

## 2. CLUSTER

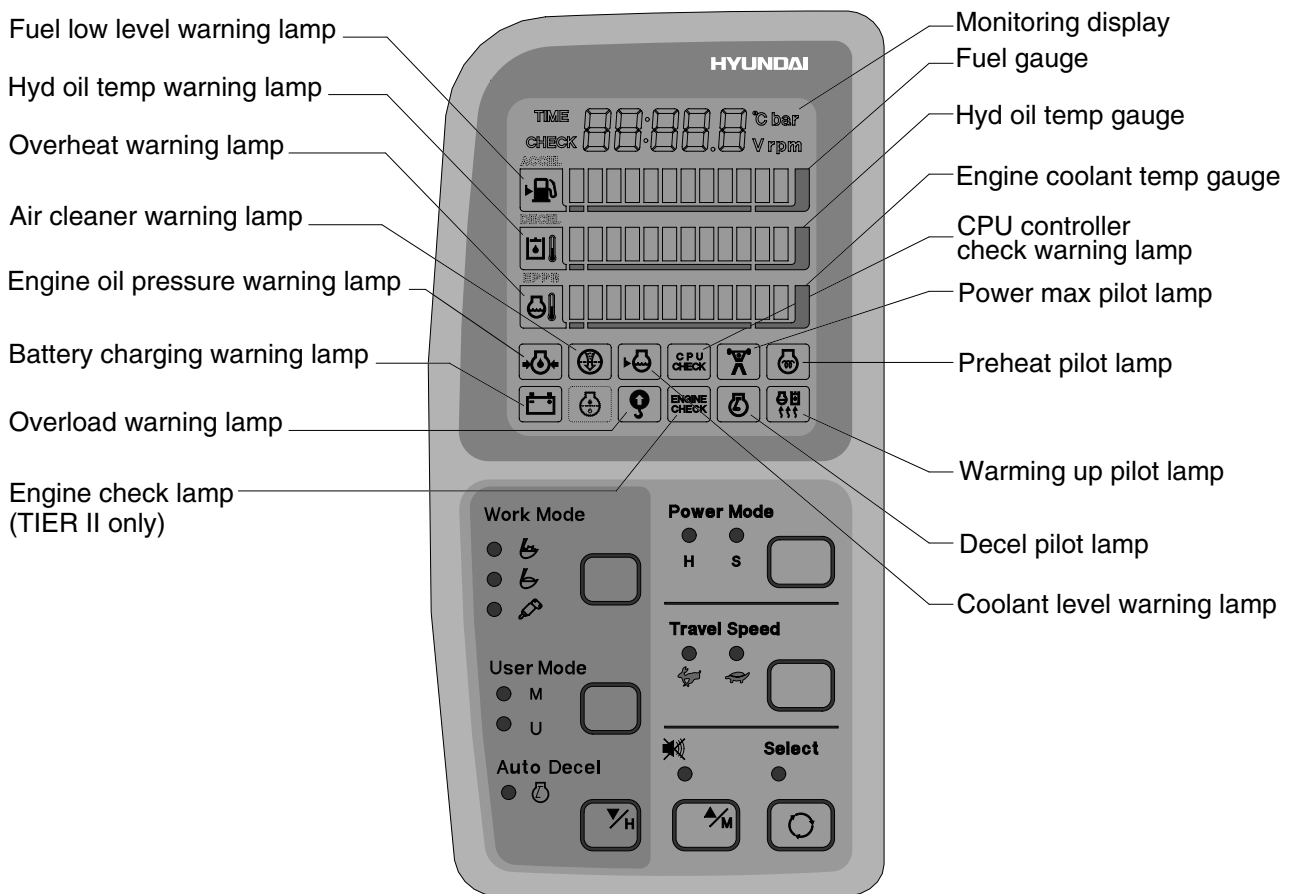
### 1) MONITOR PANEL

The gauges panel consists of gauges and monitors 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(Amber).

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

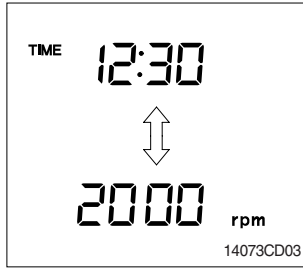
※ When the monitor provides a warning immediately check the problem, and perform the required action.



29073CD08

※ The warning lamp lights ON and the buzzer sounds when the machine has a problem. In this case, press the buzzer stop switch and buzzer stop, but the warning lamp lights until the problem is cleared.

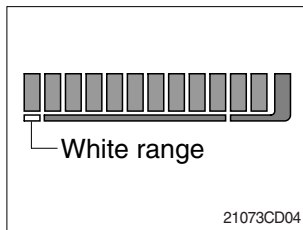
### (1) Monitoring display



- ① This displays the current time and machine information such as engine rpm, coolant/hydraulic oil temperature, hydraulic oil pressure and also error codes.


※ Refer to the page 4-12 for details.

### (2) Fuel gauge

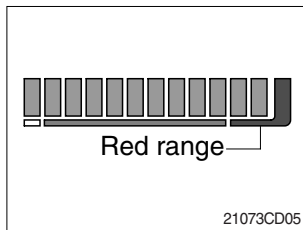


- ① This gauge indicates the amount of fuel in the fuel tank.

- ② Fill the fuel when the white range or warning lamp  blinks.

※ If the gauge illuminates the white range or warning lamp  blinks 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) Hydraulic oil temperature gauge



- ① This indicates the temperature of coolant.

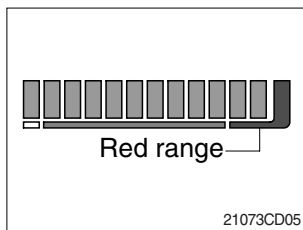
- White range : 30°C (86°F) below
- Green range : 30-105 °C (86-221°)
- Red range : 105°C (221°F) above

- ② The green range illuminates when operating.

- ③ Keep idling engine at low speed until the green range illuminates, before operation of machine.

- ④ When the red range illuminates, reduce the load on the system. If the gauge stays in the red range, stop the machine and check the cause of the problem.

### (4) Engine coolant temperature gauge



- ① This indicates the temperature of coolant.

- White range : 30°C (86°F) below
- Green range : 30-105 °C (86-221°F)
- Red range : 105°C (221°F) above

- ② The green range illuminates when operating.

- ③ Keep idling engine at low speed until the green range illuminates, before operation of machine.

- ④ When the red range illuminates, turn OFF the engine, check the radiator and engine.

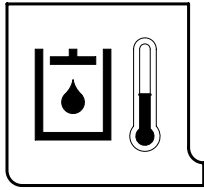
**(5) Fuel low level warning lamp**



21073CD04A

- ① This lamp blinks and the buzzer sounds when the level of fuel is below 40 l (10.6U.S. gal).
- ② Fill the fuel immediately when the lamp blinks.

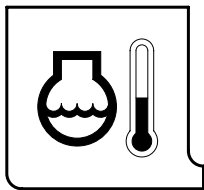
**(6) Hydraulic oil temperature warning lamp**



21073CD05A

- ① This warning lamp operates and the buzzer sounds when the temperature of hydraulic oil is over 105 °C ( 221 °F) .
- ② Check the hydraulic oil level when the lamp blinks.
- ③ Check for debris between oil cooler and radiator.

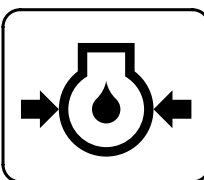
**(7) Overheat warning lamp**



21073CD06A

- ① This lamp blinks and the buzzer sounds when the temperature of coolant is over the normal temperature 110°C ( 230°F) .
- ② Check the cooling system when the lamp blinks.

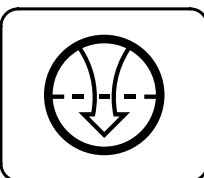
**(8) Engine oil pressure warning lamp**



21073CD07

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

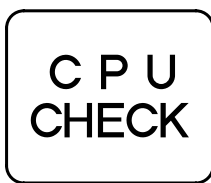
**(9) Air cleaner warning lamp**



21073CD08

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

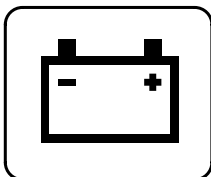
**(10) CPU controller check warning lamp**



21073CD10

- ① Communication problem between CPU controller and cluster makes the lamp blinks and the buzzer sounds.
- ② Check the communication line between CPU controller and cluster.

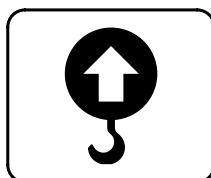
**(11) Battery charging warning lamp**



21073CD13

- ① This lamp blinks and the 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.

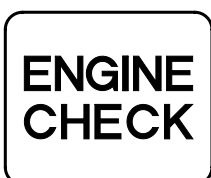
**(12) Overload warning lamp**



21073CD15

- ① When the machine is overload, the overload warning lamp blinks during the overload switch ON.

**(13) Engine check lamp(TIER II only)**



29073CD10

- ① This lamp blinks and the buzzer sounds when the communication between CPU controller and ECM on the engine is abnormal.
- ② Check the communication line between them.

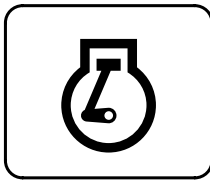
**(14) Power max pilot lamp**



21073CD11

- ① The lamp will be ON when pushing power max switch on the LH RCV lever.

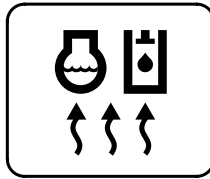
**(15) Decel pilot lamp**



21073CD17

- ① Operating auto decel or one touch decel makes the lamp ON.
- ② The lamp will be ON when pushing one touch decel switch on the LH RCV lever.

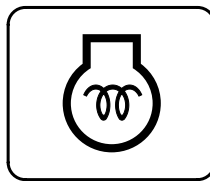
**(16) Warming up pilot lamp**



21073CD18

- ① This lamp is turned ON when the coolant temperature is below 30°C (86 °F).
- ② The automatic warming up is cancelled when the engine coolant temperature is above 30 °C, or when 10 minutes have passed since starting.

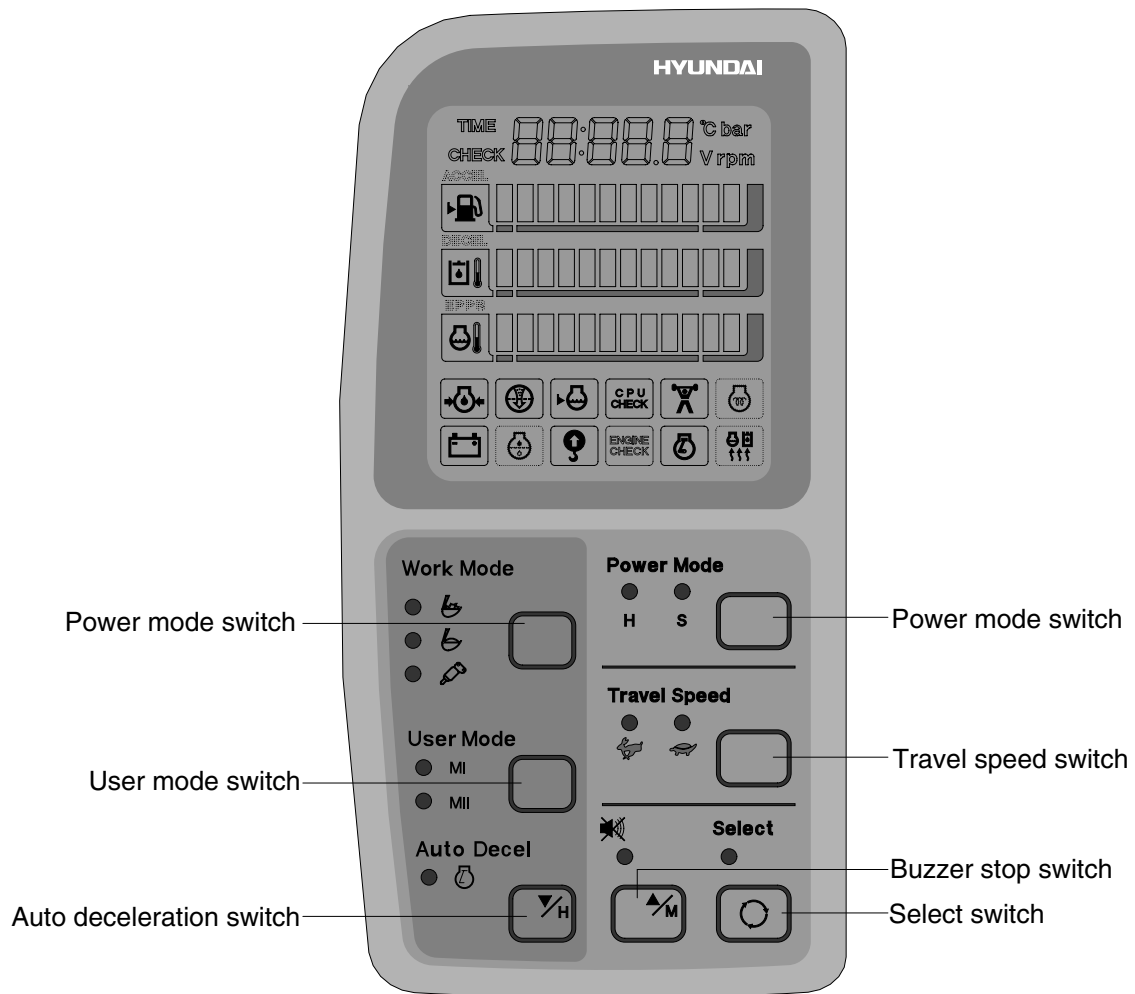
**(17) Preheat pilot lamp**



21073CD12

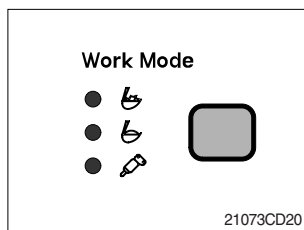
- ① This lamp is turned ON when the preheating function is actuated in cold weather.
- ② Start the engine as this lamp is OFF.

## 2) SWITCH PANEL



21073CD19

### (1) Work mode switch

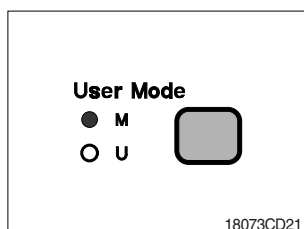


① This switch is to select the machine operation mode, which shifts from general operation mode to heavy operation mode and breaker mode in a row by pressing the switch.

- : Heavy duty work mode
- : General work mode
- : Breaker operation mode

※ Refer to the page 4-7 for details.

### (2) User mode switch

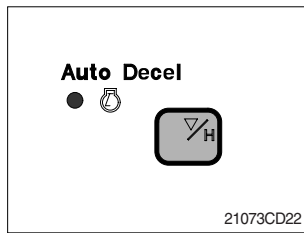


① This switch is to select the maximum power or user mode.

- M : Maximum power
- U : Memorizing operators preferable power setting

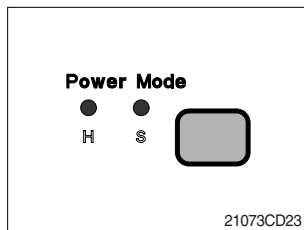
※ Refer to the page 4-7 for details.


### (3) Auto deceleration switch



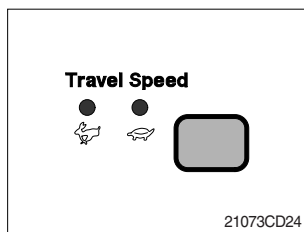
- ① This switch is used to actuate the auto deceleration function so the engine speed is lowered automatically when all control levers and pedals are at neutral position to save the fuel.
  - Light ON : Auto deceleration function is selected.
  - Light OFF : Auto deceleration function is cancelled so that the engine speed increased to previous setting value.
- ② Operating the auto deceleration function makes the decel indicate lamp on the LCD panel ON.

### (4) Power mode switch



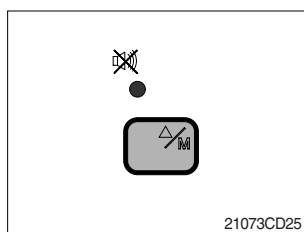
- ① The lamp of selected mode is turned ON by pressing the switch(  ), when selecting the power mode to use.
  - H : This is used for high power work.
  - S : This is used for standard power work.

### (5) Travel speed control switch



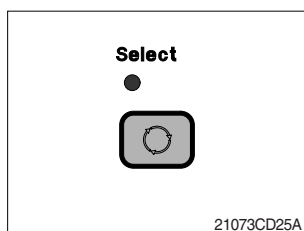
- ① This switch is to control the travel speed which is changed to high speed(Rabbit mark) by pressing the switch and low speed(Turtle mark) by pressing again.



### (6) Buzzer stop switch



- ① When the starting switch is turned ON first, normally the alarm buzzer sounds for 2 seconds during lamp check operation.
- ② The red lamp lights ON and the buzzer sounds when the machine has a problem.  
In this case, press this switch and buzzer stops, but the red lamp lights until the problem is cleared.

### (7) Select switch



- ① This switch is used to select the monitor display function.
  - ※ **Refer to the page 4-12 for details.**
- ② If the switch is pressed for 3 seconds in time display mode, it moves to time adjusting function, and you can adjust the time as below.
  - Hour by auto decel(  )switch
  - Minute by buzzer stop(  ) switch.
- ③ After time set, the switch is pressed, it returns to clock display.