



MOTREC.COM

# OPERATOR MANUAL

FOR ALL MOTREC VEHICLES



# YOUR MOTREC DEALER

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# SAFETY WARNINGS

Failure to obey the following safety guidelines could result in severe injury and/or death.

- It is the responsibility of the owner of this vehicle to train all operators, to ensure they understand the operating characteristics of this vehicle including vehicle stability and obey the following safety guidelines. The owner of this vehicle shall comply with OSHA and ANSI/ITSDF B56.8 & B56.9 Standards for vehicle use, safety rules, operator training, certification and vehicle maintenance. Do not drive this vehicle unless you are a qualified operator.
- Do not operate this vehicle under the influence of drugs or alcohol.
- Do not drive this vehicle on public roads and highways. Do not immerse any part of this vehicle in water. Do not splash through puddles. This vehicle is designed to be driven inside industrial buildings.
- The electrical system of this vehicle could make sparks which can ignite inflammable materials. Never use the vehicle in hazardous areas where there are inflammable materials, explosive dust or fumes in the air.
- Have your vehicle inspected regularly by trained personnel, cease operation if a malfunction occurs.
- Use caution when opening battery compartment. Accumulated fumes could cause battery explosion, acid splashing, severe damage to eyes or skin.
- Always wear a face shield and gloves when working around batteries.
- Do not open motor compartment. Keep clear from any/all moving and/or rotating parts.
- Never carry more passengers than number allowed for this vehicle. Wait until all occupants are seated and holding on before moving. Keep all body parts inside vehicle at all times. Keep both hands on steering wheel. Fasten seat belts (when equipped).
- Do not exceed the vehicle cargo load capacity and gross towing weight capacity, rated for flat hard even surface. Different operating conditions such as loose terrain or inclines reduce vehicle capacity.

# SAFETY WARNINGS

- Avoid loose, unbalanced or top-heavy loads to keep a good stability and prevent overturn. Do not load cargo that can fall off the vehicle. Do not carry cargo that is longer, wider or higher than this vehicle.
- Always slowly depress the accelerator pedal for smooth acceleration. Avoid stunt driving or aggressive driving.
- Avoid sharp turns, always slow down before turning to prevent vehicle overturn or trailer jack knife. Vehicle is more sensitive to overturn and jack knife when traveling on inclines or when carrying a heavy load.
- Always drive straight up and down the face of an incline, never across, to prevent overturn and trailer jack knife. Drive slowly and start applying brakes sooner on inclines to adjust for longer stopping distance.
- Use extra care and drive slowly in reverse, in congested areas or on wet or slippery ground.
- Keep to the right under normal conditions. Maintain a safe distance from all objects.
- Slow down and sound the horn when approaching a corner, or other blind intersections.
- Before leaving the vehicle, park on a level ground flat surface, turn off all switches, set the forward/reverse switch to neutral, set the parking brake, remove the key. Do not park the vehicle on an incline.
- Before battery charging, park the vehicle in a well-ventilated area. Do not operate the vehicle while charger is connected. To interrupt a charging cycle, disconnect the charger AC plug; disconnecting the DC plug or a battery terminal, or operating the vehicle, could damage the charger and produce a spark, battery explosion and acid splashing.
- If the vehicle is towed, use another driver to steer this vehicle. Be sure the driver applies the brakes when you slow or stop the towing vehicle. Do not exceed 5 MPH or carry any passenger or cargo while towing this vehicle.

# OPERATING INSTRUCTIONS

## STEERING WHEEL

Use both hands to control the desired direction (left/right) of the vehicle.

## IGNITION SWITCH

The ignition switch is controlled by the vehicle key. After inserting the key in the ignition switch, rotating the key clockwise will place the ignition switch to the ON position. Rotating the key counter-clockwise will turn the ignition switch to the OFF position. Note: The key can only be removed in the OFF position. Always remove key before leaving vehicle.

## FORWARD/REVERSE SWITCH (FWD/REV)

The FWD/REV switch is a 3-position toggle switch. The center position is NEUTRAL. Selecting either the FORWARD or REVERSE position of the switch will enable vehicle acceleration in that direction.

## SEAT SWITCH or FOOT SWITCH

Every vehicle is equipped with an occupant presence detection switch located in the driver's seat (for sitting type vehicles), or a foot-operated switch on the left floorboard (for stand-up type vehicles). This switch must remain depressed at ALL TIMES for the vehicle to operate. Getting off the seat or stepping off the foot switch will cause the vehicle to stop (see starting sequence).

## EMERGENCY STOP BUTTON

In case of emergency, the emergency stop button disconnects the electrical current to the drive motor. On models with electromagnetic brake, this feature also applies the emergency electromagnetic brake. Note: Repetitive use of the emergency stop button could damage the vehicle.

## HORN BUTTON

An audible warning device (horn) will be momentarily activated while depressing the horn button.

# OPERATING INSTRUCTIONS

## LIGHTS SWITCH

The light switch (if equipped) controls the activation of the headlights when the ignition switch is ON and the vehicle is in use. Note: All safety lamps are automatically activated and are not controlled by the lights switch.

## HEATER SWITCH

The cab fan/heater (if equipped) can be activated using the heater switch. Some heaters have multiple speeds and/or heat settings.

## WIPER SWITCH

The windshield wiper (if equipped) can be activated using the wiper switch.

## INCHING SWITCH

When performing a hitch connexion manoeuvre, the operator can step off the vehicle and control the precision forward / reverse slow movement of the vehicle using the INCHING switch. The vehicle's FWD/REV switch must be in the neutral position.

Note: The use of the inching switch should be limited to less than 1 foot of travel.

## ACCELERATOR PEDAL

The operator can control vehicle movement by depressing the accelerator pedal with his right foot. Note: Depress the accelerator pedal gently to avoid harsh movements of the vehicle.

## BRAKE PEDAL

The operator can stop/slow down the vehicle using the brake pedal. Note: some vehicles are equipped with regenerative braking, which allows the motor to slow down the vehicle when the accelerator pedal is released. Regenerative braking also recharges the batteries.

## TREADLE

Some stand-up-type vehicles use a treadle controlled by the right foot. The front portion of the pedal acts as an accelerator pedal, while the rear portion of the treadle controls the brakes.

## PRE-RIDE CHECK

Before turning the ignition switch ON, depress brake pedal and confirm proper pressure in braking system. Depress and release accelerator pedal to confirm proper return to initial position. Confirm no excessive play is felt in steering wheel. Fasten seat belt (if equipped). Confirm all doors are closed. Confirm any cargo is properly fastened.

After turning the ignition switch ON, confirm all safety lights function, confirm audible signals (movement warning / reverse alarm / horn) function. Confirm no fault codes are present on the display (if equipped). Slowly move vehicle forward, apply brakes to confirm proper operation.

## STARTING SEQUENCE

The following sequence must be observed to enable vehicle use.

- 1** Occupant detection switch enabled (seat switch or foot switch)
- 2** Ignition key ON
- 3** FWD/REV switch to desired position (cycle if already in desired position)
- 4** Depress accelerator pedal

## SWITCH

Fwd / Rev switch	
Lights switch	
Horn switch	
Inching switch	
Heater switch	
Wiper switch	
Accessory switch(on/off)	

# OPERATING INSTRUCTIONS

## DISPLAY (LCD SCREEN)

The display (if equipped) will indicate useful information such as vehicle speed. The BDI (battery discharge indicator) is featured on the right side of the screen. Fault codes will be indicated on the bottom left of the screen. You can toggle between "Rabbit" and "Turtle" modes by pressing the UP arrow on the display.

## BATTERY DISCHARGE INDICATOR (BDI)

Some vehicles are equipped with a round BDI gauge. The green indicator moves from right to left as the batteries are being discharged. When the green light is at the far left position, the batteries must be recharged. A flashing light warns the operator that further discharging will damage the batteries.

## BATTERY CHARGING

For optimum life span, recharge batteries before they discharge to 20% state of charge. Discharging a battery below this point diminishes its life span and the number of cycles available. Avoid leaving batteries discharged or partially charged. Keeping Fully batteries fully charged increases their longevity. Batteries require a low current equalization charge (min. 4 hours) at least once a week to equalize battery cells, improve battery performance and life span. Cold or hot temperatures greatly affect the capacity of batteries. Avoid extreme temperatures to retain optimum performance of the batteries. If cold, let batteries warm up before charging.

## CHARGING AREA

Always charge batteries in a well-ventilated area prepared and approved for charging. Never leave a charger connected for more than 20 hours.

## STORAGE

Charge batteries of stored or unused vehicles at least once per month.



## ELECTROMAGNETIC PARKING BRAKE

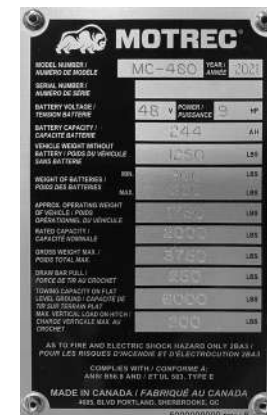
Some vehicles are equipped with an electromagnetic parking brake which automatically sets when the vehicle is not moving. If the vehicle must be moved without power, insert the 2 service knobs provided in the end face of the electromagnetic brake to manually release it and allow vehicle movement.



## VEHICLE INFORMATION PLATE

Please consult the vehicle information plate that is fixed on the vehicle. This plate provides important information such as the vehicle's serial number, but also specifications of the vehicle and its capacities.

\* Please contact your Motrec dealer if you require information that is not detailed on the vehicle information plate.



Some vehicles are equipped with features and/or accessories not described in this manual.

**Please contact your Motrec dealer for further information.**

# PREVENTIVE MAINTENANCE

## PREVENTIVE MAINTENANCE CHART FOR AC AND DC-POWERED VEHICLES

Check for any visible damages.
Examine unit for signs of fluid leaks.
Check steering wheel for hard steering, excessive play or unusual sounds when turning.
Check accelerator pedal for free movement and proper return spring tension.
Check operation of all lights, strobes, horn and reverse alarm.
Check parking brake for secure hold.
Check seat switch / foot switch operation.
Check brake pedal feel and travel.
Check static strap (min. 2" contact with floor).
Check tire pressure (see pressure rating on tire).
Check and fill batteries (add distilled water to cover plates) Fill to recommended level after batteries are fully charged.
Inspect steering and suspension components.
Check power circuit cables and connexions.
Check decals and warning labels.
Clean batteries and connexions.
Inspect DC-motor brushes for wear.
Check brake fluid level.
Inspect front and rear wheel bearings for play.
Inspect kingpins for play.
Inspect frame for cracks or damage.
Inspect all brake pads / linings for wear (min, thickness 1/16" - 2mm).
Check accelerator pedal potentiometer and micro-switch adjustment.
Lubricate all grease fittings.
Replace differential fluid.
Remove motor and lubricate drive splines with Moly grease.
Check and tighten all electrical connexions.
Clean and lubricate braking system components.
Tighten all nuts and bolts.
Inspect and repack front and rear wheel bearings.
Replace hydraulic brake system fluid.

Maintenance operations must be performed by properly trained service technicians.  
Failure to do so could result in injury and/or death.

**CONTACT YOUR LOCAL MOTREC DEALER FOR SERVICE INFORMATION.**

DAILY	WEEKLY	250 H OR 3 MONTHS	500 H OR 6 MONTHS	1000 H OR 12 MONTHS	2000 H OR 24 MONTHS
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