



Fuel Flow Adjustment Basics

For more detailed instructions refer to “Details for tuning your NordicStove to your fuel oil and chimney system.” (Owner’s Manual)

WARNING: Incorrect fuel flow adjustment can create a fire hazard!

**Use extreme caution! The manufacturer recommends hiring a qualified technician!
Warranty coverage is void if the unit is over-fired!**

Though heating fuel oil is sold under various names such as #1 heating oil, #1 stove oil, #2 heating oil, #2 diesel, etc. there can be **significant differences in viscosity** even between specific deliveries of fuel that are sold having the same name.

Viscosity significantly effects the amount of fuel flow through drip pot oil controllers such as the TOBY DVR used on the NordicStove. Consequently, adjustment of the controller may be necessary in order to achieve a proper match between your specific fuel and the controller settings. (Note: Adjust high burn first and low burn last.)

Before adjusting your oil controller make sure your chimney system is drafting properly and your fuel tank, filter, and fuel line are allowing fuel to flow to the NordicStove and that the stove is level and all burner rings are properly installed.

Situation #1: Stove appears to be burning with a weak flame at the HIGH setting.

Note: **TWO adjusting screws** affect the fuel flow rate at the HIGH setting. One is the high adjusting screw and the other is the high limit screw. Both of these must be adjusted properly in order to have appropriate fuel flow.

1. **Light stove** and gradually increase fuel control knob to High setting. Operate at High setting for approximately 15-20 minutes (until the chimney is fully heated and drafting properly).

2. **Evaluate your flame.** On high burn, the flames should pulse not higher than the stove's chimney connection. If flame is too low on high burn, adjust high adjusting screw.
3. **Mark position** of HIGH adjusting screw and position of HIGH LIMIT screw.
4. Turn high limit screw counterclockwise one revolution.
5. Increase high burn by turning high adjusting screw counterclockwise (CCW) 1/4th turn.
6. **WAIT five minutes.** Visually check to determine whether flame has increased. Turn High adjusting screw until flame is correct (clean exhaust, flame is pulsing as high as the stove's chimney connection).
7. Remember, be patient and work slowly. Allow flame to stabilize. Adjustments do not take effect immediately!
8. **After flame has stabilized,** turn high limit screw clockwise until adjustment indicator tab starts to move downward then turn high limit screw CCW ½ turn.
9. **Adjust Low** setting using guidelines mentioned in Situation #2. Always check operation at Low after adjusting High settings!

Situation #2: Stove appears to be burning with a weak flame at the LOW setting.

1. **Light the stove.** Gradually increase Fuel Control Knob (FCB) to High. Operate at High for approximately 15-20 minutes (until the chimney is fully heated and drafting properly.)
2. **Evaluate your flame.** On high burn, the flames should pulse not higher than the stove's chimney connection. If flame is low or too high on high burn, see SITUATION #1.
3. Turn **FCN slowly** counterclockwise to lowest position. At low burn, the flame should fill the bottom burner ring. If it does not fill the bottom burner ring, is flaring up and down or going out and then "whoofing" back on again, adjust the low burn adjusting screw.
4. **Mark the starting position** of LOW adjusting screw.
5. **Increase fuel flow** by turning Low adjusting screw counterclockwise 1/4 turn per 5 minutes until flame is stable and fills the bottom burner ring.
6. In rare cases, the flame may perform as described in #3, second sentence, before reaching the lowest setting. Use this position to start making an adjustment to the low burn screw. Make adjustment and then reduce FCB until the lowest position is achieved.

Top View of Toby DVR Oil Controller

