

OWNER'S MANUAL
ES-KAPE 2.0

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Introduction

Thank you for your purchase of a MOKAI® ES-Kape 2.0 watercraft. Our dedicated production team builds every MOKAI to the highest standards available. We are certain you will be pleased with your decision.

We want to help you get the best results from your new MOKAI. This manual is provided to aid you in the safe and reliable operation of your watercraft. ***READ IT AND BECOME FAMILIAR WITH PROPER OPERATING PROCEDURES BEFORE USE.***

We suggest that you read the warranty policy to fully understand its coverage and your responsibilities of ownership. We extend our best wishes for many hours of safe, pleasurable boating. MOKAI Manufacturing recommends all boaters take an approved safety course.

Sincerely,
MOKAI Manufacturing, Inc.
Mokai is a registered trade mark of Mokai Manufacturing, Inc.
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Owners Satisfaction

Your satisfaction is important to MOKAI Manufacturing, Inc. If you have a problem concerning the use or performance of your craft please contact the company immediately at **845-566-8287**.

Happy Customers are our best advertising. We will always make every effort to remedy your concerns in the timeliest manner.

Owner/Operator Responsibilities

State and Federal Regulations

Check state and federal regulations before operating and always comply with the regulations for the area in which you are operating. By Federal Regulations the MOKAI is classified as a "Jet Boat."

Safety Equipment

The MOKAI watercraft is equipped with fire extinguisher, signal mirror and whistle. We recommend all occupants wear a USCG approved personal flotation device (PFD).

Factory Warranty Statement

MOKAI watercraft – Material and Mechanical Components

MOKAI Manufacturing Inc.(herein MOKAI) warrants that each new MOKAI watercraft will be free, under normal use and service, from defects in material and workmanship for a period listed below from the date of sale to the Original Purchaser.

Warranty Periods:

Jet Pump Assembly	Limited 10 Year Warranty
Drive Shaft	Limited 5 Year Warranty
Engine (as regulated by Kohler-see manual)	Limited 3 Year Warranty
Hull and all other components not specified above	Limited 3 Year Warranty

LIMITATIONS and EXCLUSIONS: This Limited Warranty shall not apply to:

1. Any Jet Pump Assembly that has been subject to negligence, misuse, accident, misapplication or over-speeding.
2. Any Jet Pump Assembly damaged due to operation of watercraft with removed or altered intake grate.
3. Any Jet Pump Assembly that is being run with any non-factory issued Engine Assembly.
4. Any Jet Pump Assembly that has been installed, repaired or altered by anyone other than MOKAI in a manner which in MOKAI's sole judgment adversely affects its performance or reliability.
5. Any Jet Pump Assembly that has been fitted or repaired with parts or components not manufactured or approved by MOKAI which in MOKAI's sole judgment adversely affects its performance or reliability.
6. Instances in which normal use has exhausted the life of a component.

Normal wear and tear, damaged caused by failure to provide proper maintenance, storage, damage resulting from improper repairs, damage resulting from accident, fire, theft ,abuse, misuse or neglect are excluded. Aftermarket modifications to engine, drive train, jet drive or hull will void warranty.

The customer is responsible for all transportation costs in connection with any warranty work. Return postage will be paid by MOKAI, when deemed a valid warranty claim, for US customers only.

MOKAI Manufacturing Inc. reserves the right to modify, alter or improve any parts or components without incurring any obligation to modify or replace parts or components previously sold without such modification, alteration or improvement.

No person is authorized to offer any other warranty on behalf of MOKAI unless made in writing and signed by an officer of MOKAI Manufacturing Inc.

This warranty, and MOKAI's obligation here under, are in lieu of any other warranty or obligations of any kind, express or implied, including warranties of merchantability or fitness for a particular purpose. There are no warranties which extend beyond the description on the face here-of. MOKAI shall in no event be liable for any consequential or incidental damages.

MOKAI watercraft placed in service as COMMERCIAL or Rental units are subject to a warranty period of 1 (one) year from original purchase date.

Kohler Warranty

Warranty as regulated by Kohler Co. Please refer to the Kohler owner's manual for information and specific details.

General Information

- The Hull and Engine of your MOKAI watercraft are identified by serial numbers. These numbers are unique to your boat and may be required for warranty, registration or to track in the event of theft.

The Hull Identification Number or HIN is located at the stern of the craft.



The Engine Serial Number is stamped into the Engine Block and also on the label. **** Engine must remain upright during transport and or storage. Improper handling can result in oil leakage into the cylinder and carburetor – see troubleshooting****



Assembling the MOKAI ES-Kape 2.0

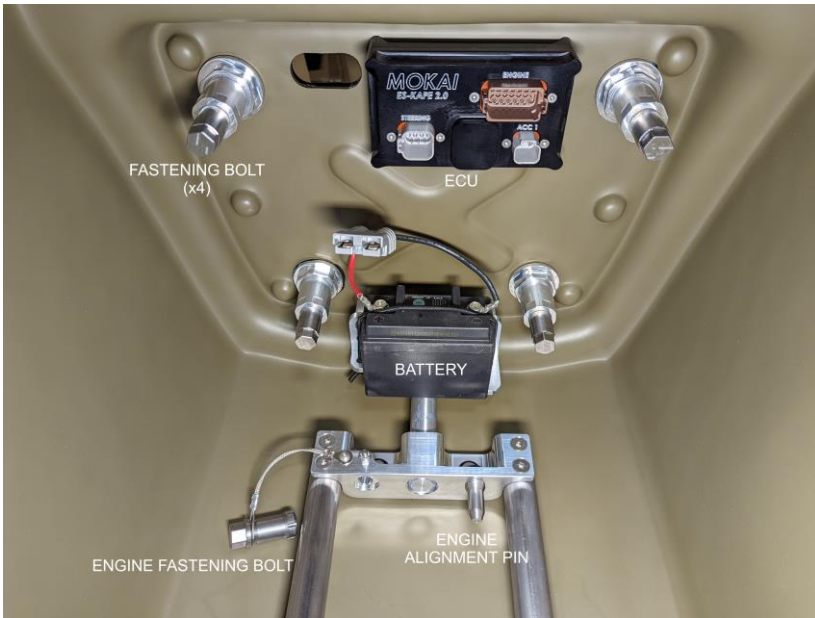
Bow Section

- Identify the (3) Bow Spools located on the Bow Bulkhead.
- Align the Bow Spools with the Front Cockpit Bulkhead receiving keyholes. Allow Bow to drop into position. (note it will not be fully secured at this step)
- Hand start the fastening bolt located at the top of the bow.
- Use the provided wrench to fully tighten the bow in place.. (5/8 ratchet – provided located in storage pocket on seat back)



Engine Bay to Cockpit Section

- Pull ENGINE Bay to COCKPIT Section.
Technique tip: Straddle or sit on top of rear Cockpit section facing Engine Bay. Lift up slightly when pulling Engine Bay onto (4) alignment pins.) Important: note that the Engine Bay is seated squarely to Cockpit Section before securing.
- Identify the (4) Fastening Bolt Spring Housing in the Engine Bay section. Push in to engage and hand tighten. Use 5/8 ratchet wrench (provided) to fully tighten, ALTERNATING tightening top and bottom fasteners.



Electrical Connections:

- In the cockpit section - Identify Control Box Wire Harness. This is a keyed oriented connector. Plug into ECU port located above fuel tank. To remove depress locking tabs. Separate using plug.

AVOID PULLING FROM WIRES.

12v Battery

Disconnect when not in use for prolonged periods.

The Battery is located in the Engine Bay. To remove battery, disconnect battery cable and release elastic strap. **Do not operate MOKAI without battery. Damage will occur to Electronics.**

Seat and Foot Brace:

- Install Seat: Place seat into cockpit. Slide seat back so seat pins slide into bushings. Secure cotter pin to each seat pin.
- Retain cotter pins in storage holes located above bushings when seat is removed.
- 5/8 ratchet wrench and 5/32 Allen key are stored in pocket on seat back.
- Install Adjustable Foot Brace with two 4 prong knobs.



System Descriptions

Engine Installation and Removal

- To install Engine: Place Engine onto Stringer Rails within Engine Bay. (Exhaust towards rear of craft) With Engine in full back position, install Poly Chain Belt onto both drive sprockets.

HANDLE WITH CARE

Twisting/forcing belt into position will result in damage to the belt.

- Slide engine forward and begin threading tension bolt by hand.
- To complete engine fastening you will need to use the 5/8 ratchet to fully tighten tension bolt. This will automatically set the factory calibrated belt tension.
- Connect the engine wire harness to the ECU in port marked engine.

- Connect Battery
- Feed Fuel line through bulkhead opening into engine bay. Connect to engine.

Joy Stick Control Box:



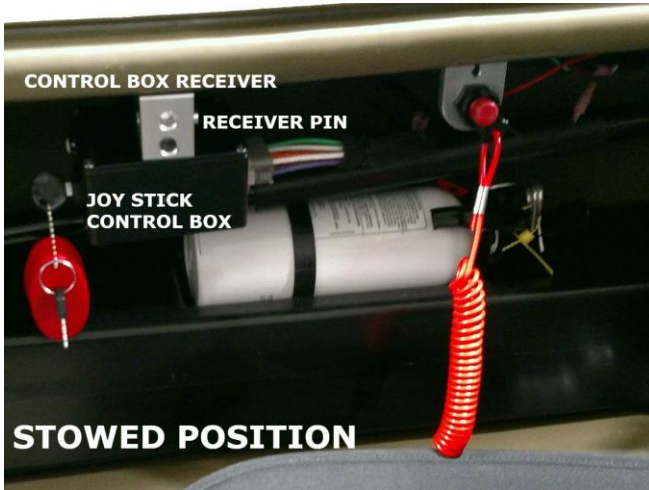
- **To Start Engine:** Turn Ignition Key to START position and release. (Safety lanyard key must be in to start).
- **To Stop Engine:** While the Engine can be stopped various ways we recommend switching the Ignition Key to OFF.

You can stop the boat in an emergency by pulling tether or pressing down on the RED Safety kill switch located on starboard side under deck hull. This safety key should be attached to your PFD as a means to stop the boat in the event you become separated from the boat – Emergency Stop.)

- **ACC 1-** 12v, operated a 10amp plug located in the Engine Bay. An accessory pigtail connector is included with your boat.
- **ACC 2-** 12v, operates a 3amp snap plug located on the control box wire harness.
FEMALE- POSITIVE – GRAY wire
MALE – NEGATIVE – BLACK wire

MOKAI is controlled using a 2 axis joystick located on the starboard side. Throttle is actuated by pushing forward. The joystick will return to idle at the zero position when released. This same joystick is pushed left or right to direct the steering nozzle left or right (respectively).

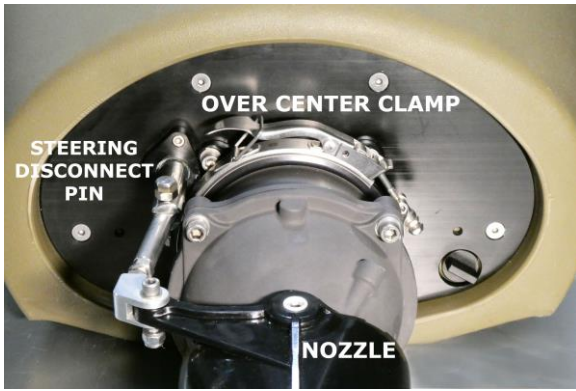
When not in use the control box can be removed from the receiver and stowed under the deck as illustrated below:



Pump Installation and Removal

In the event debris enters the jet pump or if service is required the jet pump can be removed to clear the pump and then reinstalled.

1. Release over-center clamp
2. Release steering disconnect
3. Pull pump towards you. Removing engine is not required.
4. Use alignment pin for proper orientation when reinstalling.



Fuel Tank and Carbon Canister

The capacity of the MOKAI fuel tank is 4.0 gallons. This tank is equipped with a carbon canister to prevent hydrocarbon vapors into the atmosphere. The Fuel Tank on the MOKAI *ES-Kape 2.0* is not portable. If required, tank can be removed for inspection by removing locking wedge.

DO NOT TIP COCKPIT GREATER THAN 30 degrees with fuel tank installed. Carbon canister will be compromised.



Operating Information and Pre-ride Check

Pre-Ride Check

- General Inspection of Craft insuring modular sections are attached properly.
- Review Kohler pre-start checklist (pg 4-Kohler manual). Install Engine, lock in place.
- Check that Fuel cut off lever is in the on position. Same position as choke off.
- Check that fuel line is connected.
- Secure Engine Cover
DO NOT OPERATE BOAT WITHOUT ENGINE COVER IN PLACE. COVER IS REQUIRED FOR EFFECTIVE ENGINE COOLING.
- General inspection of Jet Pump
- Check Steering
- Check Emergency shut off lanyard key by starting engine and pulling key or depressing button to ensure that engine stops. (Can be done on dry land. If in water, board MOKAI before starting.)
- Check Safety Equipment

Boarding

From land or dock, board the MOKAI at the center of the occupant compartment.

IMPORTANT

MOKAI is not designed for re-entry in deep water. In an emergency situation, re-boarding is only possible from the bow or the stern. Do not attempt to re-board from the sides of the MOKAI.

Shallow Water Operation

We recommend starting the MOKAI in 12 inches of clear water. The draft is 4-6 inches. Every MOKAI is equipped with an intake grate to protect debris from entering the jet pump and causing damage when operating. Owner assumes all liability for damage when operating with removed or altered grate.

Debris hazards and loose vegetation tend to be found in shallow water and can be sucked onto the intake grate. If this occurs you will notice a decrease in speed due to the blockage of water flow to the jet drive. Simply stop engine, debris should fall free from intake grate. If necessary, remove any tangled debris from grate by hand before restarting.

MOKAI Maintenance

Hull

MOKAI's hull is constructed of high impact, polyethylene plastic. Standard adhesives, tapes and paints tend to not adhere to this material.

While the Hull is extremely durable, aggressive exposure to rocks and debris can compromise the hull. The material can be repaired using a plastic welder or soldering iron. In the event you experience a breach in the hull please call the factory for additional information and supplies. This is not considered a warranty item.

Handles

Your MOKAI is equipped with (3) handles. The Bow handle is designed to allow you to pull the boat from the water. It should not be used in any load bearing application. The cockpit handle is located on the front bulkhead, which is accessed after removing the Bow. This handle can be used when carrying or securing to your vehicle/trailer.

Cleaning and Care

It is best to store your MOKAI out of direct sunlight on a flat surface.

Clean with soapy water or spot clean with a Windex™ type product.

There is a drain plug located starboard side of cockpit section as well as the one in the engine bay.

Seat covers can be cleaned with a damp cloth and air dried.

Storage

Short Term: We recommend covering the boat when not in use. Make sure the engine/ muffler are cooled before covering.

Long Term: If storing outdoors remove Engine, Jet Drive, Battery & Seats. Cover with TARP.

We recommend storing the boat flat or with the entire length supported. The Cockpit section can be stored vertically (on end).

Do not store the boat suspended or between saw horse like supports. This can result in a distortion of the hull.

Drain the float bowl of the carburetor.

Engine Storage/Transport

It is important for the engine to remain upright during storage or transport. Tipping the engine more than 30 degrees (carburetor moving towards the floor) for a prolonged period of time will result in oil seeping past the reed valve in the valve cover. Oil will then travel thru the engine vent line into the intake manifold. When the engine is up righted this oil could stop the engine from rotating and/or starting

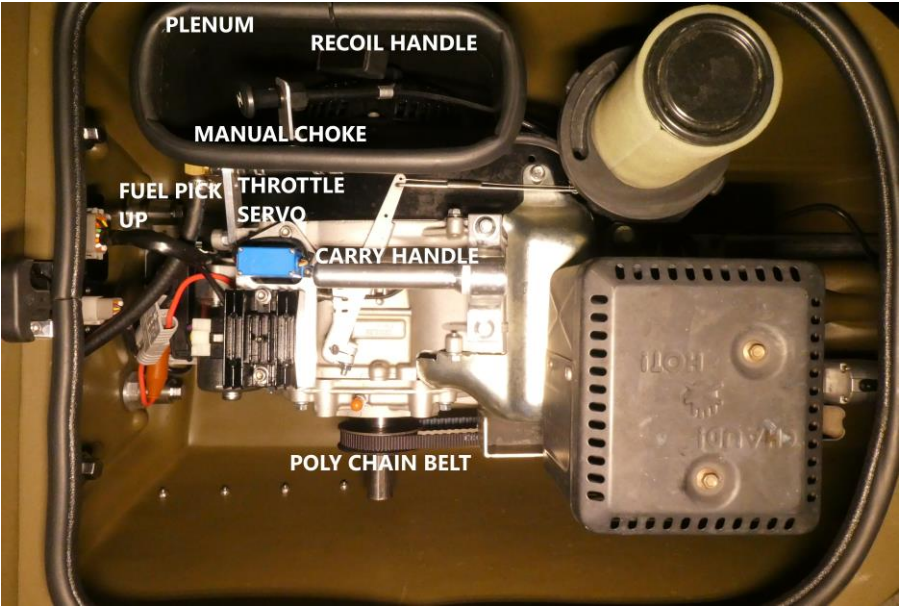
You must take the following corrective action.

Corrective Action

- Remove Spark Plug
- Pull starter cord to cycle engine— excess oil will blow out spark plug hole.
- Dry spark plug and re-install.
- Remove air filter and clean with soap and water. Squeeze dry.
- Wipe excess oil from air box.

Contact with Salt water

After use in a salt environment we recommend rinsing all areas of contact with fresh water. Also, remove the engine and rinse the exterior for any salt spray that may be present on the engine. Apply a light spray of corrosion block to exterior of engine and linkage. Remove the jet drive and rinse.



Engine Maintenance:

For more detailed information please refer to Kohler owner’s manual (pg6).

Maintenance Items	First 5 hours	Every 100 hours (or annually)	Every 300 hours	Every 500 hours
Clean Engine & Check oil level, check bolts and nuts	☑ (Daily)			
Change Engine Oil 10W-30 (1.16 U.S. quart)	☑	☑		
Clean Air Cleaner		☑		
Replace Air Cleaner Element ***			☑	
Replace Spark Plug ** Recommend: Champion: RC12YC				☑
Check and adjust valve clearance *			☑	

* Note: As to the procedures for these items, please refer to the Service manual or consult your nearest Kohler authorized service dealer.

**Note: Spark plug wrench supplied.

*** Note: **DO NOT** Oil air filter for use in MOKAI watercraft.

Specifications:

Engine:	KOHLER, CH395: 9.5 hp (See Manual for additional information) Electric Start, 10 amp charging system
Propulsion System:	MOKAI Manufacturing Pump Axial Flow Jet Drive
Drive System:	
<ul style="list-style-type: none"> • Coupling 	Gear box
<ul style="list-style-type: none"> • Steering 	Two Axis Joy Stick, Linear Actuated
<ul style="list-style-type: none"> • Throttle 	Two Axis Joy Stick, Servo Actuated
Dimensions:	
<ul style="list-style-type: none"> • Length (fully assembled) 	134 inches
<ul style="list-style-type: none"> • Width (at widest point) 	36 inches
<ul style="list-style-type: none"> • Height 	20 inches
<ul style="list-style-type: none"> • Weight: water ready, no fuel 	228.5 lbs
<ul style="list-style-type: none"> • Weight: Engine 	63.5 lbs
<ul style="list-style-type: none"> • Number of Passengers 	1
<ul style="list-style-type: none"> • Payload Limit MAX 	230 lbs passenger 30 lbs gear (forward stowed)
Fuel Tank:	4.0 U.S. Gallon Capacity Unleaded Gasoline
<ul style="list-style-type: none"> • Run Time 	Full throttle 4+ hours Moderate throttle 12 hours
Materials/Construction:	
<ul style="list-style-type: none"> • Hull (including engine cover, center flotation and plenum) 	Rotomolded, high impact polyethylene with UV stabilizer
<ul style="list-style-type: none"> • Fuel Tank 	Aluminum
<ul style="list-style-type: none"> • Seat, Weather Covers 	Rotomolded, high impact polyethylene. Fabric –Cordura brand Nylon
<ul style="list-style-type: none"> • Other Components 	Anodized Aluminum, Stainless Steel, Naval Brass, Delrin

Troubleshooting:

Trouble	Possible Cause	Remedy
Engine will not start	<p>Choke Off</p> <p>Safety Lanyard not attached</p> <p>Out of Fuel</p> <p>Engine key in the OFF position</p> <p>Dead Battery</p>	<p>Put Choke to on position</p> <p>Attach Safety Lanyard</p> <p>Refuel</p> <p>Turn on</p> <p>Pull cord located on Engine.</p>
Abnormal Pump Performance	<p>Weeds or debris clogging intake grate</p> <p>Weeds tangled around drive shaft</p> <p>Damage to drive shaft or coupler</p> <p>Pump inefficiency</p>	<p>Turn off engine, remove debris, restart</p> <p>Remove jet drive (on land), remove tangled debris, reinstall pump & restart.</p> <p>Inspect. Call MOKAI Manufacturing</p> <p>Inspect (green) wear ring. (located at the stern where the jet drive attaches.) Replace.</p>
No Fuel to Engine	<p>Fuel lines not connected</p> <p>Fuel Shut off closed</p>	<p>Connect lines</p> <p>Open Valve</p>
Poor Performance	<p>Dirty or clogged air filter (Air filter <u>should not</u> be oiled when used in MOKAI application)</p>	<p>Clean or replace (To quickly diagnose this issue, remove air filter and start engine. If performance improves clean or replace air filter.)</p>

Helpful Tips:

Spare 10 amp Fuse	A spare fuse is included with your purchase. The fuse holder is located on the engine wire harness below starter motor.
Recharging Battery	Kohler engine is equipped with a charging coil and will continually charge battery while engine is running. When Engine with dead battery is started using mechanical pull cord the battery will charge in 15-20 minutes.
Accessory Connector	Your MOKAI is equipped with (2) 12v. Accessory connections. This can be used to connect running lights or a similar low draw accessory. See page 10 for additional information.
Muffler	Muffler will be HOT after operation. Do not touch injury/ burns can result!

**Please phone MOKAI Manufacturing for help with any other issues:
888-50-MOKAI (888-506-6524)**