



Commercial Mower Owner's Manual

For Sentar Serial # 17125 and higher until superceded



WARNING: READ THIS MANUAL BEFORE USING

For your safety and for proper operation and maintenance read carefully and keep readily available for future reference.

Additional replacement owner's manuals (Part # 79490103), as well as an illustrated parts lists (Part # 79490104), are available from your authorized Wright Dealer for a nominal charge or if a dealer is not available by contacting Wright Manufacturing, Inc. Please indicate the complete model number and serial number of your Wright product.

WRIGHT MANUFACTURING, INC.
4600X WEDGEWOOD BLVD
FREDERICK, MD 21703

WMI Part# 79490103

Foreword

Welcome to the progressive group of mowing professionals who use Wright mowers. We are focused on giving you advanced engineering and quality construction in each mower we build.

This manual explains the features and promotes safer use of the mower. Please read it and follow the instructions carefully so that you can have many years of productive mowing.

For service, remember that your Wright dealer knows your mower best and is interested in your satisfaction. He can provide you with quality maintenance and other assistance that you may need.

Please give this manual to anyone who may use the mower for them to study before they operate it. Give the manual to anyone to whom you may sell the mower in the future. It is important that the next owner receive this information also.

As Wright Manufacturing, Inc. is constantly seeking ways to improve its products, the mower you have may differ slightly from the information and specifications in this manual. Because of our continuous product improvement, Wright reserves the option to make changes at any time without notice.

Wright Manufacturing, Inc.



SAFETY ALERT

This is the safety alert symbol. It is used throughout this manual and on the mower's safety labels to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. Read these instructions carefully. It is essential that you read the instructions and safety precautions before you attempt to work on or use this unit.



WARNING

This symbol with the word "WARNING" indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

This symbol with the word "CAUTION" indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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Safety Instruction Manual

**TO WRIGHT MOWER USERS & OWNERS: READ THIS MANUAL BEFORE USING.
PLEASE BE CAREFUL!**

INTRODUCTION

This mower is built to the highest standards in the industry. However, carelessness or operator error may result in serious bodily injury or death. Accident and hazard prevention are dependent upon the awareness, concern, wisdom, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. Make sure every operator is properly trained and thoroughly familiar with all of the information in this manual before operating the equipment.

GENERAL SAFETY INSTRUCTIONS

The Wright Sentar is designed with your safety in mind. It has the following safety systems that you should be familiar with:

- The warning decals on the mower including the instrument panel warning
- The blade switch must be “off” before starting the engine
- Your feet must be on the foot platform in order to engage the blades
- You feet must be on the foot platform in order for the engine to run if the blades are engaged
- If you remove your feet from the foot platform while the blades are running the engine will stop and the blades will brake in seconds
- Letting go of the hand controls will stop the wheels instantly
- Spring loaded chute deflector helps reduce trajectory of thrown objects
- Belt/pulley covers on cutter deck
- Anti-tip rollers are provided at the rear of the mower to minimize the possibility of tipping back and over on the operator



WARNING

Owner/User Notice:

The owner’s/user’s obligation is to instruct themselves and all potential users in the safe operation of this equipment and be sure they read and follow the instructions in this safety manual and other material provided by Wright Manufacturing, Inc. before using or allowing others to operate the equipment. Do not operate this unit unless you carefully read, understand and follow the assembly, installation, and safety instructions contained in this manual and the warning decals provided on the unit. Do not allow other persons to use this unit unless you make sure they carefully read, understand and follow these instructions. Never allow children to operate or play on the unit.



WARNING

User Experience & Qualifications:

This product is designed for use by physically fit, experienced, professional commercial mower operators who have a minimum of 160 hours of experience operating twelve horsepower and greater industrial mowers. Operators must be 18 years or older and weigh at least 120 lb. and no more than 350 lb. They must have read and understood this manual. DO NOT allow children to operate the mower. Do not allow adults to operate the mower without proper instruction mentioned above. Never allow passengers on the mower.



WARNING

User Clothing:

DO NOT operate the mower while wearing sandals, tennis shoes, sneakers, or shorts. Always wear long non-baggy pants. Wear high-top leather work boots with thick, textured tread, soft-rubber soles at all times. Hard or smooth soled shoes are too slippery for a good footing on mower platform. NEVER wear loose-fitting clothing which could get caught in moving parts. Wearing safety glasses, ear protection and safety shoes is advisable and required by some local ordinances and insurance regulations.



WARNING

Inspect Mower Before Each Use:

DO NOT use the mower if any parts are not maintained in good operating condition. Examine the moving parts prior to each use. Look for excessive wear, bald or worn tires, cracks in parts, loose or missing bolts, cotter, linchpin or "hair" pins and replace before operating the mower. Make sure all safety equipment provided with the mower is in good operating order, including all the warning decals and the required operator-presence device which stops the engine and blades when the foot-operated Operator Presence Control (OPC) switch is released. (To test the OPC, follow instructions in the Operating Instructions section of this manual.) Inspect the two anti-tip rollers and their respective bolts at the rear of the mower for tightness and proper operation. Ensure that all parts of the hand-operated transmission control system are tight and secure. This is to reduce the possibility that the mower could have a loss of control or safety.



WARNING

Scheduled Mower Maintenance Safety:

Replace worn tire(s) with less than 3/32" of any tread groove left. Use tires with the tread pattern specified by Wright Mfg., Inc. only. DO NOT

change the engine governor settings or over-rev the engine contrary to engine manufacturer specifications. Keep the Wright mower in good operating condition, and keep safety devices and shields in place and in working condition. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition. Check the blade mounting bolts for proper tightness every eight (8) hours of operation. Check the blades for excessive wear and sharpness every four to eight (4-8) hours of operation. Replace excessively worn blades. Sharpen dull blades. The mower should not be used after the blades or other part of the mower strikes a foreign object, until conducting a thorough inspection and any damage is repaired. See the instructions in the Recommended Maintenance section of this manual for other items of required maintenance.



WARNING

Work Area Conditions and Inspection:

Prior to operating the unit carefully inspect all lawn/ground areas where you plan to use the mower for hidden, hard-to-see objects or uneven ground that may be hidden in the grass. Clear the work area of moveable objects such as wires, rocks, glass, etc. that might be picked up by the mower and dangerously thrown. Remove, if possible, or mark the location of all immovable objects or irregular areas and be sure not to hit them with any part of the mower, its deck or the blades. Obstacles such as holes, abrupt changes in ground contour, tree trunks, stumps or roots, pipes protruding from the ground, paving edges, etc. in the path of operation can abruptly turn or stop the mower. This could throw you off the mower or into and possibly over the handle bars causing serious injury or death. The faster you are moving the more potential there is for injury. Mow only in daylight or in good artificial light. Keep away from drop-offs, the edges of ponds, streams, pools, etc. especially at the bottom of slopes. Do not mow when children or others are around. When the Wright mower is in use, never direct the grass discharge toward bystanders, traffic, cars or buildings nor allow anyone near the machine while in operation. Thrown objects can pass through glass windows and some walls of

buildings. There is extreme risk of danger from thrown objects or being cut by the blades of the mower or being run over if you lose control. Never operate the mower in an enclosed area without good, approved ventilation. Exhaust fumes are dangerous.



Initial Operating Safety Guidelines:

- Read and understand the warnings on the instrument panel of the mower.
- Keep a firm hold on the stationary handle at all times.
- Keep both feet on the foot platform at all times.
- Know the controls and how to stop quickly.
- Before attempting to start the engine, follow all starting instructions below and in the engine operators manual.
- Look behind before backing up.
- Before leaving the operator's position for momentary reasons, turn off the blade clutch engagement switch, apply the parking brake. Keep others from coming near the mower. Get back on the mower as soon as possible.
- When leaving the Wright mower unattended, turn off the blade clutch engagement switch, apply the parking brake, stop the engine and remove the key. Never leave the machine unattended on a slope in case someone disengages the parking brake which would be hazardous if the mower were to roll.
- When transporting, driving onto transport vehicles, into buildings, across parking lots or otherwise not mowing grass, turn off the blade clutch engagement switch to reduce risk of thrown objects and rotating blade hazard. After coming to a stop apply the parking brake, stop the engine and remove the key.
- Before performing any maintenance, repair service, disengage power to blades, apply the parking brake, stop the engine, remove ignition key and spark plug wire from spark plug(s).
- All operators of this mower should exercise caution when driving this mower at high speeds. Sudden stops from

excessive speed may cause serious injury.

- DO NOT allow inexperienced people to operate the mower until they have read and understood these safety instructions. Operate the mower at slower speeds while becoming familiar with it.
- The discharge chute deflector must be installed at all times and in the down position except that it may be raised when the grass catcher is completely installed or a mulch kit is completely installed.
- If the mower discharge clogs, turn off the blade clutch switch, apply the parking brake, stop the engine and remove the key before removing obstruction.
- Keep all shields and covers in place, especially grass discharge chute deflector and the blade belt covers.
- Keep hands, feet and clothing away from rotating parts, especially the rear wheels, blades, engine flywheel, belts and pulleys.
- Do not touch engine or muffler while engine is running or soon after it is stopped. These areas can be so hot as to cause severe burns.
- Clean grass, leaves and lubricant spills from surfaces after use to prevent fire hazard.
- Be alert for traffic when crossing roads or operating near roadways.
- Before climbing curbs, crossing gravel drives, sidewalks or roads, turn off the blades lift them into transport position, and wait for them to stop.



Replacement Parts:

Use of parts other than specified parts supplied by Wright Manufacturing, Inc. may compromise the safe use of the mower and are not recommended.



Operation on Slopes:

DO NOT operate on steep slopes. Do not operate the mower on slopes steeper than you can feel secure about the traction of the tires and the stability of the mower. Do not operate the mower on slopes at all when the grass is wet. There is a

danger of suddenly sliding sideways or down the hill. On moderate hills reduce speed and use caution. When operating on a slope, travel across the grade, whenever possible, not an up or down pattern. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.

When pointing up a slope, the Sentar has the most weight on the drive wheels and therefore the most traction at the tires. However, this is the angle that it has the most tendency to tip back (“pop a wheely”). This is the preferred angle for mowing small areas of steeper slopes.

Recommendations for this angle:

- Lean as far forward as possible and stand if necessary to add your weight to the front of the mower.
- Accelerate gently. Do not accelerate quickly to avoid “popping a wheely”.
- If backing down the hill do not stop suddenly, but slow down gradually.

When pointing down a slope, the Sentar has the least weight on the rear drive wheels and therefore the least traction at the tires. This is the angle that the mower has the most tendency to slide. However, this is the angle that it has the least tendency to tip back. Avoid this angle, as it has the least advantage for the Sentar.

Recommendations for this angle:

- Stretch your arms out straight while holding onto the stationary handlebar and sit back as far as you can on the seat. This adds more of your body weight to the drive wheels for more traction.
- Do not change speed suddenly to minimize the tendency of going into a slide. Accelerate and decelerate gently. If you ever go into an uncontrolled slide while pointing down a slope the recommended procedure is to let go of the handles and jump off if necessary. Otherwise, control the mower gently and stay off slopes that tend to make the wheels slide.

When crossing a slope sideways, the Sentar

has the average amount of weight on the drive wheels versus the front wheels, similar to level ground. However, this angle leaves the least weight on the higher side drive wheel, tending to make it slip. This is the preferred angle for mowing large areas of gentle slopes.

Recommendations for this angle:

- Sit back, as far as you can on the seat. This adds weight to the rear drive wheels and will allow you to mow more quickly across the slope without sliding. If your Sentar is equipped with the optional weight bar on the front, the mower may not handle as well crossing slopes as a Sentar without the weight bar on the front. Weight on the front of the mower reduces the traction of the rear drive wheels and can cause the mower to slide or nose dive down hill. Use of the optional weight bar is determined by the width of cut of the mower and the operator's weight. For 48" and 52" cut mowers, operators over 220 pounds may prefer the optional weight kit. For 61" cut mowers, operators over 280 may prefer the optional weight kit. Remember it is recommended that operators weigh at least 120 lb. and not more than 350 lb.

- Do not accelerate quickly to minimize the tendency of “popping a wheely”.

Note: Excessively worn tire tread is dangerous. Replace tire(s) with less than 3/32" of any tread groove left. Use tires with the tread pattern recommended by Wright Mfg., Inc. only. Keep the tire pressure in the drive tires between 20 and 24 psi. Higher pressures will cause the tires to have less traction which may prevent safe operation.



Operation During Zero-Radius Turns:

During zero-radius turns (when one mower wheel rotates backwards while the other rotates forward) drive extra slowly to reduce the possibility of losing traction, or control, or becoming dizzy. This will help prevent you from being thrown off of the mower. Be aware that if you do a turn on a slope you may go through all of the orientations to a slope mentioned above and must handle the mower accordingly.

WARNING

Operation in Reverse:

Always keep a firm grip on the stationary handlebar with both hands. Keep both feet firmly on the foot platform. Operate the mower very slowly, inching it backward until you become familiar with how the mower operates and always if in an awkward location or position. Never place your foot or feet on the ground near the back edge of the mower while backing up to prevent serious injury to feet or legs if mower were to run over you. Look behind you before backing to prevent injuring yourself or anyone behind you.

WARNING

Operation in Forward Direction:

Always keep a firm grip on the mower stationary handlebar with both hands. Operate the mower slowly until you become familiar with how the mower operates. Do not operate the mower faster than conditions allow. For example, hills, wet or bumpy ground, dim light or high grass would all be conditions where you should work slower than normal. Never operate the mower at the highest speed unless you are on level, wide, open areas of clearly visible ground or transporting on paved areas. Speeding with any mower is dangerous, and so is traveling faster than conditions should permit on this mower. Sudden stops from excessive speed or falling off the mower may cause serious injury or death.

WARNING

Fuel Safety:

Handle gasoline with care - it is highly flammable. Do not smoke while handling gasoline. Use an approved gasoline container. Never remove the fuel cap or add gasoline to a running or hot engine or an engine that has not been allowed to cool for several minutes after running. Never fill the tank indoors and always clean up spilled gas. NEVER store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

WARNING

Hydraulic Safety:

Keep body and hands away from pin holes or fittings that eject hydraulic fluid under high pressure. Use paper or cardboard and not hands to search for leaks. Hydraulic fluid escaping under high pressure may have sufficient force to penetrate skin and cause serious injury. If foreign fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result. Seek medical attention immediately. Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before starting the Wright mower. Hydraulic fluid is under high pressure. If you need service on your hydraulic system, please see your authorized Wright dealer.

We really want you to be as safe as possible. Please read the above again and again until you fully understand the methods to promote the safest operation possible.

REMEMBER - YOUR MOWER CAN BE ONLY AS SAFE AS THE OPERATOR. FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN SERIOUS INJURY OR DEATH.

Pre-Delivery Service of Mower by Dealer



If you are not completely familiar with the Safety Instruction Manual read it now before proceeding with the Pre-Delivery Service of the mower. Only your authorized Wright dealer should perform the Pre-Delivery Service of the mower.

The Wright Sentar is shipped completely assembled and has been adjusted and tested at the factory. However, due to the jostling of the shipping process and the amount of time elapsed since this was done at the factory until you received the machine the following items need to be repeated again before starting the mower. After you have un-crated the mower follow these procedures in the order indicated:

- Remove spark plug wire from spark plug(s)
- Inspect the mower for any damage, unusual conditions or missing parts.
- Inspect the mower for all of its decals, especially the warning decals. There should be one blade warning decal on each side of the deck, the "shield missing" under the blade belt covers, and the dash decal.
- Check (and fill if necessary) engine oil level according to the engine manufacturer's recommendation.
- Check (and fill if necessary) hydraulic fluid level. The level should be about 4"-4.5" below the top of the oil fill. Use synthetic oil: Mobil 1 10W-30 or AmsOil 10W-40.
- Check rear tire pressure. 20 to 24 psi. is recommended. It should be even on both sides. Use the higher pressures for heavier operators. Set the tire pressure in the front caster tires between 20 and 35 psi. Higher pressures will help keep the caster tires on their rims when impacted from the side but give a harder ride.
- Check the battery to see that the cables are tight and connected properly. The battery is 12 volts and is a maintenance free battery. Only charge the battery if it will not start the mower properly.
- Remove the blade belt covers and inspect the belt and idler arm for smooth operation. Also grease the spindles and the idler arm.
- Rotate the blade pulleys slightly to see if they rotate freely and all turn together. There will be resistance due to the clutch brake.
- Replace the blade belt covers.
- Check the cutter deck for proper adjustment. The deck should be approximately 1/4" lower in the front than in the rear and the deck should be level side-to-side. If the deck is not adjusted properly please adjust at this time. See Deck adjustments for further instructions.
- Lubricate all moving parts (see Maintenance Items section of this manual).
- Fill fuel tanks with regular unleaded gasoline. Turn fuel valve under right side of dash towards the gas tank you plan to use.
- DO NOT START THE ENGINE AT THIS TIME. FOLLOW THE NEXT PROCEDURE BEFORE STARTING. The hydraulic system MUST be checked for proper operation before allowing wheels to operate on the ground.
- Set the rear of the machine on jack stands or blocks to raise rear wheels off of the ground two or three inches and check that the mower will not fall off the supports you devise. (Do not support the mower's weight on any part of the foot platform). You must be able to stand on the mower. The stand(s) must be able to secure the mower from rolling off or away during the next procedures. Check under the mower deck for any debris or unusual conditions.
- With hand controls in the middle or neutral position, apply the parking brake.
- Open the manual bypass valves on top of each pump a half-of-a-turn counterclockwise.
- Reattach spark plug wires to spark plugs.
- Before starting the engine be ready to stop it if the wheels begin to turn with the brake on. (If this happens, check that the manual bypass valves on top of each pump are open at least a half-of-a-turn counterclockwise.)
- Start the engine according to the engine manufacturer's recommendation. Let the engine run at low RPM for several minutes to get the hydraulic fluid circulating through

the pumps. While seated or standing on the foot platform, release the parking brake. Now gradually close the manual bypass valves on top of each pump one at a time and see if the wheels start to move. If the wheels move when the hand controls are in the neutral position, adjust the neutral adjustment knobs in front of and between the two hydraulic pumps until they stop. The manual bypass valves on top of each pump should now be firmly closed. (Do not tighten these bypass valves with a wrench, only hand tighten) Now try moving the hand control levers, one at a time, forward and backward. Check to see if the wheels move forward and backward according to position of the levers. If not, service the hand control system. If the wheels stop when the hand controls are in the neutral position the parking brake should now be applied.

- Before testing the blade clutch/brake operation make sure the area is clear and there is nothing vulnerable to possible thrown objects from under the mower. No one should be near the mower deck or in its line of discharge at this time. The discharge chute deflector should be in the down position. The parking brake should now be applied. Move the engine throttle control to its highest RPM speed setting.
- Place your feet firmly on the foot platform and turn on the blade clutch switch. Run blades for a minute or so. Try engaging and disengaging the blades a few times about 10 seconds apart. If the blades do not start and stop in a short amount of time, service the blade brake system. With the blades on, now try lifting your feet off of the foot platform to test the Operator Presence Control switch (OPC). The engine should die and the blades should stop in several seconds. If not, service the OPC system. Try this a couple of times.
- Disengage the blades, set the parking brake and shut off the engine and remove the mower from the stand(s).
- Drive the mower around on a level parking lot. It is recommended that the slower setting of the Speed/Sensitivity Adjustment be used. (See further in this manual for

information on Speed/Sensitivity Adjustment.) Check that the mower drives in a straight line when both hand controls are held to the full speed position which is up against the stationary control bar. If not, see further in this manual for information on tracking adjustment.

- As you drive the mower listen for any unusual noises and test for irregular operation and adjust or service as necessary. Next, go over the safety information and operating procedures in this manual with the customer. Instruct the customer in proper operation and observe the customer during their initial operation on a level parking lot. Make sure the customer is familiar and comfortable with the basic operation and use of the mower.
- **Dealer:** Please fill out and follow the instructions on the Product Registration Form and have the customer fill out his part of the form. After the Product Registration Card is filled out and signed by the customer and a representative from your dealership, please send or fax it immediately to your Wright Commercial Products Distributor according to the directions on the Card. Then give the customer his copy of the registration form and then keep your copy and mail the remaining copies of the form to your Wright Commercial Products Distributor. The limited warranty is not valid unless the mower is registered and all of the above steps are taken. Remember, the purchaser is both your and our customer and his satisfaction is very important. Thank you for supporting our products.
- The mower is now ready for delivery to your customer.

Operating Instructions

If you are not completely familiar with this Safety Instruction Manual read it now before proceeding with the operation of the mower. **REMEMBER THERE ARE CERTAIN PRECAUTIONS LISTED IN THIS MANUAL THAT YOU MUST NOW TAKE BEFORE STARTING THE MOWER.**



Inspect Mower Before Each Use:

Inspection of Mower: Do not use the mower if any parts are not maintained in good operating condition. Examine all moving parts prior to each use. Look for excessive wear, bald drive tires or worn out front tires (normally smooth), cracks in parts, loose or missing bolts, cotter, linchpin or “hair” pins or cable yoke pins and replace before operating the mower. Make sure all safety equipment provided with the mower is in good operating order, including all warning decals and the operator-presence device which stops the engine and blades when the foot-operated Operator Presence Control (OPC) switch is released. To test the OPC, follow the instructions further down in this section of this manual. Inspect the two anti-tip rollers and their respective bolts at the rear of the mower for tightness and proper operation. Ensure that all parts of the Quad Lever™ control system are tight and secure. This is to reduce the possibility that the mower could have a loss of control or safety.

Basic Operation: The following procedures are to guide you through the basic operation of the mower. You should be a qualified mower operator according to the safety section of this manual. If this is your first time, this should only be done with the assistance of your dealer on a level area. You should go through each step, in the order indicated, every time you start the mower.

How to start the mower:

Before starting the engine

- Make sure the control levers are in the exact neutral position
- Apply the parking brake if it is not already set.
- Turn OFF the blade engaging switch if it is on.
- Turn fuel valve toward tank that has fuel in it.

Starting the engine

Electric Start:

- Start the engine according to the engine manufacturer’s recommendation, see engine manual. Set the throttle control lever near mid throttle, pull out on the choke control knob and turn the key to the start position. Do not engage the starter for more than 10 seconds at a time. This may overheat the starter and the wiring systems. Wait 10 seconds between attempts. If the engine does not start within ten tries or stalls frequently take the mower in for service.

After starting the engine according to the engine manufacturer’s recommendation, push in on the choke control knob to open the choke valve, let the engine run for several minutes to get the hydraulic fluid circulating through the pumps, etc. and to allow the engine to warm up. Do not over-rev a cold engine.

Be Aware Of Unusual Noises or Irregular Operation

As you drive the mower listen for any unusual noises and test for irregular operation and adjust or service as necessary.

How To Drive The Mower:

While sitting or standing, both feet should be firmly placed on the foot platform. Set the engine speed about a fourth of the way from idle. Release the parking brake. Now try moving the hand control levers, one at a time, very slightly, forward and backward. Check to see if the wheels move forward and backward according to position of the levers. (If not, check to see that the pump release valves are closed.) With both feet still firmly placed on the foot platform, increase the engine speed to about half of the way from idle speed. Release the parking brake. The higher engine speed will make the controls much more responsive and the mower a lot quicker, so be careful if it is your first time. Now try moving the

hand control levers, one at a time, very slightly, forward and backward. Gradually increase your speed until you are very acquainted with the operation of the hand controls and the mower's behavior. After gaining a good feel for how the mower handles gradually attempt higher engine speeds until familiar with operation at full throttle engine speed.

How To Stop and Park The Mower

Come to a complete stop. If the blades are on, turn them off using the switch on the instrument panel. *Make sure the control levers are in the exact neutral position.* Set the parking brake, reduce the engine speed to idle, shut off the ignition switch to stop the engine and remove the key from the ignition switch. The mower is now parked. Do not leave parked unattended on a sloped surface.

How To Drive The Mower Over a Curb

To climb a curb, first see the Safety Instruction Manual section of this manual, especially the parts on:

- Initial Operating Safety Guidelines
- Operation In Reverse
- Operation In Forward Direction

Next, raise the mower deck into the locked transport position, this is the highest position for the mower deck. Then drive the mower in reverse, at a 45 degree angle to the curb, with the left side of the mower closest to the curb until you are within an inch or two of the left-rear tire hitting the curb. Stop and then gradually bump into the curb with that tire until it is just on top of the curb. If the tire slips even while lurching the mower into the curb then the curb is too high and you should use ramps or find another way. The mower should still be at a 45 degree angle to the curb. Now, while maintaining the same angle to the curb, continue to back up until the right-rear tire is close to the curb. Using the same technique lurch the right tire on to the curb. After both wheels are on top of the curb, turn the mower counterclockwise and back up so the left caster wheel comes over and last should be the right caster wheel as the mower is twisting to the left (counterclockwise). The technique works the best if you try not to drive backwards at a near 90 degree angle to the curb but get all of the

wheels to go over while the mower is moving at least a 45 degree angle to the curb. To drive off a curb first, try driving up onto it to make sure the curb is not too high. If the curb is not too high, drive the right-front caster off first while driving toward the curb at a 45 degree angle (the curb should be to your right). Then, maintaining that 45 degree angle so the left caster goes over, then the right-rear wheel, then the left rear wheel.



Never drive straight on to or off of a curb.

Never drive straight on to or off of a curb. If you do the whole procedure at a very sharp angle it will tend to minimize the contact of the mower deck with the curb and you will be able to more safely control the mower.

How To Use The Mower On Varying Terrain

See the Safety Instruction Manual section of this manual, especially the parts on:

- Initial Operating Safety Guidelines
- Operation On Slopes
- Operation In Reverse
- Operation In Forward Direction
- Operation During Zero-Radius Turns

How to adjust Neutral

Neutral refers to the mower movement when the engine is set to full throttle, parking brake is off, and the control levers are in the neutral position. The mower should not move forward or rearward during this time. If the mower is moving forward or rearward, the neutral setting must be adjusted. If the right rear wheel is moving, turn the adjustment knob just in front of the right hydraulic pump to stop the movement. If the left rear wheel is moving, turn the adjustment knob just in front of the left hydraulic pump to stop the movement.

How to Change the Speed/Sensitivity Adjustment

The controls are initially set with the Speed/Sensitivity Adjustment in the faster, more sensitive position. If an operator is not completely familiar with mower operation the operator may desire to de-



Figure: Decal on side of Control Console

crease the ground speed approximately 25-30%. The slower setting has a corresponding decrease in the sensitivity of the controls. In other words, a given amount of movement of the control levers will cause about a 25-30% change in the ground speed making the controls less sensitive. After **stopping the engine**, the adjustment is made by removing the pins that hold the control cables onto the control lever from the current holes in the control levers and reinstalling them and the cable into the alternate holes. The top holes closest to the control handles are for the faster, more sensitive setting and the bottom holes farthest from the control handles are the slower, less sensitive setting. BE SURE THE PINS IN THE CONTROL CABLES ARE SECURELY IN PLACE AND LATCHED ONTO THE CABLE YOKE EACH TIME YOU REMOVE THEM. YOU MUST USE NEW PINS IF THE OLD ONES ARE WORN, BROKEN, OR BENT. You must then perform the Tracking Adjustment described below.

How to Perform the Tracking Adjustment

First ensure that the tire pressure is equal on both rear drive tires and equal on both front tires. Drive the mower on a level parking lot with engine at full throttle. Check that the mower drives in a straight line when both hand controls are held to the full speed position which is up against the stationary control bar. If not, park the mower and **stop the engine**. The adjustment is made by removing the pin from one of the ends of the control cables and screwing the cable yoke to either make the control cable longer or shorter. Either end of the cable can be adjusted. Before changing the length of the cables several facts are important to know:

In the *faster Speed/Sensitivity setting* neither cable should be shortened so much that at full speed it pulls the pump control lever (on the sides of the pumps) against the pump's internal stop. The pumps have an internal stop that is not designed to take this type of force and could eventually cause pump leakage or other damage to the pump. Therefore, to reach the maximum capable speed, the cables should be shortened one turn at a time until you can feel in the hand control that the internal stop has been contacted, then lengthen the cable one turn. You will feel the slight resistance (there is no need to start the engine or even replace the pin while checking this incrementally, just put the cable yoke pin in the hole in the lever and test it by squeezing the handle to full fast position). Remember, this procedure *does not apply* if the Speed/Sensitivity Adjustment is in the slower setting, otherwise you will run out of threads on the cable ends and the mower will go fast but will lose most or all of its reverse capability and the gap between the stationary bar and the control levers becomes excessive when at the neutral position.

So, if the mower is tracking to the left, either the left side needs to go faster (by lengthening the cable) or the right side needs to go slower (by shortening the cable). And, if the mower is tracking to the right either the right side needs to go faster (by lengthening the cable) or the left side needs to go slower (by shortening the cable). It is important that neither cable should be shortened too far as mentioned above.

The only reference point to limit the adjustment from becoming extremely off is the relative position of the pump internal stop and the stationary bar in the *faster Speed/Sensitivity setting*. Therefore, if everything is way off either because you are installing new parts or other reasons you should only use the *faster Speed/Sensitivity setting* to get the tracking to be accurate and then change to the slower speed range and adjust the tracking only one or two turns on either side. BE SURE THE PINS IN THE CABLE YOKES ARE SECURELY REPLACED EACH TIME YOU REMOVE THEM. YOU MUST USE NEW PINS IF THE OLD ONES ARE WORN, BROKEN, OR BENT. After getting the mower to track straight readjust the neutral if

necessary. It is normal to need to make these adjustments from time to time as the linkage breaks in or wears.

How to Test/Use the Blade Clutch/ Brake Switch

Before testing the blade clutch/brake operation make sure the area is clear and there is nothing vulnerable to thrown objects from under the mower. No one should be near the mower deck or in its line of discharge. The discharge chute deflector should be in the down position. The parking brake should now be applied. Move the engine throttle to the highest RPM speed setting. (When mowing, the engine speed should always be at its highest setting. The engine governor will regulate the engine according to the different mowing conditions at that setting.) Place both feet firmly on the foot platform and turn on the blade clutch switch. Run blades for a minute or so. Try engaging and disengaging the blades a few times about 10 seconds apart. If the blades do not start and stop in a few seconds each time, service the blade brake system or contact your local Wright dealer. Under mowing load, the clutch's longevity will be the greatest at the highest RPM setting.

How to Test the Operator Presence Control (OPC) Switch

With the parking brakes applied and the blades ON, try lifting your feet off the foot platform to test the Operator Presence Control switch (OPC). The engine should kill and the blades should stop within a few seconds. If not, service the OPC system or contact your local Wright dealer.



Service and Adjustments

Tire Maintenance and Pressure

Excessively worn tire tread is dangerous on all hills. Replace drive tires with less than 3/32" of any tread groove left. Use tires with the tread pattern recommended by Wright Mfg., Inc. only. Keep the tire pressure in the drive tires between 18 and 24 psi. Higher pressures will cause the tires to have less traction which will force you to go slower and with less safety and

give you a harder ride. Keep the tire pressure in the front caster tires between 20 and 35 psi. Higher pressures will help keep the caster tires on their rims when impacted from the side but give a harder ride. They do not have any tread but should be replaced when excessively worn.

Height-of-Cut

Before Adjusting the Height-of-Cut be sure the mower deck is off, and all four tires have proper air pressure and check for even tire wear. The height-of-cut can be adjusted the following ways:

- Pull the deck lift lever on the right hand side of the mower towards the rear of the mower until it clicks once into the locked transport position. Then set the mower blade height with the selector on the left hand side of the mower. Once the proper height setting is set on the left, pull back on the deck lift lever on the right hand side and then lower the lever towards the front of the machine until it stops at the set height of cut.

Deck adjustments

The mower deck can be adjusted for pitch and side-to-side level. Pitch is the relationship between the front of the deck and the rear of the deck in regards to height of cut. In most cases, a positive pitch (front of the deck lower than the rear of the deck) of 1/4" is the optimum setting. These two adjustments can easily be made by using the threaded deck hangers located at each corner of the deck. These hangers are connected to the chains that hold the deck. Simply rotate the hanger of the corner of the deck that needs adjustment. These hanger are right-handed threads. If you raise the rear hangers above the factory setting, the deck may not raise all the way up into transport position. Be sure and check the deck height of cut range after any adjustments are made to these hangers to insure that the height of cut adjustments work properly. If you are unable to make the adjustments needed by only using these hangers contact your dealer for assistance.

Belt Tension Adjustment

The pump drive belt is self-adjusting, and requires no adjustment, just replacement. The blade drive belt is self-adjusting also and requires no adjustment, just replacement.

How To Move The Mower If The Engine Won't Start

Rotate both of the manual "dump" valve levers on the top of each hydraulic pump about 1/2 turn counterclockwise. It is important not to overtighten these levers. Damage may occur to the pump if this valve is overtightened.

How To Bleed Air From The Hydraulic System

Whenever servicing the hydraulic system, it is of the utmost importance to keep any dirt or debris from getting into the system. Clean off all parts before disassembly and assembly. When any of the hydraulic parts are disconnected or removed or when the oil is changed, air must be bled from the system. If air is entrained in the system, loss of power, excessive heat, and damage to the hydraulic pumps may occur. First make sure the oil level in the reservoir is correct. The level should be between 4"-4.5" below the top of the oil fill tube. Use synthetic oil: Mobil 1 10W-30 or AmsOil 10W-40. Lift the mower so that the rear wheels are off the ground. Be careful to support the mower so that it will not fall or tip while the system is bled of air. With the bypass valves open and the engine running, slowly move the control levers back and forth five or six times. Now close the bypass valves and with the engine running, slowly move the control levers back and forth five or six times. It may be necessary to repeat the above steps a few times until all the air is purged and the rear wheels are turning at normal speed. After purging is complete, re-check the oil level in the reservoir and top off if necessary.

Battery service

The battery is 12 volts and is a maintenance free battery. Only charge the battery if it will not start the mower properly. Remove the battery from the mower before charging. Follow the instructions of the battery charger for proper and safe charging of the battery.

Maintenance Service Intervals

It is very important to keep good maintenance records. Use the hour meter on the mower and record the hour reading of each maintenance service so you will not forget how long it has been since you last did certain maintenance. The more faithful and consistent you are, the longer the mower will last and slower it will depreciate.

NOTE: THE FOLLOWING ITEMS ARE REQUIRED TO AVOID INVALIDATING THE WARRANTY, "*" indicates dealer service invoice or oil/filter receipt may be required

Special Items to be done between the first 8-10 hours, "Break-in" Period Only

- Change engine oil as recommended in engine manufacturer's manual (see engine manual)
- Replace engine oil filter as recommended in engine manufacturer's manual (see engine manual)
- Clean or replace engine air filter (see engine manual)
- Check hydraulic reservoir oil level. The level should be about 4"-4.5" below the top of the oil fill. Use synthetic oil: Mobil 1 10W-30 or AmsOil 10W-40.
- Grease caster wheel bearings (2 zerks)
- Grease blade spindle bearings (3 zerks)
- Lubricate foot platform Operator Presence Control pivots and control rod with waterproof grease (3 places)
- Lubricate hand control lever pivot shafts with waterproof grease (4 places)
- Lubricate throttle control cable with WD-40
- Lubricate choke control cable with WD-40 (if equipped)
- Completely inspect for cracks in tractor frame, cutter deck or other steel parts and contact authorized dealer immediately if any are found
- Check both set screws on each hydraulic pump pulley for tightness, 2 screws per pulley
- Check all bolts and nuts for tightness
- Remove cotter pins and check torque on both castle nuts on center of drive wheel hubs to at least 175 ft.-lbs. Replace with new cotter pins.
- Check tire pressure; drive tires 18-24 psi.; front caster tires 20-35 psi.

5-10 hour intervals, depending on severity of use

- Check engine oil level, top off as necessary
- Change engine oil as recommended in engine manufacturer's manual (see engine manual)
- Replace engine oil filter as recommended in engine manufacturer's manual (see engine manual)
- Clean or replace engine air filter (see engine manual)
- Clean engine blower screen and fins with compressed air
- Clean out debris under blade belt cover
- Inspect all belts for wear and adjustment
- Scrape clean underside of cutter deck
- Check the blades for excessive wear and sharpness
- Replace excessively worn blades
- Sharpen and balance dull blades
- Check the blade spindle mounting bolts for proper tightness
- Check all bolts and nuts for tightness
- Check tire pressure; drive tires 18-24 psi.; front caster tires 20-35 psi.

40 hours intervals (Do the following plus all items done at 5-10 hour intervals)

- Thoroughly clean complete mower
- Grease caster wheel bearings (2 zerks)
- Grease blade spindle bearings (3 zerks)
- Lubricate foot platform Operator Presence Control pivots and control rod with waterproof grease (3 places)
- Lubricate hand control lever pivot shafts with waterproof grease (4 places)
- Lubricate throttle control cable with WD-40
- Lubricate choke control cable with WD-40 (if equipped)
- Check hydraulic reservoir oil level; The level should be about 4"-4.5" below the top of the oil fill. Use synthetic oil: Mobil 1 10W-30 or AmsOil 10W-40.
- Inspect and replace worn tires
- Adjust both parking brake shoes to firmly stop wheels

160 hour intervals or annually (Do the following plus all items done at 5-40 hour intervals)

- Clean or replace spark plugs (see engine manual)
- Replace hydraulic oil filter with original Wright 25 micron filter at first 160 hour interval* (and annually thereafter*). It is not necessary to change the hydraulic oil, just replace the oil lost with the filter change.
- Completely inspect for excessive wear in all parts of mower, including control system, replace worn parts
- Completely inspect for cracks in tractor frame, cutter deck or other steel parts and contact authorized dealer immediately if any are found

Annually (Do the following plus all items done at 5-160 hour intervals)

- Replace hydraulic oil filter with original Wright 25 micron filter
- Replace all excessively worn spindle bearings (after two years only)
- Replace excessively worn main cutter deck idler pulleys
- Replace excessively worn bushings or bearings on mower controls or other moving parts
- Replace excessively worn caster wheels and roller bearings
- Remove battery and clean battery, battery box, and battery cable ends
- Remove cotter pins and check torque on both castle nuts on center of drive wheel hubs to at least 175 ft.-lbs. Replace with new cotter pins.

WRIGHT MANUFACTURING, INC. POWER EQUIPMENT LIMITED WARRANTY

Wright Manufacturing, Inc. (hereinafter: WMI) warrants to the original owner that the new WMI mower accompanying this document will be free from manufacturing defects in materials or workmanship subject to the following limitations and exclusions. Any part of the WMI commercial mower manufactured by WMI and found, in the reasonable judgment of WMI, to be defective in materials or workmanship, will be repaired or replaced by an Authorized WMI Service Dealer without charge for parts and (except as excluded below) labor. This Warranty is limited to the original Owner and the mower this document was provided with and is not transferable. Demo units with less than fifty hours when first retailed shall also be covered by this limited warranty. Proofs of Purchase, Authorized Dealer performed Pre-Delivery Service and the First Eight Hour Service will be required by the Authorized WMI Service Dealer to substantiate any warranty claims. All WMI warranty work must be performed by an Authorized WMI Service Dealer and item must be delivered to the dealer prior to the expiration of the warranty period. This Warranty is limited to the following specified periods from the date of the original retail purchase for defects in materials or workmanship:

Component Manufacturers' Warranties

Hydraulic pumps are covered by the pump manufacturer's warranty for one (1) year and handled through WMI. Hydraulic pumps are covered by WMI for one (1) additional year and handled through WMI for a total of two (2) years for parts and labor. Part must be returned for credit before warranty payment.

Hydraulic motors are covered by the motor manufacturer's warranty for the part only and no labor. However, WMI enhances this warranty according to the following procedure: Hydraulic motor warranties will be handled through WMI for two (2) years from the retail purchase date for parts and labor. Effective for retail sales after 3/1/02. Part must be returned for credit before warranty payment.

Engine is covered by the engine manufacturer's warranty and handled through the respective Authorized Engine Dealers.

Electric clutch is covered by the clutch manufacturer's warranty for one (1) year and handled through WMI for parts and labor. Electric clutch is covered by WMI for one additional year for parts only and handled through WMI for a total of two (2) years. Part must be returned for credit before warranty payment.

See the respective manufacturers' warranties for the engine and hydraulic components included with the mower.

Ninety Day Items

Batteries are warranted for ninety (90) days.

Two and Three Year Items

Cutter deck, engine deck, upright instrument support, Sentar cockpit and Sentar carrier frame weldments are warranted for two (2) years against cracks and broken welds. To make a valid claim, cracks and broken welds must be brought to the attention of an Authorized WMI Service Dealer before any accumulation of cracks is greater than 5 inches. WMI must be called on the phone by Distributor for approval prior to repair or replacement. Dealer repair is encouraged and the replacement option shall be at WMI's sole discretion.

Cutter Deck Spindle Assemblies (housing, shaft, bearings) are warranted for one (1) year for parts and labor and one (1) additional year for parts only for a total of two (2) years. Cutter Deck Spindle Assemblies are warranted for one (1) year for parts and labor and two (2) additional years for parts only for a total of three (3) years on Standers with no grease fitting housing (high precision ball bearings) and Sentars only.

All other parts of the original mower are warranted for two (2) years.

Lifetime Weldments

After the first two (2) years the cutter deck, engine deck, upright instrument support, Sentar cockpit and Sentar carrier frame weldments are warranted for the lifetime of the original retail purchasing entity against cracks and broken welds for the part only, no labor or freight.

To make a valid claim under the lifetime major weldment warranty, cracks and broken welds must be brought to the attention of an Authorized WMI Service Dealer before any accumulation of cracks is greater than 5 inches. WMI must be called on the phone for approval prior to repair or replacement.

At the option of WMI the weldment should be shipped to WMI, freight prepaid by Owner, for factory reconditioning or replacement to be shipped back to Owner, freight collect, within two weeks of receipt by WMI.

Repair Parts Replaced During Original Warranty

All repair parts (excluding wear items) installed during the warranty period are warranted until the end of the respective original period according to the categories above except in the case that the respective original warranty period expires in less than ninety (90) days after the installation of the part(s). If this happens then the parts are warranted for a total of ninety (90) days from the time of their installation.

Rental Use

The above warranty periods are limited to maximum of ninety (90) days for mowers that are used for rental purposes.

Exclusions:

Air, engine oil and hydraulic oil filters, tires, tubes
Bent parts occurring through impact or hard use
Worn bearings (other than spindle bearings; see above)
Worn bushings, cotters, clips, pins and retainers
Grease fittings / zerks
Paint and cosmetic imperfections, steel surface imperfections
Fabric, cushion and rubber grip wear or damage
Drive belts, cutter blades, hoses, light bulbs, fuses
Damage due to loose pulleys on shafts
Damage due to loose wheel hubs on tapered Hydraulic motor shafts
Fire damage
Abrasion or corrosion wear or damage

The WMI mower, including any defective part, must be returned to an Authorized WMI Service Dealer within the warranty period. The expense of lost production time and delivering the mower to the Authorized WMI Service Dealer for warranty work and the expense of returning it to the Owner after repair will be paid for by the Owner. WMI's responsibility is limited to making the required repairs and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any WMI mower. *This Warranty does not apply to any mower that was delivered to an Owner prior to the Pre-Delivery Service as specified in the Owner's Manual. This Warranty does not apply to any mower that was shipped in a crate to the Owner or delivered to the Owner by non-employees of an Authorized Dealer. For the Owner's protection and a valid Warranty, please note: WMI does not permit Authorized Dealers to make non-face-to-face deliveries of the mower and any who are found doing so are subject to immediate cancellation as Authorized Dealers.* This Warranty does not cover any mower that has been subject to misuse, neglect, negligence, burning in any fire, an accident, or that has been operated or maintained in any way contrary to the operating and maintenance instructions as specified in the Owner's Manual. The Warranty does not apply to any damage to the mower that is the result of improper maintenance, or to any mower or parts that have not been assembled or installed as specified in the Owner's Manual. The Warranty does not cover any mower that has been altered or modified changing performance or durability. In addition, the Warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which, in the reasonable judgment of WMI, are either incompatible with the WMI mower or adversely affect its operation, performance or durability.

WMI reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured.

All other implied warranties are limited in duration to the two (2) year warranty period or ninety (90) days for mowers used for rental purposes. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate two (2) year or ninety (90) day warranty period. WMI's obligation under this Warranty is strictly limited to the repair or replacement of defective parts and WMI does not assume, or authorize anyone to assume for them, any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

WMI assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, expense of delivering the mower to an Authorized WMI Service Dealer and expense of returning it to the Owner, damage by fire, mechanic's travel time, telephone charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the power equipment, loss of time or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This Warranty applies to all WMI mowers sold in the United States of America and Canada.

For the location of the Authorized WMI Service Dealer nearest you, write to:

Wright Manufacturing, Inc.; 4600X Wedgewood Blvd.; Frederick, MD 21703