

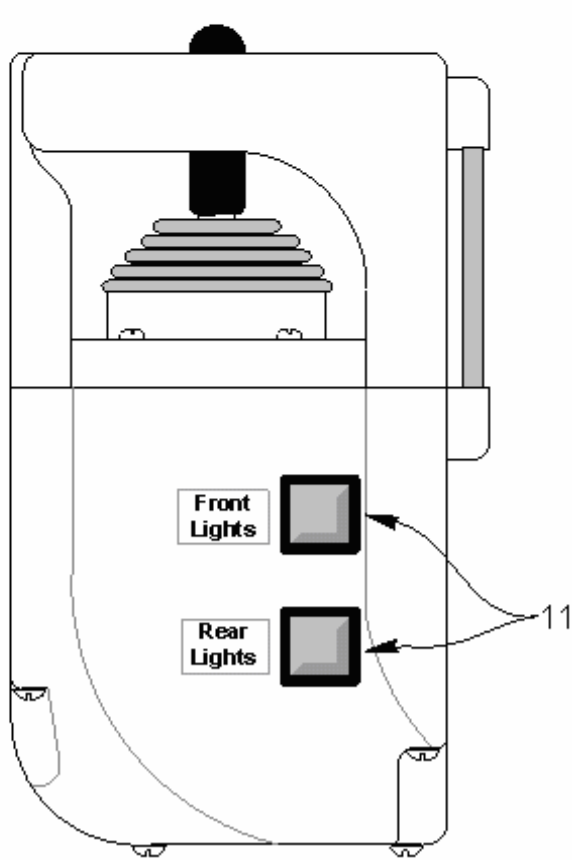
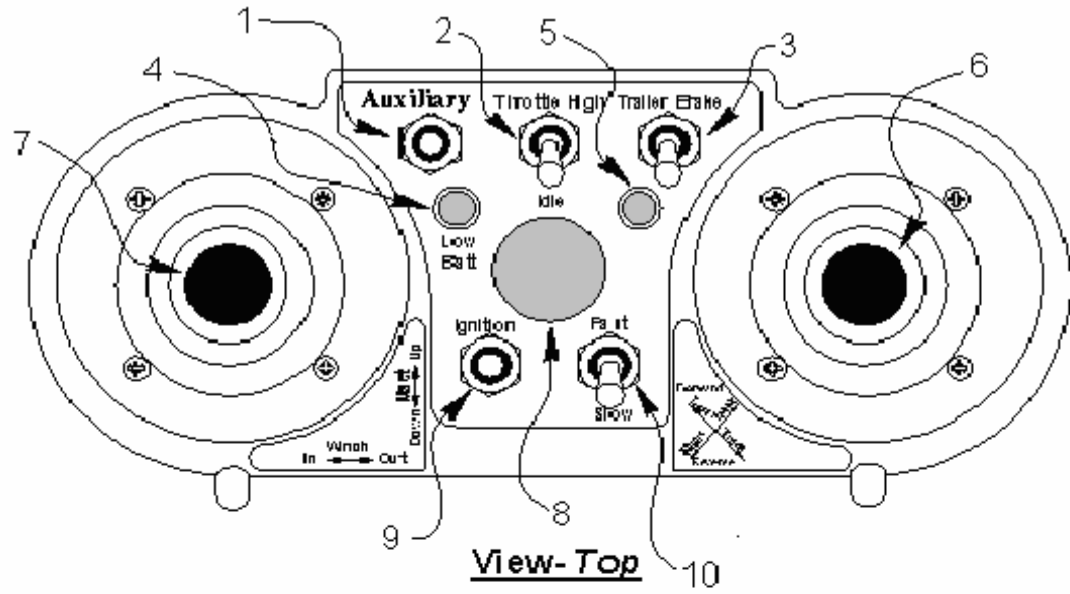
1. **Hydraulic Fluid Temperature Gauge.** This gauge indicates the temperature, in *Fahrenheit*, of hydraulic fluid in the reservoir.

CAUTION

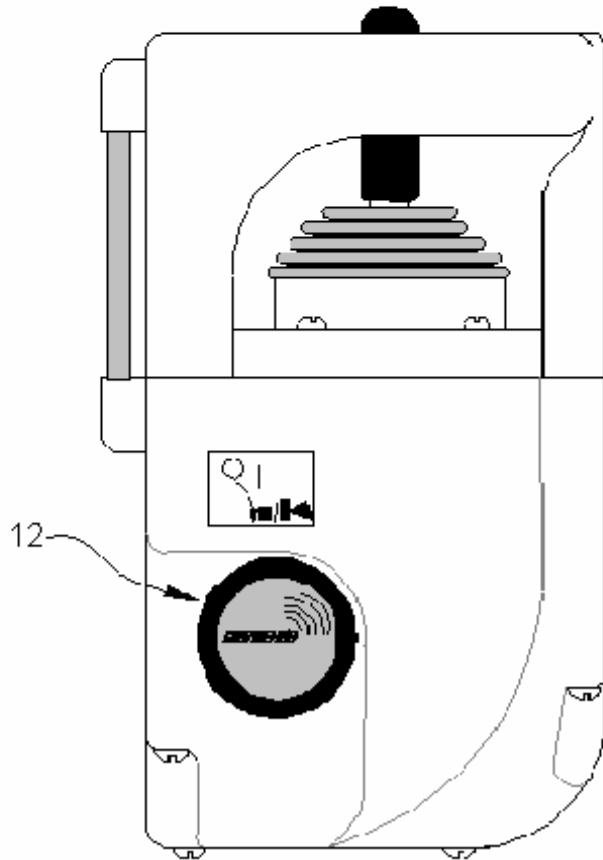
HYDRAULIC FLUID TEMPERATURE UNDER ANY CONDITIONS SHOULD NOT EXCEED 180° FAHRENHEIT.

2. **Fuel Level Gauge.** This gauge indicates relative fuel quantity-Empty, Half or Full tank.
3. **Water Temperature Gauge.** Indicates engine coolant temperature. Normal engine coolant temperature should never exceed 210°F (100°C).
4. **Oil Pressure Gauge.** Indicates engine oil temperature. Normal engine oil pressure 55-65 PSI.
5. **Ammeter.** This gauge indicates the charge/discharge state of the electrical system.
6. **Chronometer.** This analog timer records total system operation time in hours and tenths thereof. Use this gauge to track cycles of periodic maintenance.
7. **Key Switch.** Turn key clockwise to energize electrical system, turn the key counter-clockwise to shut down the tractor.

Operation 2.1



View- Left Side



View- Right Side

Operation 2.2

1. **Auxiliary Control.** This three position toggle (spring loaded to the neutral) controls a hydraulic directional valve for the operation of the optional 6-way blade, hydraulic anchor driver and other accessory implements.
2. **Throttle Switch.** This two position latching switch selects between engine idle (low RPM) and (high RPM) tractor operation mode.

NOTE: Throttle selector switch must be in the idle position to start the tractor.

3. **Trailer Brake On/Off.** (2-position latching switch) Standard on each TC30-2 tractor is the capability to control the 12 volt electric brakes common on to many modular unit undercarriages. Switch “up” position selects brakes “on”.
4. **Low Battery Lamp.** When radio transmitter power is turned to the on position, two (2) quick illuminations accompanied by an audible “beep” indicate sufficient battery reserve. However if the lamp continues to blink (about once per second) accompanied by the audible beep, this indicates the battery may, or will soon need recharging. Operating the tractor with insufficient battery charge can affect radio communication and range of transmission.
5. **Transmitter Status Light.** This green lamp flashes on and off to indicate that the transmitter power switch is in the on position.
6. **Right Joystick.** This omni-directional, spring loaded return to center joystick controls the direction and speed of the tractor.
7. **Left Joystick.** The left joystick controls the mast and winch functions.
8. **Emergency Shut-Off.** This push-pull button kills the engine when pushed. Pull this button to the out position before restarting the tractor.
9. **Ignition Switch.** This momentary, two positions, spring return to center toggle with starts the tractor. This switch should be released immediately when the engine starts to reduce undue wear to the starter motor.
10. **Travel Speed Selector.** This two position latching switch limits maximum travel speed when in the slow (snail) position. It is generally recommended that the tractor be in low range (slow) when positioning loads. High range (fast) should be reserved for traversing larger distances over mild terrain.
11. **Front & Rear Lights On/Off.** Depress the button switch the lights on. Depress again to switch them off.
12. **Key Switch On/Off.** This dual function key-dial switch turns transmitter power on and initializes the engine start sequence.

Operating Procedures

Pre-Start

1. Check the hydraulic oil level and ensure that it is at the high mark on the dipstick.
2. Visually inspect the track chain for loose grousers or worn chain. Check for proper chain tension.
3. Check Emergency shut-off switches, make sure the contacts are intact.
4. Check engine oil level.
5. Check engine coolant level
6. Visually inspect the tractor for fluid leakage. Oil in the belly pan may indicate loose or worn hydraulic lines. Greenish fluid indicates leakage of engine coolant.

WARNING

**INJECTION HAZARD
HYRAULIC OIL LEAKS UNDER
HIGH PRESSURE MAY CAUSE
SERIOUS INJURY.**

7. Always begin a placement with a fully charged transmitter battery and at least one half of a tank of fuel.
8. Make certain that the warning beacon and beeper are intact and functioning.

Start Up

WARNING

**CLEAR THE IMMEDIATE AREA
AROUND THE TRACTOR OF PERSONS
OR OBSTRUCTIONS.**

CAUTION

**TAPPING ON GAUGE GLASS MAY
DAMAGE OR RUIN THE GAUGES.**

1. Turn the key switch on at the tractor.
NOTE: Before starting the tractor, make sure emergency stop button on the transmitter is pulled out and the throttle selector switch is in the *idle* position.

2. Turn the transmitter power “On” (keyswitch clockwise one click) you should hear a two burst tone indicating that the transmitter battery is good.
3. To energize the glow plug: Turn transmitter keyswitch clockwise ¼ turn and release (switch will spring return to the “ON” position).
4. Hold ignition switch up until the tractor starts.

NOTE: Release ignition switch immediately when engine starts to reduce damage to the starter motor.

5. Allow the engine to warm up at idle for 10-15 minutes before putting the unit to work. (Warm up times are relative to climate and ambient conditions)

NOTE: Tractor joystick controls may be oversensitive and handling characteristics may be “jerky” due to cold hydraulic oil if the unit is not allowed sufficient time to warm up.

Post-start

1. Once the unit has warmed up, check once again for leaks and listen for any unusual noises (loose fasteners etc.).
2. Check all instruments-when all indications are normal, the unit is ready for operation. Position the mast for transport, approximately 12” above the ground, before moving the tractor.
3. Familiarize yourself with the controls before putting the tractor to work in field conditions.

Operation 2.4

Shut-Down

Always shut down the remote trax by pressing the red push-button located in the center of the transmitter control panel. Then turn the key witch off at the tractors instrument panel.

NOTE: Before restarting the tractor you must rest the stop button on the transmitter control panel by pulling it back *out* to the start-up position. And remember, the ignition selector switch must also be returned to the *idle* position before restarting.

In the event of an emergency, the tractor can be shut-down by depressing either of the two emergency-stop switches, located on each tractor fender. (One at the rear of the right fender, the other at the front of the left fender)

NOTE: The emergency-stop switches are for EMERGENCY SHUT DOWN ONLY. When shutting the tractor down normally, follow the shut down procedure outlined above.

Transporting the Tractor

Because loading and unloading the tractor onto and off of the toters and trailers often requires that the operator negotiate steep inclines and maneuver through tight spaces, it is doubly important that the hydraulic system be thoroughly warmed up and operating with maximum maneuverability.

CAUTION

ATTEMPTING TO MANEUVER TIGHT SPACES OR STEEP RAMPS BEFORE ALLOWING THE TRACTOR TO WARM UP CAN CAUSE THE TRACTOR TO COLLIDE WITH NEARBY OBSTRUCTIONS AND MAY ALSO CAUSE THE TRACTOR TO OVER SHOOT OR RUN OFF THE EDGE OF RAMPS.

WARNING

ALWAYS BACK THE TRACTOR UP AN INCLINE- WINCH END FIRST TO AVOID OVERTURNING.

Because the TC30-2 is designed to achieve stability under heavy load, the tractor tends to be heavy in the rear (winch) end when *not* under load. Therefore, the tractor ***must be backed*** up loading ramps and ***must be run forward*** down loading ramps.