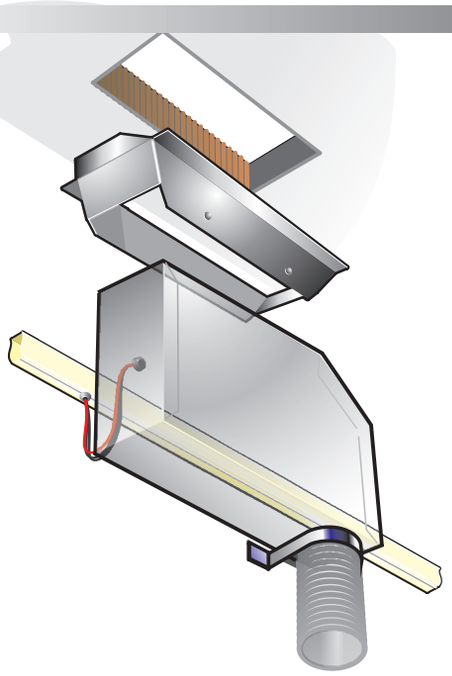
LOFT FIXING AND STANDARD FEEDER INSTALLATION



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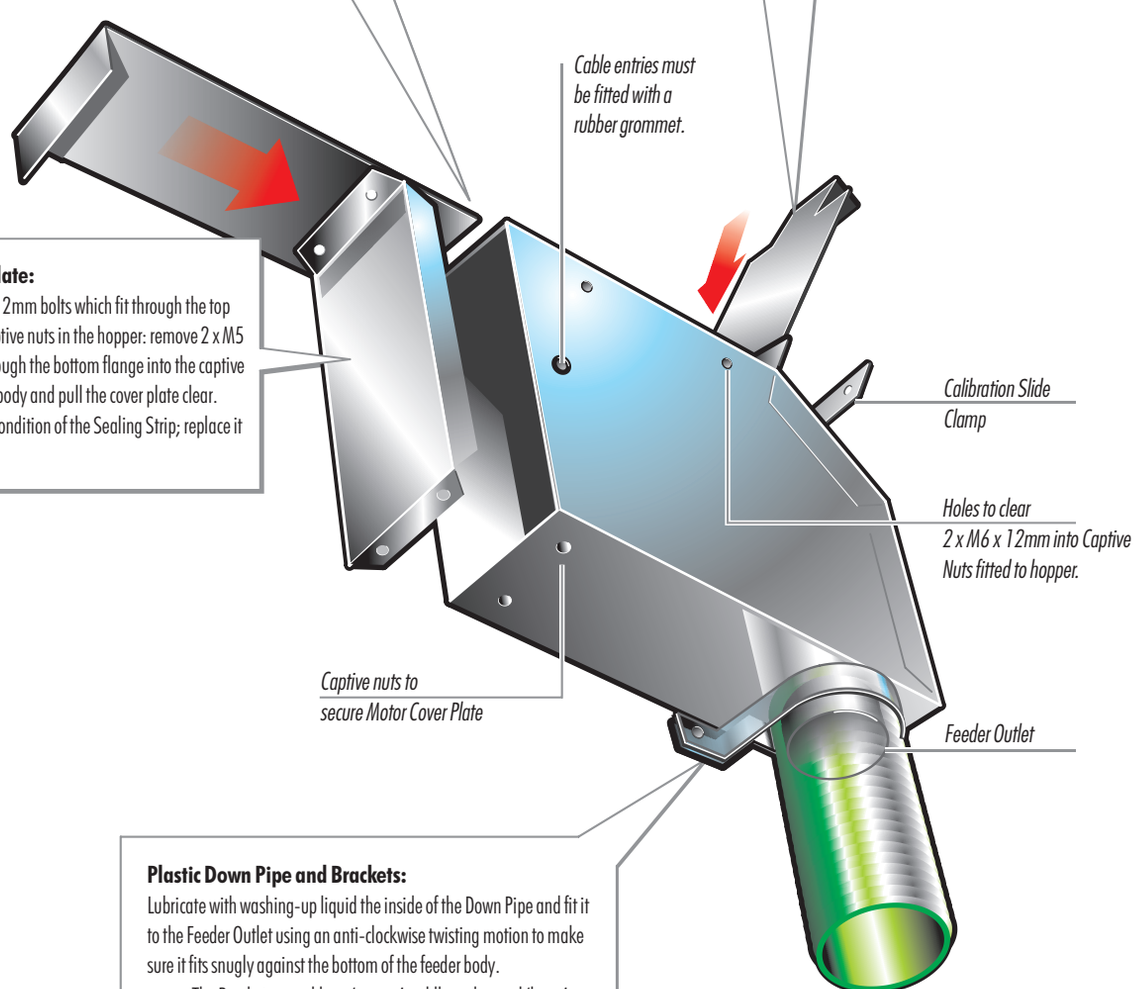
LOFT FIXING AND STANDARD FEEDER INSTALLATION: **1**

The ATL 12volt DC Electric Timed Feeder: Standard Body

Cut Off Slide:
Prevents cake spilling out of the hopper when the feeder is removed. Remove the Motor Cover Plate and fit the Cut Off Slide into the narrow slit above the motor compartment and below the hopper flange. Keep the slide horizontal so that it rests upon the two rivets at the rear of the feeder body and the captive nuts at the front. With the slide in position the feeder may be removed from the hopper.

The Calibration Slide:
Used to 'throttle' the flow of cake to the auger to ensure all of the feeders deliver the same ration in a given time, the Calibration Slide fits into the narrow slot between the hopper mounting flange and the feeder end and MUST rest upon the fixing rivet.. The Clamping Plate and 2 x M6 x 12mm stainless steel bolts lock the slide in position when calibration is complete. The slide is factory fitted to the feeder.



Motor Cover Plate:
Remove 2 x M6 x 12mm bolts which fit through the top flange into the captive nuts in the hopper: remove 2 x M5 x 10mm fitted through the bottom flange into the captive nuts in the feeder body and pull the cover plate clear.

Check the condition of the Sealing Strip; replace it if it is damaged.

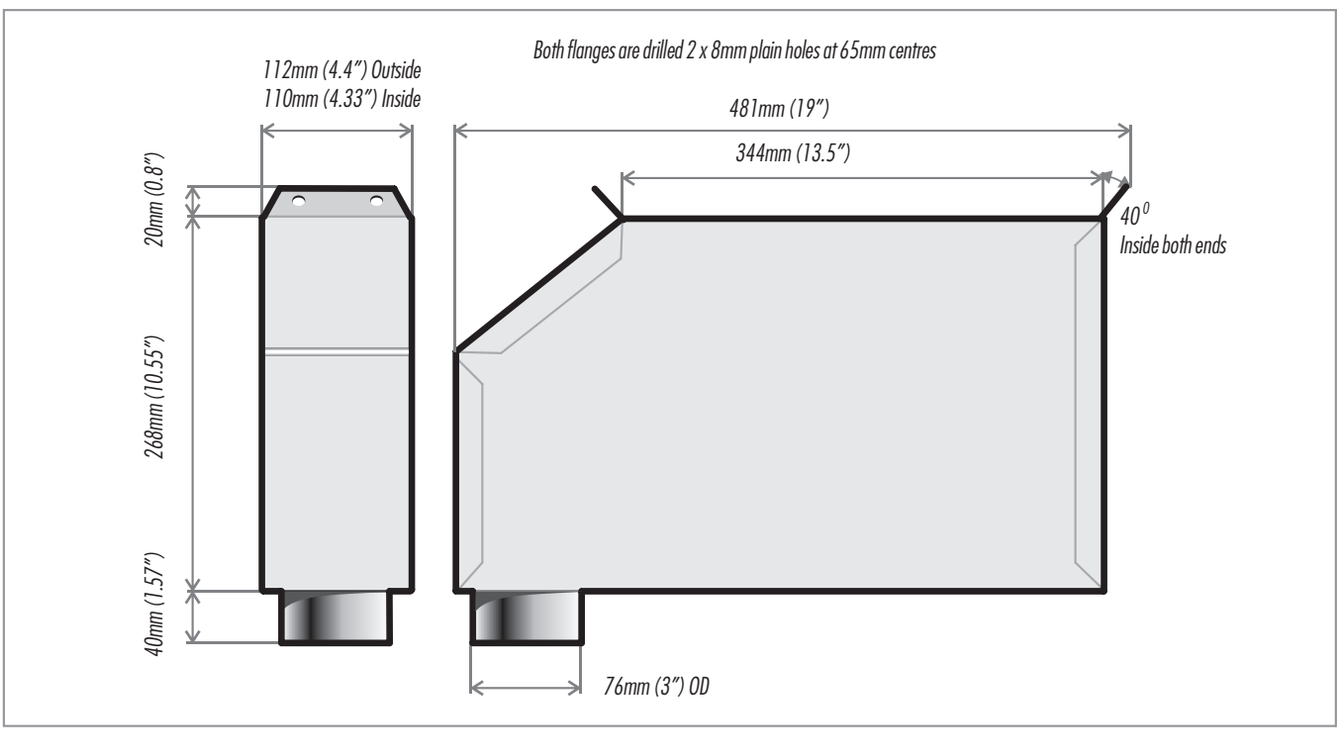
Plastic Down Pipe and Brackets:
Lubricate with washing-up liquid the inside of the Down Pipe and fit it to the Feeder Outlet using an anti-clockwise twisting motion to make sure it fits snugly against the bottom of the feeder body.

The Bracket assembly- a 'square' saddle and curved 'hoop' must be located as tightly as possible beneath the feeder body so that it both clamps the down pipe in position and helps to support the feeder. Use the M8 x 60mm coach screws and plugs supplied.

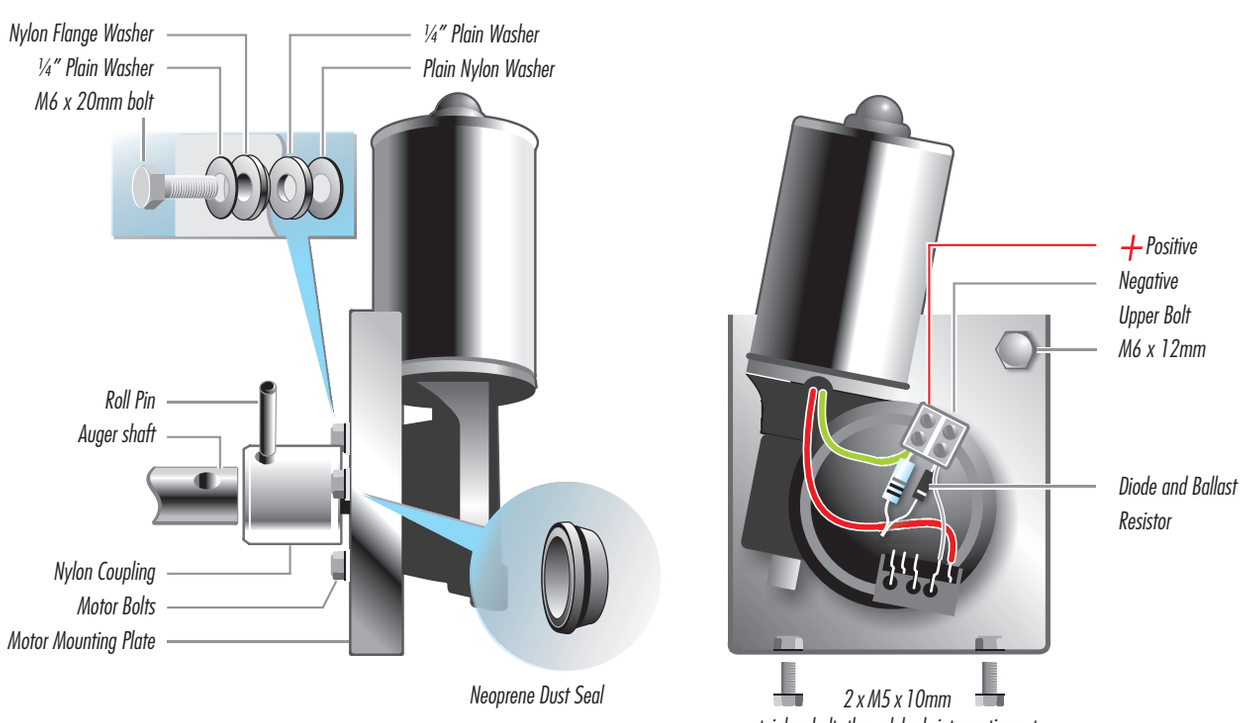
LOFT FIXING AND STANDARD FEEDER INSTALLATION: **2**

ATL Standard 12volt Timed Feeder.

All dimensions are nominal. For difficult, space critical installations please contact ATL before ordering.



ATL Standard 12volt DC Feeder Motor Connections, Mounting Plate and Coupling details.

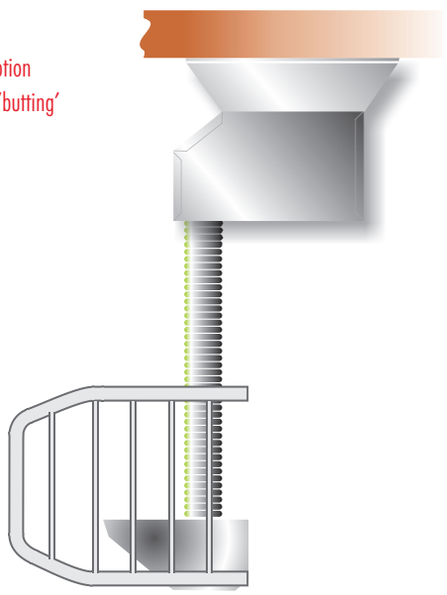


LOFT FIXING AND STANDARD FEEDER INSTALLATION: **3**

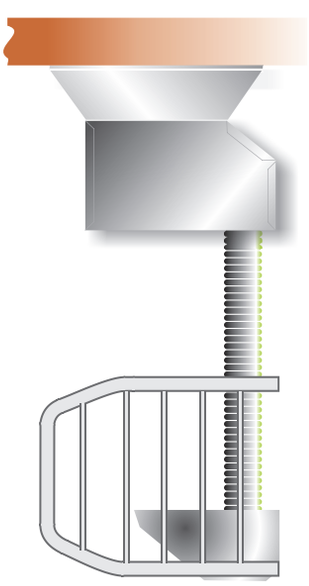
ATL Standard 12volt Timed Feeder: Auger Hopper and Feeder arrangements:

Feeder offset from stall

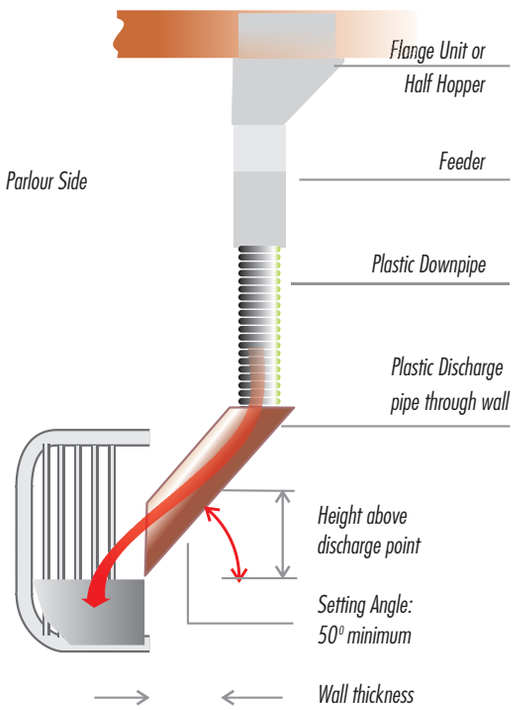
* Preferred option prevents cows 'butting' the feeder.



Feeder in line with Stall



Feeder and Hopper on the outside of the parlour



Where possible, mounting the feeders and hoppers outside the parlour reduces clutter, improves hygiene, prevents cows 'nibbling' at down pipes and from whacking feeders in the (vain) hope of dislodging a little extra cake!

But out of sight cannot mean out of mind. Fixings- especially the number of down pipe brackets must not be skimped because a hopper full of feed exerts a hefty load on the feeder.

With this arrangement, a short piece of flexible down pipe discharges into a length of slightly larger plastic pipe which is champfered to follow the inside line of the wall and act as a 'scoop' at the outer end. The discharge into the manger must be flush with the wall.

The setting angle is important; less than 50° and cake will jam in the pipe and create a backlog. Follow the chart below for the optimum angle v wall thickness.

Wall Thickness:	Height above Discharge:
230mm (9″)	274mm (10.8″)
254mm (10″)	305mm (12″)
280mm (11″)	335mm (13.2″)
305mm (12″)	365mm (14.4″)
343mm (13.5″)	411mm(16.2″)

LOFT FIXING AND STANDARD FEEDER INSTALLATION: **4**

Flange Unit, Half Hopper and Feeder Fixing

- The ceiling cutout must be 40mm (1.5″) from the wall to allow for the height of the downpipe fixing brackets. This applies to both flange unit and half hopper.
- Cutout dimensions:

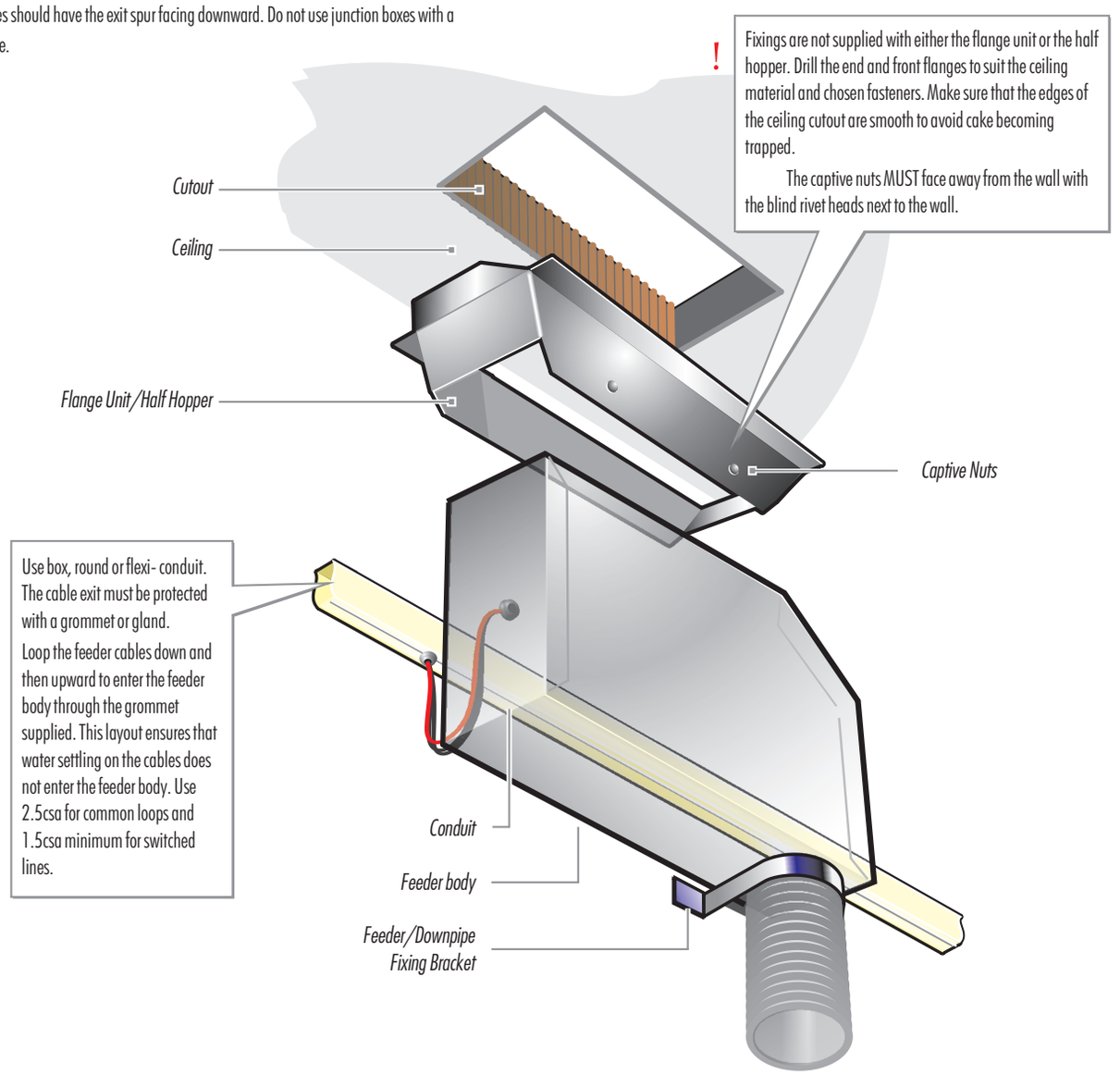
  Flange Unit: 300 x 100 (12″ x 4″)

  Half Hopper: 530 x 230 (21″ x 12″)
- Drill and secure the flange unit/half hopper to the ceiling. Fill uneven flange-to-ceiling joints with mastic to prevent cake dust drifting into the parlour.

Fixing the Conduit and Cables

Use box (25 x 25mm), round (20 or 25mm)or flexi-(25mm) conduit with either junction boxes or grommet-lined holes for the cable exit.

- Snap a chalk line along the wall165mm (6.5″) for the Flange Unit or 280mm (11.0″) for the Half Hopper from the ceiling to mark the bottom edge of the conduit.
- To prevent water ingress, box conduit exit holes must be in the lower edge and round or flexi-conduit junction boxes should have the exit spur facing downward. Do not use junction boxes with a hole drilled in the face.
- Position the exit holes/junction boxes more-or-less along the vertical centre line of the hopper.
- Run the feeder cabling using the csa specifications from the control installation manual, leaving ample 'tails' to connect to the feeder. Fit the box conduit cover.
- Fit the appropriate length of flexible downpipe to each of the feeders. Position the feeder over the Flange Unit/Half Hopper outlet (see Page 5) and secure it with M6 x 12mm bolts.
- Offer up the Downpipe/Feeder fixing making sure that it clamps firmly around the downpipe and the feeder outlet, and mark the wall. Drill the wall and fit the fixing.
- Feed the wire 'tails' through the grommet in the feeder body and into the motor bay. Make the (+) and (-) connections to the motor as shown on Page 2. Test the system before fitting the motor cover plates.



LOFT FIXING AND STANDARD FEEDER INSTALLATION: **5**

ATL Standard Feeder-to-Hopper Fixing:

- The grommet through which the feeder motor cables pass must be fitted into the side facing the wall. Do not drill additional holes through the motor cover plate.
- Remove the motor cover plate and the calibration slide clamp plate (if fitted).
- Offer up the feeder body and feed the motor cables though the grommet and into the motor compartment.
- Tilt the feeder and locate the two holes inthe casing rear over the two rivet heads that project from the rear of the hopper flange (A). *The hopper fits inside the feeder*
- Straighten the feeder, align the two holes in the front top edge with the two captive nuts fitted to the hopper front flange (B).
- Fit 2 x M6 x 12mm stainless steel screws through the feeder body and into the captive nuts.
- Align the holes in the feeder end with the captive nuts fitted to the hopper end (D). Ease the calibration slide up so that the clamp plate can be fitted with 2 x M6 x 12mm stainless steel screws. Again, leave the screws finger tight.
- The downpipes should be cut to the appropriate length. Smear a little washing up liquid around the inside edge of the downpipe and fit it to the feeder outlet using an anti-clockwise twisting motion. The pipe must fit tightly against the bottom face of the feeder body.
- The top downpipe bracket must be fitted as close as possible to the underside of the feeder, clamping the downpipe and supporting the feeder. Each bracket comprises a 'square' support and a curved' clamp which are secured using the M8 x 60mm plugs and coach supplied.
- Additional brackets must be fitted at no more than 500mm (20") intervals to provide acceptable support.
- Connect the feeder motor cables checking the polarity and ensuring that diodes are in place and fitted correctly- the white band to the (+) supply.
- Replace the motor cover plate securing it with 2 x M6 x 12mm (Top flange) and 2 x M5 x 10mm (Bottom flange) stainless steel screws.
- Check that the whole assembly is 'true' and tighten all of the screws.