AIRTUG® Trailer Tugs
Assembly & Operating Instructions
MODELS: TT-HD-EM-8 and TT-HD-EA-8

Airtug, Inc. is not responsible for damage sustained when proper clearance is not maintained by the operator between the tug and its surroundings.

Caution: Braking too abruptly from a higher speed can seriously damage the differential ring gear. This is considered abuse and will not be covered by the transaxle warranty.

Note: All reference to “right” and “left” orientation is made while standing behind the tug, looking forward from the operator position.

Tug Operation: There is an On/Off switch at the top of the handle. Flip the switch to “On” when ready to use the tug. This powers the unit and disengages the parking brake. Leave the switch in the “Off” position between use and to engage the parking brake. Always, remember to turn the unit off when you are finished. Select the direction you want to go: forward or reverse. The thumb throttle control operates the transaxle. The transaxle provides smooth, variable control of the tug speed. In tight quarters the tug can be operated very slowly offering greater safety when moving your trailer. When tugging the trailer an extended distance, it is easiest and safest to face forward with the tug and trailer behind you while controlling the tug speed with the thumb throttle. Always return the toggle switch at the top of the handle to the “Off” position when leaving the tug momentarily or between each use to engage the parking brake. While moving the trailer on a reasonable downgrade, the tug will only move as fast as the operator allows.

Depending on how the trailer is set up, raising or lowering the ball may help shift more weight onto the tug drive wheels for improved traction. Please note that if the weight on the tongue of the trailer is not set up properly, additional weight may be needed on the drive wheels of the tug. Also, lowering the tire pressure on the tug should improve traction. There is also a sticker on the handle for other recommendations to improve traction. Airtug® sells additional weight packs if you are having problems with traction and have tried all the recommendations on the handle. For best practice, safety and for the best traction, begin movement as slowly as possible to put the trailer in motion.

SAVE THIS DOCUMENT AND ENSURE ALL OPERATORS READ IT PRIOR TO MOVING ANY TRAILERS

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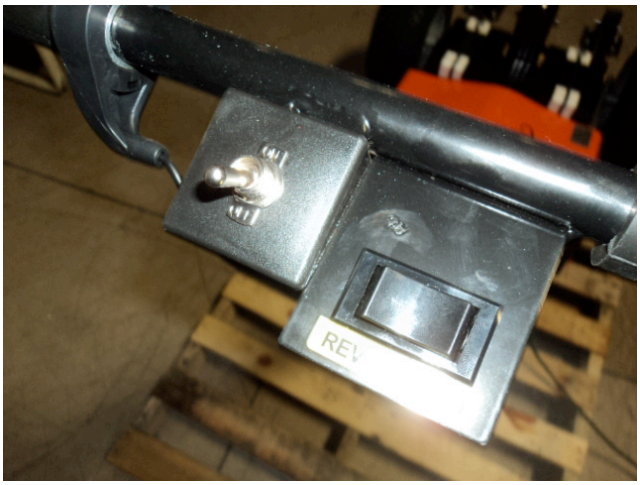
Loading: Position the ball of the tug under the receiver of the trailer and stop. Then either crank the trailer down onto the tug (Manual) or push the button to raise the ball up into the receiver and lift the tongue of the trailer up into the air (Automatic). Do not hold the button when the cylinder is maxed out on stroke. This can cause damage to the cylinder motor and electronic circuits.

Operating Instructions

Step 1: Prior to the first use, plug the charger cable into a 110V outlet or extension cord and charge the batteries fully as indicated by the green light at the top of the charger. The orange light indicates batteries are charging. Keep the battery charger plugged in between use. See the battery charger manual for more information.

Step 2: Plug in the trailer electric to the plug on the tug labeled “Surge Brake By-Pass” and this will not allow the surge brakes to lock up when pushing the trailer in reverse.



Step 3: Turn switch at end of handle to the “On” position. Select “FWD” or “REV” and slowly press the thumb throttle to slowly begin movement of the tug. Begin movement as slowly as possible to initiate momentum.

General Maintenance

Tire Pressure: The tire pressure can range from 30 psi for lighter trailers to the maximum tire pressure of 70 psi for heavier trailers. It should be reduced for added traction for lighter trailers. Lower pressures improve traction.

Batteries: Keep the batteries fully charged. The battery performance will diminish measurably as the ambient air temperature drops.

Transaxle: This is a sealed unit and should not require maintenance or fluid.

Drive Wheel Bearings: Permanently lubricated.

Caster Zerk Fittings: Needs to be lubed periodically to ensure ease of caster wheel steering.

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Battery Maintenance:

1. New batteries require a full charge before use and need to be cycled several times before reaching full capacity.
2. Battery connections should be kept tight at all times. Periodic inspection is recommended.
3. Keep batteries clean from all dirt and corrosion.
4. Batteries should not be discharged to the point of no longer being able to power the tug. Keeping the batteries fully charged will greatly reduce the risk of a dead battery when you need it most.
5. Batteries should be brought up to a full charge at the earliest opportunity using the built in 24V battery charger with reverse polarity protection and float mode. The battery charger should be left ON when the tug is parked to maintain proper charging and maintenance of batteries at all times. Keeping the batteries fully charged will reduce the risk of freezing in cold temperatures.
6. Avoid charging the batteries when the ambient temperature exceeds 120^{o}F.
7. Older batteries will take longer to fully charge.
8. Periodic battery testing is an important preventative maintenance procedure. Voltage tests (open circuit, charged or discharged) can identify a bad or weak battery. Load testing will identify a bad battery when other methods fail. A weak battery will cause premature failure of a companion battery.
9. Extreme temperatures can substantially affect battery performance and charging. Cold temperatures reduce battery capacity and retard charging.

CAUTION:

* Read, study and understand all warnings and operating instructions prior to use.
* When working on the tug:
    * Put the tug up on blocks to get the drive wheels off the ground before beginning any work.
    * Do not allow anyone to stand directly in front of or behind the vehicle during testing.
    * Make sure the Power switch is off.
    * Use well-insulated tools.
* RUNAWAYS - Some conditions could cause the tug to run out of control. Disconnect the motor, or jack up the tug, and get the drive wheels off the ground before attempting any work on the motor control circuitry.
* HIGH CURRENT ARCS - Electric vehicle batteries can supply very high power, and arcs can occur if they are short circuit. Always turn off the battery circuit before working on the motor control circuit.
* Wear safety glasses, and use properly insulated tools to prevent short circuit.
* Do not overload this tug beyond the rated capacity.
* This tug is designed for use only on hard level surfaces capable of sustaining the load.
* No alterations to the tug shall be made.
* Electronic components may be damaged if exposed to water! This is not covered under warranty.
* Failure to heed these warnings may result in personal injury and/or property damage.

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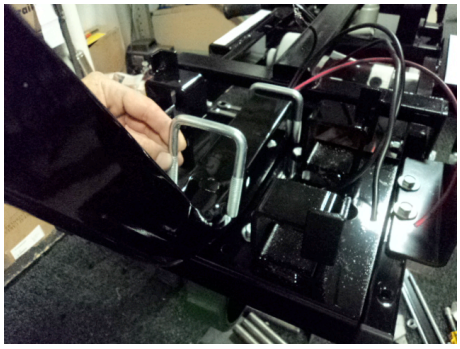
Assembly Instructions

Step 1: HANDLE: Slide the handle through the “U” bolt (take care while sliding the wires through as well) (leave the nuts loose for now to allow the handle to slide into the “U” bolt). Insert second U bolt as shown

Tighten the Four (4) “U” bolt nuts securely under the tug frame (with a 9/16” socket).



Step 2: Connect cannon plug from handle into the “J2” socket on silver speed control

Step 3: Connect bullet terminal from handle to the wire coming from the parking brake

Step 4: Connect red wire with fuse holder from the handle to the mating fuse holder on the side of the battery box, located next to the speed controller/charger.

Step 5: For EA models connect the bullet connection and inline fuse from the handle to the corresponding terminals coming out of the battery box for cylinder power.