will be shown in VOLUME xx on the LCD display. Turn it left to decrease the volume level. After 5 seconds of volume indication, display will return to the previous mode.

(2) Sound function selection button/knob (audio selection)



① This button is to adjust the sound. Each time you press SEL button shortly, LCD displays each mode as follows:



When this button is pressed, LCD display shows selected function for 5 seconds and then returns back to the previous mode. On selected function, level can be controlled by turning this button. The display will automatically return to normal indication in 5 seconds after the last adjustment is made or when another function is activated.

② Bass control

To adjust the bass level, first select the bass mode by pressing the SEL button until BASS indication appears on the LCD display. Within 5 seconds of choosing the bass mode, turn selection knob right / left to adjust the bass level as desired.

The bass level will be shown on the LCD display from a minimum of BASS –10 to a maximum of BASS +10.

The display will automatically return to the normal indication in 5 seconds after the last adjustment or when another function is activated.

③ Treble control

To adjust the treble level, first select the treble mode by pressing the SEL button until TREBLE indication appears on the LCD display. Within 5 seconds of choosing the treble mode, turn selection knob right / left to adjust the treble level as desired.

The treble level will be shown on the LCD display from a minimum of TREBLE -10 to a maximum of TREBLE +10.

The display will automatically return to the normal indication in 5 seconds after the last adjustment or when another function is activated.

④ Balance control

To adjust the left-right speaker balance, first select the balance mode by pressing the SEL button until the BAL indication appears on the LCD display.

Within 5 seconds of choosing the balance mode, turn selection knob right / left to adjust the balance as desired.

The balance position will be shown on the LCD display from BAL 10L (full left) to BAL 10R (full right).

When the volume level between the left and right speakers is equal, BAL L=R will be shown on the LCD display panel.

The display will automatically return to the normal indication in 5 seconds after the last adjustment or when another function is activated.

⑤ 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.

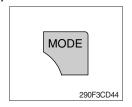
To select the loudness feature, press SEL button until LOUD ON or LOUD OFF is displayed, then turn selection knob left or right to activate or deactivate loudness.

6 Equalizer (EQ)

You can select an equalizer curve designed for 4 music types (POP, ROCK, CLASSIC, JAZZ).

To select the desired curve, first select the EQ mode by pressing SEL button until the "EQ OFF" indication appears on the display panel. Within 5 seconds of choosing the EQ mode, turn selection knob to select an equalizer curve as desired.

(3) Mode button



① Press mode button to select RADIO / USB / AUX / BT audio.

(4) Audio mute button

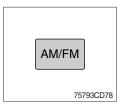


① Press mute button momentarily to mute volume and MUTE mark will blink on the LCD display.

Press the button again to return to the mode in use before the mute mode was activated.

■ RADIO

(1) AM / FM / LW band selector

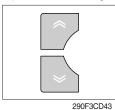


① Each time this button is pressed, the radio button is changed. Each time this button is pressed, LCD displays each band as follows:

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

* LW band is only available for Europe.

(2) Up / down tuning

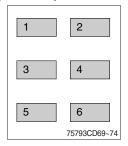


① To automatically select a radio station, momentarily press the up tune seek button ≈ or down tune seek button ≈ for less than 3 seconds to search for the closest radio station.

To manually select a radio station, press the up tuning & down tuning button for longer than 3 seconds.

The radio frequency will move up or down step by step each time you press button.

(3) Station pre-set button

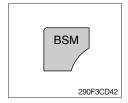


① Pressing these buttons shortly will recall your favorite pre-set radio stations.

To store your favorite stations into any of the 6 pre-set memories in each band (AM/FM/LW), use the following procedure :

- a. Turn the radio ON and select the desired band.
- b. Select the first station to be pre-set using the manual up/down or automatic seek tuning control button.
- c. Press the chosen pre-set button to store your selected station into and continue to hold it in. The beep sound will be momentarily heard and the pre-set number will apear on the LCD display indicating that the station is now set into that pre-set memory position and can be recalled at any time, by pressing that pre-set button.

(4) Pre-set scan (PS) / Best station memory (BSM) button



① Pre-set scan (PS)

Press BSM button shortly to scan the 6 pre-set station stored the memories on each band (AM/FM/LW).

The unit will stop at each pre-set station (the pre-set number on the LCD display will flash during pre-set scan operation) and remain on the selected frequency. Press the button momentarily again to remain on the station currently being heard.

② Best station memory (BSM)

Pressing BSM button for longer than 2 seconds will activate the BSM tuning feature which will automatically scan and enter each station into memory.

If you have already set the pre-set memories to your favorite stations, activating the BSM tuning feature will erase those stations and enter the new ones.

This BSM feature is most useful when traveling in a new area where you are not familiar with the local stations.

■ USB PLAYER



75793CD81-1

(1) USB function

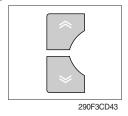
- ① Connect a USB device if you want to listen to MP3 file in a USB device.
- ② It will automatically play MP3 file in the USB device and the LCD display will show "READING USB".
- * If there are no files on USB device, playback will revert back to the previous mode after displaying "NO FILE".

(2) AUX function

- ① If you want to listen to music of a external audio device, connect a external audio device through AUX cable.
- ② Change AUX mode by pressing MODE button.

 If audio file of Audio device is playing, you can listen to music through speaker.

(3) File selection & cue / review button



① File selection function

This button is used to select file up / down.

Each time the forward file select *∞* is pressed, file number is increased.

Each time the backward file select *≫* is pressed, file number is decreased.

② Cue / review functions

High-speed audible search of file on a USB can be made by this button (the cue and review functions).

Press and hold the cue button \sim to advance rapidly in the forward direction or the review button \sim to advance rapidly in the backward direction.

(4) MP3 directory / file searching

① The D-, D+ button is used to select a particular directory and file.

Press and hold for more than 3 seconds while playing MP3 file.

Turn right / left the selection knob to search the directory. Press the button when you find the wanted directory.

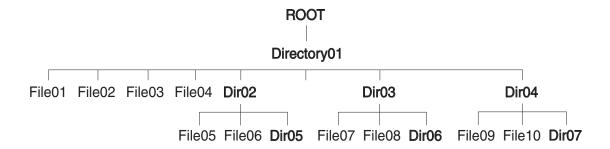
For example, the directory search generally changes in two methods depending on the order of writing as follows.

- · Method 1 : ROOT→ Dir01→ Dir02→ Dir03→ Dir04→ Dir05→ Dir06→ Dir07→ ROOT
- · Method 2 : ROOT→ Dir01→ Dir02→ Dir05→ Dir03→ Dir06→ Dir04→ Dir07→ ROOT

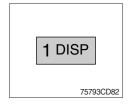
If you want to search the file in the located directory, turn right / left the selection knob consecutively. Press the button when you find the wanted file. The unit will then play the selected file.

For instance, the file search changes in Dir01 as follows.

* MP3 directory / file configuration

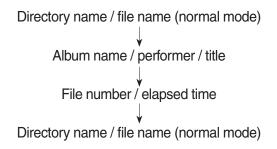


(5) ID3 v2 display

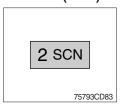


- ① Disp button is used to change the display information.

 While playing an MP3 file, you can change the file information shown on the LCD display.
 - Each time you press DISP (display), the display changes to show the following.
- * If the MP3 disc does not have any ID3 information, the display will show NO ID3 on LCD display.



(6) File scan (SCN)



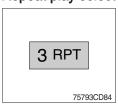
① During USB play, press SCN button to play the first 10 seconds of each file on the whole file on the USB (SCN mark will appear on the LCD display).

When a desired file is reached, press the SCN button again to cancel the function.

The unit will then play the selected file.

** In case of playing MP3 file, when the SCN (scan) button is pressed and held for longer than 2 seconds, the SCN mark will blink on the LCD display and all files in the selected directory will be introduced until the file scan mode is cancelled by pressing the SCN button again or by activating the random or repeat functions.

(7) Repeat play selector (RPT)



- ① During USB play, press RPT button to play the selected file repeatedly (RPT will appear on the LCD display).
 - Play of the file will continue to repeat until this button is pressed again and the RPT disappears from the LCD display.
- ** In case of playing MP3 file, when the RPT button is pressed and held longer than 2 seconds, the RPT mark will blink on the LCD display and play all files in the selected directory and will be repeated until the directory repeat mode is cancelled by pressing the repeat button again or by activating the scan or random functions (RPT mark will disappear from LCD display).

(8) Random play selector (RDM)

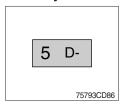


① During USB play, press RDM button to play the files on the USB in a random shuffled order (RDM will appear on the LCD display). The file select function will also select file in the random order instead of the normal process.

The random play mode can be cancelled by this button again.

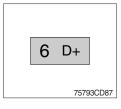
** In case of MP3 file, when the random button is pressed and held longer than 2 seconds, the RDM mark will blink on the LCD display and play all files in directory randomly until the directory random mode is cancelled by pressing the random button again or by activating the scan or repeat functions (RDM mark will disappear from LCD display).

(9) Directory down



① Press D- button briefly while playing MP3. The previous directory is located each time you press this button.

(10) Directory up



- ① Press D+ button briefly while playing MP3 . The next directory is located each time you press this button.
- * If the MP3 file does not have a directory, the unit play MP3 at 10-file intervals.
- * If any MP3 file does not exist in USB, this button can not operate.

RADIO AND USB PLAYER (MACHINE SERIAL NO.: #0022~)



9403CD101

■ FRONT PANEL PRESENTATION

1	O Acade	······ Power ON/OFF, Volume UP/DOWN button
2		Manual UP/DOWN Tuning File search, SEL button
3	MODE MUTE	······ Mode button, Audio mute button
4	SEEK	······ Radio seek up button
5	SEEK	······ Radio seek down button
6	DIS	······ Station preset 1 ····· Display button

····· Station preset 2

Station preset 3

RPT ----- Station preset 3

RDM Station preset 4

10		Station preset 5 Directory down button
11		Station preset 6 Directory up button
12	SCAN ISM	Scan play button (SCAN) Best station memory (BSM) button
13	TRÂCK	······ Track up button
14	TRACK	······ Track down button
15	AUX	······ USB connector
16	.	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 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
$$\rightarrow$$
 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:

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.

■ 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 simultaneously for about 5 seconds. (without Bluetooth)
- ② 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 heat er, 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
LICA	FM	87.5~107.9 MHZ	200K
USA	AM	530~1710 KHZ	10K
EUROPE	FM	87.5~108.0 MHZ	50K
EUNOPE	AM	522~1620 KHZ	9K
ASIA	FM	87.5~108.0 MHZ	100K
ASIA	AM	531~1602 KHZ	9K
LATIN	FM	87.5~107.9 MHZ	100K
LATIN	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