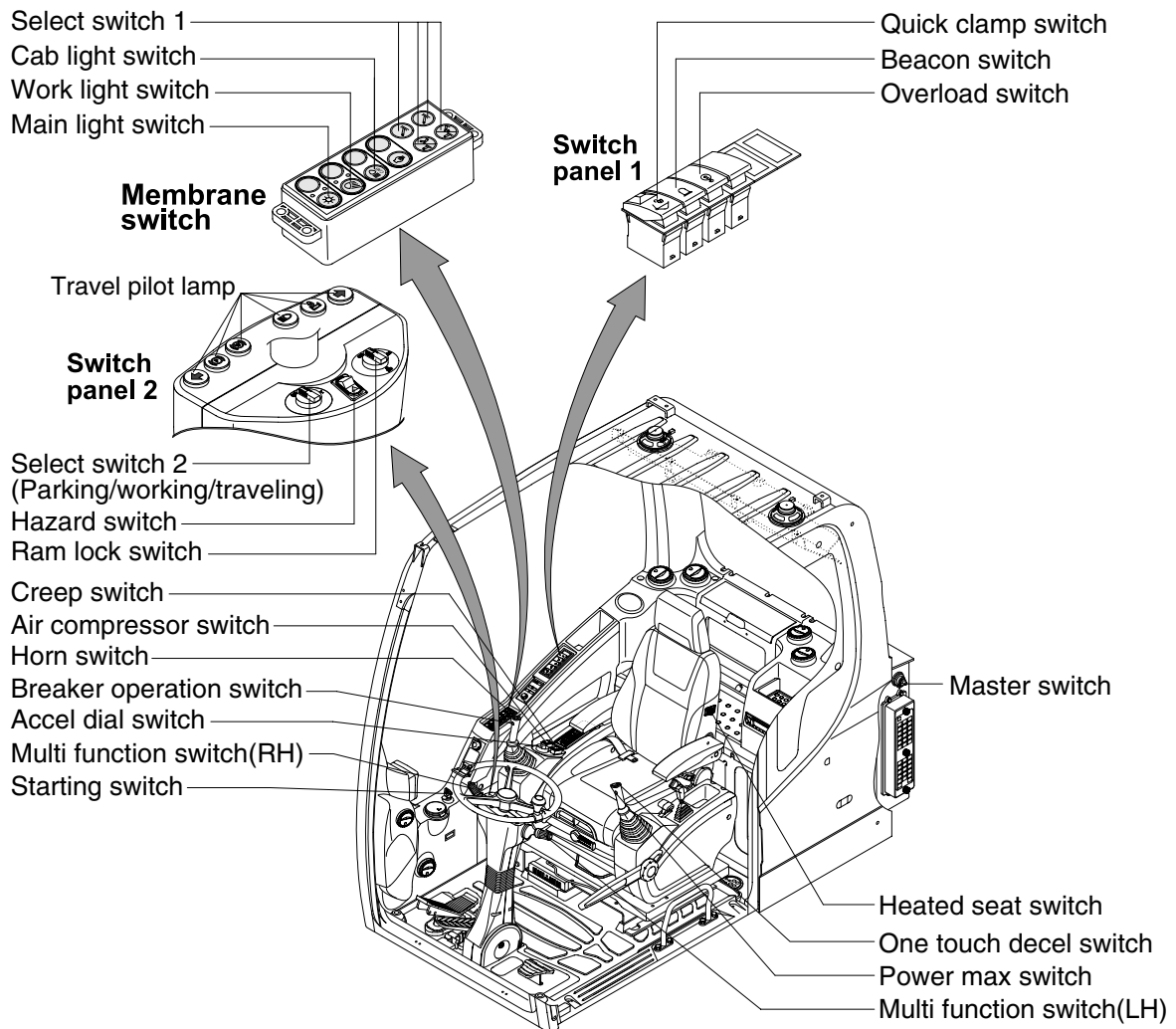
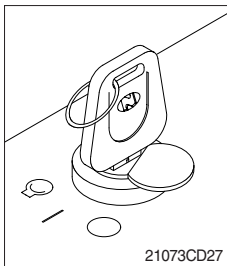


3. SWITCHES



17W93CD46

1) STARTING SWITCH



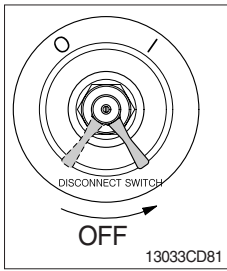
(1) There are three positions, OFF, ON and START.

- ○ (OFF) : None of electrical circuits activate.
- | (ON) : All the systems of machine operate.
- ◌ (START) : Use when starting the engine.

Release key immediately after starting.

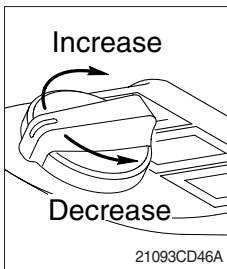
- ※ If you turn ON the starting switch in cold weather, the fuel warmer is automatically operated to heat the fuel by sensing the coolant temperature. Start the engine in 1~2 minutes after turning ON the starting switch. More time may take according to ambient temperature.
- ※ Key must be in the ON position with engine running to maintain electrical and hydraulic function and prevent serious machine damage.

2) MASTER SWITCH



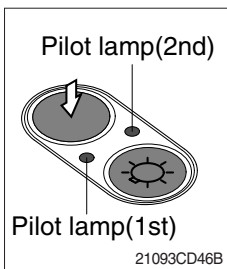
- (1) This switch is used to shut off the entire electrical system.
 - (2) I : The battery remains connected to the electrical system.
O : The battery is disconnected to the electrical system.
- ※ **Never turn the master switch to O (OFF) with the engine running. Engine and electrical system damage could result.**

3) ACCEL DIAL SWITCH



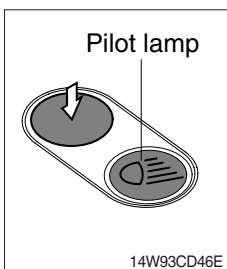
- (1) There are 10 dial setting.
- (2) Setting 1 is low idle and setting 10 is high idle.
 - By rotating the accel dial to right : Engine speed increases
 - By rotating the accel dial to left : Engine speed decreases

4) MAIN LIGHT SWITCH



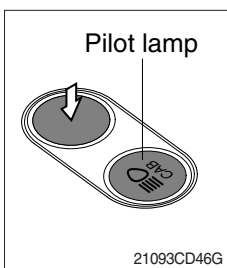
- (1) This switch used to operate the head light and work light.
 - Press the switch once, the head light comes ON and the 1st pilot lamp ON.
 - Press the switch once more, the work light comes ON and the 2nd pilot lamp ON.
 - Press the switch again, return to a first step position.
 - Press the switch more than one second to turn off lights.

5) WORK LIGHT SWITCH



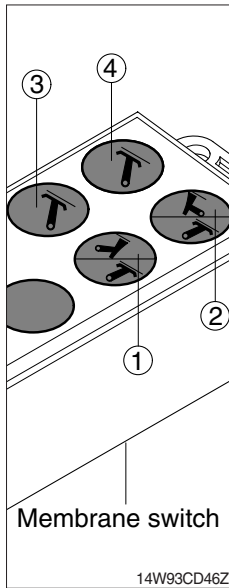
- (1) This switch used to operate the work light.
- (2) The pilot lamp is turned ON when operating this switch.

6) CAB LIGHT SWITCH (option)



- (1) This switch turns ON the cab light on the cab.

7) SELECT SWITCH 1 (outrigger / dozer, option)



(1) This switch is used to select dozer blade or outrigger operation.

Switch	Operation
①	Front left outrigger or front dozer blade
②	Rear left outrigger or rear dozer blade
③	Front right outrigger
④	Rear right outrigger

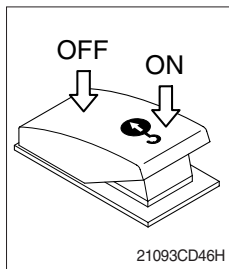
※ **Please check the installed equipment (outrigger or dozer) on your machine before selecting the switches.**

(2) The lamps are turned ON when selecting these switches.

(3) If the dozer and outrigger lever is moved forward position, the dozer blade or outrigger is downed, if the lever is moved backward, the dozer blade or outrigger moved upward.

Please refer to the dozer and outrigger lever at page 3-33.

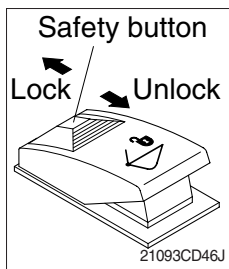
8) OVERLOAD SWITCH (option)



(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.

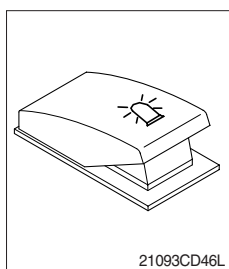
9) QUICK CLAMP SWITCH (option)



(1) This switch is used to engage or disengage the moving hook on quick clamp.

※ **Refer to the page 8-6 for details.**

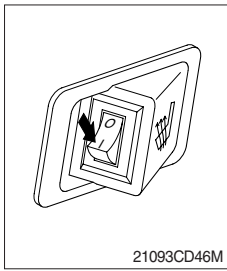
10) BEACON SWITCH (option)



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

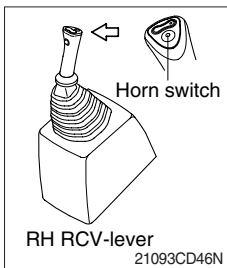
(2) The indicator lamp is turned ON when operating this switch.

11) HEATED SEAT SWITCH (option)



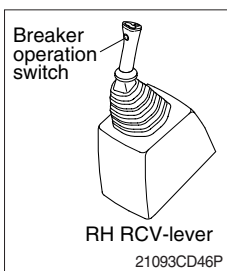
- (1) This switch is used to heat the seat.
 - Heater ON (I) : $10 \pm 3.5^{\circ}\text{C}$
 - Heater OFF (O) : $20 \pm 3^{\circ}\text{C}$
- (2) On pressing the switch, the indicator lamp is turned ON.

12) HORN SWITCH



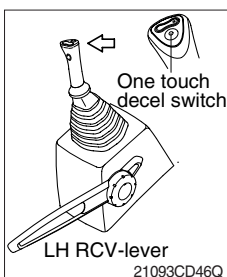
- (1) This switch is at the top of right side control lever.
On pressing, the horn sounds.

13) BREAKER OPERATION SWITCH



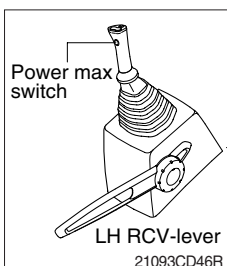
- (1) On pressing this switch, the breaker operates only when the breaker operation mode is selected.

14) ONE TOUCH DECEL SWITCH



- (1) This switch is used to actuate the deceleration function quickly.
- (2) The engine speed is increased to previous setting value by pressing the switch again.
- (3) One touch decel function is available only when the auto idle pilot lamp is turned OFF.

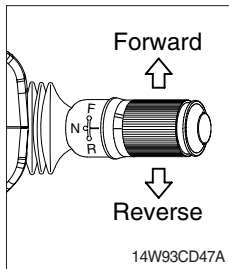
15) POWER MAX SWITCH



- (1) This switch activate power max function.
When this switch is kept pressed, hydraulic power of work equipment will be increased to approx 110 percent during 8 seconds.
 - (2) After 8 seconds, function is cancelled automatically even the switch keeps pressed.
- ※ **Do not use for craning purposes.**

16) RH MULTI FUNCTION SWITCH

(1) FNR lever



① This lever changes travel direction of machine.

- F : Machine moves forward
- N : Neutral position
- R : Machine moves backward

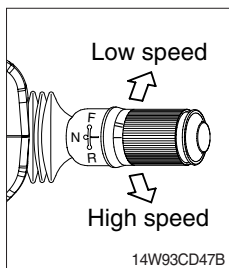
▲ Travel direction will be reversed if lower structure is positioned with dozer in front.

② The warning buzzer sounds when the lever is in the reverse position.

▲ If this lever is not in the neutral position, engine does not started.

▲ Be sure to stop the machine when changing the direction forward or backward while traveling.

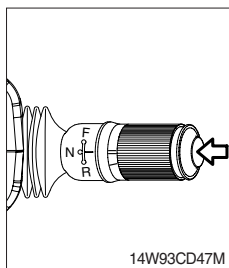
(2) Travel speed switch



① This switch is for selecting travelling speed between high and low.

- Low speed (—) : 9.2 km/hr (5.7 mph)
- High speed (=) : 36.0 km/hr (22.4 mph)

(3) Auto cruise switch

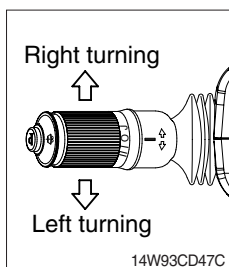


① This switch is for kept uniform motion while driving.

② Auto cruise function is available when the FNR lever is forward and high speed position.

17) LH MULTI FUNCTION SWITCH

(1) Direction indication lamp switch

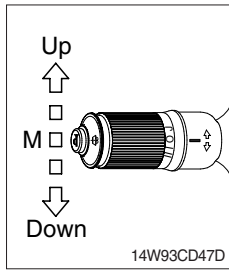


① This switch is used to warn or signal the turning direction of the machine to other machines or equipment.

② Push the lever to forward for turning right (↗), pull the lever to backward for turning left (↙).

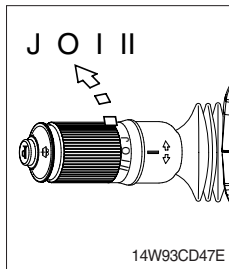
③ The turning pilot lamp comes ON at the travel pilot lamp on the steering column.

(2) Dimmer switch



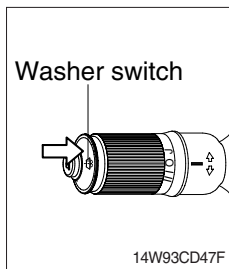
- ① This switch is used to turn the head lights direction.
- ② Switch positions.
 - Up () : To flash for passing
 - Middle () : Head lights low beam ON
 - Down () : Head lights high beam ON
- ③ If you release the switch when it's in up position, the switch will return to middle.

(3) WIPER SWITCH



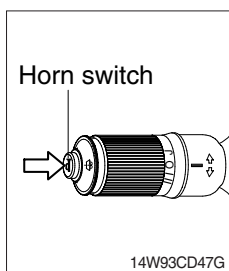
- ① When the switch is in J position, the wiper moves intermittently.
- ② When placed in I or II position, the wiper moves continuously.

(4) WASHER SWITCH



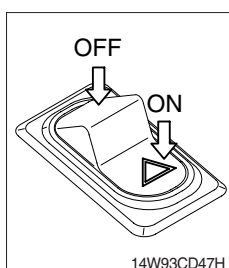
- ① If you push the grip of the lever, washer liquid will be sprayed and the wiper will be activated 2-3 times.
- ※ Check the quantity of washer liquid in the tank. If the level of the washer liquid is LOW, add the washer liquid (in cold, winter days) or water. The capacity of tank is 1.5 liter.

(5) HORN SWITCH



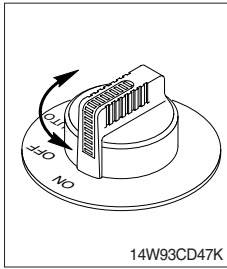
- ① This switch is at the end of left side multifunction switch. On pressing, the horn sounds.

18) HAZARD SWITCH



- (1) Use for parking, or roading machine.
 - (2) LH and RH turn signal lamps come ON at the same time by this switch.
- ※ If the switch is left ON for a long time, the battery may be discharged.

19) RAM LOCK SWITCH

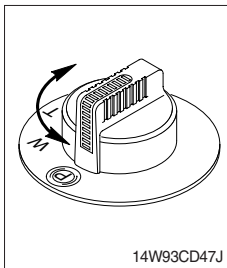


(1) This switch activate front axle oscillation cylinder to locking position for increase of stability.

- ON : Set front axle to locking position for excavation work or travels even ground. Also, the ram lock pilot lamp comes ON at the travel pilot lamp.
- OFF : Front axle will be oscillate depend on ground condition when the machine travel uneven ground.
- AUTO : Set front axle to locking or unlocking as table.

Select switch 2 (parking/working/traveling)	Ram lock	Conditions
Parking	Locking	· Always
Traveling	Unlocking	· Always
Working	Locking	· FNR lever in neutral position · Service brake pedal is depressed.
	Unlocking	· FNR lever in forward/reverse position and service brake pedal is not depressed. · 2 way pedal is equipped and service brake pedal is not depressed.

20) SELECT SWITCH 2 (parking / working / traveling)

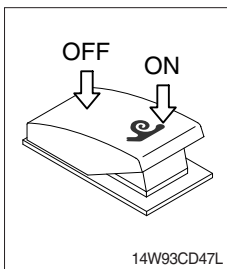


(1) This switch is used to select the operation mode as below.

- Parking (P) : The parking brake is applied.
- Working (W) : The machine needs to be working.
- Traveling (T) : The machine needs to be traveling.

(2) When you set this switch to parking or working, the parking or working lock pilot lamp comes ON at the travel pilot lamp.

21) CREEP SWITCH

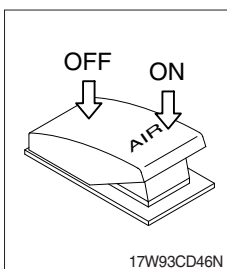


(1) This switch is used to very low speed traveling more than 1st speed.

(2) The indicator lamp is turned ON when operating this switch.

- Speed : 3.8 km/h (2.4 mph)

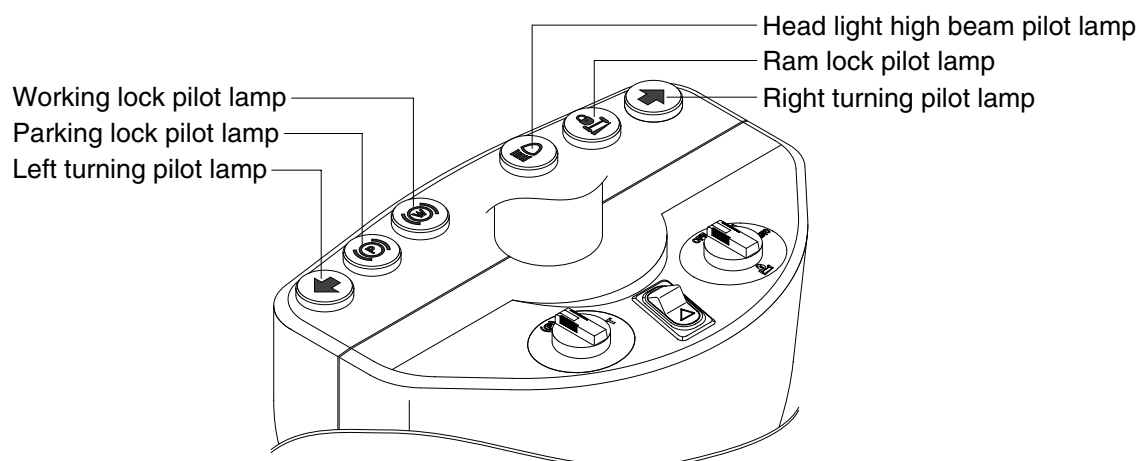
22) AIR COMPRESSOR SWITCH (option)



(1) This switch is used to activate the air compressor.

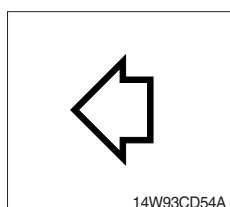
(2) The indicator lamp is turned on when operating this switch.

23) TRAVEL PILOT LAMP



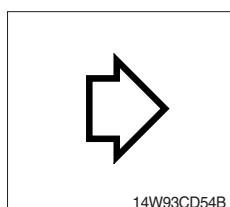
14W93CD54

(1) Left turning pilot lamp



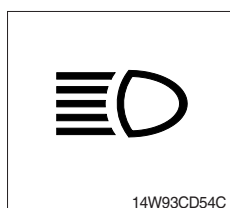
- ① This lamp flashes with sound when the LH multifunction switch is move to backward position.

(2) Right turning pilot lamp



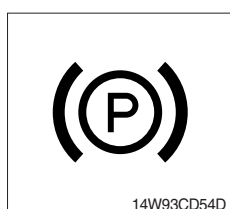
- ① This lamp flashes with sound when the LH multifunction switch is move to forward position.

(3) Head light high beam pilot lamp



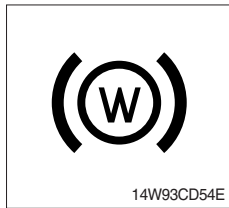
- ① This lamp is ON when the head light switch is high beam position or passing function.
- ② When passing other machines ahead, this lamp must be used for a few seconds to give other machines warning for a few seconds.

(4) Parking lock pilot lamp



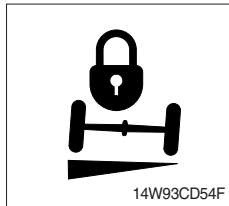
- ① This lamp lights ON when the select switch 2 (parking / working / traveling) is set to parking.
- ② Please refer to select switch 2 at page 3-29 for details.
- ※ **Check the lamp is OFF before driving.**

(5) Working lock pilot lamp



- ① This lamp lights ON when the select switch 2 (parking / working / traveling) is set to working.
- ※ **Please refer to select switch 2 at page 3-29 for details.**

(6) Ram lock pilot lamp



- ① This pilot lamp lights ON when ram lock is activated.
- ※ **Please refer to ram lock switch at page 3-29 for details.**