

wāve

W O R K A S S I S T V E H I C L E[®]



CROWN

Operator Manual

Protect
Yourself

You & Your
Wave[®] Vehicle

Vehicle
Operation

Load
Handling

Vehicle
Maintenance



“Hello”

wāv

Welcome to your Wave Operator Manual. This manual has been designed to provide you with specific information regarding the safe operation of the Wave work assist vehicle. As you will see in this manual, we've made it easy to use and understand, as well as informative.

Be aware though that only trained and certified operators are permitted to use the vehicle. This manual is only one part of a complete operator training program that includes live presentations, hands-on training, and practice on the vehicle; all of which must be provided by an authorized trainer before you are permitted to operate any Wave vehicle.

Know the Hazards



EACH WARNING LABEL ON YOUR VEHICLE IS IMPORTANT
Read and obey all of them to protect yourself and others.



WARNING



Do not operate this vehicle unless you are trained and authorized.
You or people around you could be seriously injured or even killed if you don't use this vehicle correctly.
Read the Manuals.

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What's In It For You

WHAT'S IN IT FOR YOU?

The better you understand your vehicle and how to use it, the better and safer operator you can be. Here are some guides to using this manual.

1

SECTION TAB

Along with the table of contents, you can use the colored tabs to quickly find the major sections.

2

PAGE TOPIC

You will find the topic of each page here. Some topics require more than one page.

3

PAGE SUBTOPIC

You will find the subtopics here.

4

INSTRUCTIONS

On many pages the various topics are numbered to help guide you through the page.

5

NOTES

Extra information on topics will be placed in "note" blocks.

6

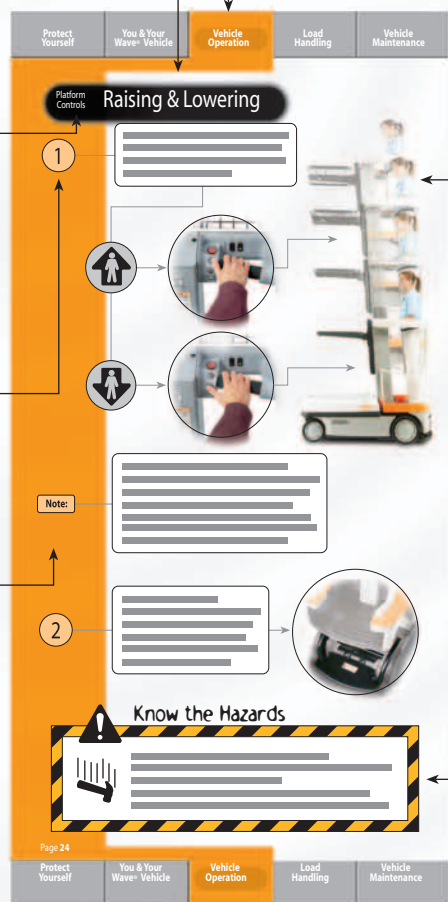
"KNOW THE HAZARDS"

Watch for and read these special blocks. You will find information about possible safety hazards and how to avoid them.

7

"HOW-TO" DRAWINGS

On many pages you will find pictures as well as text to help you understand how to use your vehicle safely and productively.



Protect Yourself and Others

Section Contents

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WARNING

STOP

Do not operate this vehicle unless you are trained and authorized.
 You or people around you could be seriously injured or even killed if you don't use this vehicle correctly.
Read the Manuals.
 Obey all warnings and instructions in the Manuals and on the vehicle.
 Inspect your vehicle before using it. Make sure it is in good working order.
Stop vehicle fully before getting off.
Watch out for people around you.
Falling objects can injure others.
 Make sure loads are stable.
Tipovers are very serious accidents.
 Make certain your path is clear of debris, holes, or anything that could cause the vehicle to tip over.
Keep gates closed while elevated.
Stay off railing and load areas.
 Don't use other objects to stand on. Keep your feet on the platform floor.
You can be crushed by going under a rack. Look where you're driving.
Stay off ramps or grades.
You could lose steering control.
 Operate on level surfaces only.

CAPACITY
 KG (LBS)

90 (200) 135 (300)

115 (250)

One Operator - No Passengers

WARNING

Standing or riding on any load area could cause a fall. Stay off all load areas.

WARNING

You could be struck or crushed by the lowering platform.
Keep your entire body away from area under platform.
 While servicing, block the platform so it won't fall or accidentally lower.

DANGER

This platform is not insulated.
 You could be burned or even killed if you or your vehicle comes too close to electrical devices or wires.
 Know what voltages you may be exposed to, and what the safe working distance is.

WARNING

Stay clear of all moving parts.
 Moving parts can cut or crush hands, feet, arms or legs.

WARNING

Vehicle does not have brakes, steering or travel control when switch is in Push position.

Do not push vehicle while operator is on platform.
 Pushing speed must not exceed 2 MPH to prevent damage to vehicle.

Push

Drive

You Must Be Trained

1

A MOVING VEHICLE CAN BE DANGEROUS

You or others around you can be seriously injured or even killed if you are not careful or don't know how to use this vehicle correctly.



2

YOU MUST BE TRAINED

Only trained and certified operators are permitted to use this vehicle.

This manual is one part of a complete training program. The program also includes watching the Training Video, reviewing the Crown Manual of Responsibility, along with hands-on training and practice on the vehicle. You must successfully demonstrate understanding of the material presented and be able to safely operate the vehicle before your training is completed.

3

CROWN MANUAL OF RESPONSIBILITY

The User shall ensure that the vehicle is operated and maintained according to the Crown Manual of Responsibility.

A copy of the Manual of Responsibility, along with the Service Manual, is stored in a tube under the load deck. Return the manuals to the tube after use.

Be A Safe Operator

THE MOST IMPORTANT PART OF THE VEHICLE IS YOU.



MAKE SURE YOU ARE READY TO DRIVE

- Don't use this vehicle unless you are trained and authorized.
- Know how your vehicle works, and the hazards that go with it. Don't drive the vehicle if you have any doubts.
- Find the Data Label on the mast. Make certain you understand all the information on it. Such as: capacities, total weight of vehicle, vehicle type and serial number. This vehicle may not be permitted in areas where there are fire hazards. Check with your supervisor.
- Make sure your hands and shoes are clean and dry. Also make sure that your clothing is proper for the job.



MAKE SURE YOUR VEHICLE IS READY

- Inspect your vehicle before using it (see page 31). If it's not working right, or something is broken, report the problem to your supervisor. Don't use the vehicle.
- In an open area, check all vehicle operations. Make certain everything is working right, especially before operating around other people.



DRIVE CAUTIOUSLY, BE ALERT

- Keep the gates closed when you are elevated.
- Drive with the gates open when the platform is lowered. You may need to get off the vehicle quickly to avoid injury.
- Don't climb on the rails or any other part of the vehicle.
- Keep your entire body inside the operator area, no matter how slow the vehicle is moving. A hand or foot caught between the vehicle and a solid object will be crushed or even cut off.
- Avoid sudden movement of controls. Learn to use them smoothly at a moderate, even rate. Sudden control changes can cause loads to shift or fall. Make sure loads are secure.
- Always be alert to the area around you and watch where you are driving. You could be pinned or crushed by objects intruding or poking into the operator area.
- Always check that you can clear overhead objects.
- Check clearances before raising or lowering.
- Be extra careful if you must use your vehicle in an area where there is a risk of falling objects.
- Make sure you have a clear view in the direction you're traveling. Look where you're going and slow down in congested areas.
- Slow down and be extra careful on wet or slippery floors.
- Look where you are going before you change direction of travel. See that you have room to drive and turn.

Continued

Be A Safe Operator

DEVELOP SAFE WORK HABITS.
WORK SAFELY AND LOOK OUT FOR
PEOPLE AROUND YOU.

WATCH OUT FOR OTHER PEOPLE



- Slow down. Yield or stop for pedestrians. Alert others when you approach them. Watch out for other vehicles in the area. Sound the horn when you come to a crosswalk or intersection.



- Be careful you don't pin or crush someone. For example: Never drive your vehicle toward anyone standing in front of a fixed object.



- Never allow passengers anywhere on your vehicle.
- Make certain the area around and under you is clear of people before lowering or traveling.



- Keep others away from your vehicle while you're working. Don't ever allow anyone under the load or platform.
- Watch out for front end swing while turning.
- Don't let anyone drive your vehicle unless they are trained and authorized.

AVOID FALLS AND TIPOVERS



- Stay away from the edge of docks and drop-offs.
- Watch where you're going. Always check that your path is clear of debris, overhead obstructions or holes in the floor that could cause your vehicle to tip over.



- Don't overload your vehicle or handle unstable loads. Make sure the load weight is evenly distributed.
- Some floors and elevators have weight limits. Make certain your vehicle, including operator and load, isn't too heavy for where you're driving.
- Don't drive onto an elevator unless it is authorized. Check the capacity or load limit, and make sure there are no people present. Keep vehicle gates open. Enter load first.

WHEN LEAVING YOUR VEHICLE

- Stop the vehicle and lower the platform completely before getting off.
- Turn the vehicle off. Remove the key, if necessary, to prevent unauthorized use.

Continued

Be A Safe Operator

Know the Hazards



WATCH OUT FOR PEOPLE AROUND YOU



Pedestrians always have the right-of-way. They can't control your vehicle. Start out slowly and don't drive too close to them. Be careful at intersections. Check around the vehicle and under the platform before lowering or driving.

THERE IS NO SAFE PLACE FOR PASSENGERS

Never allow anyone to stand or ride anywhere on your vehicle.



FALLING OBJECTS CAN INJURE PEOPLE BELOW YOU

Be careful when handling tools or merchandise. Work close to racks or shelves when transferring loads. Make sure loads are stable.



FALLS ARE VERY SERIOUS ACCIDENTS

Keep the gates closed when you are elevated. Don't climb on any part of the platform. Never add anything to the platform to stand or climb on. Don't climb down from an elevated platform. Have someone lower the platform using the override controls on the service panel, or the manual lowering valve under the load deck.



HANDS AND FEET CAN BE PINNED OR CRUSHED

Come to a complete stop before leaving your vehicle. While the vehicle is moving, keep your hands on the controls and your heels on the pedals. Any part of your body caught between the vehicle and a solid object will be crushed or even cut off. If you must use a hand to stabilize a load, make certain you will not be pinned or crushed.



AVOID TIPOVERS

Never overload your vehicle. Distribute loads evenly. Watch out for overhead obstructions like pipes or electrical conduits. Stay away from the edge of docks or drop-offs. Be sure your path is clear of debris, holes or anything that could cause a tipover.



KEEP YOUR VEHICLE UNDER CONTROL

Don't drive on ramps or grades. You could lose steering control. Be extra careful and drive slowly over spills or wet floors. Don't drive over things in your path.



THIS PLATFORM IS NOT INSULATED

You could be burned or even killed if you or your vehicle comes too close to electrical devices or wires. Know what voltages you may be exposed to, and what the safe working distance is.

Platform Safety

1

KEEP YOUR FEET ON THE FLOORBOARD

Don't climb on any part of the vehicle or use any other item to stand on.



2

USE THE GATES

Close the gates behind you when you are elevated. Protect yourself from falls.



3

STAY CLOSE TO YOUR WORK

Avoid long reaches. Be careful with tools or when transferring merchandise. Watch out for people below, and in the next aisle.



Know the Hazards



FALLS ARE VERY SERIOUS ACCIDENTS

Keep your feet on the platform floor. Don't climb on any part of the vehicle, or use anything else to stand on. Keep gates closed when elevated.

FALLING OBJECTS CAN INJURE OTHERS

Keep your vehicle close to your work. Make sure loads are stable. Watch out for people below you.

You & Your Wave® Vehicle

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- 11 It's Not Like An Automobile
- 11 How To Drive Your Vehicle
- 11 Give Your Body A Break

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- 13 Travel Position Light
- 13 Fault Light
- 13 "Beeps", Events And Fault Codes

Switch Panel **14**

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- Hand Sensor Override Switch 14



You and Your WAVE

Your Work Assist Vehicle

1

THIS IS YOUR WAVE

Use your WAVE (Work Assist Vehicle) for moving and stocking materials, or maintenance at low heights. Use on dry, level floors in temperatures above freezing.



Note:

IT'S NOT LIKE AN AUTOMOBILE

- You don't steer the same.
- You don't brake the same.
- You don't accelerate the same.

2

HOW TO DRIVE YOUR VEHICLE

- Face the front, or load end of the vehicle.
- Keep your heels on the pedals and hands on the controls.
- Travel with gates open when lowered. Close the gates behind you when elevated.
- Keep your entire body within the operator area.
- Stop your vehicle and lower completely before getting off.

Note:

- Gates Open When Lowered
- Gates Closed When Elevated

GIVE YOUR BODY A BREAK

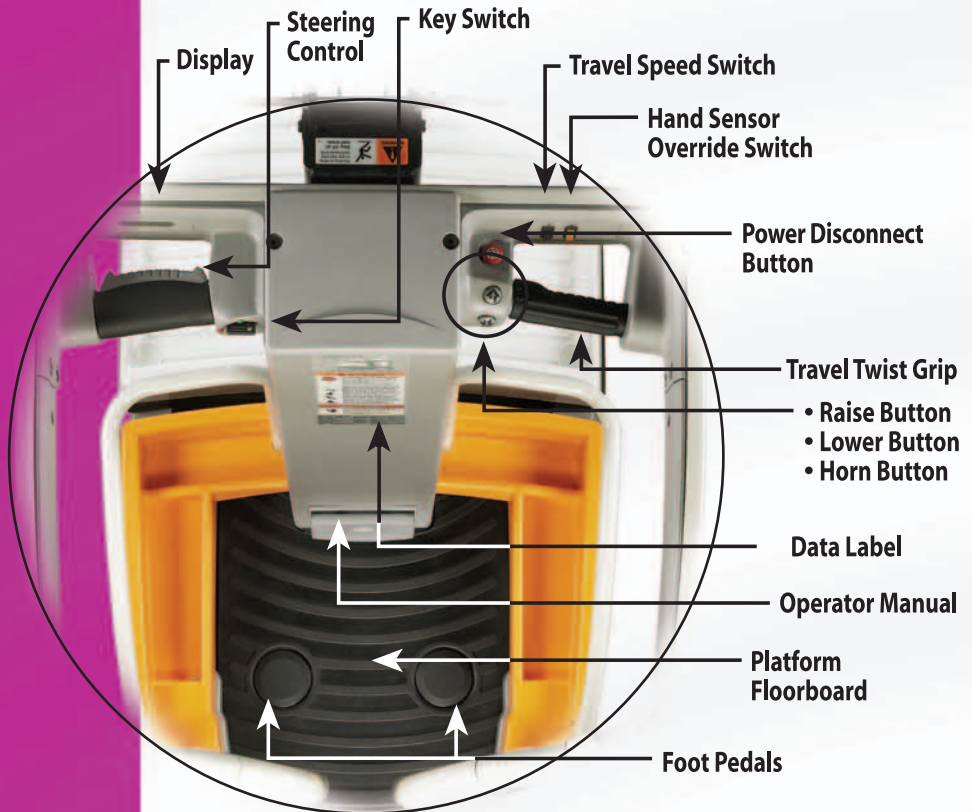
Take advantage of stop time by flexing your arms and legs. Staying alert will help you be a better and safer driver.



Hands On Controls

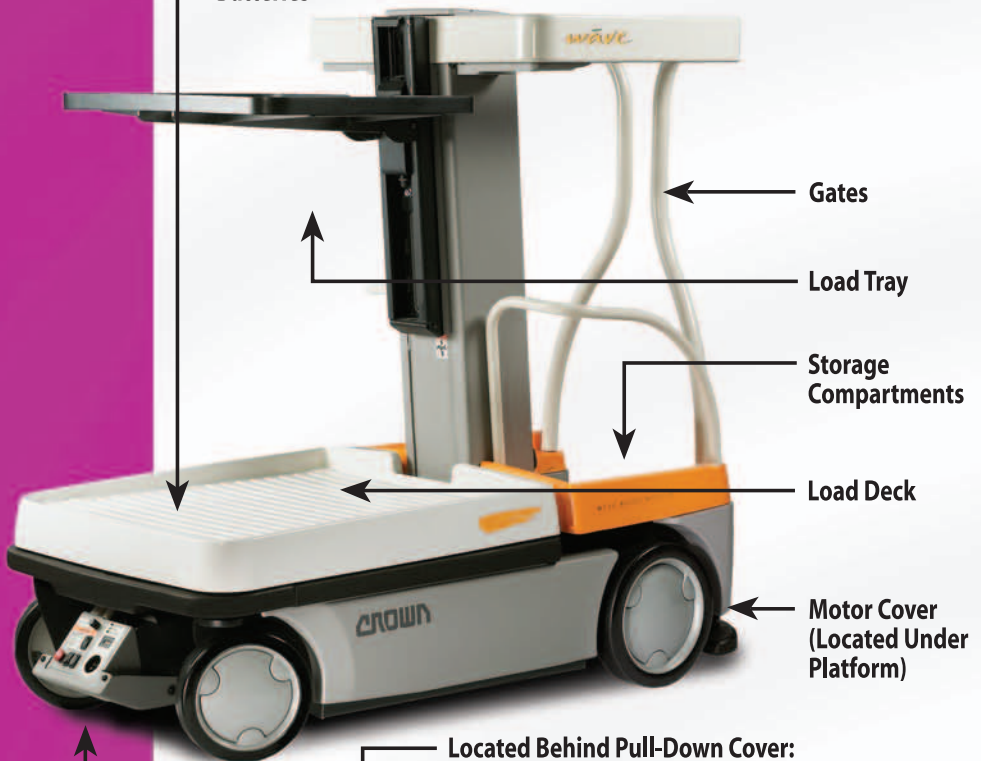
Heels On Pedals

Vehicle Parts



Located Under Load Deck:

- Manual of Responsibilities & Service Manual (see page 5)
- Manual Lowering Valve
- Batteries



Located Behind Pull-Down Cover:

- Service Panel
- Power Disconnect Button
- Raise/Lower Override Switches
- Push/Drive Switch
- Battery Charger Plug & Display
- Hour Meter (optional)
- Service Support Telephone Number

Display Panel

1



BATTERY CHARGE DISPLAY

When you see the yellow battery light flashing, it's time to have the batteries charged. The green lights show how much charge is left.

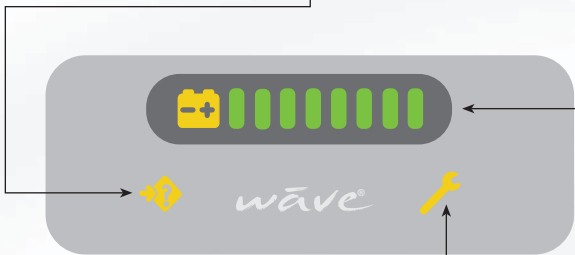
2



TRAVEL POSITION LIGHT

A yellow light here, along with a "beep", means your hands and feet are not in the travel position.

If the vehicle won't drive when you move the twist grip, check for this light. The hand sensor override (see page 17) can affect the operation of this light.



3



FAULT LIGHT

This yellow light will come on and the vehicle will stop when a fault is sensed. Try restarting the vehicle. If the light comes on again, shut the vehicle off and notify your supervisor.

4

"BEEPS", EVENTS & FAULT CODES

When you hear "beeps" and see lights flashing on the battery display, it means the vehicle has sensed an event or a fault that you may need to do something about. For example: One "beep", along with the last three bars on the display flashing, means that you do not have your hands or feet in the travel position.

See page 36 for information on other codes, and steps for troubleshooting your vehicle.

Switch Panel

1



TRAVEL SPEED SWITCH

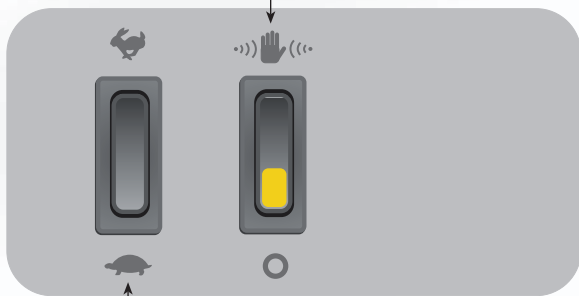
When working in an open area, with few people around, you have the option of selecting faster travel speeds by pushing the top of the switch, by the "rabbit" symbol. Push the bottom of the switch, by the "turtle", to select slower travel speeds.

2



HAND SENSOR OVERRIDE SWITCH

If you need a hand free to steady a load, you can turn the hand sensors off by pushing the bottom of the switch, by the "off" symbol. A light in the override switch will come on to remind you the sensors are turned off. Push the top of the switch, by the "hand" symbol, to turn the sensors on.



Know the Hazards



CONGESTED AREAS CAN BE DANGEROUS

Slow down and keep your vehicle under control. Don't use high travel speed in crowded or busy areas. Pedestrians always have the right of way.



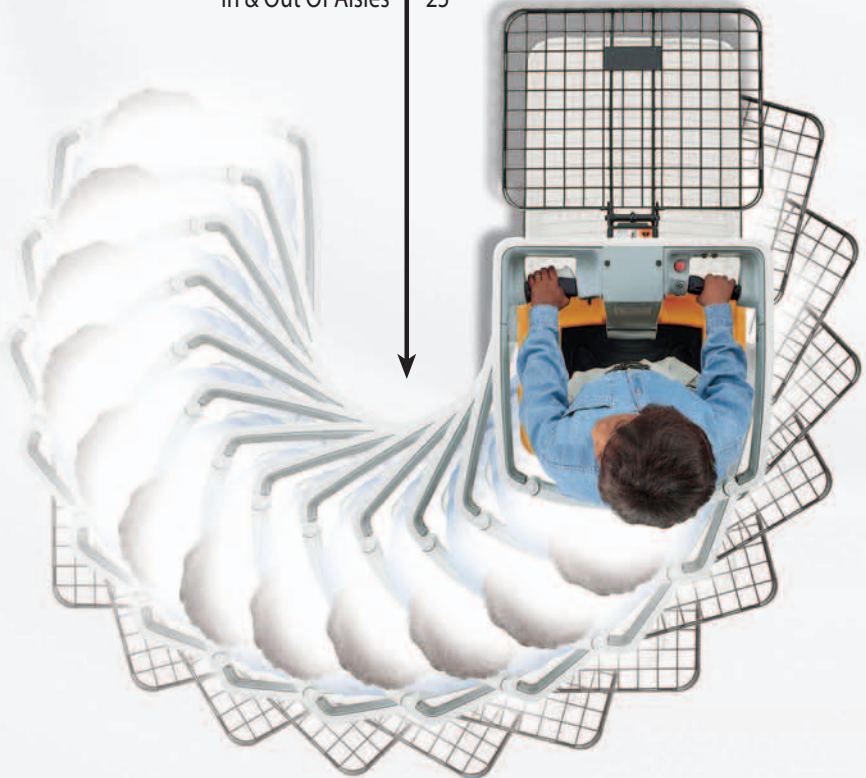
HANDS AND ARMS CAN BE CRUSHED

Make certain your hand or arm won't be pinned or crushed when you have the hand sensor turned off.

Vehicle Operation

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	16	Key On & Off
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	17	Hand-Sensor Override
	17	Travel Position Light
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	24	Raising & Lowering
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	25	Rail Guidance
	25	In & Out Of Aisles



Power On & Off

1

KEY ON

Turn key vertical to the green dot. Check that beeper and all display lights are working. Don't put your hands on the controls until beeping stops.

KEY OFF

Turn key horizontal to the red dot. Always turn the key off when leaving your vehicle. Remove the key if necessary to prevent unauthorized use.



SOME THINGS THAT WILL PREVENT "KEY ON"

- Hands placed on controls too quickly.
- The Power Disconnect Button on either the platform or the service panel (see page 33) is in the "power off" position.
- Vehicle may have options added to prevent unauthorized use.

Note:

2

POWER DISCONNECT

Press the red Power Disconnect Button immediately if your vehicle isn't working right. Don't use the vehicle. Report the problem to your supervisor.



POWER ON OR OFF

The Power Disconnect Button has two positions.

- Button up, power on.
 - Button down, power off.
- Press and release the button to change positions. To complete "key on", power must be on (button up) before the key is turned on.

Hand/Feet Sensors

Power On & Off

1

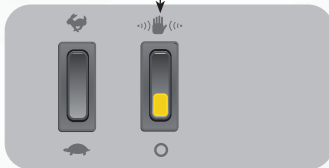
HAND SENSORS

You must be in the travel position, with a hand on each of the controls, unless you are using the Hand-Sensor Override.

2

HAND-SENSOR OVERRIDE

This feature (See page 14) allows you to turn the hand sensors off, and have a hand free to steady a load on the tray. The switch will light when the hand sensors are turned off. Avoid injury. Be careful where you place your hand or arm.



3

TRAVEL POSITION LIGHT

This yellow light will come on if you do not have your hands and feet in the travel position. However, when you use the hand-sensor override, this light will not come on when your hands are out of position.

4

FOOT SENSORS

You must be in the travel position, with both foot pedals down, to travel, raise or lower.

TRAVEL POSITION

- Hands on the controls.
- Heels on the pedals.

Note:



Know the Hazards



Any part of your body outside the operator area can be pinned or crushed. Be even more careful while using the Hand-Sensor Override.

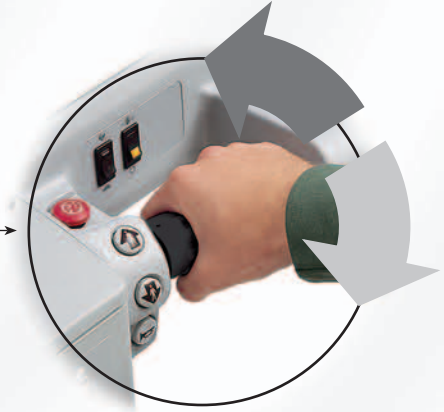
Three Ways to Brake

Braking

1

HAND BRAKE

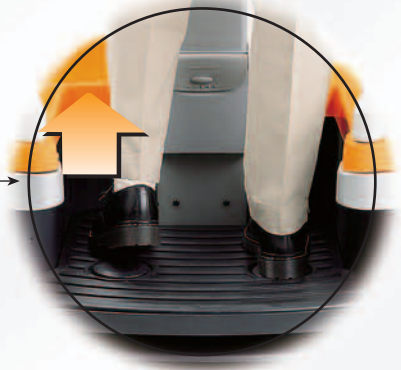
While traveling, rotate the twist grip in the opposite direction of travel to slow or stop the vehicle. The farther you rotate the grip past center, the quicker the braking. Return the grip to center as soon as your vehicle comes to a stop.



2

FOOT BRAKE

Lift a heel from either floor pedal to apply the brake.



3

PARKING BRAKE

The parking brake is automatically applied after the vehicle stops moving, or if there is loss of power.

In an emergency, push the Power Disconnect Button. This will cut power to the vehicle and apply the parking brake.

Know the Hazards



WATCH OUT FOR PEOPLE AROUND YOU

Don't drive too close to them. Know the distance it takes to stop.

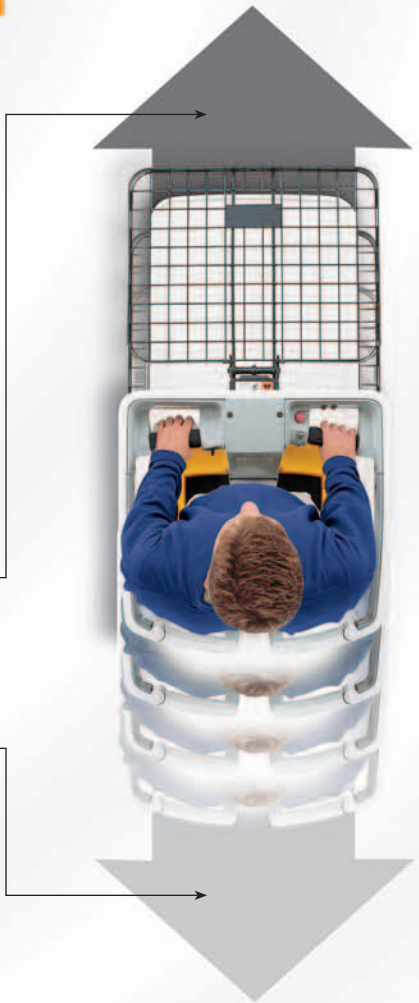
In an emergency, push the Power Disconnect Button to stop your vehicle.

Travel

1

DIRECTION AND SPEED

Rotate the top of the twist grip in the direction you want to travel. The farther you rotate the grip from the center position, the faster your vehicle will travel.



TRAVEL OR TRAVEL SPEED WILL BE AFFECTED BY:

- Position of travel speed (rabbit/turtle) switch.
- Elevated height.
- Position of gates.
- Direction of travel.
- Hands and feet not in travel position.
- Hand-Sensor Override.
- Someone or something on the motor cover.
- Battery charger plugged in.

Note:

Know the Hazards



PEDESTRIANS HAVE THE RIGHT-OF-WAY

Watch out for people around you. Don't drive too close to them. Be careful at intersections. Use your horn. Check around you before changing direction. Look in the direction you are traveling.



AVOID FALLS AND TIPOVERS

Make certain your path is clear of debris, holes, or any objects that could cause you to fall, or your vehicle to tip over. Don't run over anything on the floor.

Continued

Travel



2

CASTER SWING

The front of the vehicle may move a couple of inches to one side or the other when you begin traveling, or change direction of travel. This is caused by the swing of the casters and usually does not require steering correction.

3

HORN

Sound the horn as needed and when you come to a crosswalk or intersection.



Know the Hazards



IT'S NOT SAFE TO OPERATE ON RAMPS OR GRADES

You could lose steering control. Operate your vehicle on level surfaces only.

SLOW DOWN FOR SPILLS OR WET FLOORS

Powder or liquid spills can cause slippery floors. Slow down or you could lose control of steering and braking. Be careful and allow for a longer stopping distance.

When Not Traveling

Turning

1

You can turn your vehicle even when you are not traveling. Squeeze the steering control in the direction you want the front, or load end of the vehicle, to turn.



2

Squeeze the right side of the steering control...



The front of the vehicle will turn to the right.



3

Your turning speed will vary depending on how far you squeeze the steering control.

Know the Hazards

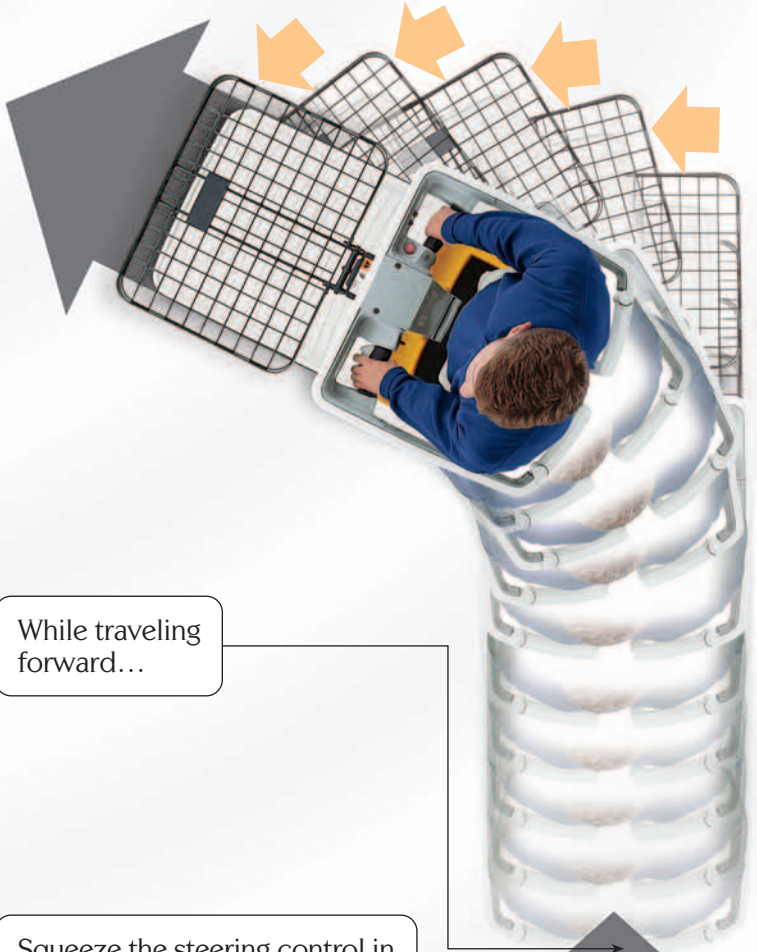


WATCH OUT FOR PEOPLE AROUND YOU

- Look before turning
- Avoid sudden vehicle movement.
- Don't drive too close to them.
- Know the distance it takes to stop.

Forward Traveling

Turning



1

While traveling forward...

2

Squeeze the steering control in the direction you want the front of the vehicle to turn. Release the control when the vehicle is turned and pointed to the direction you want to travel.



Note:

Turns will become larger as travel speed increases, or the load weight increases.

Reverse Traveling

Turning

1

While traveling in reverse...

2

Squeeze the steering control in the direction you want the front of the vehicle to turn. Release the control when the vehicle is turned and pointed to the direction you want to travel.



Know the Hazards

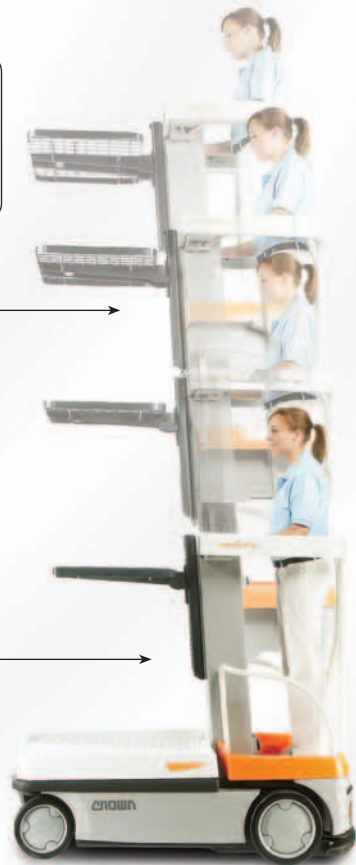


The front of the vehicle will swing wide when you turn. See that you have room to drive and steer. Watch out for people around you. Turns will become larger as travel speed increases or load weight is increased.

Raising & Lowering

1

Push either the Raise button or the Lower button to raise or lower the platform. Release the button when you get to the desired height.



Note:

RAISE & LOWER WILL BE AFFECTED BY:

- Hands and feet not in travel position.
- Position of gates.
- Low battery charge.
- Someone or something on motor cover.
- Position of service-panel switches.

2

MOTOR COVER INTERLOCK

This feature will cut out raise, lower and travel if someone or something is pushing down on the motor cover, which is located below the platform.



Know the Hazards



- Watch out for people below and around you.
- Falling objects can injure others. Make sure loads are stable and secure.
- Close the gates whenever you raise the platform.
- If raise or lower won't stop, press the Power Disconnect.

Optional

Rail Guidance

1

RAIL GUIDANCE OPTION

By adding a guide wheel option to your vehicle and guide rails at the floor, you can operate in narrow aisles without steering your vehicle.



Note:

Travel speeds may change as you enter or exit guided aisles.

2

IN & OUT OF AISLES

Drive straight into and out of aisles. Do not approach or leave at an angle. Do not try to steer while you are in a guided aisle. Your company should train you how to enter, exit and drive in aisles with rail guidance.



Know the Hazards



STAY ALERT

You must be just as careful and alert while driving in a guided aisle as you are when driving with manual steering.

- Make sure there is nothing in your path, on the floor or sticking into the aisle.
- You must take control of steering as you leave a guided aisle.
- Stop and check for people and other vehicles before exiting or entering any aisle.

Load Handling

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	29	Vertical Tray Adjustment
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Vehicle Capacity

WHAT IS VEHICLE CAPACITY

Capacity is the maximum weight that can be carried or lifted. Your vehicle has three separate capacities: Operator Platform, Load Deck and Load Tray.

For both the Deck and the Tray, load weight must be evenly distributed over the surface. This will give your vehicle better stability, and reduce breakage due to improper loading.

1

LOAD DECK

Capacity is limited to 115kg or 250 lbs.

2

LOAD TRAY

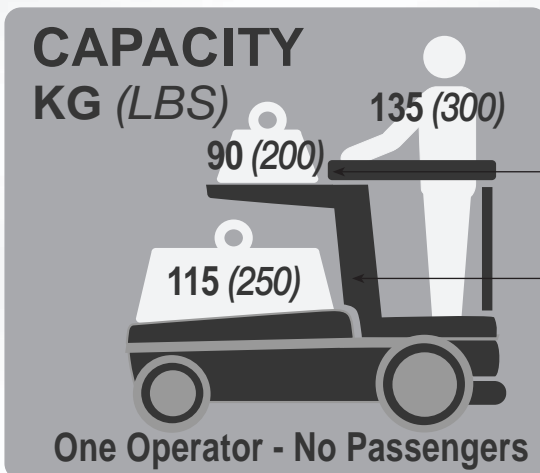
Capacity is limited to 90kg or 200 lbs.

3

OPERATOR PLATFORM

Capacity is limited to one person, including tools, weighing not more than 135kg or 300 lbs.

4



Know the Hazards



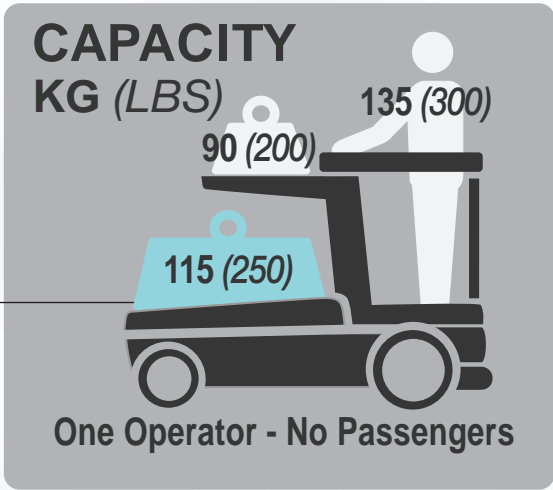
- Exceeding any of your vehicle's capacities could cause an accident.
- Do not handle unstable loads.
- There is no safe place for passengers anywhere on the vehicle. No passengers.

Load Deck

1

CAPACITY

Don't put more than 115kg or 250 lbs on the load deck.



2

EVENLY DISTRIBUTED LOAD

Make certain the load weight is evenly distributed over the surface of the deck.



Load Tray

1

CAPACITY

Don't put more than 90kg or 200 lbs on the load tray.

CAPACITY

KG (LBS)

→ 90 (200)

135 (300)

115 (250)

One Operator - No Passengers

2

EVENLY DISTRIBUTED LOAD

Make certain the load weight is evenly distributed over the surface of the tray.



3

VERTICAL TRAY ADJUSTMENT

Hold the load tray at the side edge with both hands to support the tray when released from its present height position. Tip the tray up until it is free to slide up or down on the mast. When you have it positioned at the best work height, return the tray to a level, latched position.



4

TRAY STORAGE

Tilt the load tray up and slide it down the mast as far as it will go. Move the tray back against the mast until it is latched.



Vehicle Maintenance

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Daily Safety Check

1

CHECK YOUR VEHICLE BEFORE STARTING WORK

You must make sure your vehicle is safe, both for you and for people around you.

2

IF ANYTHING DOESN'T LOOK OR FEEL RIGHT, DON'T DRIVE YOUR VEHICLE. REPORT THE PROBLEM TO YOUR SUPERVISOR.

3

WALK AROUND YOUR VEHICLE & CHECK IT OVER

- Make sure the batteries are charged. See page 34 for battery charging and servicing information.
- Check that all wheels are in good condition.
- Look into and under the vehicle for signs of leaks.
- Turn the key to ON. See that the "beeper" and all display lights are working. Try the horn.
- Make sure the power disconnect works.
- See that all options are working if your vehicle is so equipped.
- Check your vehicle for any damage that could be a hazard to you or to people around you.

4

TEST DRIVE YOUR VEHICLE IN AN UNCONGESTED AREA

- Make certain the service panel door is closed.
- Check raise and lower. Platform should not elevate above 20 inches with gates open.
- Make sure the steering is smooth.
- Drive the vehicle slowly in both directions.
- Drive through the full speed range, in forward and reverse. In forward, and with platform lowered, the speed should be slower with gates closed.
- Check stopping distance in forward and reverse. **Caution**, travel speed, load weight and floor conditions can affect stopping distance.
- Know the distance it takes to stop before you start working. If the stopping distance is too long to stop safely, don't drive the vehicle.
- If your vehicle is equipped with optional alarm or flashing lights, make certain they are working.

5

CHECK THE AREA WHERE YOU'LL BE WORKING.

Report any hazards or unsafe conditions to your supervisor.

Service Panel

1

LOCATION

The Service Panel is behind the hinged door at the front of your vehicle.



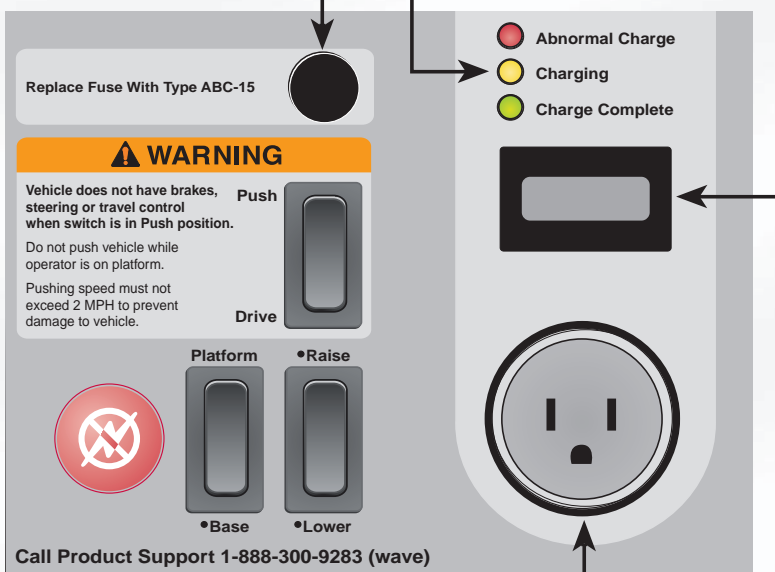
Note:

Do not operate vehicle with the service panel door down.

Battery Charging Display
(See pages 34 & 35 for instructions)

Control Circuit Fuse
Replace with proper type and size fuse. (ABC-15)

Hour Meter (optional)



Charging Socket or Pullout Cord (optional)

Continued next page...

Continued

Service Panel

2

PUSH/DRIVE SWITCH

If for some reason your vehicle won't drive, put this switch in the PUSH position. This should release the brake so the vehicle can be pushed. If it does not release, contact your supervisor.

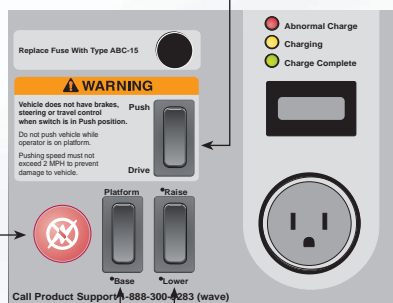
Note:

No one may ride anywhere on the vehicle while it is being pushed. Pushing speed must not exceed 2 MPH.

3

POWER DISCONNECT

Press this button to cut power to the vehicle and shut it down.



4

RAISE & LOWER OVERRIDE SWITCHES

The switch on the lower left determines whether the operator platform or this service panel has control of raise & lower. If the left switch is on BASE, the right switch will control raise and lower. The Raise & Lower buttons on the platform won't work until the left switch is placed back on PLATFORM.

Note:

If the Lowering button does not work, the platform can be lowered by following the instructions for operating a manual lowering valve. Both the valve and the instructions are located under the load deck.

Know the Hazards



DON'T LET THE OPERATOR GET HURT

Before you use the Raise/Lower override switches, warn the operator to keep hands and feet inside the operator area.

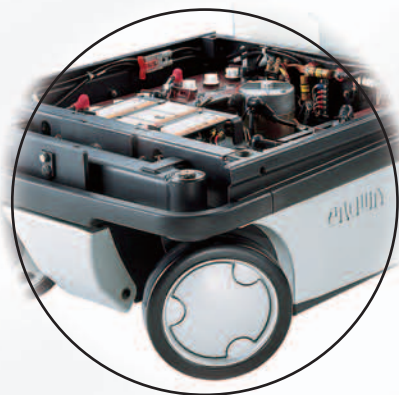
Don't push the vehicle until the operator is off the platform and the area is clear.

Battery Maintenance

1

BATTERIES & CHARGER

- Don't charge or service the batteries unless you are trained and authorized. See the Service Manual for instructions.
- Charge batteries in areas designated for that use. Do not expose the vehicle to moisture or snow while charging. Don't try to charge a frozen battery.
- Wear protective eyewear, gloves and clothing when servicing the batteries.



DANGER



Batteries can produce explosive gas. Do not smoke, use open flame, or create an arc or sparks near this battery. Ventilate well when in an enclosed area and when charging.

This battery contains **Sulfuric Acid** which causes severe burns. Do not get in eyes, on skin, or clothing. In case of contact, flush immediately and thoroughly with water. Get medical attention if your eyes are affected.

20

Note:



Continued next page...

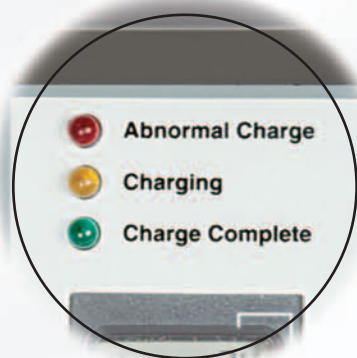
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Battery Maintenance

2

TO CHARGE THE BATTERIES

- Turn the truck off or push the Power Disconnect Button.
- Use an extension cord less than 25 ft. long with a wire size of 16 AWG or heavier.
- Plug one end of the extension cord into the charging socket on the service panel.
- Plug the other end of the extension cord, or the optional retractable cord, into a 120 volt AC outlet.
- Check the charging display on the service panel.



3

TROUBLE SHOOTING THE BATTERY CHARGER

- A red light means something is wrong with the charger. Try plugging the charger in a second time. If the red light still comes on, unplug the charger and notify your supervisor.
- A yellow light means the charger is working.
- A green light means charging is finished. Unplug the extension cord. The vehicle is ready to use.
- If none of the lights come on, the charger is not getting power. Make sure the AC outlet is working and the extension cord is OK.

Know the Hazards







BATTERIES CAN BE DANGEROUS

They produce fumes that can explode. They also contain acid that can burn or disfigure you.

- Don't service any batteries unless you are trained and authorized.
- Never smoke or use open flames around batteries.
- Use protection such as gloves, eye shields, etc.
- Do battery work in a safe area provided by your company.

Troubleshooting

IF YOUR VEHICLE DOESN'T WORK, HERE ARE A FEW THINGS TO CHECK FOR YOURSELF, BEFORE YOU CALL FOR SERVICE

- 1
 - No beep, battery display is off.
 - Is key turned on?
 - Make certain Push/Drive switch is in the Drive position.
 - No beep, battery display lights flash and go out.
 - One of the disconnect switches has been pushed.
 - No beep, battery display is on.
 - Check that Platform/Base switch is in the Platform position.
 - One beep, travel position light on, display → 
 - You don't have your hands or feet in the travel position.
 - One beep, travel position light off, display → 
 - You must perform the drive code (an optional feature).
 - Slow beeping, fault light flashing, display → 
 - Unplug battery charger. Turn key off, then on, to start vehicle.
 - Slow beeping, fault light flashing, display → 
 - Remove hands from controls. Restart the vehicle. Keep hands off controls until display shows battery charge (about 2 seconds).

OTHER THINGS THAT CAN CAUSE FLASHES & BEEPS

2 There are some problems that will shut your vehicle down completely. Both the beeps and the flashing fault light will pulse continuously. Try to restart the vehicle. If the signals continue, shut the vehicle off and notify your supervisor.

3 There are some minor problems that will not shut your vehicle down, but will cause the vehicle to beep twice and the battery display to flash for a short time. You may continue operating your vehicle. Report the event to your supervisor at the end of your shift.

PRODUCT SUPPORT TELEPHONE NUMBER

If you've tried all the troubleshooting tips and still can't get your vehicle working properly, call the Product Support Telephone Number:

1-888-300-9283 (wave)

Note:

Notes:

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CROWN

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