

# TECHNICAL BULLETIN

**TB#:** TB023 001 rev1

**Date:** 03/16/22

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**RE:** SR3 SRX, XX, 1340, and 1500 Shifting Issues, Air Compressor, Valve Block, Blipper and Lines

**Priority:** High

## SHIFTING ISSUES

When first discovering a gear shifting issue, it is important to look at the system entirely.

The key elements in the system all play an important role relative to the required “timing” for a seamless shift.

Those elements are:

- Air Compressor and Tank
- Valve Block
- Blipper
- Lines
- Paddle Shift Mechanism (Electrical and Mechanical)
- Electrical Connections
- Driver

## GENERAL DIAGNOSIS

Events have proven that the “Valve Block” needs regular service. This can generally be done with common tools taking about an hour to complete. A diagnostic sign will be the air compressor running “more than normal” (>15 seconds after the car has been powered off. If car has sat for more than 24 hours, it may be normal to hear it run for ~20 seconds. >30 seconds generally means there is an air leak in the system. A high percentage of the time, this is inside the “Air Block” assembly or at one of its connection points)

- Is it shifting through all gears? Or just having trouble with one specific gear? If one specific gear, this suggests it may be a mechanical issue and it is strongly advised to contact Crown immediately. If you have carried out the first two steps and are still having issues shifting through all gears, take a look below for more help. Or Contact Crown Service.

Cont.

For additional information, please contact Crown Engineering: [jmartin@crownc Conceptsusa.com](mailto:jmartin@crownc Conceptsusa.com)

For service, please contact Crown Trackside Sales: [trackside@crownc Conceptsusa.com](mailto:trackside@crownc Conceptsusa.com)

520-900-7586 - [crownc Conceptsusa.com](http://crownc Conceptsusa.com)



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- Via the Data, View the 'GearShiftDecision' channel to see if any shifts have been disallowed due to a breach in the cars normal parameters, TPS Too High/RPM Too High etc. The shift will not be allowed if it sees any of these. Or Contact Crown Service.
- Utilize LifeMon to check whether there is any output from the paddles. Do this by viewing the 'PaddleSwitch' channel, this will give a live reading of the paddle inputs, check the switches are registering on this channel by displaying up/down. If there is no output, check the wire from the steering wheel is still plugged in and has no breaks or tight bends. Or Contact Crown Service.

## **DOWNSHIFT ISSUES**

- Ensure the blip is between 20-35% also check it is blipping mechanically at the actuator end. Check actuator bearings for play, check actuator per RPE Spec, check the TPS is set at 4% at rest and operating normally, check the ECU data for 'GearShiftDecision' which shows any dis-allowed shifts. Or Contact Crown Service.

## **ISSUES GETTING OUT OF NEUTRAL**

- Check actuator bearings for play, check actuator length using the jig, check the TPS is set at 4% at rest and operating normally, check the clutch switch is sending a signal, check the clutch clearance is correct at the pedal. Or Contact Crown Service.

## **UPSHIFT ISSUES**

- Check actuator bearings for play, check actuator length per RPE spec, check the TPS is set at 4% at rest and operating normally, check 'GearShiftDecision' for any dis-allowed shifts. Or Contact Crown Service.

## **Clutch (Manual or Spin Safe)**

- See Crown for Service

For additional information, please contact Crown Engineering: [jmartin@crownc ConceptsUSA.com](mailto:jmartin@crownc ConceptsUSA.com)

For service, please contact Crown Trakside Sales: [trakside@crownc ConceptsUSA.com](mailto:trakside@crownc ConceptsUSA.com)

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