Excel Owner's Manual

(August 2009)

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Thank you for your business and welcome to the family of Excel owners. This manual is intended to provide you with information about the various operating systems in your new Excel Boat. Details and explanations of how these systems were designed and intended to be used is provided here for you. Additional questions that may not be covered in this manual should be directed to your local authorized Excel dealer.

EXCEL BOAT COMPANY
ALUMINIUM BOAT EXPRESS LIMITED WARRANTY

Excel Boat Company, L..L.C. ("Excel") warrants to the first retail owner of All-Welded Aluminum Boats, if purchased from an authorized Excel Dealer, and operated under normal, non-commercial use ("Excel Boat"), that it will repair or replace defects in material or workmanship reported within the applicable warranty period of 6 years, subject to the excluded items contained in the "WHAT IS NOT COVERED" section set forth below and other limitations set out in this Limited Warranty.

"All-Welded Aluminum Boats" covered under this Limited Warranty are Excel Boats. After the first year from the date of delivery to the original owner, there is a $50.00 service charge payable to the Excel authorized dealer for each service appointment relating to any repairs or replacement covered under this Limited Warranty. There is no charge for service appointments solely for any rework from previous service.

1. Hull Seams and Decking Limited Warranty to Original Retail Owner. Excel warrants to the first retail owner for a period of 6 years that it will repair or replace, at its sole discretion at the Excel factory any defect in material or workmanship in the Excel Boat reported during the period of ownership of the original retail owner.

2. Limited Warranty on Specific Components. If reported within one (1) year from the date of the first retail sale, Excel will repair or replace, at its sole discretion, the part or parts found to be defective in material or workmanship on the following factory installed components: a) boat wiring harness and switches; (b) the following instrumentation: tachometer, speedometer, trim

gauge, volt gauge, fuel gauge, water pressure gauge or surface temperature gauge; (c) fuel tanks; (d) deck hardware; (e) boat lights, aerators, bilge pumps, hoses, clamps and fittings; and (f) steering head and cables.

Sole Remedy: *In no event shall any repair or replacement under this Limited Warranty exceed the fair market value of the owner's boat as of the date of the owner's claim.* ***THE REMEDY OF REPAIR OR REPLACEMENT OF PARTS THAT ARE FOUND TO BE DEFECTIVE IN FACTORY MATERIALS OR WORKMANSHIP COVERED BY THIS LIMITED WARRANTY SHALL CONSTITUTE THE OWNER'S SOLE AND EXCLUSIVE REMEDY AGAINST EXCEL FOR ANY CLAIMS WHATSOEVER OF ECONOMIC LOSS RESULTING FROM PRODUCT FAILURE.*** *The terms and conditions contained herein may not be modified, altered or waived by any action, inaction, or representations, whether oral or in writing, except upon the express, written authority of a management level employee of Excel.*

Statute of Limitations: *Any action for rescission or revocation against Excel shall be barred unless it is commenced within one (1) year from the date of accrual of such cause of action.*

Other Limitations: ***EXCEPT AS SET FORTH HEREIN OR ON ANY OTHER WRITTEN EXPRESS LIMITED WARRANTIES BY EXCEL, THERE ARE NO OTHER WARRANTIES EITHER EXPRESS OR IMPLIED PROVIDED BY EXCEL ON THIS BOAT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE EXPRESSLY EXCLUDED. EXCEL FURTHER DISCLAIMS ANY LIABILITY FOR ECONOMIC LOSS ARISING FROM CLAIMS OF PRODUCT FAILURE, NEGLIGENCE, DEFECTIVE DESIGN, MANUFACTURING DEFECT, FAILURE TO WARN AND/OR INSTRUCT, LACK OF SEAWORTHINESS, AND ANY OTHER THEORY OF LIABILITY NOT EXPRESSLY COVERED UNDERTHE TERMS OF THIS LIMITED WARRANTY. TO THE EXTENT REQUIRED BY LAW ANY IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED FOR THE DURATION OF THE RESPECTIVE EXPRESS LIMITED WARRANTIES STATED HEREIN. TO THE EXTENT ALLOWED BY LAW NEITHER EXCEL, NOR THE SELLING DEALER SHALL HAVE ANY RESPONSIBILITY FOR LOSS OF USE OF THE BOAT, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT BE APPLICABLE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT BE APPLICABLE. THIS WARRANTY GIVES THE OWNER SPECIFIC LEGAL RIGHTS, AND THE OWNER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. RETAIL CUSTOMERS IN THE EUROPEAN UNION (EU) MAY HAVE LEGAL RIGHTS UNDER APPLICABLE NATIONAL LEGISLATION REGARDING THE SALE OF CONSUMER GOODS WHICH ARE NOT AFFECTED BY THIS LIMITED WARRANTY. THE RETAIL CUSTOMER'S LEGAL RIGHTS UNDER ANY APPLICABLE NATIONAL LEGISLATION REGARDING THE SALE OF CONSUMER GOODS SHALL NOT BE AFFECTED.***

What Is Not Covered. *This Warranty does not apply to any Excel Boat, which has been salvaged or declared a total loss or constructive total loss for any reason not covered in this Limited Warranty. This warranty also does not apply to the following items:*

1. Impact damage resulting in dents, broken floor bracing, separated welds, ,cracked seams and other trim and structure damage.

2. Windshield damage/breakage or deterioration of the boat's surface finishes, including paint, bright metal surfaces, anodizing, decals, rubber and plastic components;

3. Damage, tearing, fading, shrinkage, or deterioration of carpet, upholstery, exterior canvas tops, enclosures, and weather covers (including rainwater leakage) or to other soft goods;

4. Any Excel Boat, which has been used for racing or use of the boat for any speed or endurance contest. Use of the boat for racing or any speed or endurance contest is misuse of the boat and will result in cancellation of the warranty;

5. Any damage caused by accident or resulting from alterations, abuse, commercial use, misuse, or negligence of any owner of an Excel Boat. Any Excel Boat powered or loaded in excess of maximum limits as stated on the U.S. Coast Guard Capacity Plate in each boat constitutes misuse and will result in cancellation of the warranty;

6. Damage from failure to perform routine periodic maintenance to the Excel Boat according to Excel's recommendations;

7. Damage caused by an improper trailer or mismatching of a Excel Boat to a trailer, failure to properly secure the boat to the trailer, or failure to use a lower unit support device when transporting the boat;

8. Any transportation, haul out, loading or other expenses incurred in returning the Excel Boat for warranty service;

9. Any representation or implication relating to speed, range, fuel consumption or estimated performance characteristics;

10. Any failure or defect arising from a previous repair made by a non-authorized service provider, unless preapproved by Excel.

11. Any Excel Boat with the first retail sale made by a party other than an authorized Excel dealer;

12. Any failure or defect caused by an act of nature resulting in damage, cost, or expense;

13. Any modifications to an Excel Boat based on design or manufacturing changes, or standard options, accessories or warranties added, improved, or revised from previous Excel Boats. Excel reserves the right to change or improve the design or manufacture of Excel Boats without any obligation to modify previous boats.

14. Aluminum deterioration by chemical actions or damage due to electrolysis caused by, but not limited to metal attachments to the boat, storage, battery acid, saltwater corrosion, or improper use of antifouling paints.

15. The following components may provide their own Limited Warranties to a retail customer, which would be included with owner's information at the time of sale; however, these components are not covered under this Limited Warranty unless specifically referenced under the Limited Warranty on Specific Components a) Engines, outdrives, controls, propellers, trolling motors; b) Navigation equipment and electronics; c) batteries and battery chargers; d) radio, stereos, CD or tape players; e) trailers and trailer accessories. Excel and its authorized dealers may in their sole discretion assist Excel owners with the administration of component part

warranties; however, any assistance shall not constitute an adoption of the warranty responsibilities of the component manufacturer.

Owner's Obligations:
Return the warranty card within 30 days of purchase. To obtain service under this Limited Warranty, contact your Excel dealer within the applicable warranty period for a service appointment. The owner is responsible for the expense associated with transporting the boat to and from the repair facility. Please notify Excel of any Excel Boat being repaired by an authorized Excel dealer which has been at the dealership for fifteen (15) days, or of any claimed defect which was not corrected after one repair attempt. Excel must receive written notice of any remaining warranty claims prior to the expiration of this limited warranty and be allowed an opportunity to resolve the matter.

Safety

A boat operator should never take a boat on the water with too many people or too much gear on board. Boats loaded beyond their capacity will swamp or capsize more easily and will be more difficult to control.

Know your state safe boating equipment requirements. (Driving under the influence is illegal in all states.)

Failure to adhere to and comply with the safety dangers, warnings and cautions that appear in this manual can lead to serious illness, injury or even death and/or damage to your boat or the property of others. Beyond these warnings, boaters have a personal responsibility to utilize a common sense approach to the boating experience, including keeping individuals away from the stern area of the boat during the engine operation.

Personal flotation devices ("PFDs") save lives and ensure positive experiences. **Excel offers many proactive approaches to the boating experience, but the consumer is ultimately responsible for a positive and safe involvement in boating.**

Because of the importance of these dangers, warnings and cautions, they are reprinted here, along with the pages on which you'll find them. Please note that the safety information statements presented below

are categorized for information purposes only, and are not presented in any particular order of importance. Each of the statements referenced below and in the other sections of this manual provide you with important safety-related information and must be read and followed to avoid injury or damage, as applicable. We strongly encourage you to cross-reference and read the dangers, warnings and cautions within the context in which they are presented by reading and reviewing those sections.

DANGER

1: Failure to comply with safety-related information and instruction may result in serious injury or death to you and/or others. Always use common sense when operating the boat or participating in any activities associated with the boat.

2: Gasoline is highly flammable and its vapors may ignite resulting in fire or explosion. Be sure to keep all sparks and flames well away from the area while inspecting the boat's fuel system.

3: Gasoline is explosive. If you see or smell the presence of gasoline during your inspection, DO NOT START YOUR ENGINE! Remove your ignition key from the ignition switch and call your Excel dealer for service.

4: Gasoline is extremely flammable and highly explosive under certain conditions. Always stop the engine and never smoke or allow open flames or sparks within 50 feet of the fueling area when refueling.

5: Take care not to spill gasoline. If gasoline is spilled accidentally, wipe up all traces of it, with dry rags immediately and dispose of properly on shore.

6. Fuel tanks in enclosed areas can create fumes. Keep these areas open and ventilated.

7. Use only approved fuels for outboard motors.

8: Carbon monoxide is a colorless, tasteless, odorless and poisonous gas that accumulates rapidly and can cause serious injury or death. Exposure to carbon monoxide can be fatal in a matter of minutes. Exposure to even low concentrations of carbon monoxide must not be ignored because the effects of exposure to carbon monoxide are cumulative and can be just as lethal as at high concentrations. Carbon monoxide from exhaust pipes of inboard or outboard engines may build up inside and outside the boat in areas near exhaust vents. STAY AWAY from these exhaust vent areas, which are located at the stern of the boat, and DO NOT swim or engage in any watersports, hunting or other activities in or near the stern area of the boat when the engine is running.

9: The safety switch lanyard must be attached to the operator whenever the engine is started. Failure to do so may result in serious injury or death.

10: Never override or modify the engine safety shut-off switch or engine neutral starting safety switch in any way.

11: Before starting the engine, open the fuel compartment and check for gasoline fumes, fuel and oil leaks or the presence of fuel or oil in the bilge.

12: Battery electrolyte fluid is dangerous. It contains sulfuric acid, which is poisonous, corrosive and caustic. If electrolyte is spilled or placed on any part of the human body, immediately flush the area with large amounts of clean water and seek medical aid.

13. When charging, batteries generate small amounts of dangerous hydrogen gas. This gas is highly explosive. Keep all sparks, flames and smoking well away from the area. Failure to follow instructions

when charging a battery can cause an electrical charge or even an explosion of the battery which could cause serious injury or death.

CAUTION

1: Be sure that all fasteners you use are approved and rated for marine use. Most fasteners used on Excel boats are stainless steel or specially coated to resist corrosion.

2: All replaced fuel system components must meet United States Coast Guard ("USCG") and American Boat & Yacht Council, Inc. ("ABYC") standards, and must be Underwriter's Laboratory ("UL")-approved. Inferior quality components pose a serious safety threat to you and others, and the use of inferior components may result in serious injury or death. Resulting damage may void your warranty.

3: Continuing to operate the boat while the temperature is above normal operating parameters may cause serious damage to your engine. Damage to your engine resulting from operating the engine in an overheated condition can be costly to repair. Such damage is not covered by your warranty!

4: Do not continue to run the engine if the oil pressure is low. If you do, the engine can become so hot that it—or surrounding components—could catch fire. You or others could be burned and the boat seriously damaged. Check your oil level and add an appropriate amount of approved motor oil before operating again or have your boat serviced by your local Excel dealer. Note that damage to your engine from neglected oil problems can be costly to repair. Such damage is not covered by your warranty.

5: Because of the complexity of preparing your boat for proper winter storage, as well as the possibility of extreme damage to the engine if a preparation error was made during winterization, Excel recommends that you schedule an appointment with your local Excel dealer and permit the dealer to perform the winterization procedures.

6: Add-on equipment may adversely affect the alternator output or overload the electrical system. Any damage caused as a result will not be covered by, and may void, your warranty.

7: Most outboard engines are equipped with a high temperature warning buzzer. Ignoring elevated or any other evidence of the engine operating at temperatures above recommended levels can result in serious damage to the engine. Any resulting damage will not be covered by, and may void, your warranty!

8: Failure to follow the engine oil recommendation listed in the manual can cause additional engine wear and increase the possibility of engine component failure. Damage to your engine due to incorrect oil usage can be costly to repair, and is not covered by your warranty!

9: Do not operate the starter motor continuously for more than fifteen (15) seconds without at least a two (2) minute "cool-down" period. Failure to do so may cause the starter to overheat, resulting in damage. Failure to release the ignition key after the engine has started may cause damage to the starter motor and drive.

10: Damage to the engine by use of low-quality gasoline or gasoline with an octane rating below the minimum level listed will void the warranty on your boat.

11: Fuels that are blended to contain methanol or wood alcohol are not to be used in Excel engines. These fuels can corrode some metal parts in your fuel system and engine. Damage caused by the use of unapproved fuels is not covered by warranty.

12: Extended storage with fuel in the system can affect the fuel's stability and may require system inspection and fuel filter replacement, when the unit is placed back into service. We recommend using

engine storage fuel treatment. Place the recommended amount in the fuel tank, run the engine for 3-4 minutes then remove the fuel line allowing the engine to run out of fuel.

13: When your boat is out of the water, it is important to support the hull correctly to avoid any hull damage that will void your warranty

14. Read and follow the starting, operation and storage recommendations in your engine owner's manual.

Equipment Checklist

- Charts for the area, up to date
- Boat hook
- Mooring lines and fenders in good condition
- Paddles or oars
- Tool kit and spare parts (including light bulbs, fuses)
- Flashlight
- Whistle, horn or other emergency sound device
- Boat fire extinguisher
- Bucket or bailing device
- VHF radio (cell phone as backup)
- First aid kit
- Weather or AM radio
- Personal items (drinking water, sunscreen, prescription drugs, etc.)

Vessel Systems Checklist

- Check to ensure all drain plugs are in place.
- Check to ensure all recommended on board safety devices and tools are aboard.
- Bilge free of fuel vapors and excess water
- Fuel supply full
- Fuel system free of leaks
- All oil lines free of leaks
- Engine oil and transmission fluid levels correct
- Battery fully charged, fluid level full
- Electronic gear in good condition
- Engine drive belt tight, in good condition
- All navigation lights working
- Propeller for damage or leaking seals.
- Steering and shift mechanisms in good condition
- Outboard motor mountings tight

Departure Checklist

- Always tell someone when you are leaving, where you are going, duration of stay and time they can expect your return.
- Check the weather report.
- Carry a cell phone or other communication device.
- Make sure each person has a properly fitted PFD and urge them to wear it. Youth 16 and under are required to wear a PFD. Check your state requirements.
- Show passengers: Location of PFDs, fire extinguisher(s), visual distress signals, first aid kit, and how to use them.
- Safety procedures for rough weather, man overboard, and fire.
- Instruct passengers to stay seated and keep hands, arms, etc., inside the boat.
- As you leave the dock area, take in all lines and fenders and keep them clear of the propeller.
- Keep a lookout at all times for other boats, persons, and objects in the water.
- Proceed slowly whenever leaving or returning to a dock.

- Use just enough power to maintain control.

Panel Switches and Gauges

Your Excel boat is equipped with a number of switches and gauges that have been positioned in locations easy to see and access. Careful attention has been used in selecting quality switches and instruments that will provide years of reliability with normal use. Most switches are either water resistant or water proof depending on the type and location. Most instruments have fog resistant lenses that utilize an emulsion on the domes to aid in condensing water and minimizing the likelihood of fogging. It is possible, however, in certain temperature and humidity conditions, to have fogging of an instrument. In this situation, warming temperatures, increased airflow, positioning in the sun, along with removal of a boat cover that may be present, will help to relieve the lens of fog. The moisture should not affect the functioning of the gauge. As a final note, Excel Boats warrants switches and gauges from defects in workmanship or materials for a period of 1 year from the first date of sale.

Gauges

Multi-Function Gauge

This gauge provides several functions of interest and support to the boater. As a **tachometer,** it indicates the engine speed in crankshaft revolutions per minute (RPM).

Speedometer: The speedometer indicates the forward speed of the boat in miles per hour.

Tachometer: Indicates engine speed in revolutions per minute (rpm) multiplied by 100. Note that different engines have different operating ranges and different maximum recommended rpm ranges. Refer to your specific engine owner's manual for information regarding your engine's operating range and maximum rpm. Maximum rpm's is dictated by the type and pitch of the propeller used. Using a propeller of a higher pitch will reduce the maximum rpm, while a propeller of less pitch will allow the engine to turn more rpm's at maximum.

Voltmeter Gauge: Many models have a voltmeter as part of the instrumentation package. This gauge indicates the level of the main battery used to start the outboard engine. Turn on the ignition switch and, if present, the main power switch. This gauge should read 12-13 volts in normal situations with a fully charged battery. A reading below 11 indicates a weak battery which may not start the outboard engine.

NOTE: Many newer engines with internal computer components may actually turn over with a weak battery, but will not allow the engine to actually start unless there is sufficient voltage present to drive the electrical system. When the engine is running, a reading of 13-15 volts is normal. Readings over 15 volts may indicate alternator problems. Low or fluctuation readings may indicate loose connections, malfunctioning alternator, overly heavy load on the electrical system, or a dead battery.

Fuel Gauge: Indicates approximate level of fuel in the boat's fuel tank.

NOTE: Fuel gauge reading may vary, depending on the attitude of the boat on the trailer or at the gas dock when in the water. Always make sure that your boat has sufficient fuel before leaving a launch site or dock area. Fuel pickup is not capable of withdrawing 100% of fuel from the tank. Always plan to have an adequate reserve amount of fuel left upon your return.

Switches

Circuit Breaker: All major boat circuits are protected from shorting and overload by re-settable circuit breakers. If a problem develops with one of the following circuits, switch OFF the circuit and wait about one minute. Then push the appropriate breaker button fully and switch ON the circuit. If the circuit continues to trip, there is a problem somewhere that must be attended to immediately.

Power Switch if Equipped: This is the boat's main power switch which drives all the systems in the boat with the exception of the trolling motor, bow panel trim switch for the outboard engine, and the auto bilge pump. Turn this switch to "on" to use the boat's systems and electronics. When the boat is not in use, be sure to place this switch in the "off" position to shut down electrical systems, thereby preventing unwanted drainage of the boat's main battery.

Bilge Pump: All Excel boats are equipped with a bilge pump. These pumps are used to remove water accumulated in the bilge area. In the "on" position, the pump will remove water from the bilge area. Turn the switch off when the bilge is not needed.

Courtesy Lights: This switch will activate internal courtesy lights in the boat's cockpit. Shallow water and Duck Boat models have two lights. One white light is for normal use and the second amber light is used for hunting where a light might spook away game.

Navigation/ Anchor Lights: This switch will activate the boat's portable running/anchor lights located at the bow and stern of the boat. To use, install both bow and stern lights prior to use in the respective plug-ins on the bow and stern. In low light conditions when underway, place this switch in the navigation position "NAV", and when at anchor, the switch should be placed in the anchor position 'ANC". Follow all local, state and coast guard rules with respect to using the "NAV" or "ANC" lights and never operate your boat at night or in poor visibility conditions without turning on these lights.

Accessory Switch: An accessory switches is often incorporated into switch panel and are there for your convenience in attaching other items, such as additional depth finders, GPS units, stereo radios, etc. which require a 12 volt power source. All our boat models have a spot light and accessory wire under the front deck. Remove the navigation light and these wires are attached to the running light wire. The blue and black are for the Excel twin 130 watt spotlight kit; and the black and red are for a depth finder.

Spot Light Switch: This switch is located on the bottom of the shallow water and duck boat switch panels. It is prewired to the bow of the boat with a blue and black wire. These wires can be accessed by removing the front bow light. The Spot Light wires are attached to the front bow light wire harness.

Speedometer: Indicates the approximate speed your boat is traveling in miles per hour. Speedometers typically rely on water pressure driven through a pilot tube attached to a pickup on the boat's transom or more often, an orifice in the engine's gear case to drive the gauge. Many boaters also rely on GPS units on board to obtain speed readings. Readings will usually vary between these devices. Always drive your boat at safe speeds, considering the conditions and other boating traffic present. Be extremely careful running the duck and shallow water models in the marsh and timber during low light conditions.

Water Pressure: Some Excel models come equipped with a water pressure gauge for the boat's main outboard engine. This gauge will allow for monitoring of the engine's water pressure and may alert the driver to a sudden change or drop in pressure. This may occur if the engine's water intake should become obstructed, covered with a plastic bag or other debris or some other cause. Loss of water pressure will usually result in overheating of the engine and a likely serious issue. This means a sudden drop in pressure should be immediately investigated to avoid damage to the boat's engine. Stop the engine, turn the motor off, tilt the motor, and evaluate the engines lower unit, looking for any debris or obstruction to the water pickup. If present, remove the item and restart the engine, monitoring water pressure to see if it has been restored to normal. Water pressure normal reading will vary from one brand of engine to the next. Please refer to your specific engine owner's manual for the engine's normal water pressure range.

Trim Gauge: Some Excel models come equipped with this gauge as standard equipment. A trim gauge is available as an option on other models. This gauge will indicate the trim or tilt attitude of the boats engine. As the motor is trimmed up the gauge will move accordingly. On most engines, this gauge will read full down to full tilt from the gauges left extreme end to the right extreme. In the case of Mercury engines the first half from left to center refers to the engine's trim range, the right half of the gauge from center to the right side is the engines tilt range. Use this gauge as a guide and reference point with respect to the

outboard engine. This helps prevent one from having to physically look back to see whether the engine is in the trim or tilt range.

1. Livewell- A two position switch activates a pump system that will fill the live wells with water from outside the boat. This pump system may only be operated when the boat is off plane.

2. Recirculation- A two-position switch activates a pump system that will withdraw water from the well itself and then spray it back into the well thru an aeration jet in the well. This will provide added aeration to the water in the well. This system may be operated whether the boat is at rest or on plane. Most common use is for providing aeration when the boat is on the move and fill pumps are not able to operate.

3. Pumpout- A two-position switch activates a pump system on each live well that will remove the water contents of the live well selected. This will make it easier to remove fish or to empty the live well at the end of a day of fishing.

Manual vs. Timed Aeration- This switch may be set to "manual" for continuous operation of the live well or recirculation pump/s selected. In an effort to retain longer battery life, the timed position will allow the live well or recalculating pump to operate intermittently on a one-minute on two minute off basis. The frequency is predetermined and is not adjustable. Longer days of fishing and longer continued use periods of pumps may require that timed aeration be used to retain battery charge to the boat's main battery, the battery used to start the boat's outboard engine. The timer system has been designed to operate both the live well pumps and the recirculation pumps.

NOTE: The bottom drain plug should be removed when the live wells will not be used for longer periods of time in order to remove any standing residual water. In the event of freezing conditions, removal of water upon finishing the day's fishing is recommended. This will allow the system to drain, avoiding potential damage caused by freezing temperatures.

Bow Panels- Bow panels are equipped with three switches. First, one for trimming/tilting the boat's main engine up and down. This switch is always in a hot mode and available for use even with the key or power switch off. Second, a courtesy/anchor light switch for turning on interior lights at night of or turning the anchor light on at night when the boat is at rest. This eliminates the need to return to the dash to power up the anchor light. The third switch is an accessory switch for your fish finder.

Shift and Throttle Control: A one-hand, single-lever control operates as both a gear shifter and a throttle. The lever automatically locks in the neutral position (straight up and down) for safety. The lever can be moved from neutral only by raising the lifter under the hand knob. Shifting is accomplished by moving the lever into the first 45 degrees of travel. Moving the lever forward engages the running gear; moving it back from center puts the drive train into reverse. By advancing the lever beyond 45 degrees you move from the shifting range to the throttle range. **Never attempt to shift without the engine running!** Most shifters have an engine warm up lever that increases engine RPM without shifting.

Hydraulic Steering: Some Excel models equipped with Teleflex Sea Star Hydraulic steering. This system will provide years of safe, reliable performance with a minimum of service. These Teleflex steering systems have been designed with protection against over-pressure situations by a pressure relief valve. Sometimes when returning the wheel from a hard-over position, a slight resistance may be felt and a clicking sound heard. This should not be mistaken as a fault, as it is a normal situation caused by the release of the lockspool.

REMEMBER: The steering system should be inspected by a qualified mechanic at regular service intervals to insure a safe, properly maintained steering system.

Engine trim switches should not be attached to the steering wheels when hydraulic steering is used. A wire coil type trim switch, if added to the wheel, could become wrapped and impede the steering wheel from free movement, resulting in danger that could cause damage or serious injury. Pro Trim style trim

units that are column mounted should be used. They offer one or two trim switches to operate engine trim or hydraulic jackplates and are column mounted, avoiding wiring entanglements described above. Before operating your boat, insure that the following check list is carried out.

1. Perform system pressure test by turning helm wheel all the way to hard over and forcing the helm another turn. This should be done in both directions. This will pressurize the system and any weakness in the system should show up at this time.

2. Confirm that extruded nylon tubing has not been substituted for Sea Star Hydraulic steering hose.

3. Confirm that there is no interference between the steering cylinder and the transom, splash well or jackplate, or any combination of these parts, by performing these simple steps: With engine fully trimmed up, turn hard over and confirm that no interference occurs. If you are using a hydraulic jackplate this must also be performed at the top and bottom position of the jackplate's range of motion. If interference is present, it must be eliminated with trim limiting switches and /or jackplate lift restrictors. Contact the jackplate manufacturer for instructions pertaining to the jackplate and its operation. Confirm that the steering cylinder can be stroked fully in both directions as well as in full trim and tilt positions without stretching or kinking of the hydraulic hoses. Confirm that the hydraulic hoses are not subjected to chafing or rubbing. Stretched, kinked or chafed hoses could fail over a period of time and should be corrected before further operation. Failure to comply with the above may result in loss of steering, causing property damage and/or personal injury.

Maintenance

1. Maintenance requirements will vary depending on usage and climate. Bi-annual inspection by a qualified marine mechanic is recommended

2. Remove, clean and grease the support tube annually with quality marine grease.

3. Check the steering fluid level in the helm. It should be maintained at no lower than the bottom of the filler cap threads. If fluid needs to be added, be sure to protect carpeting on floor under the helm area to prevent spillage of fluid on the carpet. Spillage on the carpet will permanently discolor, damage carpet and also dissolve glue material holding carpet to the deck.

4. Replace any hoses showing signs of wear and remove the cause or reroute hoses.

5. Make sure that there is no interference between the jackplate and the steering cylinder. If interference occurs, it may occur during trimming or tilting of the outboard engine. Lift restrictors or tilt restrictors should be implemented to avoid this situation. Please consult your dealer for further assistance. Failure to comply with the above may result in loss of steering, causing property damage and/or personal injury. It is very important that steering systems are properly bled of any air in the system. Air in the system will reduce control and handling at the helm and can make the steering system feel "sloppy". See your dealer for assistance in bleeding hydraulic lines.

Electrical System

The 12-volt DC electrical system is a 12-volt, 2-wire, negative ground type. The hot wire is positive, feeding the lights, pumps and other electrical components of the boat itself. The negative return is by an insulated wire to the negative terminal of the boat battery. Separate batteries are typically used to power trolling motors. ***NOTE:*** Wiring schematics are available from Excel upon request

Electronics

Sonar units, such as Liquid Crystal Graphs, GPS units, and flasher units, may be flush mounted in some cases or may be surface mounted near consoles or on front decks. It is recommended that whenever possible, all surface mount installations be done by "through bolting" the mounting hardware for the unit to

insure a reliable attachment to the boat. Follow manufacturer's instructions when connecting cross leads to inappropriate terminals as electrical damage or fire may occur. It is always recommended to wear eye protection when working with batteries, their connections or battery chargers.

Battery Chargers

Modern battery chargers may be one, two, three or even up to four bank chargers and capable of charging as many batteries at one time. Always follow the manufacturer's recommendations when connecting battery charger leads to engine or trolling motor batteries. Some chargers are self-regulating and will reduce themselves to a trickle charge when batteries become charged, while others may require being manually turned off when the batteries are fully charged. Read and understand the operation of your particular charger before using. When in doubt, contact the manufacturer for information about your charger.

NOTE: Always wear eye protection when servicing batteries or making connections. Always keep fluid levels of liquid type batteries at their proper level. Allowing fluid battery cells to run dry will do permanent damage to the battery. Many higher amperage chargers will cause fluid levels to drop during charging. Therefore, the owner should always insure that adequate fluid is present. Batteries being charged may produce a combustible gas. Never use an open flame for visibility in checking fluid levels. Battery acid can severely burn eyes, skin or clothing. Flush immediately with fresh water, if contacted. Always wear safety glasses when handling or monitoring batteries. If acid contact to eyes occurs see a physician immediately.

Mounting Trolling Motors

Whenever installing a trolling motor, it is recommended to follow the manufacturer's installation recommendations. Excel recommends the use of rivet nuts to ensure the trolling motor is securely mounted. Trolling motors have to withstand the rigors of impact on the bow; therefore, a solid permanent installation is very important to protect passengers, the motor, and the boat itself.

NOTE: Quick detachable mounts used on some fish and ski models enable fast removal of the trolling motor. Always be sure to properly secure the motor when re-attaching the unit to avoid possible injury or damage. It is the owner's responsibility to insure that these units are properly re-attached and secured to prevent a trolling motor from coming loose while the vessel is under installing electronics. Electronics in many installations may be wired to accessory switches when equipped and may be powered on and off either by the unit itself, the accessory switch, or the main power, if present. Mounting the transducer too close to the propeller may cause cavitation to occur due to disturbing the flow of water to the prop itself. Refer to the electronics manufacturer's instructions or see your local dealer prior to installation.
NOTE: Wiring schematics are available from Excel upon request.

Trolling Motor

Most Excel fiberglass boats are equipped with either 12 or 24 volt trolling motors. Generally speaking, standard boats will use 24 volt systems which require two dedicated batteries to operate the electric trolling motor, while larger optional units may operate on 36 volts with a three-battery setup. The trolling motor plug itself should be removed from the receptacle when not in use and especially when the boat is covered with a storage or transportation cover. This will prevent the trolling motor from operating under the cover due to weight pressure from the cover itself, or from collected rain or snow that may put pressure on the trolling motor switch activating the motor. Damage to the cover and/ or the trolling motor may occur if the motor is activated while under cover.

Trolling Motor Circuit Breakers

To protect the system and the trolling motor, Excel boats utilizes 50 amp circuit breakers at the end of the wiring harness where the leads attach to the battery. Breakers will trip if the propeller either becomes obstructed or bound by grass or weeds while the unit is in operation. In this case, the user will need to clear the debris or obstruction and then push the reset device back in on the breaker to restore current to

the trolling motor. Trolling motor wiring leads are generally marked battery 1+ , battery 1- or battery 2+ or battery 2-. Ring terminals with these markings should be attached accordingly to the appropriate battery terminal. Care should be used to insure that leads are securely attached, and most importantly, attached to the correct terminal.

Wiring Schematics

Wiring schematics for each Excel model are available upon request at Excel's main office. Wiring should be performed by a qualified technician.

Engine Alarms Systems

There is a wide range of engine brands available on Excel boats. Built in warning lights, sound alarms, and protection systems vary, depending on the particular outboard engine brand. Please refer to your engine owner's manual for details pertaining to your particular engine.

Alternators

The outboard engine alternator will recharge the engine battery when the engine is running. On some models, a voltage regulator controls the rate of charge by sensing battery voltage and increases or decreases output accordingly. Alternators do not put out as much charge at low rpm's compared to high rpm operation, and sustained low speed trolling with heavy use of a boat's pumps and electronics may run the main battery down. If this should occur, operating the outboard at higher rpm's will help restore some additional charge to the battery.

Installing Battery Boxes

Each new boat is furnished with battery box(s), which should be replaced promptly in the event of damage. Battery boxes should always be secured to the boat itself. Loose batteries can cause damage if unrestrained in rough water conditions. Always screw battery boxes down to the boat and use a battery strap to restrain the battery to the box. Caution should be used to avoid drilling through the bottom of the hull when securing battery boxes. Battery locations are typically close to hull materials in many boats. Excessively long screws should be avoided to avoid the risk of drilling thru the hull.

Installing Accessories

Surface mounting of accessories such as rod holders or depth finders, may require fasteners to be mounted. It is preferable to thru bolt surface mounted accessories using a washer on the underside when access is possible. Damage caused by improperly installing fasteners is not covered under warranty.

Operation

If the body of water is unknown, talk to the local boaters about the type of obstacles you may encounter beneath the water's surface. Rocks, tree stumps and sandbars are all dangerous and damaging. Be especially wary of rivers and man-made lakes. Rapidly changing conditions can cause daily changes in underwater hazards. Stay well clear of floating debris. What looks to be a small branch in the water may well turn out to be an entire tree.

When traveling through weedy areas, keep an eye on the engine temperature gauge. Weeds caught up and blocking the water flow will cause trouble on outboard engines. Air cooled backwater motors can be run through weeds and mud without fear of overheating the engine. Also, after leaving the weedy area, shift to neutral for a few seconds and then to reverse for a few seconds to unwind any weeds that may have wrapped around the propeller.

Check the propeller often. A worn or broken propeller can cause outdrive failure and poor performance. Also check to ensure fishing line, cord or wire does not get wrapped around the propeller and bearing area. The seals are located next to the propeller and debris can cause these to fail resulting in oil leaks and damage to the lower drive unit.

Drive slowly in wakeless areas, around dock, in shallow water and by swimmers.

Docking and Tie-Up

Approach the docks slowly, with the starboard side of the boat if possible. The natural tendency to torque steer with the rotation of the propeller at slow speeds makes docking easier on that side. Also, use wind and current to your advantage when docking. Before tying up the boat, be sure to use enough dock bumpers to protect the boat from damage. If possible, tie-up with the bow toward the waves. Use good quality double-braided nylon line.

If the boat is to be kept in or near water for the season, consider the purchase of a boat lift. These lifts prevent the build-up of marine growth on the hull as well as protecting it from damage typical of on-water storage, such as blistering. Make sure the boat lift supports to the hull correctly.

Galvanic Corrosion

Galvanic corrosion (electrolysis) to the boat is the decomposition of metal due to the effects of electrolytic action. When two dissimilar metals are immersed in a conductive fluid (salt water), an electric current is produced, much like the action of a battery. As the current flows, it takes with it tiny bits of the softer metal. If left unchecked, a great deal of damage could occur. If you operate in salt, polluted or brackish waters, your boat should be equipped with a transom-mounted zinc anode to prevent damage to those metal parts coming in contact with the water. The zinc is, by design, self-sacrificing. It is slowly eroded away by electrolytic action and requires periodic inspection for deterioration. If the zinc shows extreme erosion, it must be replaced to continue protection, or damage to other metal parts may result.

Salt Water Corrosion

Your boat has been designed for operation in fresh and salt water. If you are operating in salt, polluted or brackish water, you will need to keep the boat clean and flush the engine with fresh water after each use. The entire engine cooling system should be flushed with fresh water for at least ten minutes after each use in such waters..

Marine Growth

If accelerated marine growth is a problem in your area, an anti-fouling bottom paint may be necessary to slow growth while protecting your gel coat. Before selecting a bottom paint, talk with other boaters and your Excel dealer to determine the product that works best in your area. Many local variables can affect the selection of paint. Be sure to follow the paint manufacturer's directions exactly.

Regular washing with mild detergent and warm water or vinyl cleaners is sufficient to keep the cushion and vinyl coverings in good condition. Keep the cushion from becoming soaked, and dry thoroughly after washing to prevent mildew accumulations when the boat is covered. Prop up the cushions in the boat when it is covered to take advantage of air circulation. Spray with a mildew repellent.

While your vinyl is made to withstand the elements, it is important to care for it by keeping it clean at all times. Many substances may stain your vinyl if left untouched over a period of time. Remember to remove any contaminant and clean vinyl immediately. Our vinyls are made to withstand the effects of sun, heat, acid rain and soiling, under normal conditions. It should be understood that some fading can occur and is not covered under warranty. Please consult the following cleaning recommendations before cleaning your upholstery. Certain household cleaners, powdered abrasives, steel wool, and industrial cleaners can cause damage and discoloration. <u>These are not recommended for use.</u> Dry cleaning fluids and lacquer solvents should not be used as they will remove the printed pattern and gloss.
Although there can be other causes for pink staining in vinyls, most pink stains are caused by dyes produced by micro-organisms. These dyes are metabolic products of the micro-organisms, otherwise known as a form of fungi. It is virtually impossible for consumers to avoid these micro-organisms as they

exist in the atmosphere. It is also more prevalent in high-humidity areas. Rain can cleanse the air with the result that the micro-organisms are deposited on items such as marine vinyl.

Carpet

Occasionally washing with mild detergent and warm water or household carpet cleaners will help keep the carpet clean. Thoroughly hose the detergent out of the carpet and into the bilge. *(This is usually the best time to clean the bilge also.)* Allow the boat to remain uncovered in the sun for several days to prevent any mildew or odor caused by moisture.

Windshield

Clean the windshield with common household window cleaning solvents. Do not use abrasive cloths or scrubbing pads. It is best to hose off the windshield prior to cleaning to remove any grit, sand and road dust. Also, when your boat is in service, avoid using the windshield as an aid for balance or getting out of a seat.

Stainless Steel and Chrome

Stainless steel and chrome-plated parts are not totally resistant to corrosion. Occasional cleaning and polishing with a marine chrome-and-stainless polish will maintain and extend the useful life. In salt water areas, rinse all hardware with fresh water and apply a light coating of protective oil to enhance the appearance after each use.

STORAGE

Storage or winter lay-up requires special preparation to prevent damage to the boat. Since winter storage is an annual event, it presents an excellent opportunity to perform the annual maintenance at this time. Without proper preparation, storage for long periods of time may cause internal parts of the engine to rust because of lack of lubrication. Also, if the boat has been stored in below-freezing temperatures with water inside the boat and bilge, this condition could result in major damage from freezing. Also, refer to the section regarding oil changes. Your boat should have an oil change performed immediately prior to storage to prevent potential damage to your engine.

The following procedures will help avoid most potential types of damage for a period not to exceed five (5) months! Because of the complexity of preparing your boat for proper winter storage, as well as the possibility of extreme damage of the engine if a preparation error was made during winterization, Excel recommends that you schedule an appointment with your local Excel dealer and permit the dealer to perform the winterization procedures.

To properly winterize your engine, you MUST be able to bring the engine up to operating temperature. To accomplish this, your boat must be in the water or attached to a water supply using a hose and suitable adapter that will allow an uninterrupted supply of water to the engine. Air cooled backwater motors can be run out of the water and out of gear to winterize.

General Preparation

Before starting you will need the following supplies:

- Sta-Bil Gasoline Stabilizer
- Specified engine oil *(see manufacturer engine oil change instructions)*
- Appropriate oil filter for your engine *(see manufacturer engine oil change instructions)*
- Fuel filter
- Four to six ounces of fogging oil
- One (1) can of corrosion protestant and lubricant
- Transmission oil *(if needed)*
- Multi-purpose grease

Fuel System Treatment

Step 1: If the boat will be placed in storage with fuel (no alcohol in the mix) in the tank, fill the tank with fresh fuel and a sufficient amount of Sta-Bil gasoline stabilizer to treat the entire tank. Follow instructions on the container.
Step 2: Attach a water hose for outboard motors per manufacturer instructions. Start the engine and operate at idle until the engine reaches normal operating temperature.

Step 3: Disconnect the fuel line and allow the engine to run out of fuel. Do not rev engine.

Step4. Remove the sparkplug and pour in a small amount of oil (less than ½ ounce). Turn over the engine to oil the cylinder walls.

Engine Preparation

Step 1: Check and/or change the lower outdrive fluid.

Step 2: Remove the attaching hardware from the propeller shaft coupling. Check for fishing line or other debris wrapped around the propeller shaft. Coat the shaft with marine grease and replace the propeller.

Step 3: Remove any dirt, grime or excess grease from the engine and boat. Wash with a gentle detergent and dry.

Step 4: Grease and/or oil all lubrication points.

Step 5: Spray the engine with corrosion protestant.

Step 6. Disconnect the battery cables and place the battery in a cool dry indoor storage location. Add fluid to the battery and place on a battery tender.

Step 7. Check trailer, tires, and boat lighting. Grease the trailer bearings. Check the trailer tongue latch for smooth operation.

Step 8. Spray the boat and trailer wiring connections with corrosion protestant. (We recommend ZEP ENGINE RESTORE.

Backwater Motors: Check the outdrive and tension the drive belt. Inspect the throttle linkage for smooth operation. Elevate the ends of the throttle cable to prevent water from entering. Check air cleaner element. Lower outdrive to prevent rain from entering the exhaust system. Grease the outdrive per manufacturer recommendations.

Other Winterization Preparations

Step 1: Remove the bilge drain plug. After a general bow-to-stern washing, raise the bow of the boat higher than the stern to allow as much water as possible to drain from the bilge, while performing other storage preparations.

Step 2: Thoroughly clean the hull, deck and interior of the boat. Cleaning at this time is easier because any marine growth is still wet. Be sure to allow a few days of air drying to prevent mildew that results from trapped moisture.

Step 3: Apply a coat of wax to the entire surface of the boat for high gloss finish models. We recommend a marine grade wax with anti marine growth additives.

Step 4. After the boat is completely dry inside and out, cover the engine and boat for the storage season.

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