

Preparing to Install the License Plate Kit

1. **Verify** all parts are contained within the kit (Figure 1 and Table 1).

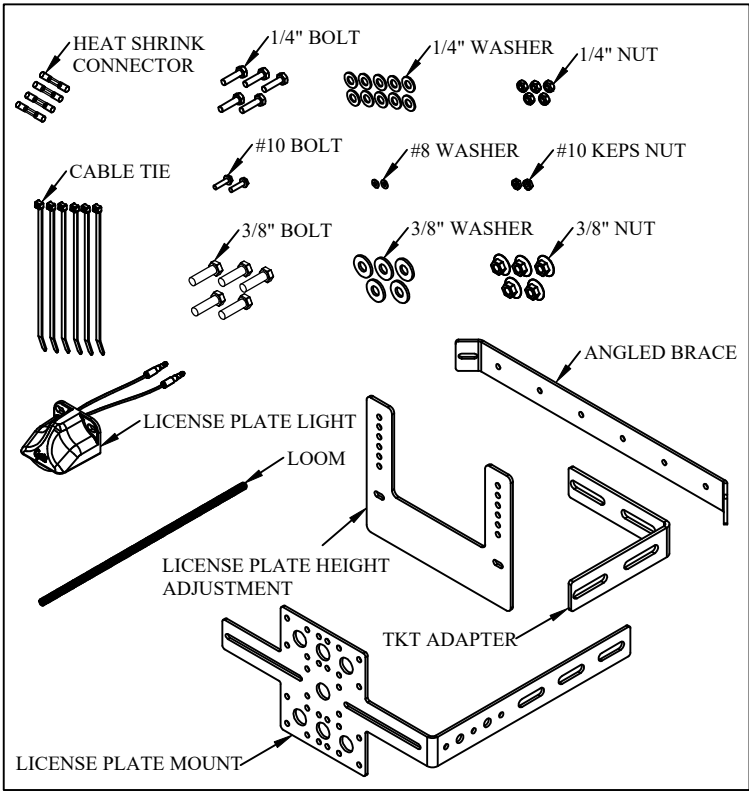


Figure 1: License plate kit.

Table 1: Parts list for kit PN018992

QTY.	PART NO.	DESCRIPTION
1	018986	UNIVERSAL TUCKUNDER LICENSE PLATE MOUNT
1	018988	LICENSE PLATE MOUNT ANGLED BRACE
1	018991	LICENSE PLATE HEIGHT ADJUSTMENT BRACKET
1	018990	LICENSE PLATE MOUNT ADAPTER TKT
5	014518	1/4-20x1" HHCS GR5 BOLT ZP
10	000569	1/4" USS FLAT WASHER
5	000532	1/4-20 USS CROWN LOCK NUT
2	001485	10-32x3/4" HWH BOLT
2	015976	#8 WASHER
2	000556	10-32 KEPS NUT
5	000510	3/8-16x1-1/4" HHCS GR5
5	000575	3/8 USS FLAT WASHER
5	000553	3/8-16 LARGE FLANGE LOCK NUT
6	009077	3/16"x7-1/2" CABLE TIE
1	013715	LICENSE PLATE LIGHT
4	009089	16-14 HEAT SHRINK BUTT CONNECTOR
1	015597	48" LONG 1/4 " CORRUGATED LOOM

2. **Disconnect** the power cable from the positive side of the battery or manually **Trip** the circuit breaker (Figure 2).

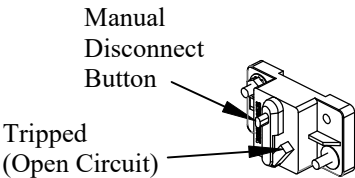


Figure 2: Circuit breaker.



Warning: It is the installer's responsibility to ensure that the final assembly is compliant with all federal, state, and local regulations.



Installing the License Plate Kit (For TKL)

1. **Install** the Universal Tuckunder License Plate Mount using the provided hardware and (2) lower power unit mounting bolts (Figure 3).
2. **Install** the License Plate onto the Universal Tuckunder License Plate Mount using the provided hardware (Figure 3).

Note: The License Plate Height Adjustment Bracket (not shown) can be used to achieve incremental license plate mounting heights if needed for better license plate visibility.

3. **Install** the License Plate Light and **Route** the wiring following *Tommy Gate Recommended Electrical Wiring Guidelines* (Page 5).

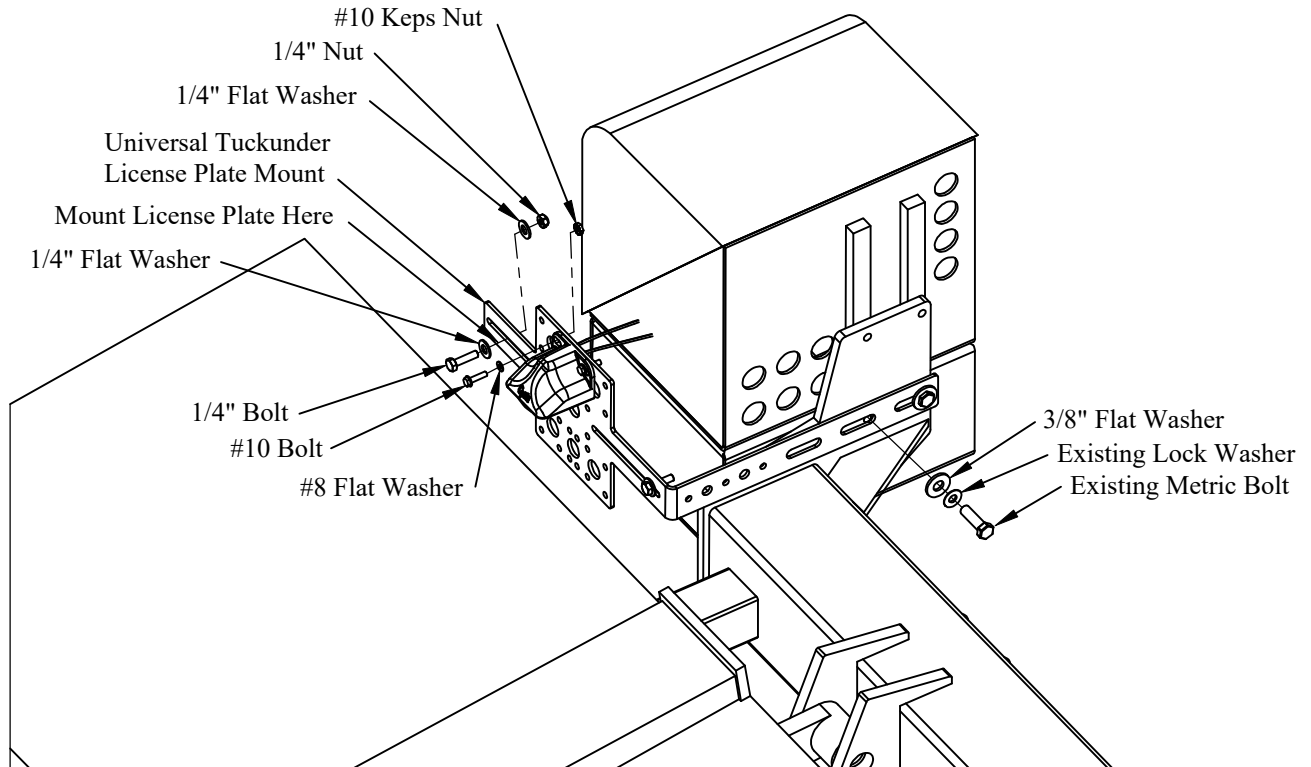


Figure 3: Recommended TKL mounting configuration.

Installing the License Plate Kit (For TKR)

1. Install the Universal Tuckunder License Plate Mount using the provided hardware (Figure 4 & 5).

Note: The License Plate Mount Angled Brace can be installed in mounting configuration #1 for extra rigidity (Figure 4).

2. Install the License Plate onto the Universal Tuckunder License Plate Mount using the provided hardware (Figure 4 & 5).

Note: The License Plate Height Adjustment Bracket can be used to adjust license plate mounting heights if needed for better license plate visibility (Figure 4).

3. Install the License Plate Light and **Route** the wiring following *Tommy Gate Recommended Electrical Wiring Guidelines* (Page 5).

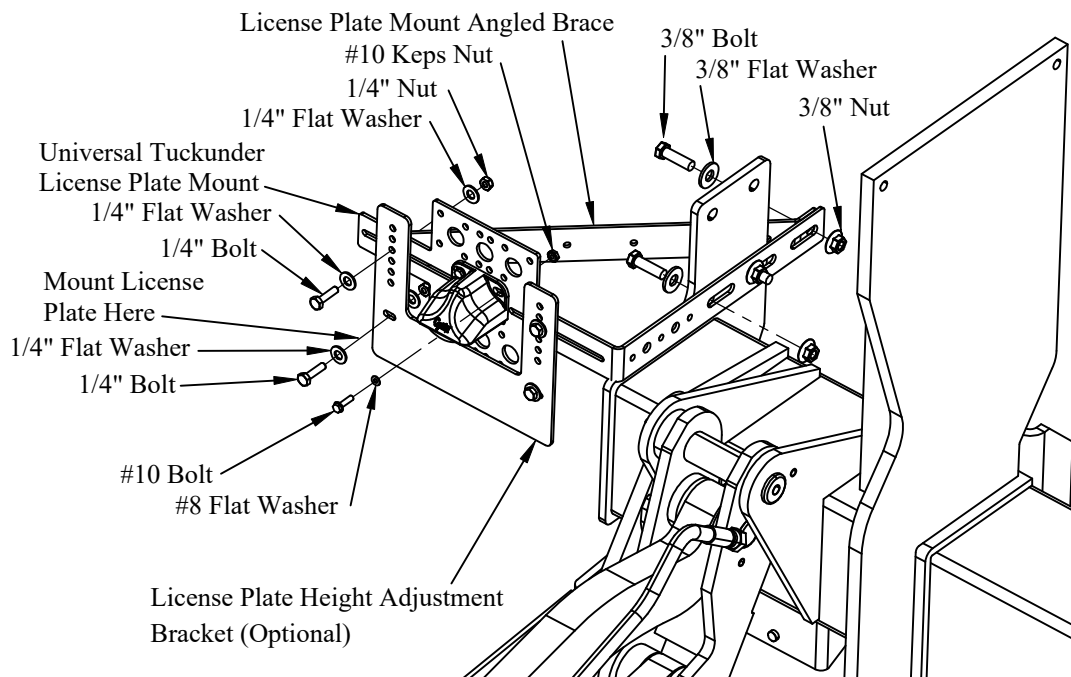


Figure 4: Recommended TKR mounting configuration #1.

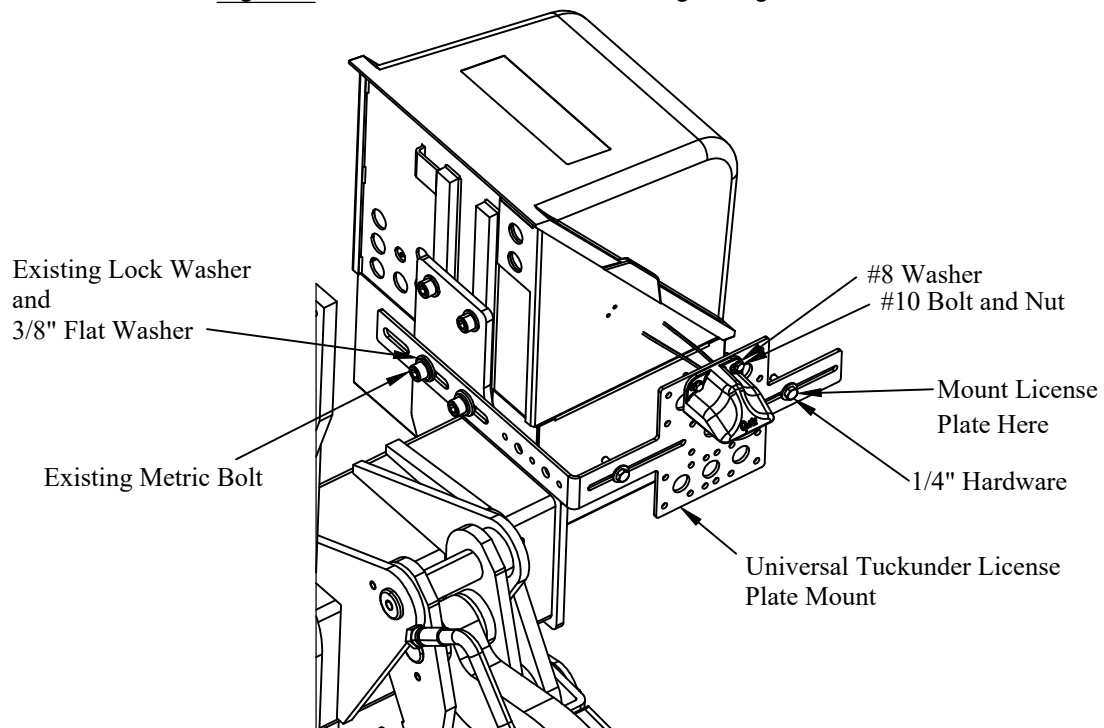


Figure 5: Recommended TKR mounting configuration #2.

Installing the License Plate Kit (For TKT)

1. **Install** the Universal Tuckunder License Plate Mount, License Plate Mount Adapter for TKT, and the License Plate Mount Angled Brace using the provided hardware (Figure 6).

2. **Install** the License Plate onto the Universal Tuckunder License Plate Mount using the provided hardware (Figure 6).

Note: The License Plate Height Adjustment Bracket (not shown) can be used to adjust license plate mounting heights if needed for better license plate visibility.

3. **Install** the License Plate Light and **Route** the wiring following *Tommy Gate Recommended Electrical Wiring Guidelines* (Page 5).

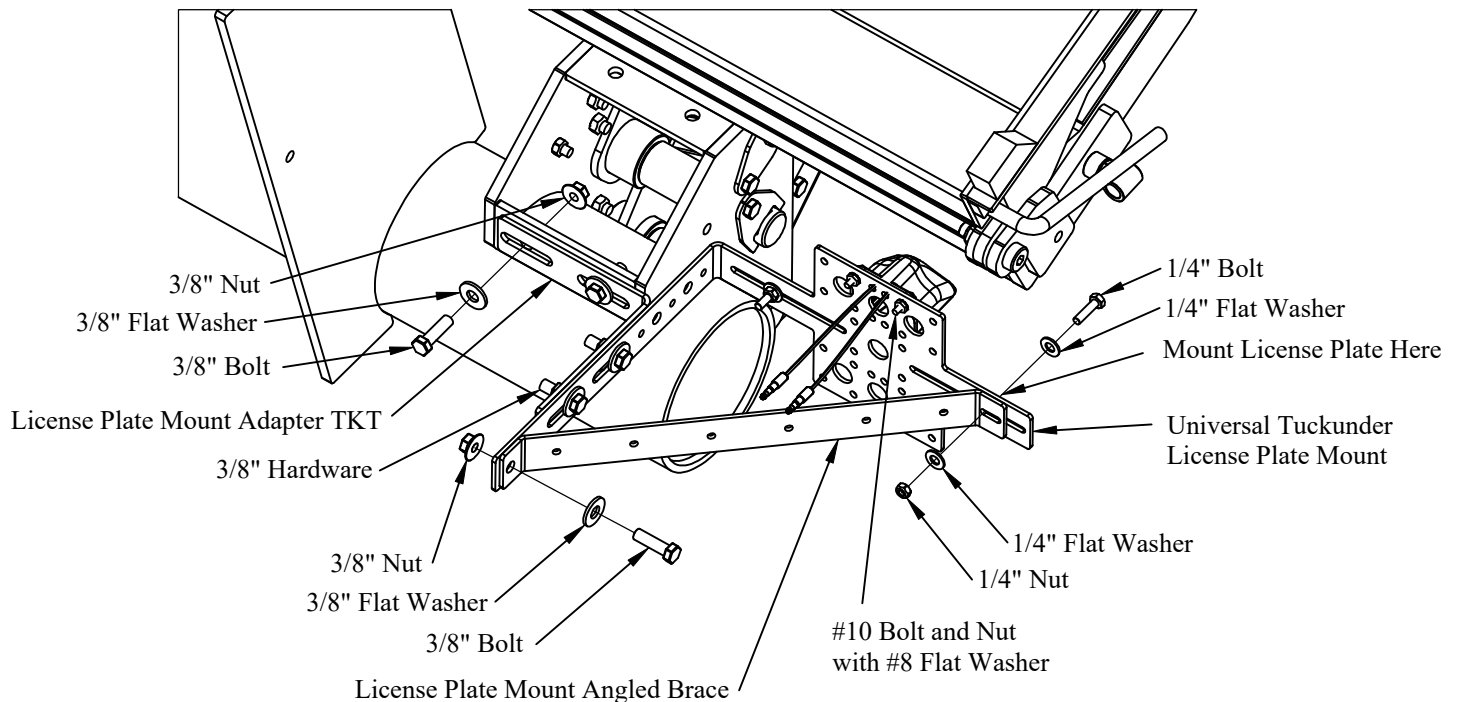


Figure 6: Recommended TKT mounting configuration.

Finishing the License Plate Kit Installation

1. **Verify** that the license plate light is functioning properly and that the entire license plate is visibly lit by the license plate light.

2. **Connect** the power cable to the positive side of the battery or manually **Engage** the circuit breaker (Figure 7).

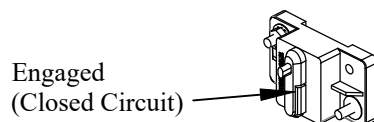


Figure 7: Engage circuit breaker.



WIRE ROUTING

- (1) When routing wires, avoid heat (above 180°F), abrasion, vibration, metal edges, screws, and trim fasteners. If such routings are not possible, protective devices must be used. If wires must cross a metal edge, the edge should be covered with a protective shield and the wiring fastened within 3 inches on each side of the edge.
- (2) Grommets must be used where wires pass through holes in sheet metal, castings, and / or frame rails. Do not bend wires in a radius smaller than 10 times the wire diameter.
- (3) Routing wires into areas exposed to wheel wash should be avoided. If this cannot be avoided protective shields are required to protect the wires from stones, ice, salt and water damage. Provide a drip loop to prevent moisture from being conducted into switches, relays, circuit breakers, and fuses.
- (4) Wires should be supported every 18 inches with plastic zip ties or rubber-lined clips.
- (5) Wires must be routed to clear moving parts by at least 3 inches unless positively fastened or protected by a conduit. If wiring must be routed between two members where relative motion can occur, the wiring should be secured to each member, with enough wire slack to allow flexing without damage to the wire.
- (6) Maintain at least a 6 inch clearance from exhaust system components. If this is not possible, high temperature insulation and heat shields are required. Existing OEM heat shields, insulation, and wire shielding must be maintained.
- (7) Do not route or attach electrical wires to fuel lines. Route electrical wires at least 1-1/2 inches away from the engine.

BATTERY, WIRE, TERMINALS, AND CONNECTORS

- (1) Wire attachments at the battery must be protected from tension loads so there is no undue strain on the battery terminals. Wires should be routed down rather than horizontally from the terminals with no sharp bends adjacent to the connections.
- (2) Battery power for your Tommy Gate should come directly from the battery or approved connection point through the supplied circuit breaker or fuse. The circuit breaker or fuse should be installed as close to the battery as possible.
- (3) Avoid splicing power cables. If splicing is necessary, the most durable splice joint will be bare metal barrel crimped, flow-soldered and covered with adhesive lined heat shrink tubing. Strip the wire ends making sure that individual conductor strands are not damaged. Use only rosin core solder, proper crimping tools, and wire with a gauge at least equivalent to the circuit being lengthened. Do not use electrical tape.
- (4) Battery cable terminals will be bare metal barrel crimped or flow-soldered and covered with adhesive lined heat shrink tubing.
- (5) Use wire connectors with locking features such as positive locking, inertia locking, bolt together, and soft mold-over with locking external retainers.

GENERAL

- (1) All frame contact areas must be wire brushed to bare metal, free of paint, dirt, and grease. Frame connections must be made using hardened flat washers under the bolt head and lock nuts. Corrosion preventive grease or compound is to be applied to the terminal area of the frame connection.
- (2) Frame cross members are not recommended as part of the ground return.
- (3) All circuit breakers and fuses should be located in one easily serviceable location with a means provided for identification of circuit function and current rating. If possible, avoid putting circuit breakers or fuses in the vehicle cab.
- (4) Before welding to the chassis disconnect the battery. Also disconnect the power train, engine, valve, and transmission control modules.
- (5) Do not alter vehicle ignition, starting, and / or charging systems. Do not reroute engine compartment wiring.
- (6) Full copper circuitry and standardized polarity grounds are recommended.
- (7) Never increase the rating of a factory installed fuse or circuit breaker.
- (8) Disconnect the battery negative (ground) wire prior to any vehicle modification.

Following the above guidelines will provide you with years of trouble free service. Failing to incorporate the above guidelines may result in a voided warranty. Non-compliance with the guidelines above may result in a failure of electrical components, shutdown of engines, loss of backup brake systems, and the possibility of fire.