

## **Forced Four SMART 150 firmware change log:**

### **Version 2.01**

Requires update to SMART 2.03 PC app or newer  
Added configurable minimum solenoid current for open circuit check  
Disabled PCS solenoid when engine not running  
Added general purpose output controls for spare solenoid outputs  
Added invert solenoid outputs when used as general purpose outputs

### **Version 2.0**

Requires update to SMART 2.0 PC app or newer  
Major update for compatibility with SMART 2.xx app  
New data/file structure for map saving/loading functionality  
Revised digital input selections to function based  
Revised serial stream data for faster performance and increased data load  
Eliminated ratchet shifter functionality

### **Version 1.6**

Revision to frequency input formulas  
Corrected PPM math, requires subtracting 25% from your previous PPM value to be correct

### **Version 1.5**

Extended speed sensor PPM range

### **Version 1.4**

Fixed output current data values stuck  
Added support for SOLA, and SOLB config – requires PC version 1.9.4 or newer  
Fixed lockup not turning on, was broken in version 1.3

### **Version 1.3**

Revised lockup functionality to release lockup quicker when necessary  
Fixed DI1 type, DI2 type, SOLA config, SOLB config not saving  
Fixed first or second beep after auto shift not working  
Fixed stall up mode hold 2nd gear not returning to 1st if MPH exceeds set value before brake switch released  
Fixed false solenoid short circuit protection causing output to be disabled

### **Version 1.2**

Increased internal clock speed  
Fixed lockup function not working  
Fixed USB data pauses / glitches  
Improved RPM up-shift performance  
Fixed DI5 type not saving  
Fixed TPS calibration bug  
Improved torque reduction functionality  
Added ratchet shifter functionality  
Altered MPH filtering  
Added more functionality to test outputs  
Added delay before up-shift on throttle lifts

### **Version 1.1**

Revised watchdog timer  
Add capability to DI1 for all digital input functions  
Add capability to DI2 for all digital input functions  
Add PRND functionality to auto shift pattern  
Add support for new PRND module with O/D Off and 3rd gear selections

### **Version 1.0**

Initial release