

COMMANDS:

I = 2-way detent

↔ = 3-way spring return

↓ = Push button (spring return)

D = Drive / Forward

R = Reverse / Backward

**Accelerator**  
(Drive or Reverse)



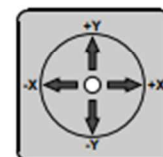
**Brake**

**Steering**

Left ↔ Right

**Built-in Till Sensor**

PCU turned off when working limits are exceeded (additional safety function)



LCD display + 5 LEDs  
with 8 buttons

Left hand  
Proportional Joystick  
("Y" axis only - vertical)

Right hand  
Proportional Joystick  
("X" axis only - horizontal)

Drive direction  
selector

D I Drive  
R I Reverse

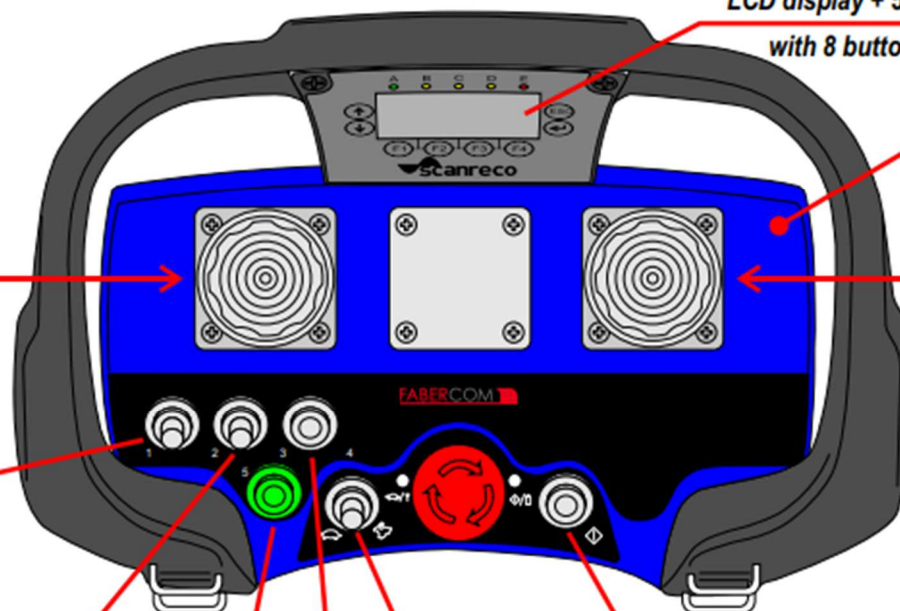
↔  
Start / 0 / Stop  
Truck Engine

↔  
Accelerator  
pedal max. level  
(6 levels)

↓  
ON PCU  
Horn

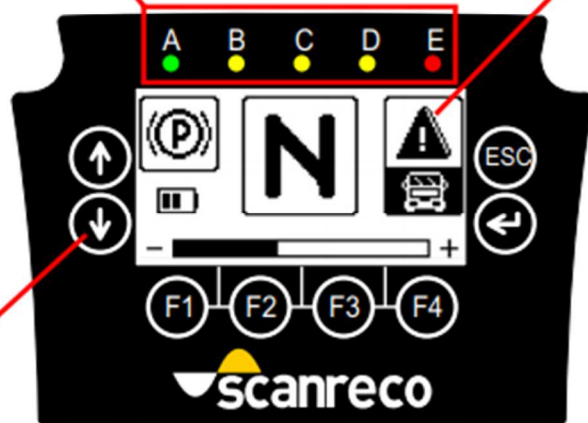
↓ on  
Parking Brake  
release

↓ on  
Working  
Lights (\*)



### 5 LEDs

- A = Joystick enabled (drive ready)
- B = Accelerator/brake joystick at 25%
- C = Accelerator/brake joystick at 50%
- D = Accelerator/brake joystick at 100%
- E = Parking brake activated or Warning/Alarm signal from vehicle

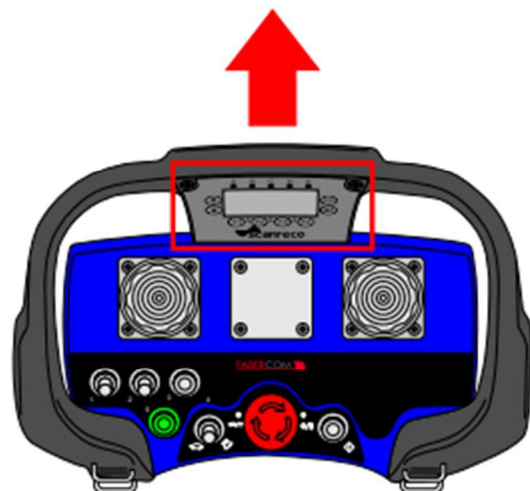


### Display Graphics

- Drive direction (D-N-R)
- Parking brake status
- Vehicle status
- PCU battery level
- Selected acceleration level

### Display Buttons

No.8 push buttons for system configuration



### Display icons description

Drive direction	Drive	Neutral	Reverse
Parking brake status	Released	Engaged	
Vehicle status (*)	OK	Warning	Alarm

(\*): In case of "Warning" or "Alarm", check the specific message shown in the vehicle dashboard inside the cabin.

## DESCRIPTION

The system is powered by the truck circuits, when VOLVO Exster unit (remote driving interface) is turned on by its dedicated switch inside the cabin.

When system is turned on and PCU (Portable Controller Unit) has established the communication with the receiver, via radio or cable link, the visual and acoustic signals from the tower light are activated.

Driving commands are enabled only after the parking brake is released, while auxiliary commands such as engine Start/Stop, working lights and klaxon are always available.

### PARKING BRAKE RELEASE:

After system start-up or when the truck is in stationary condition for more than a certain time (default value 30", configurable), parking brake is automatically applied.

For safety reason, before operating the joystick for controlling the driving of the truck, it is necessary to release manually the parking brake, by pushing the green push button in position 5.

After the parking brake has been released, this operation will have to be repeated only when the above conditions occur.

Parking brake ON condition is shown on the PCU display.

### DIRECTION SELECTION:

Before operating the left hand joystick for accelerator control, it is necessary to select the needed direction, by means of the toggle switch in position 1.

Select "D" mode for driving forward or "R" mode for driving in reverse.

Once the parking brake has been released, the selected mode is shown on the PCU display.

### ACCELERATOR LEVEL SELECTION:

The Micro switch (Turtle/Hare) selects the maximum acceleration level.

When "Hare" speed is selected on the portable control unit (PCU), the full stroke of the left hand joystick in forward direction ("Accelerator") corresponds to the full stroke of the accelerator pedal.

When a "Turtle" speed level is selected on the portable control unit (from 1 to 5), the full stroke of the left hand joystick in forward direction corresponds to a gradually reduction of the accelerator pedal stroke.

The selected level is shown by the number of blinks of the green LED, placed on the left of the emergency stop button, and on the PCU display:

- Hare level: no blinks - max = 100% throttle
- 1<sup>st</sup> Micro level: 1 blink
- 2<sup>nd</sup> Micro level: 2 blinks
- 3<sup>rd</sup> Micro level: 3 blinks
- 4<sup>th</sup> Micro level: 4 blinks
- 5<sup>th</sup> Micro level: 5 blinks (throttle minimum level)

The system starts up with the last Micro level selected; each pulse from the Micro switch towards "Turtle" decreases the selection by one level, while each pulse towards "Hare" increases the selection by one level.

When the left hand joystick has been released, the brakes are not automatically activated, but it necessary to operate the joystick in the opposite direction (towards the operator).

Braking level is proportional to the position of the joystick.

After the truck is in stationary condition for a certain time, the parking brake is automatically applied by the system.

## **ATTENTION!**

**The remote driving must be used only at slow speed, according to the regulations of the destination country.**

**The installer has the responsibility to verify that the local approvals are fulfilled.**

**Remote driving maximum speed must be set at 5 km/h in the Volvo control unit (minimum available value).**

**For safety reasons the vehicle must be equipped with emergency stop buttons on all sides, for immediate engine shutdown and parking brake activation, but available only when the remote driving is enabled by the dedicated switch placed in the cabin, in order to avoid dangerous conditions during vehicle normal use.**