# $i Drive^{TM}$ Limited one-year warranty

# **OWNERS MANUAL**

For one (1) year from the date of original purchase, when this  $i\mathbf{Drive}^{TM}$  product is properly maintained and operated according to the Owner's Manual,  $i\mathbf{Drive}$  will repair, free of charge, any defect in material or workmanship. If this product is used for commercial or rental purposes, this limited warranty applies for ninety (90) days from the date of original purchase.

This warranty does not apply in the following cases:

Items which become worn during normal use, such as Tracks. Normal Wear Parts are warranted to be free from defect in material and workmanship as delivered with the product.

Repair necessary because of operator abuse, tampering with or altering the product or negligence, including bent shafts or steering devices and the failure to maintain the equipment according to the instructions contained in the Owner's Manual.

Minor mechanical adjustments which are not due to any defect in material or workmanship.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE PRODUCT TO THE NEAREST AUTHORIZED *i***Drive** SERVICE CENTER. To make a claim under this *i***Drive** one (1) year Limited Warranty, return the unit along with your proof of purchase to an Authorized Service Center near you. To locate the nearest Authorized Service Center, call *i***Drive** directly at 1-615-824-8988 or visit us online at <u>www.TrailerDriveSystems.com</u>.

This Limited Warranty is made in lieu of all other warranties, expressed or implied. Sellers and Manufacturers only obligation under this Limited Warranty shall be to repair or replace such parts and components of the product proved to be defective in accordance with published Warranty Policy. Neither Seller nor Manufacturer shall be liable for any injury, loss, or damage direct, indirect or consequential arising out of the use of or inability to use the product. Before using, the owner shall determine the stability of the product and that it's suitable for the intended use and user assumes all risk and liability in connection therewith.

Except as provided herein, *iDrive* makes no express warranties or any implied warranties of merchantability or fitness for a particular purpose and all warranties of any type is limited to the duration of the written limited warranty set forth herein. There will be charges rendered for repairs to the product made after the expiration of the aforesaid one year Warranty Period. All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state of state. This Limited Warranty contains the complete text of the warranty and may not be modified either orally or in writing. If you have questions or require assistance please contact *i*Drive Customer Service Department.

*i*Drive<sup>™</sup> Customer Service Department 615-824-8988 *iDrive Trailer Drive Systems*<sup>TM</sup>

> TDS-1001E TDS-2010H

300 FREEHILL ROAD HENDERSONVILLE, TN 37075 615-824-8988 615-824-7751 (fax)

www.TrailerDriveSystems.com

#### THANK YOU

Thank you for purchasing an *iDrive*<sup>TM</sup> product. The Owner's Manual provides you with basic operating instructions and very important safety reminders. Please read the entire manual before installation or operating the unit. The knowledge, skill and training from reading the Owner's Manual are important in keeping the product in top operational condition and operating the unit safely.

#### PRODUCT REFERENCES, ILLUSTRATIONS AND SPECIFICATIONS

All information, illustrations, and specifications in this manual are based on the latest product information available at the time of printing. *iDrive* reserves the right to change or improve the design of any *iDrive* Product at any time without notice and without obligation to modify products previously manufactured. Copyright©2006 *iDrive*. All Rights Reserved. Patents pending.

#### SERVICE INFORMATION

Service on the *i*Drive unit within the warranty period should be performed only by an authorized and approved *i*Drive Service Dealer or installation representative. In order to obtain a list of authorized service dealers, please call 1-615-824-8988 or visit our website at www.TrailerDriveSystems.com

#### DO NOT RETURN THE UNIT TO THE SELLER WITHOUT PROOF OF PURCHASE.

Please make note of the following information before having your product installed. The serial number is located on the side of each unit.

Model Number	
Model Number	

Serial Number

Date of Purchase

Where Purchased

# TDS-2010H TROUBLESHOOTING

THE FOLLOWING TROUBLESHOOTING GUIDE IS USED TO RESOLVE BASIC PROBLEMS THAT MAY EFFECT THE OPERATION OF THE UNIT. IF THE BELOW ACTIONS DO NOT RESOLVE THE PROBLEM YOU ARE EXPERIENCING, PLEASE CONTACT THE NEAREST CERTIFIED *iDrive* SERVICE CENTER OR CALL *iDrive* CUSTOMER SERVICE DIRECTLY.

PROBLEM	CAUSE	SOLUTION
NO FUNCTIONS WILL WORK	BATTERY CABLE TERMINALS LOOSE OR CORRODED	TIGHTEN OR CLEAN TERMINALS
	BATTERY CABLE FRAYED OR BROKEN	REPLACE BATTERY CABLES
	12 VOLT BATTERY IS DEAD	CHARGE OR REPLACE BATTERY
	15 AMP FUSE HAS BLOWN	REPLACE 15 AMP FUSE
	BREAKERS TRIPPED	RESET BREAKERS
	HANDHELD CONTROL NOT CONNECTED	PLUG IN / ENSURE GOOD CONNECTION
	BATTERY WIRES ARE ON INCORRECTLY	INSTALL RED TO (+) & BLACK TO (-)
	LOW HYDRAULIC FLUID	ADD FLUID TO SPECIFICATION
LEFT OR RIGHT TRACK WILL NOT OPERATE (BUT OTHER FUNCTIONS DO OPERATE)	LOOSE WIRE CONNECTION ON MOTORS LEADS	TIGHTEN MOTOR CONNECTIONS
	BREAKER TRIPPED	RESET BREAKERS
	MOUNTING BOLTS OR NUTS LOOSE	TIGHTEN ALL BOLTS AND NUTS
LIFT CYLINDER WILL NOT OPERATE (BUT OTHER FUNCTIONS DO OPERATE)	MOUNTING BOLTS OR NUTS MISSING OR BROKEN	REPLACE WITH SPECIFIED HARDWARE
	LOWER DRIVE UNIT PIVOT BOLT IS LOOSE	TIGHTEN PIVOT BOLT
	INSUFFICIENTLY CHARGED BATTERY	PROPERLY CHARGE 12 VOLT BATTERY
LIFT CYLINDER STRAINING OR STALLED	EXCESSIVE WEIGHT ON TRAILER	REDUCE TONGUE WEIGHT BELOW 10,000 LBS
	REACHED UPPER OR LOWER TRAVEL LIMIT	REVERSE TRAVEL DIRECTION
	LOW HYDRAULIC FLUID	ADD FLUID TO SPECIFICATION
	LOOSE WIRE CONNECTION ON MOTOR LEADS	TIGHTEN CONNECTIONS ON MOTOR
ONE OR BOTH DRIVE WHEELS DO NOT PULL OR MAKE A CLICKING SOUND WHEN DRIVEN	DRIVE CHAIN ARE NOT TIGHT	ADJUST CHAIN DRIVE TENSION
	DRIVE CHAINS BROKEN OR OFF TRACK	REPAIR OR REPLACE DRIVE CHAIN

# TDS-1001E TROUBLESHOOTING

THE FOLLOWING TROUBLESHOOTING GUIDE IS USED TO RESOLVE BASIC PROBLEMS THAT MAY EFFECT THE OPERATION OF THE UNIT. IF THE BELOW ACTIONS DO NOT RESOLVE THE PROBLEM YOU ARE EXPERIENCING, PLEASE CONTACT THE NEAREST CERTIFIED *iDrive* SERVICE CENTER OR CALL *iDrive* CUSTOMER SERVICE DIRECTLY.

PROBLEM	CAUSE	SOLUTION
	BATTERY CABLE TERMINALS LOOSE OR CORRODED	TIGHTEN OR CLEAN TERMINALS
UNIT WILL NOT POWER UP	BATTERY CABLE FRAYED OR BROKEN	REPLACE BATTERY CABLES
(UNIT OPERATION CONDITION	12 VOLT BATTERY IS DEAD	CHARGE OR REPLACE BATTERY
LED LIGHT NOT ON)	60 AMP IN-LINE FUSE HAS BLOWN	REPLACE 60 AMP FUSE
	BATTERY WIRES ARE ON INCORRECTLY	INSTALL RED TO (+) & BLACK TO (-)
UNIT WILL NOT OPERATE AFTER BEING POWERED UP (UNIT OPERATION CONDITION LED LIGHT ON)	TRANSMITTER BATTERY IS DEAD	REPLACE TRANSMITTER BATTERY
	LOOSE WIRE CONNECTION ON MOTORS LEADS	TIGHTEN CONNECTIONS ON MOTORS
	LIFT OVERLOAD CONDITION (UNIT LED LIGHT IS RED) BECAUSE THE UNIT HAS REACHED UP- PER OR LOWER LIMIT OR EXCESSIVE WEIGHT ON THE TRAILER	REVERSE LIFT DIRECTION & CONFIRM WEIGHT IS BELOW MAXIMUM LIMITS
	TRANSMITTER NOT SYNCHRONIZED WITH UNIT	CONTACT SERVICE CENTER
EXCESSIVE SWAYING WHEN OPERATING UNIT	MOUNTING BOLTS OR NUTS LOOSE	TIGHTEN ALL BOLTS AND NUTS
	MOUNTING BOLTS OR NUTS MISSING OR BROKEN	REPLACE WITH SPECIFIED HARDWARE
	LOWER DRIVE UNIT PIVOT BOLT IS LOOSE	TIGHTEN PIVOT BOLT
LIFT MOTOR STRAINING, STALLED OR OPERATING CONDITION LED TURNED RED	INSUFFICIENTLY CHARGED BATTERY	PROPERLY CHARGE 12 VOLT BATTERY
	EXCESSIVE WEIGHT ON TRAILER	REDUCE TONGUE WEIGHT BELOW 1000 LBS
	REACHED UPPER OR LOWER TRAVEL LIMIT	REVERSE TRAVEL DIRECTION
	LIFT SCREW JAMMED SOLIDLY AGAINST UPPER OR LOWER LIMIT AND MOTOR WILL NOT REVERSE	USE EMERGENCY PROCEEDURE ON PAGE 35
	LOOSE WIRE CONNECTION ON MOTOR LEADS	TIGHTEN CONNECTIONS ON MOTOR
	DRIVE CHAINS ARE NOT TIGHT	ADJUST DRIVE CHAIN TENSION
ONE OR BOTH DRIVE WHEELS DO NOT PULL OR MAKE A CLICKING SOUND WHEN DRIVEN	DRIVE CHAIN BROKEN OR OFF TRACK	REPAIR OR REPLACE DRIVE CHAIN
	LOOSE WIRE CONNECTION ON MOTOR LEADS	TIGHTEN CONNECTIONS ON MOTOR
	DRIVE MOTOR WIRING HARNESS FRAYED OR BROKEN	REPLACE DRIVE MOTOR HARNESS

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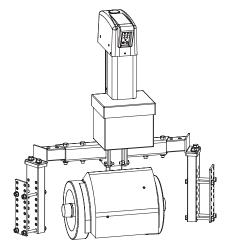
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# *i*Drive<sup>™</sup> TDS-1001E



# Application and Specification

The *i*Drive<sup>™</sup> model TDS-1001E Trailer Drive System allows you to easily drive, park, and hitch your Trailer using a Handheld Remote Control. This model is intended for use on lightweight RV, Utility, Cargo, Horse, and Specialty Bumper Pull Trailers. The unit is designed for Gross Weight Trailers (GWT) up to 10,000 pounds with a maximum tongue weight of 1,000 pounds.

#### Description

The TDS-1001E utilizes a 12V DC electric motor system to drive, raise and lower your Trailer. The system includes an electric motor and jackscrew for raising and lowering the tongue of the Trailer. It also includes two electric wheel motors, with a chain reduction, that can be operated independently for driving and maneuvering your Trailer. The system is controlled by a Handheld Remote Control.

The 12V DC power source is normally a deep cycle battery or a generator. The number of batteries required will be determined by the size of the Trailer and the operating parameters anticipated.

The TDS-1001E is designed to mount to the support or frame rails of the Trailer within the "A Frame" area between the tongue and body of the Trailer. It is designed with adjustable mounting plates and brackets to ensure it will mount to most Bumper Pull Trailers.

**IMPORTANT:** Please read this manual before use, carefully follow all instructions, and retain the manual for future reference. Failure to follow all Safety and Operations instructions in this manual will affect the safety and performance of the TDS-1001E unit.

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### **REFERENCE INFORMATION**

#### FCC STATEMENT

#### Model # TDS-1001E RECEIVER FCC ID: TGTPJCKM1R

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesirable operation.

The equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

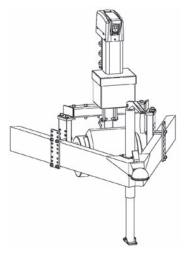
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio or TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

# CANADA (DIGITAL APPARATUS INTERFERENCE-CAUSING EQUIPMENT STANDARD ICES-003

#### IC: 5889A-PJCKM1R

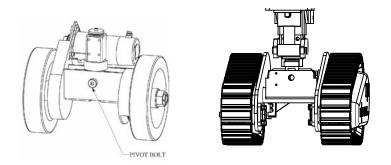
This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.



## GENERAL MAINTENANCE

Every 6 months, or every 3 months with heavy/frequent use, check the following:

- 1. Inspect the all the mounting hardware, electric panels and accessories.
  - a. Check for cracked or broken parts. Replace as necessary.
  - b. Check for paint damage and/or heavy rust build-up. Repair or replace as necessary.
  - c. Check for loose or missing fasteners. Replace any missing fasteners with comparable parts rated at grade 5 or better.
  - d. Torque all 3/8-inch diameter bolts (bolts and nuts with a 9/16-inch hex) to 25 ft. lbs.
  - e. Torque all 1/2-inch diameter bolts (bolts and nuts with a 3/4-hex) to 70 ft. lbs.



- 2. Inspect the tire/track assemblies. Replace as necessary.
- 3. Inspect the direct mount battery box on the TDS-1001E, if used, for cracked or broken mounting points. Replace as necessary.
- 4. Inspect the protective/safety covers. Replace as necessary.
- 5. Inspect the wiring harness for frayed or broken wires and for worn or missing insulation. Replace as necessary.
- 6. Inspect the ON & OFF pushbutton covers on the TDS-1001E for cracks or deterioration. Replace as necessary.
- 7. Check all hydraulic hose connections on the TDS-2010H for leaks. Tighten as necessary.
- 8. Check lower drive unit springs on the TDS-2010H to ensure they are in place.

# *i*Drive<sup>™</sup> TDS-2010H

#### **Application and Specification**

The *iDrive*<sup>™</sup> model TDS-2010H Trailer Drive System allows you to easily drive, park, and hitch your Trailer using a Handheld Control module. This model is intended for use on RV, Utility, Cargo, Horse, and Specialty Gooseneck or Fifth Wheel Trailers. The unit is designed for Gross Weight Trailers (GWT) up to 20,000 pounds with a maximum tongue weight of 10,000 pounds.

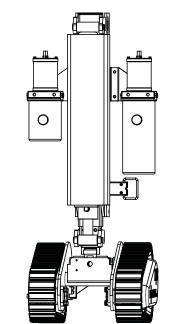
#### Description

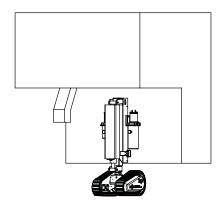
The TDS-2010H utilizes a hydraulic system to drive, raise and lower your Trailer. The system includes a hydraulic cylinder for raising and lowering the tongue of the Trailer, and two hydraulic wheel/track motors that can be operated independently for driving and maneuvering your Trailer. The hydraulic system is powered by two 12V DC electric motor driven hydraulic pumps. The system is controlled by a detachable Handheld Control module.

The 12V DC power source is normally one or more deep cycle batteries or a generator. The number of batteries required will be determined by the size of the Trailer and the operating parameters anticipated.

The TDS-2010H is designed to attach to the center of the front wall of the Trailer via a four inch wide "C" channel or bracket. The "C" channel is the standard mounting location for conventional jacking devices on most Gooseneck and Fifth Wheel Trailers.

**IMPORTANT:** Please read this manual before use, carefully follow all instructions, and retain the manual for future reference. Failure to follow all Safety and Operations instructions in this manual will affect the safety and performance of the TDS-2010H unit.



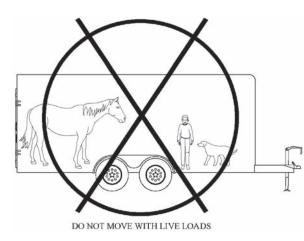


### SAFETY INFORMATION

This product is designed and intended for Trailers commonly towed by standard pick-up trucks. Use on Trailers in excess of the specified weight or configuration will damage the product and void the warranty (see applications and specifications on pages 4 & 5). When installed and operated properly, you will enjoy the benefit of driving, parking, and hitching your Trailer independent of your vehicle. The product is designed to lift the tongue of your Trailer, move the Trailer short distances for storage and then to move the Trailer back to the vehicle, lift and facilitate connection of your Trailer to your vehicle by use of a Handheld Control.

To ensure your *i***Drive** product operates efficiently and safely, operate your product following these important reminders:

- 1. The *iDrive* product is mechanical and should be operated only after a thorough understanding of the Owner's Manual.
- 2. The *iDrive* product is designed, intended and warranted to move standard Trailers at their rated Gross Trailer Weight WITHOUT LOADS. Under some circumstances it may be necessary to move the Trailer with a load in place, but UNDER NO CIRCUM-STANCES should the gross Trailer weight and load exceed the specified maximum GWT and tongue weight, and the load must be properly secured and the load must be well and evenly distributed. Follow the Trailer manufacturer's recommendations regarding proper loading of the Trailer. THE TRAILER MUST NOT HAVE ANY LIVE LOADS (PEOPLE OR ANIMALS) ON OR IN TRAILER WHILE BEING MOVED BY USE OF THE *iDrive* PRODUCT.



3. The *iDrive* product is designed for reasonably short distance movement of your Trailer. Less than eighty (80) feet of travel should be the limit for driving, parking and hitching activities.

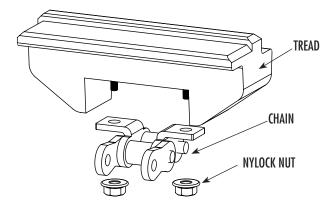
- e. When the chain is tightened to within the specification, tighten the four (4) axle bolts, axle nut, and the jam nut against the chain adjustment plate to lock the adjustment screw in its current position.
- 5. While the side cover is off, check the individual track treads to determine if any sections need to be replaced due to wear or damage.

**NOTE:** You do not have to replace the entire track assembly unless the majority of the tread sections need replacing.

a. To replace a tread section, it is easiest if the section to be replaced is rotated to the front of the drive unit. To accomplish this, you must reconnect the Handheld Control module and using extreme caution, use the appropriate wheel/track toggle switch to turn the track in either direction until the tread section to be replaced is in the front position.

**CAUTION:** Disconnect the Handheld Control module before removing each tread section.

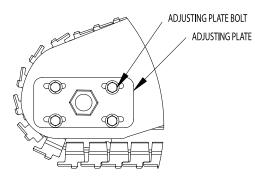
- b. The treads section is secured to the chain with two (2) NyLock nuts. Remove the nuts and remove the tread section.
- c. Place the new tread section into place and secure with the two (2) NyLock nuts.
- 6. Replace the lower drive unit side safety cover and secure with screws. Tighten to 25 in. lbs.



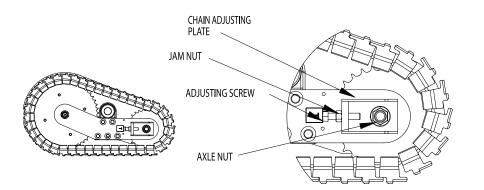
3. Lubricate both drive chains with suitable chain lube. Be careful to avoid getting lubricant on the drive wheels/tracks as this could lead to diminished traction during normal operation of the unit. Remove any accidental application of lubricant to the drive wheels/tracks. It will be necessary to activate each drive motor with the Handheld Control module to gain access to the entire chain length (see warning above).

**NOTE:** There are commercially available chain lubricants in aerosol form. These are recommended for their ease of application and their ability to cling to surfaces.

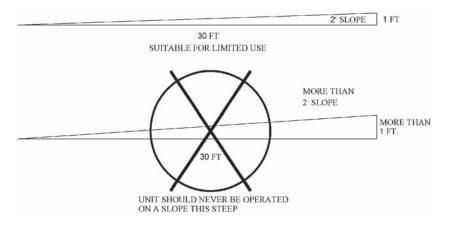
- 4. Check the chain tension. There should be between 1/8-3/8 inch free movement of each chain (see diagram on page 32). If adjustment is necessary, proceed as follows.
  - a. Disconnect the Handheld Control module to ensure the unit is not accidentally turned on.
  - b. Loosen the four (4) axle bolts on the back side of each lower track unit.



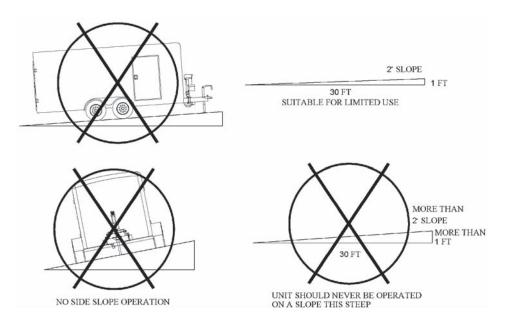
- c. Loosen the jam nut and axle nut.
- d. Turn the adjustment screw counter-clockwise to move the sprocket forward. (this should tighten the chain)



4. The *iDrive* product is designed, intended and warranted for use on smooth and LEVEL surfaces. Under some circumstances it may be necessary for the operator to travel over a slight incline or decline while moving the Trailer with the *iDrive* product. UNDER NO CIRCUMSTANCES should the unit be operated on an incline or decline greater than Two degrees (2°), which is a rise or drop of 1 foot over a distance of 30 feet. THE UNIT MAY LOSE TRACTION ON SLOPES GREATER THAN 2 DEGREES CAUSING INJURY OR DAMAGE.



5. UNDER NO CIRCUMSTANCES should the operator travel on a side slope or attempt to turn the Trailer in either direction while traveling on any incline or decline. THE TRAILER MUST NOT HAVE ANY LIVE LOADS (PEOPLE OR ANIMALS) ON OR IN TRAILER WHILE BEING MOVED BY USE OF THE *i***Drive** UNITS.



WARNING: *iDrive* products are designed to assist in moving Trailers only. It is important to remember that the *iDrive* product is not designed as a brake or parking device. Extreme caution should be used since your Trailer is subject to movement as would be the case any time the Trailer is removed from a vehicle, transported and secured in a stationary position. Always use an independent braking or scotch device when your Trailer has been disconnected from your vehicle. Do not use the *iDrive* product for any use other than intended and illustrated in the Owner's Manual.

## SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, mandate your careful attention. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures or the common sense of the operator.

#### SYMBOL MEANING

**DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**IMPORTANT:** Indicates that equipment or property damage could result if instructions are not followed.

NOTE: Gives helpful information

ALWAYS FOLLOW THE SAFETY PRECAUTIONS TO REDUCE THE RISK OF PERSONAL INJURY.

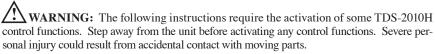
READ THE OWNER'S MANUAL AND FOLLOW ALL WARNINGS AND SAFE-TY INSTRUCTIONS. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY TO THE OPERATOR AND/OR BYSTANDER.

#### FOR QUESTIONS CALL 1-615-824-8988.

- e. Reinstall both tire and wheel assemblies.
  - i. Apply a thin coating of lithium-based grease to the mating surfaces of the new wheel hub and the axle to prevent rust and thereby aiding in future wheel removal.
  - ii. Place the wheel onto the axle, align the axle drive key with the keyway in the wheel hub, and push the wheel firmly against the drive sprocket hub.
  - iii. Place the washer onto the axle and thread the wheel-retaining nut onto the axle.
  - iv. Hand tighten the wheel-retaining nut until all slack has been removed and then back the nut off until the hole in the axle aligns with one of the slots in the nut.
    - **NOTE**: The nut should be backed off a minimum of 1/8 turn to ensure proper working clearances.
  - v. Install a new cotter pin.
  - vi. Install the hubcap by snapping it over the washer behind the wheel-retaining nut.
- f. Reconnect the negative battery cable.
- 5. Replace the lower drive unit safety cover and secure with screws. Tighten to 25 in. lbs.

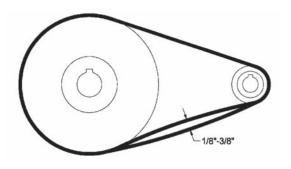
#### TDS-2010H DRIVE CHAIN AND RUBBER TRACK CARE AND MAINTENANCE

The drive chains on the lower unit of the TDS-2010H should be lubricated and checked for tension every six (6) months (or every 3 months if used heavily).

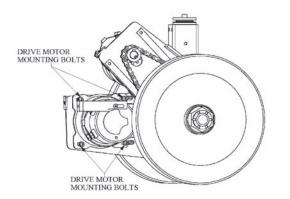


- 1. Gain access to the lower drive unit.
  - a. Support the Trailer tongue with a jack or by connecting the Trailer to a vehicle.
  - b. Using the Handheld Control module, raise or lower the lower drive unit to an easily accessible position. Whatever position is chosen, the drive wheels/tracks must not be in contact with the ground.
- 2. Gain access to the drive chains and chain adjustment points.
  - a. Remove the three (3) NyLock nuts that secure the lower drive unit side safety cover. (remove covers on each side)
  - b. Remove the safety cover.

4. Check the chain tension. There should be between 1/8-3/8 inch free movement of each chain (see diagram). If adjustment is necessary, proceed as follows:



- a. Disconnect the negative battery cable. Refer to the BATTERY section.
- b. Remove both tire and wheel assemblies.
  - i. Remove the wheel hubcap by simultaneously pulling outward and to the side (the hubcap has an internal groove which snaps over a washer directly behind the wheel retaining nut)
  - ii. Remove the cotter pin from the wheel retaining nut.
  - iii. Remove the wheel retaining nut and washer.
  - iv. Remove the wheel.
  - v. Loosen the four (4) mounting bolts on the corresponding drive motor.



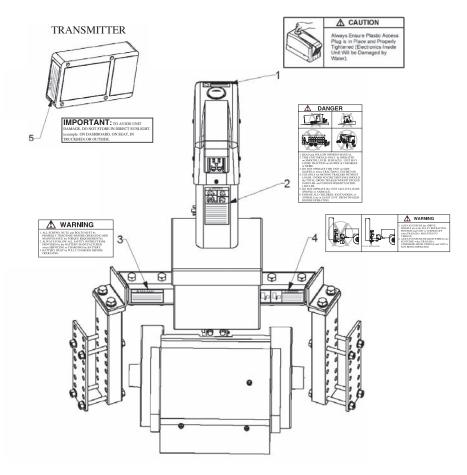
- c. Slide the drive motor forward until the chain tension is within specifications.
- d. Tighten the four (4) mounting bolts and recheck chain tension, readjust if necessary. Tighten the mounting bolts to 100 in. lbs.

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING**: When using *i***Drive**<sup>TM</sup> products, you must follow the safety rules. Read these instructions before operating the unit in order to ensure the safety of the operator and any bystanders. Please keep these instructions near the unit for later review and use.

- Read and follow the instructions carefully. Be familiar with the controls and how they work as well as the proper use of the unit.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication.
- Children under the age of 18 must not use the unit. Teens age 16 and over may use the unit if supervised by an adult.
- All guards and safety attachments must be installed and working properly before operating the unit.
- Inspect the unit before use. Replace damaged parts. Check for leaks. Make sure all fasteners are in place and secure. Replace parts that are cracked, chipped, or damaged in any way. Do not operate the unit with loose or damaged parts.
- Carefully inspect the area before starting and operating the unit. Remove all debris and objects that could cause the unit not to work properly including areas under and around the Trailer.
- Clear the area of children, bystanders, and animals. At a minimum, keep all children, bystanders, and animals outside a 25-foot radius; there still may be a risk at that distance.
- Before attempting the first use of the unit, a practice or trial run is recommended. Select a large open area that is level and free of most surface debris. Practice moving the Trailer forward, backward, left, right, up and down.
- BEFORE EVERY USE and before disconnecting the Trailer from your vehicle or moving the Trailer to a different location from a secured stationary position, check the unit to ensure that your battery is fully charged and that the unit operates in the UP and DOWN mode and both wheel/tracks operate in the FORWARD and REVERSE modes.
- Check the area where the unit will be used if any slope is present. A carpenter's level or dial reading slope indicator can be used if available. Remember the unit is designed, intended and warranted to be operated on smooth and level surfaces.
- In the unlikely event the unit will not operate and you must raise or lower the Trailer tongue, the unit can be raised or lowered manually by following the instructions on pages 21, 27, 38, and 39.

# SAFETY LABELS TDS-1001E



#### **TDS-2010H HYDRAULIC FLUID**

The system is designed for Automatic Transmission Fluid (ATF). The Dealer that installs the unit will add the required type and amount of ATF for operation. Should the system develop a leak or require additional ATF for any reason, remove the vented cap on the top of the  $90^{\circ}$  elbow fitting on the front side of the pump reservoir and add ATF until the fluid level reaches the bottom of the fitting.

**NOTE:** When adding ATF to the large reservoir side (Left Track / Cylinder) the cylinder MUST be in its fully retracted position to ensure the proper fluid level is obtained.

#### TDS-1001E DRIVE CHAIN CARE AND MAINTENANCE

The drive chains on the lower unit of the TDS-1001E should be lubricated and checked for tension every six (6) months (or every 3 months if used heavily).

**WARNING:** The following instructions require the activation of some TDS-1001E control functions. Step away from the unit before activating any control functions. Severe personal injury could result from accidental contact with moving parts.

- 1. Gain access to the lower drive unit.
  - a. Support the Trailer tongue with the conventional trailer jack or by connecting the Trailer to a vehicle.
  - b. Using the remote control, raise or lower the lower drive unit to an easily accessible position. Whatever position is chosen, the drive wheels must not be in contact with the ground.
- 2. Gain access to the drive chains.
  - a. Remove the three (3) screws that secure the lower drive unit safety cover.
  - b. Remove the safety cover.
- 3. Lubricate both drive chains with suitable chain lube. Be careful to avoid getting lubricant on the drive wheels as this could lead to diminished traction during normal operation of the unit. Remove any accidental application of lubricant to the drive wheels. It will be necessary to activate each drive motor with the remote control to gain access to the entire chain length (see warning above).

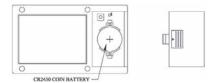
**NOTE**: There are commercially available chain lubricants in aerosol form. These are recommended for their ease of application and their ability to cling to surfaces.

**WARNING**: If the TDS-1001E battery box retaining wing nut is lost, it must be replaced with a nylon inserted locknut type wing nut. A standard type wing nut may loosen and fall off due to vibration. This could lead to the battery box opening up and dumping the battery onto the ground or roadway.

From time to time, it may be necessary to clean the battery terminals due to corrosive buildup. If this becomes necessary, disconnect the battery cables and clean the battery terminals and cable ends with a suitable fine wire brush. In extreme cases, the terminals and cable ends may need to be washed with a solution of baking soda and water.

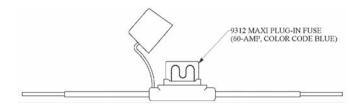
#### **TDS-1001E TRANSMITTER BATTERY REPLACEMENT**

A CR 2450 coin battery powers the remote control transmitter. To replace the battery, slide the battery door from the back of the transmitter. The battery simply snaps in place. To remove the battery, simply lift one side of the battery with a fingertip and pop it out. When replacing the battery, ensure that the (-) side of the battery faces the battery holder [the (+) side will be showing when properly installed].



#### FUSE

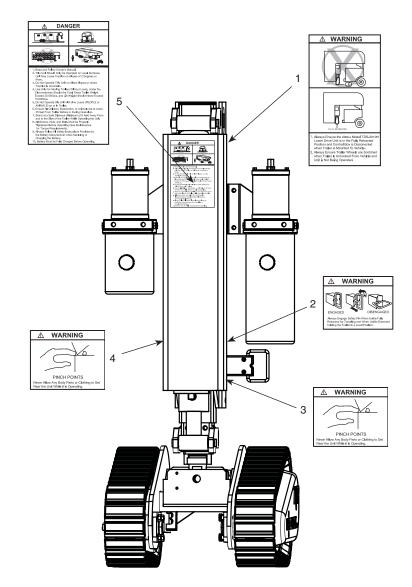
The TDS-1001E utilizes a 60-amp time delay fuse. This fuse and its holder are located inline with the positive (red) battery cable. On installations that utilize the optional direct mount battery box, gain access to the fuse and its holder by opening up the battery box. Refer to the instructions in the BATTERY section. On other installations simply find the fuse and its holder, near the battery, inline with the positive (red) battery cable. After the fuse holder has been located, remove the protective rubber cover. If the fuse has been blown, remove it and replace it with a 9312 Maxi Plug-in Fuse (60-amp, color code blue).



The TDS-2010H utilizes a 15-amp time delay fuse and two (2) 100-amp Thermal Circuit Breakers. This fuse and its holder along with the two breakers are located inside the main electrical box. To gain access to the fuse and breakers, take off the main electrical panel cover by removing the two screws.

**CAUTION:** A blown fuse or tripped breaker is a probable sign of an electrical overload. Before replacing a blown fuse, determine the cause for the electrical overload and correct it. Never try to defeat the function of the fuse by installing a higher amperage rated fuse or by shorting the fuse holder terminals

# SAFETY LABELS TDS-2010H



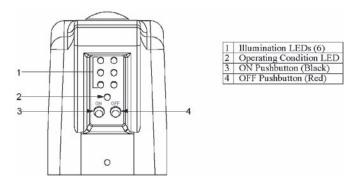
#### PREPARATION

- 1. Read this entire Owner's Manual carefully before attempting to operate the unit. Be thoroughly familiar with the controls and the proper use of the product.
- 2. When using the *iDrive*, you must follow the Safety Rules. Read these instructions before operating the unit in order to ensure the safety of the operator and any bystanders.
- 3. BEFORE YOU BEGIN OPERATION, it is important that you walk around the Trailer and take note of the area and terrain where the unit will be operating. DO NOT operate the unit if there is any question about the ground conditions. Personal injury or property damage could result.

### TRAINING

# LEARNING THE TDS-1001E CONTROLS (TRAINING SECTION FOR FIRST TIME USERS)

Controls and Lights on the Upper Front Housing of the TDS-1001E.

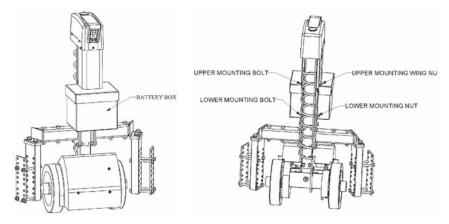


- 1. To begin operating the unit press the black Power (ON) button located on the front of the unit.
- 2. To confirm the unit is ON, verify that the Operating Condition LED located directly above the black (ON) and red (OFF) button is illuminated green.

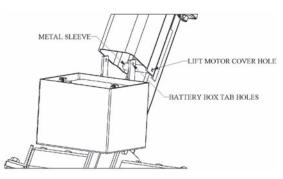
**NOTE:** If this LED is illuminated red, then an error condition has occurred. Turn the unit OFF and back ON and confirm that the LED is illuminated green. If the LED is still red, then please contact your nearest *i*Drive Service Center.

# TDS-1001E BATTERY ACCESS AND/OR REMOVAL (WITH DIRECT MOUNT BATTERY BOX)

1. Locate the upper battery box mounting bolt.



- 2. Remove the 1/4-inch wing nut from the upper battery box mounting bolt.
- 3. Support the battery box with one hand and remove upper battery box mounting bolt.
- 4. Tilt the battery box forward.
- 5. Lift off the battery box cover and set aside.
- 6. Disconnect the negative battery cable.
- 7. Disconnect the positive battery cable.
- 8. Lift the battery from the battery box.



**NOTE:** For other battery mounting configurations, check with your Trailer manufacturer for instructions on accessing and/or removing the battery.

# MAINTENANCE

**WARNING:** When servicing, use only identical replacement parts. Use of any other part may create a hazard or cause product damage.

**WARNING:** When servicing the unit, always disconnect the negative battery cable to prevent accidental starting.

**WARNING:** Whenever servicing the battery, always follow all safety warnings and precautions provided by the battery manufacturer.

**WARNING:** If any wire(s) or battery cable(s) are worn, cut, or damaged in any way, have it (them) replaced immediately by the nearest certified *i***Drive** Service Center. Failure to do so could result in serious personal injury or property damage.

**CAUTION:** Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, and etc. contact plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

Periodically clean the unit with clean water and a soft brush or sponge. Do not clean the unit with any type of high-pressure washer and/or strong detergents. The unit contains sensitive electronics and electric motors that could be damaged by water penetration.

#### BATTERY CARE AND MAINTENANCE

The *iDrive* units require a 12V DC power source. This power source is usually in the form of a 12V lead acid battery that can be housed in the direct mount battery box on the TDS-1001E or can be mounted on the Trailer nearby the *iDrive*.

**WARNING:** When servicing the battery, always follow all safety warnings and precautions provided by the battery manufacturer.

The battery must be recharged after several uses; depending on battery type & size, length of time run, and weight of loads being pulled and lifted. Gain access to the battery and recharge with an appropriate battery charger.

**NOTE:** Most lead-acid type batteries perform better and last longer when charged with a trickle type battery charger. Avoid high amperage quick chargers. Refer to battery manufacturer's recommendations.

If the unit needs frequent charging, *i*Drive recommends the use of an automatic battery charge maintainer. This type of charger is available at most automotive supply retailers. It is designed to be mounted directly on a vehicle and wired permanently to the battery terminals. When the unit and Trailer are not being used this charger has a cord that can be plugged into any standard 110V AC outlet. These chargers automatically monitor the battery voltage and charge when needed.

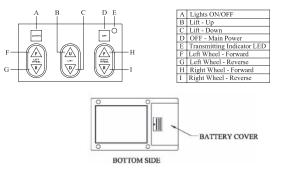
On applications with frequent and/or heavy use, the user is advised to mount a large capacity "deep cycle" marine battery in a convenient location near the unit.

- 3. If the LED is flashing red, then your 12 Volt DC battery is extremely low and needs to be charged before operating the unit.
- 4. The Operating Condition LED will flash green when any button on the Remote Control Transmitter is pushed.

**NOTE:** For safety reasons, the unit will turn off automatically after the unit has been idle for 90 seconds. If further operation of the unit is desired, then the (ON) button will need to be pressed again.

- 5. The red (OFF) is pressed to turn the unit off. All control functions will cease after this button has been pressed. You must press the black (ON) button to begin operating the unit again.
- 6. This unit is equipped with a bank of 6 LED's for illumination when more light is needed. Refer to part 3 of "Handheld Remote Control" section below for operation of unit lights.

Handheld Remote Controlled Transmitter for TDS-1001E



- 1. Please note that the Remote Control is equipped with an (OFF) button in the upper right hand corner. Pushing this button on the Remote Control will turn the TDS-1001E unit off. The black (ON) button located on the unit must be pushed to turn the unit on again.
- 2. The Remote Control has a green LED in the upper right hand corner. The green LED should illuminate when any button on the Remote Control Transmitter is pushed. If the LED indicator light does not illuminate, then open the back cover of the Remote Control and replace the 3V, 575 mAh, CR2450 Coin Cell Battery. If the Indicator Light still does not illuminate consult your nearest Service Center.
- 3. Press the (LIGHTS) button in the upper left hand corner to turn the bank of 6 lights on the unit on and off.
- 4. Press the Lift (U) button located in the center of the Remote Control to lower the wheels and raise the Trailer tongue.
- 5. Press the Lift (D) button located in the center of the Remote Control to raise the wheels and lower the Trailer tongue.

#### LEARNING TO DRIVE THE UNITS (TRAINING FOR FIRST-TIME USERS)

# **WARNING:** YOU MUST STAND AT A SAFE DISTANCE (MINIMUM OF 6 FEET) AWAY FROM AND TO THE SIDE OF THE TRAILER WHEN USING THE HAND-HELD CONTROL MODULES TO MANEUVER THE UNIT.

THE TRAILER MUST NOT HAVE ANY LIVE LOADS (PEOPLE OR ANIMALS) ON OR IN THE TRAILER WHILE OPERATED.

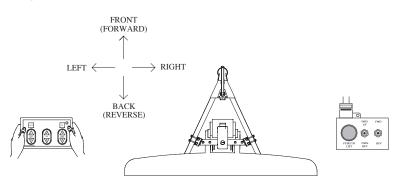
**IMPORTANT:** Select a large open, paved area that is as level as possible. Use boxes or cones to create obstacles such as doors or narrow driveways. Once the practice area is ready proceed following the Operating Instructions below.

The unit is designed to move the Trailer when it is in a level position in relationship to the ground. Use the Lift controls on the Handheld Control Module to adjust the Trailer frame until it appears level with the ground (see page 16 for instructions).

**NOTE:** To turn on the TDS-1001E you must press the black (ON) button located on the front of the unit before the Remote control will operate the unit. Before you can operate the TDS-2010H, you must plug the Handheld Control Module into the unit or main electrical box.

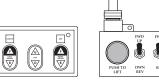
The Left Wheel/track and Right Wheel/track of the *i*Drive<sup>TM</sup> unit operate independently of one another. Each wheel has its own Forward (F) or (FWD) and Reverse (R) or (REV) button on the Handheld Control Module.

In these and all other instructions throughout this manual, the left and right are relative to the operator standing beside the unit and facing the same direction that the Trailer tongue is pointing.

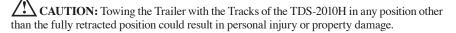


#### 1. Driving FORWARD

Pressing both the Left Wheel/track (F) or (FWD) and Right Wheel/track (F) or (FWD) at the same time will drive the unit in a forward direction.



- d. Immediately secure the Trailer hitch, safety chain, and Trailer light connector to the vehicle. Make a second check to be sure the Trailer hitch is securely in place and locked down.
- e. Recheck to ensure that the tracks on the TDS-2010H unit are in the fully retracted position and the Safety Pin is engaged.
- f. Unplug the Handheld Control module and stow it in a safe place.



**IMPORTANT:** When driving the Trailer to the vehicle, after the tongue of the Trailer has cleared the tailgate of the vehicle, close the tailgate to ensure that the *i***Drive** does not make contact with the tailgate.

**CAUTION:** It is important to simultaneously operate both toggle switches when performing any steering maneuver with the unit. Any attempt to operate only one side of the drive unit will result in undue stress on the unit.

#### **TDS-2010H EMERGENCY OPERATION OF JACK**

In the unlikely event the unit will not operate and the Troubleshooting measures on page 39 did not correct your problem, you may be able to Raise and Lower the Trailer and/or unit if you by-pass the main electric box as follows: (**DO NOT remove the main electrical box cover**)

- 1. Remove the stainless steel *iDrive* unit cover (if applicable) and locate the left-hand electric motor and hydraulic pump assembly (large reservoir side).
- 2. Remove the wing nuts on the electric motor terminals and disconnect the two wires.

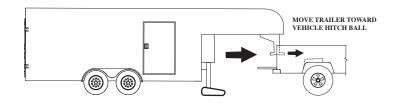
**NOTE:** DO NOT re-attach these wires during the following steps.

3. There are two wires marked "Directional Valves" that are NOT connected to the electric motor but are attached to the large wires you removed in Step 2 above. Attach one of the "Directional Valve" wires to the (+) and one to the (-) electric motor terminals, and install the wing nuts. EITHER WIRE CAN BE CONNECTED TO EITHER TERMINAL.

**CAUTION:** As soon as you connect the battery jumper cables to the electric motor as described below, the unit will Raise or Lower the Trailer. To STOP Raising or Lowering the Trailer, you must remove one of the battery jumper cables.

- 4. Disengage the Safety Pin and using a set of standard battery jumper cables, connect the jumper cables [Red to (+) and Black to (-)], to a fully charged battery, and connect the other end of the jumper cables to the electric motor terminals as follows:
  - a. To RAISE the Trailer, connect the Red jumper cable to the (+) electric motor terminal and the Black jumper cable to the (-) electric motor terminal.
  - b. To LOWER the Trailer, connecting the Red jumper cable to the (-) electric motor terminal and the Black jumper cable to the (+) electric motor terminal.
- 5. After you have hitched your Trailer and raised the *i***Drive** unit to the fully retracted "Travel Position" engage the Safety Pin and remove the battery jumper cables.

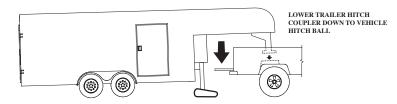
b. Lower the tailgate of the vehicle and with the Trailer hitch and safety chain disconnected, raise the Trailer tongue by pressing the "PUSH TO LIFT" button and simultaneously deflecting the left toggle switch to the UP position on the Handheld Control module until Trailer hitch is just over the height of the vehicle's mounting hitch-ball. Then use the Handheld Control module to maneuver the Trailer tongue until it is directly over the vehicle's mounting hitch-ball.



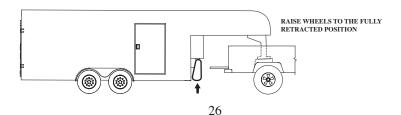
**IMPORTANT:** THE MOST EFFECTIVE METHOD TO GUIDE THE TRAILER TONGUE DIRECTLY OVER THE VEHICLE HITCH-BALL (ONCE IN CLOSE PROX-IMITY OF EACH OTHER) IS BY ALTERNATING BETWEEN AND MOMENTARI-LY DEFLECTING THE LEFT TRACK (FWD) THEN RIGHT TRACK (FWD). THIS ALLOWS YOU TO MAKE FINE ADJUSTMENTS AND "TOGGLE" THE TRAILER TONGUE INTO THE CORRECT POSITION OVER THE VEHICLE HITCH-BALL.

Lower the Trailer by Pressing the "PUSH TO LIFT" button and simultaneously c. deflecting the left toggle switch to the DWN position on the Handheld Control module until the Trailer coupler and hitch are firmly in place. Continue pressing the "PUSH TO LIFT" button and simultaneously deflecting the left toggle switch to the DWN position until the tracks have risen to the fully retracted position.

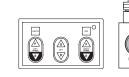
IMPORTANT: DO NOT continue to deflect the Toggle Switch once the unit has reached its fully retracted position and the Safety Pin engages. (This could cause damage to the unit)



**NOTE:** After connecting the Trailer to a vehicle the unit should be retracted to its travel position. When the drive portion of the unit is in its fully extended position the tracks will be on the ground. As the cylinder retracts upward the tracks will raise until they make contact with the leading edge of the Trailer. The tracks will then rotate until parallel with the face of the Trailer and continue up until they reach the fully retracted "Travel Position".



Pressing both the Left Wheel/track (R) or (REV) and Right Wheel/track (R) or (REV) at the same time will drive the unit in a REVERSE.



#### Turning to the LEFT 3.

To steer the Trailer to the LEFT while traveling in a forward direction, press the Left Wheel/ track (R) or (REV) and the Right Wheel/track (F) or (FWD) button, simultaneously.





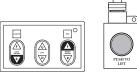
4. Turning to the RIGHT

> To steer the Trailer to the RIGHT while traveling in a forward direction, press the Right Wheel/track (R) or (REV) and the Left Wheel/ track (F) or (FWD) button simultaneously.



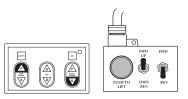
Turning RIGHT (in Reverse) 5.

> To steer the Trailer to the RIGHT while traveling in a reverse direction, press the Left Wheel/ track (R) or (REV) and the Right Wheel/track (F) or (FWD) button, simultaneously.



6. Turning LEFT (in Reverse)

> To steer the Trailer to the LEFT while traveling in a reverse direction, press the Right Wheel/ track (R) or (REV) and the Left Wheel/track (F) or (FWD) button simultaneously.



**IMPORTANT:** Practice maneuvering the unit until completely comfortable with moving the unit in the forward, reverse, left and right direction. Observe and become familiar with the travel speed of the unit. In order to gain comfort with the speed it is recommended the operator(s) walk alongside the unit while in operation in both forward and reverse mode. Observe and become familiar with the amount of time and distance that is needed for the unit to come to a complete stop.

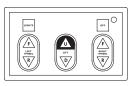


# LEARNING TO RAISE AND LOWER THE UNITS (TRAINING FOR FIRST-TIME USERS)

**NOTE:** To turn on the TDS-1001E you must press the black (ON) button located on the front of the unit before the Remote control will operate the unit. Before you can operate the TDS-2010H, you must plug the Handheld Control Module into the unit or main electrical box.

#### **RAISING and LOWERING with the TDS-1001E**

1. To RAISE the Trailer with the TDS-1001E unit, Press the Lift (U) button located in the center of the Remote Control. This will lower the wheels and raise the Trailer tongue.

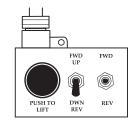


UIT VIT 2. To LOWER the Trailer with the TDS-1001E unit, Press the Lift (D) button located in the center of the Remote Control until the Trailer reaches the desired height. This will raise the wheels and lower the Trailer tongue.

#### **RAISING and LOWERING with the TDS-2010H**

- 1. To RAISE the Trailer with the TDS-2010H unit, hold down the "PUSH TO LIFT" button with your left thumb and with your right thumb deflect the left toggle switch to the UP position until the Trailer reaches the desired height. This will lower the tracks and raise the Trailer tongue.
- 2. To LOWER the Trailer with the TDS-2010H unit, hold down the "PUSH TO LIFT" button with your left thumb and with your right thumb deflect the left toggle switch to the DWN position until the Trailer reaches the desired height. This will raise the tracks and lower the Trailer tongue.





- c. If at any time the operator becomes aware of a reason to stop the Trailer, immediately stop pressing any of the buttons on the Handheld Control module.
- d. Once the Trailer is located in the desired location, or in the event of any emergency, stop and discontinue operation of the Handheld Control module.
- e. Immediately place scotches in front of and behind the Trailer tires.

**CAUTION:** It is very important that the TDS-2010H Handheld Control module be unplugged immediately after use to avoid the risk of accidentally engaging the unit.

f. Place the Handheld Control module out of reach of children or bystanders and in an area where it is not likely to be hit or dropped accidentally.

**IMPORTANT:** TO AVOID DAMAGE, DO NOT STORE THE HANDHELD CONTROL MODULE IN AN AREA WHERE IT WILL BE EXPOSED TO WATER.

#### STEP 4 Moving the Trailer to the vehicle

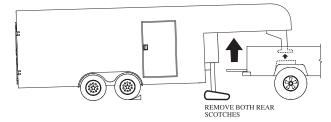
- a. The following operational instructions are in anticipation that the Trailer is in a parked position. Connect the Handheld Control Module to the main electrical box. Before beginning operation, it is important to review and go back through the safety checks previously listed.
- b. Remove the scotches from the front and rear of the Trailer tires, stand away from the unit and move the Trailer with the Handheld Control module in accordance with the instructions on pages 14-15.

**NOTE:** Always use extreme caution during operation and make certain you have good visibility and a clear path to the vehicle's location.

Immediately check the response and traction of the tracks to the pavement, gravel, or ground area. Be sure that solid traction occurs without any slipping before continuing operation. If traction is not solid and secure or if the unit seems to slip, stop operation of the unit immediately.

#### **STEP 5** Hitching the Trailer to the vehicle

a. When connecting the Trailer to a vehicle, use extreme caution. Drive the Trailer with the Handheld Control module until the Trailer tongue is directly behind the vehicle and STOP. Operate the unit very carefully to avoid damage to the unit, Trailer, or vehicle and to avoid the possibility of personal injury.



**NOTE:** When the drive portion of the unit is in its fully retracted position, the tracks will be parallel to and against the face of the Trailer. As the cylinder extends downward the tracks will rotate and become parallel to the ground prior to making contact with the ground. Once the tracks make contact with the ground the Trailer will begin to be raised.

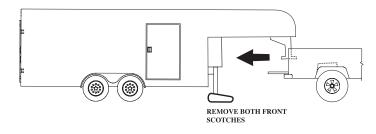
**CAUTION:** Unless the Trailer is connected to a vehicle, DO NOT lower the Trailer to the extent that the bottom front corner of the Trailer makes contact with the lower drive unit or tracks.

#### STEP 3 Moving the Trailer after unhitching

a. Once the height of the Trailer tongue is clearly above the hitch, then proceed in backing the Trailer away from the vehicle by deflecting both the Left Track (REV) and Right Track (REV) toggle switches at the same time. Once clear of the vehicle hitch, remove the "Scotch" that was located in front of the Trailer tires and then continue moving the Trailer in accordance with the instructions on pages 14-15.

**NOTE:** Always use extreme caution during operation and make certain you have good visibility and a clear path to the desired parking location.

b. Immediately check the response and traction of the track to the pavement, gravel, or ground area. Be sure that solid traction occurs without any slipping before continuing operation. If traction is not solid and secure or if the unit seems to slip, stop operation of the unit immediately.



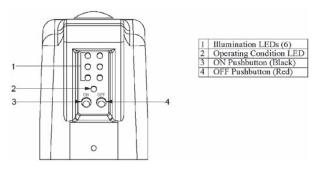
# **OPERATION OF THE TDS-1001E**

**WARNING: DO NOT** skip to this section and begin operations without reading, understanding, and following the previous safety, preparation, and training instructions in this manual. Many of the safety and operational details are not repeated in this section. These instructions ensure the safety of the operator and any bystanders. Please keep these instructions near the unit for later review and use.

**CAUTION:** It is very important that the TDS-1001E unit be turned off immediately after use to avoid the risk of accidentally engaging the unit.

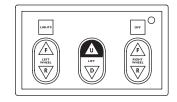
**NOTE:** As a safety measure, the TDS-1001E unit will automatically shut-off within ninety (90) seconds after operation of the Remote Control has ceased.

In preparation to begin, press the black (ON) button located on the unit. The Green operating LED will illuminate letting you know the unit is ON.



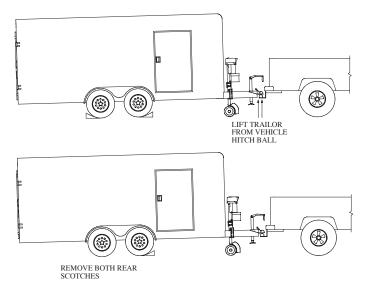
#### STEP 1 Unhitching the Trailer

a. Press the Lift (U) button on the Handheld Remote Control. Lower the *i*Drive unit to near ground level and scotch the Trailer tires. Only then do you loosen the Trailer hitch latch, safety chain, and light connection from the vehicle.



**b.** Stand at a safe distance (minimum of 6 feet) away from and to the side of the Trailer before beginning operation.

c. With the Trailer hitch and safety chain disconnected, press the Lift (U) button on the Remote Control. The wheels on the unit should touch the ground and begin to lift the Trailer tongue until the Trailer has cleared the Trailer hitch. With the Trailer tires still scotched, you may move your vehicle or you may remove the rear Trailer tire scotch and move the Trailer as described in the next steps.

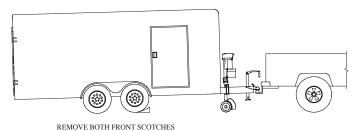


#### STEP 2 Moving the Trailer after unhitching

**a**. Once the height of the Trailer tongue is clearly above the hitch, then proceed in backing the Trailer away from the vehicle by pushing both the Left Wheel (R) and Right Wheel (R) buttons at the same time. Once clear of the vehicle hitch, remove the scotch that was located in front of the Trailer wheels and then continue moving the Trailer in accordance with the instructions on pages 14-15.

**NOTE:** Always use extreme caution during operation and make certain you have good visibility and a clear path to the desired parking location.

**b.** Immediately check the response and traction of the tires to the pavement, gravel, or ground area. Be sure that solid traction occurs without any slipping before continuing operation. If traction is not solid and secure or if the unit seems to slip, stop operation of the unit immediately.



To disengage the Safety Pin, pull the pin out and rotate the handle  $90^{\circ}$  so that the handle is positioned horizontally.

**REMEMBER:** When the Safety Pin is in the horizontal position, the Trailer may be raised up or down without engaging the Safety Pin.

**NOTE:** The weight of the Trailer resting on the Safety Pin may make it difficult to pull the Safety Pin out and disengage. To ease releasing the Safety Pin, the Trailer may need to be raised slightly with the Handheld Control Module.

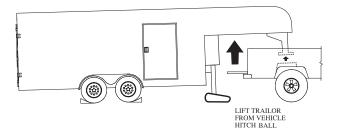
#### STEP 1 Connect the Handheld Control Module

Connect the Handheld Control Module to the unit or main electrical box. The male connector on the end of the Handheld Control Module wire must be inserted into the matching female socket on the side of the unit or main electrical box. There is a rib on the male connector that must be aligned with the keyway in the female connector before the plug can be inserted.

#### STEP 2 Unhitching the Trailer

- a. Pull the Safety Pin out and rotate it to the horizontal or disengaged position.
- **b.** Press the "PUSH TO LIFT" button and simultaneously deflect the left toggle switch to the UP position on the Handheld Control module to lower the *i***Drive** unit to near ground level and scotch the Trailer tires. Only then do you loosen the Trailer hitch latch, safety chain, and light connection from the vehicle.
- **c**. Stand at a safe distance (minimum of 6 feet) away from and to the side of the Trailer before beginning operation.
- **d.** With the Trailer hitch and safety chain disconnected, press the "PUSH TO LIFT" button and simultaneously deflect the left toggle switch to the UP position on the Handheld Control module. The tracks on the unit should lower unit they touch the ground and begin to lift the Trailer tongue. Continue lifting until the Trailer has cleared the Trailer hitch. With the Trailer tires still scotched, you may move your vehicle or you may remove the rear Trailer tire scotch and move the Trailer as described in the next steps. (also review the illustration on the next page)

**CAUTION**: Be sure to lower the tailgate of the vehicle before driving the vehicle away from the Trailer, or driving the Trailer from the vehicle.

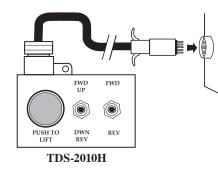


## **OPERATION OF THE TDS-2010H**

**WARNING:** DO NOT skip to this section and begin operations without reading, understanding, and following the previous safety, preparation, and training instructions in this manual. Many of the safety and operational details are not repeated in this section. These instructions ensure the safety of the operator and any bystanders. Please keep these instructions near the unit for later review and use.

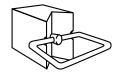
#### Handheld Control

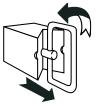
The TDS-2010H is operated via a Handheld Control. The Handheld Control must be electrically connected to the unit or main electrical box. The Handheld Control has three (3) switches; one pushbutton on the left hand side, and two (2) toggle switches on the right side. The two (2) toggle switches control the forward or reverse direction of the left and right wheels/tracks. When the "PUSH TO LIFT" button is depressed, the left toggle switch will operate the lift cylinder up or down instead of operating the left wheel/track. When the pushbutton is released, the left toggle switch will resume operating the left wheel/track.



#### Safety Pin

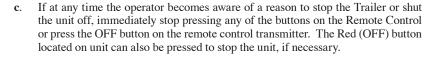
The TDS-2010H is equipped with a spring-loaded Safety Pin that should be engaged whenever the unit is not being operated. The Safety Pin is located on the lower left hand side of the unit. When the Safety Pin is in the vertical position it is capable of being engaged when the pin is located over a corresponding hole in the lift tube. There are four (4) positions where the Safety Pin may be engaged. One is when the unit is fully retracted after being connected to the vehicle and ready for travel. The other three (3) positions are spaced 4 inches apart and are used when the Trailer is disconnected from the vehicle. One of these three holes should allow the Safety Pin to hold the Trailer at or near a level position when the unit is supporting the Trailer. To engage one of these holes, turn the handle to the vertical position (the engage position) and operate the lift function until the Safety Pin snaps into the desired hole/position.





DISENGAGED POSITION PULL

PULL PIN AND ROTATE



- **d.** Once the Trailer is located in the correct position by the operator or in the event of any emergency stop and discontinue operation of the Remote Control. Immediately place scotches in front of and behind the Trailer tires. Push the red (OFF) button to turn the unit off.
- e. Place the Remote Control unit out of reach of children or bystanders and in an area where it is not likely to be hit or dropped accidentally.

**IMPORTANT:** TO AVOID DAMAGE, DO NOT STORE THE REMOTE CONTROL TRANSMITTER IN DIRECT SUNLIGHT OR SOMEWHERE IT CAN BE EXPOSED TO WATER (example: ON DASHBOARD, ON SEAT, IN TRUCK BED OR OUTSIDE).

#### **STEP 3** Moving the Trailer to the vehicle

- **a**. The following operational instructions are in anticipation that the Trailer is in a parked position. To begin operation, the unit will need to be switched ON by pushing the black (ON) button located on the unit . Before beginning operation, it is important to review and go back through the safety checks previously listed.
- **b.** Remove the scotches from the front and rear of the Trailer tires, stand away from the unit and move the Trailer with the Remote Control in accordance with the instructions on pages 14-15.

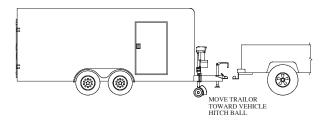
**NOTE:** Always use extreme caution during operation and make certain you have good visibility and a clear path to the vehicle's location.

Immediately check the response and traction of the tires to the pavement, gravel, or ground area. Be sure that solid traction occurs without any slipping before continuing operation. If traction is not solid and secure or if the unit seems to slip, stop operation of the unit immediately.

ENGAGED POSITION

#### **STEP 4** Hitching the Trailer to the vehicle

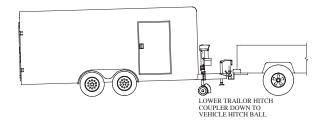
a. When connecting the Trailer to a vehicle, use extreme caution. Drive the Trailer using the Remote Control until the Trailer tongue is directly behind and close to the vehicle's mounting hitch-ball and STOP. Operate the unit very carefully to avoid damage to the unit, Trailer, or vehicle and to avoid the possibility of personal injury. (see illustration on next page)



b. Raise the Trailer tongue by pushing the Lift (U) button on the Remote Control until it is just over the height of the vehicle's mounting hitch-ball. Then use the Remote Control to maneuver the Trailer tongue until it is directly over the vehicle's mounting hitch-ball.

**IMPORTANT:** THE MOST EFFECTIVE METHOD TO GUIDE THE TRAILER TONGUE DIRECTLY OVER THE VEHICLE HITCH-BALL (ONCE IN CLOSE PROXIMITY OF EACH OTHER) IS BY ALTERNATING BETWEEN AND MOMENTARILY DEPRESSING THE LEFT WHEEL (F) THEN RIGHT WHEEL (F). THIS ALLOWS YOU TO MAKE FINE ADJUST-MENTS AND "TOGGLE" THE TRAILER TONGUE INTO THE CORRECT POSITION OVER THE VEHICLE HITCH-BALL.

c. Lower the unit by pressing the Lift (D) button on the Remote Control until the Trailer coupler and hitch are firmly in place. Continue pressing the Lift (D) until the wheels have risen to the fully retracted position. Push the Red (OFF) button located on the unit.





- d. Immediately secure the Trailer hitch, safety chain, and Trailer light connector to the vehicle. Make a second check to be sure the Trailer hitch is securely in place and locked down.
- e. Recheck to ensure that the wheels on the TDS-1001E unit are in the fully retracted position and the unit is turned OFF.
- f. Place the Remote Control out of the reach of children or bystanders and in an area where it is not likely to be hit or dropped accidentally.

**IMPORTANT:** NEVER CONTINUE PUSHING THE LIFT (D) OR (U) BUTTON WHEN THE WHEELS OF THE UNIT REACH THE FULLY RE-TRACTED OR FULLY EXTENDED POSITION, RESPECTIVELY. THIS COULD RESULT IN DAMAGE TO THE UNIT.

**CAUTION:** Towing the Trailer with the wheels of the TDS-1001E in any position other than the fully retracted position could result in personal injury or property damage.

#### **TDS-1001E EMERGENCY OPERATION OF JACK**

In the unlikely event the unit will not operate and the Troubleshooting measures on page 38 did not correct your problem, the Trailer and/or unit can be raised or lowered manually. To manually raise or lower the unit you will need a standard socket (9/16 inch), extension and ratchet. Remove the plastic Plug on the top of the unit using a large coin. Secure the socket to the top of the screw shaft. Using the ratchet, rotate the lift screw clockwise to extend the unit or counterclockwise to retract the unit until desired position is reached. IMPORTANT! ALWAYS REPLACE AND PROPERLY TIGHTEN THE PLASTIC PLUG AFTER US-ING THE MANUAL CRANK OPTION.

