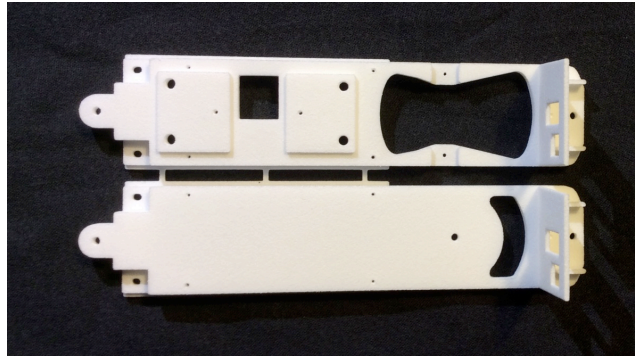# Instructions for the HO Scale S70 Ultrashort Light Rail Vehicle

Part One: Assembling the three floors:

Note: We recommend that you both assemble and test the floors before mounting the car bodies

1. Separate the 'A' and 'B' floors carefully with a cutting knife.

2. In a car using a single power truck, we will consider the floor with the power truck as the 'A'-floor, and the floor with the trailing truck as the 'B'-floor. The center unit is the 'C-floor'.

3. Separate the dummy pantograph and the couplers from the sprues and set aside for now.

4. Thoroughly clean all 3 floors, the couplers and the dummy pantograph (see **Recommendations for Cleaning 3D Printed Models** for more information)

5. Carefully paint the floors and the pantograph (see **Recommendations for Painting 3D Printed Models** for more information)

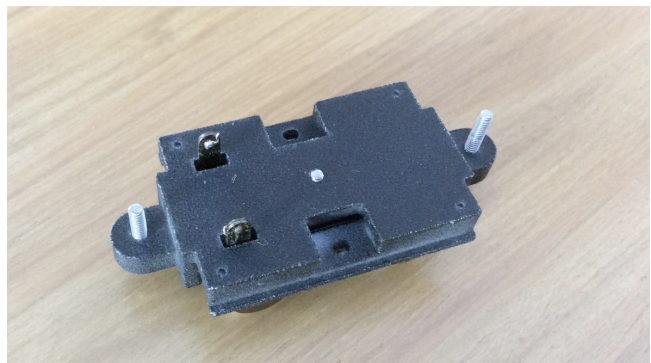*(For better visibility, some pictures show the parts unpainted!)*

6. On both the 'A' and 'B 'floors, open the holes in the articulation hinges up to 2.4 mm with a hand drill.

7. Do **NOT** modify the holes on the 'C-floor'.

8. To attach the three floors, drive two <u>long screws M2x10</u> from below into the 'C-floor', screw-heads showing down. This protruding screws are the articulations connecting the 'A' and 'B' floors with the 'C' floor.

9. Push one Bowser trailing truck from below into the 'C-'floor, attach it to the floor with a <u>screw M2x5</u> in the center.
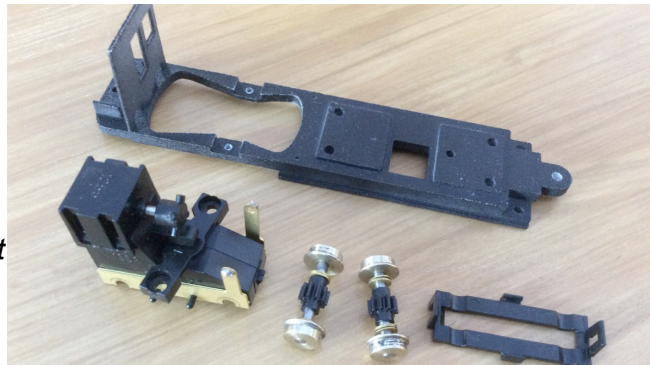
10. Attach the second trailing truck under the 'B'-floor with another screw M2x5 . Tighten the screw but allow enough play for the truck to swivel freely in all directions.

11. To mount the power truck, remove the gear retainer, part 1254, part and the wheel/axle assemblies from the power truck.
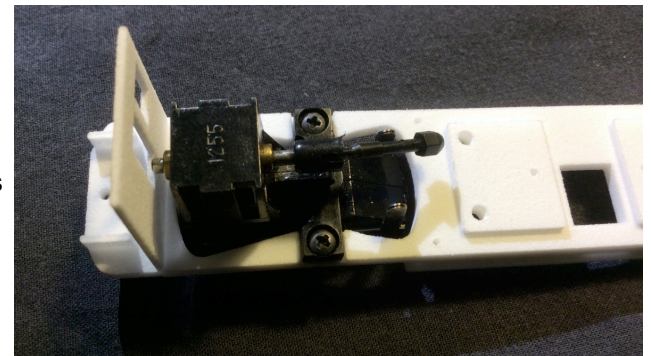
Note 1: If part 1264 is NOT attached to the body, the wheelsets do not have to be removed, just attach the bolster after the truck is lowered into the hole in the floor. It is a snap fit with a peg that fits into a corresponding hole in the top of the two-piece gear housing, parts 1252 and 1253.

Note 2: Most Bowser parts have the associated part number clearly marked on the part.

12. Lower the power truck from the top into the 'A'-floor, gear tower toward the front of the floor

13. Attach the bolster to the 'A'-floor with the 2 screws provided by Custom Traxx in their 125158 kit.
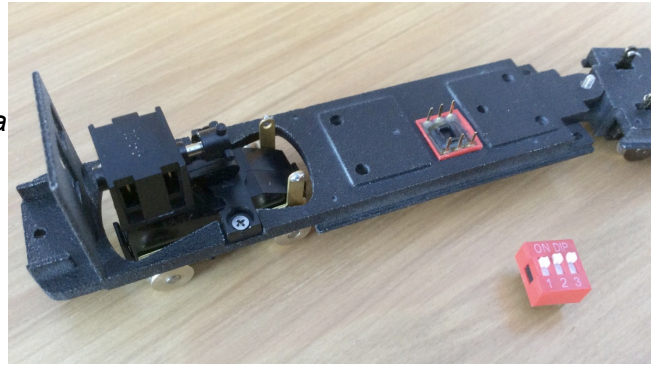

14. Hang the 'A' and 'B' floors into the long screws of the 'C'-floor. Examine the assembled three floors from the side. The three floors should be aligned horizontally.

Note 3: If the center 'C'-floor is higher than either the A or B floor, carefully sand the undersides of the applicable A or B hinges a little. Do this a little at a time and re-check. If the 'C'-floor is too low, add small washer between the floors at the hinges

Note 4: You can wire your model in several ways, with or without provisions for overhead wire operation and, for DC or DCC. The 'A'-floor also has a provision for a 3 position DIP switch, a rectangular hole under the motor.

When using a functional pantograph, wiring with a DIP switch is the best solution: you can either run on 2 rail or under functional overhead with connected rails. This scheme is explained in the wiring instructions.

15. To Attach the Custom Traxx 125158 drive: Install the wiring according to your chosen wiring scheme with thin flexible wire. Be careful when approaching the floor with a hot soldering iron.

16. Insert the Bowser drive shaft and attach the motor provided from below the A-floor with two screws provided in the 125158 powering kit.
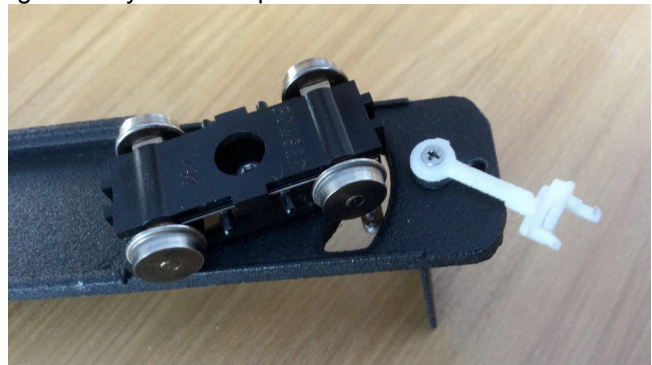
17. Installing and Using the Automatic Couplers:
The couplers are an Interurban Models design and they are functioning, but they initially may take more force than expected to get to couple. Do not initially apply excessive force to attempt to couple them.

Before installing the couplers, lubricate the heads with graphite or other plastic compatible lubricant and couple/uncouple them by hand several times by pushing carefully the L-shaped transversal bar down.

18. Attach the couplers under the 'A' and 'B' floors with a screw M1.6x6.

Note 5: Do not tighten this screw; the coupler must swivel freely in both horizontally and to some degree vertically.

If wired for 2 Rail DC, the entire motorized floor assembly is now ready to begin test runs. From test experience, we have found that adding up to one ounce of weight under the A-Floor and one-half ounce under the 'B' floor provides the best operation