



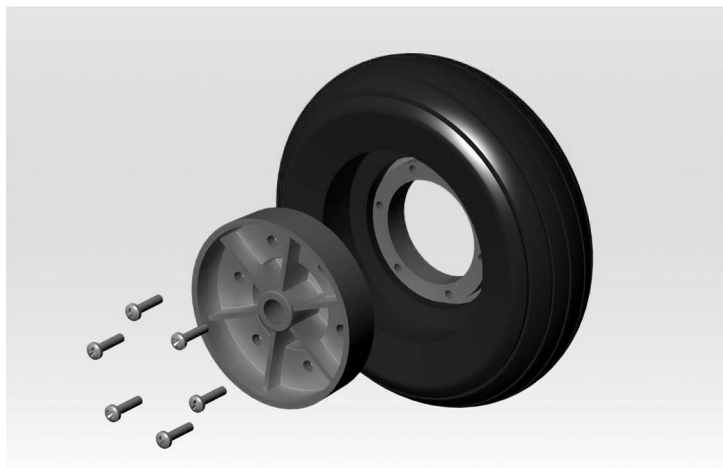
Compact Uni-Brake Installation Instructions



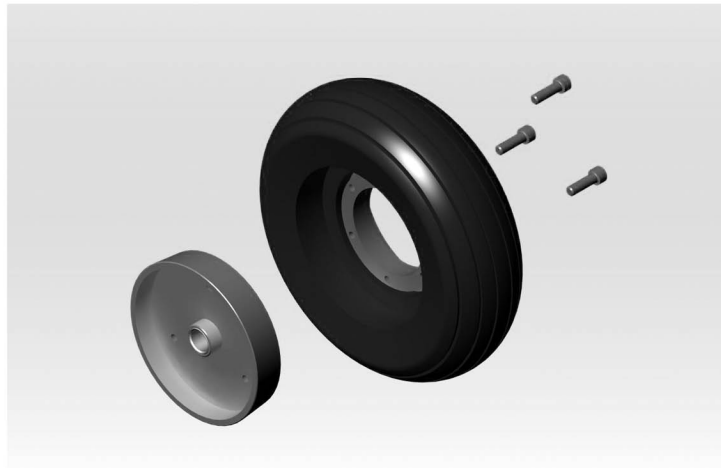
Brake Applications: 40, 60, 90, 120, giant scale, prop planes, tricycle or tail-dragger configurations, small ducted fan jets, small turbine jets.
These brakes are designed to use Robart Plastic Scale Wheels and for models up to 18 lbs.

Use Robart Foam Inserts for aircraft over 12 lbs.

#FOAM1 2" - 2 1/2" Wheels / #FOAM2 2 3/4" Wheels / #FOAM3 3" - 3 1/2" Wheels / #FOAM4 4" Wheels



STEP 1: Disassemble Robart wheel by removing inner plastic wheel bearing hub from the tire. Depending upon the weight of the aircraft, Robart wheel inserts should be installed into the tire cavity for support.



STEP 2: With the supplied machine screws (#4-40 x 1/2" SHCS), install the machined drum onto the plastic outer hub. The thru holes in the outer hub should be drilled out using a #32 or 1/8" drill. Torque the screws evenly to make sure there is a concentric and even fit. The wheel should spin true on the axle. Make sure the screws do not protrude past the drum and into the caliper area.



STEP 3: Assemble the brake caliper onto the drum, making sure the thrust washer supplied with the parts bag is installed in the counter-bored hole in the caliper. This helps provide an additional bearing surface for the drum to spin freely from the caliper. The caliper should spin freely inside the drum. For full locked braking, do not lubricate. First, experiment with the brake assembly dry. If the assembly does not spin freely, check that the screws have not protruded into the drum area and that the thrust washer is installed. Lubricant can be used on the o-ring assembly as well as the o-ring contact area of the drum. Keep the face of the drum along with outside of the drum clear of lubricant. Recommended lubricants are white lithium grease or petroleum jelly. Robart recommends the use of our electronic brake valve (#175) for more scale operation.

STEP 4: Bronze bearings should be lubricated depending on use. White lithium or bearing grease on the axle and thrust surfaces is required to keep wheels from locking and help increase the life of the bearings. The use of oil attracts dirt and will create more wear.

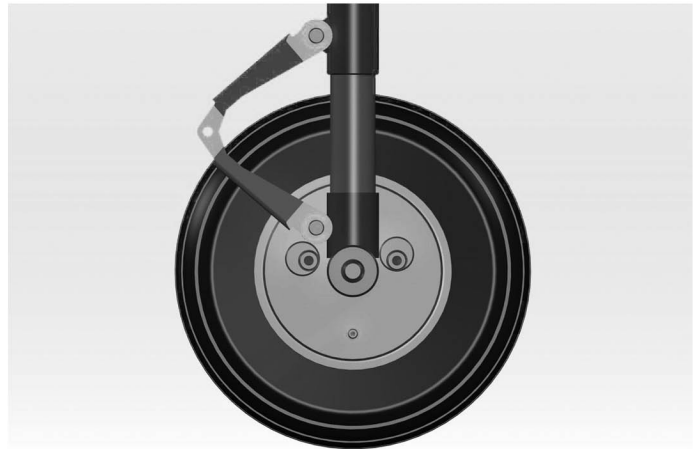


STEP 5: Tolerances between bushing and axle are critical. To insure proper assembly and function, the following procedure must be followed. Assemble brake onto strut with axle and lock set screw down onto the axle to mark where a flat spot will be ground. Disassemble and grind flat spot where the set screw marked the axle. The flat should be at least 1/32" deep to allow clearance for the burr left by the set screw. Burrs on the axle that protrude into the bushing will, when pulled through the bushing, damage and compromise the smooth surface of the bearing, therefore accelerating wear.

IMPORTANT NOTES: Never assume air pressure is present. Always check to make sure the brakes are "there" and working. Robart Mfg assumes no responsibility for use or misuse of this product, installation of this product or any related components, aircraft, support equipment, people or persons that may become damaged, destroyed or injured by proper or improper use of the Compact Uni-Brake product line.



STEP 6: Mounting the brakes to the strut has been simplified from the original Uni-Brake design. The cam action design allows the brakes to adapt to any diameter strut with the adjustment of the screw. With the axle through the brake and attached to the strut, spin each cam towards the strut. With each cam touching the strut tube or offset, tighten the provided cap screw until the cam will no longer move. The use of a blue thread locking compound will insure the cams will stay tight throughout each flight.



Troubleshooting:

Brakes grab and lock too quickly:

- 1) Air pressure too high in air tank. Reduce pressure.
- 2) Actuator valve at full travel. Reduce throw.
- 3) Brake drum is dry. Add lubrication to o-ring and/or drum area.

Aircraft pulls to one side:

- 1) Steering nose wheel does not track straight.
- 2) One main gear wheel may have toe-in or toe-out.
- 3) Obstruction in air hose to opposite side.
- 4) One side is lubricated and the other side is dry.
- 5) O-ring "hung-up" on debris, and/or galled flash on rim of hub, usually present when friction material has been removed with improper tool.
- 6) Bearing seized on axle. Dirt contamination / wheel covers not in place. Disassemble and clear. Reassemble with proper lubrication. Ream if needed.