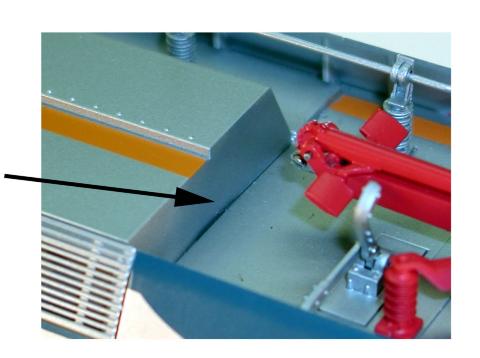
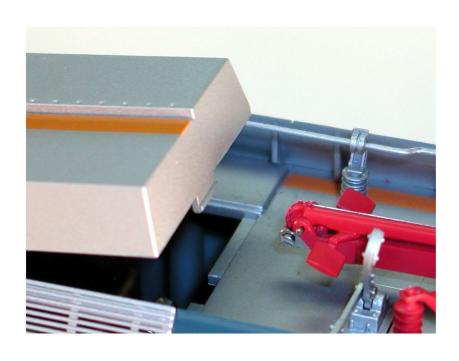
# Acela Locomotive Battery/Switch Hatch Removal

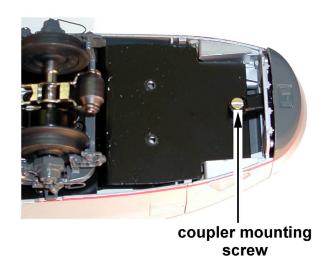
Place your index finger here. Press in slightly and lift to remove.







# Acela Powered/Non-powered Engine Shell Removal

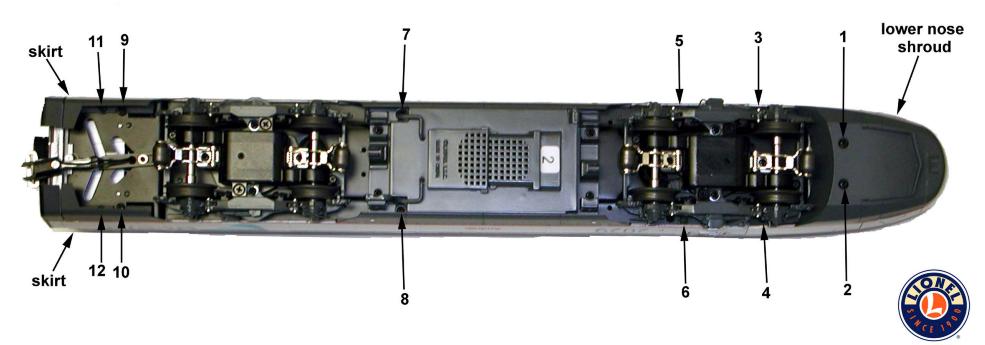


Step 1. Remove screws 1 & 2 and carefully remove the lower nose shroud

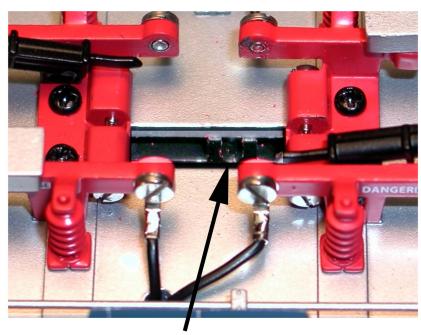
Step 2. It is recommended that the scale coupler be removed for ease of removing and re-installing the shell to the chassis

Step 3. Remove the remaining screws 3 - 12

NOTE! Removing screws 11 & 12 will allow for removal of the left & right side skirts. The shell can now be carefully lifted from the frame. Several wiring harnesses must be unplugged to fully remove the shell. Reverse these steps to re-assemble the engine.



## **Acela Pantograph Installation**



Step 1. Make sure that the pantograph gearbox is in the down position as shown by the location of the gear box U-channel.



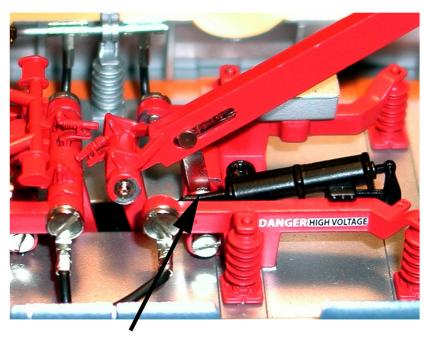
Step 2. Using a 2mm precision slotted blade screwdriver, carefully loosen the spring-loaded control arm pin screws on each side of the pantograph base.

**CAUTION!** Do not fully remove the control arm pin screw as it secures a small spring and pin.



Pg. 1 of 3

### **Acela Pantograph Installation**

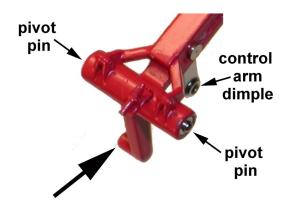


Step 3. With the pantograph extended, insert the dimpled end of the chrome control arm in between the loosened control arm pins.

installed

pivot

Step 4. Lower the pantograph and carefully install the pantographs actuator lever into the pantograph gearbox U-channel. Now press the pivot pins into the base location.



Make sure that the actuator lever is seated in the U-channel of the pantograph gearbox.



### **Acela Pantograph Installation**

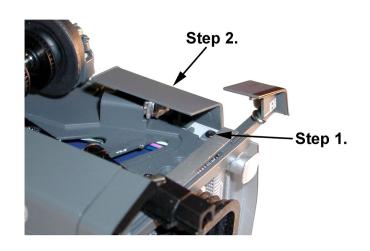


Step 5. To complete installation, tighten the control arm pin screws. To double-check that it is installed correctly, lightly lift on the pantograph, you should feel resistance. If the pantograph pulls up freely, the actuator lever is not properly engaged with the gearbox U-channel. Disengage the pantograph pivot and repeat step 4.

notes:



#### Acela Passenger Car Shell Removal



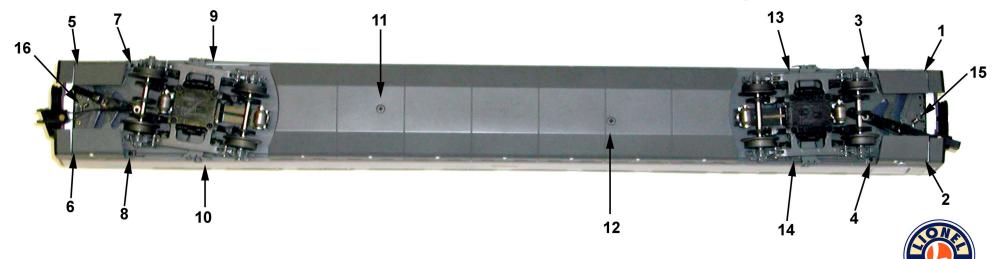
Step1. The vestibules must be removed first.

The screws for the vestibule ends are located underneath the spring-loaded detail. Extending the detail will gain access to the screw. (screws 1, 2, 5, 6)

Step 2. The end skirts must now be removed. Remove screws 3, 4, 7, 8 and slide the end skirts towards the vestibules to remove.

Step 3. Remove the remaining screws 9-16

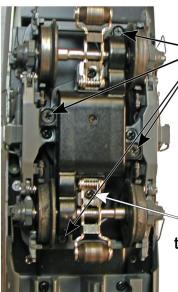
The shell can be carefully lifted from the frame. Several wiring harnesses must be carefully unplugged to fully remove the shell. Reverse these steps to re-assemble the engine.



#### Acela Traction Tire Replacement

parts needed: (2) per truck: 610-8357-206 Traction Tire/Acela tools needed: Phillips screwdriver, mini flat-bladed screwdriver, needle-nose pliers

1. Place powered unit upside-down on a soft cloth to prevent paint damage and support properly to avoid pantograph damage.



2. Remove (4) bottom plate screws and bottom plate.

<u>CAUTION!</u> Do not turn the locomotive upright as several gear assemblies can fall out with bottom plate removed.

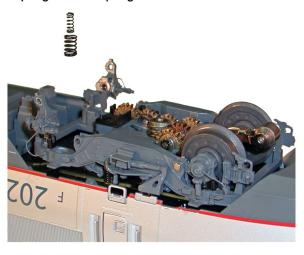
3. Remove the collector roller above the traction tire wheel & axle assembly.
(1 - screw)



 Using a miniature flat-bladed screwdriver, carefully remove e-clip from the pivot stud and slide pivot stud out from both sides of the truck.

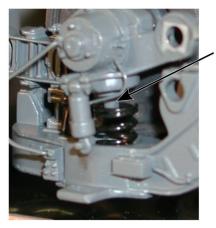
> \* 610-8357-039 E-clip \*\* 610-8357-040 pivot stud

note: the shock absorber springs are a spring within a spring.



- 5. Lift the wheel set up slightly and carefully remove the axle from the wheel bearings. The bearings are attached to the truck via a decorative cable. Carefully swing the bearings out of the way as shown. Remove the shock springs and retain for re-assembly.
- 6. You may now change your traction tires and re-install the wheel set into the bearings.

7. When re-assembling, make sure that the shock absorber springs are properly lined up with the lock tab.



lock tab



- 8. After the shock absorber springs are lined up, carefully insert the pivot axle stud and using needle-nose pliers, carefully install retaining clip.
- 9. Re-install collector roller and bottom plate to complete the traction tire

replacement.

rev 7/07