



## Occupant Model Checklist

Ford Explorer

Dec 2013

### **Checklist for Running the Ford Explorer Occupant Model**

1. Determine the firing time using the “7-30” rule.
  - a. Double integrate the crash pulse to get the displacement time history.
  - b. Identify the time corresponding to 7 inches of displacement.
  - c. Subtract 30 ms from that time to get the firing time.
2. Change the value of the following SWITCH.TIME to the calculated firing time.
  - a. Sbagfiretime
  - b. Trgcon\_1
3. Change the INITIAL.JOINT\_VEL for Motion\_jnt (under the S2\_C\_PF\_Slot\_DR\_Interior system) to correspond to the desired initial velocity.
4. Change the crash pulse using the following functions, which are called in MOTION.JOINT\_ACC for Motion\_jnt (under the S2\_C\_PF\_Slot\_DR\_Interior system).
  - a. For full frontal
    - i. /S2\_C\_PF\_Slot\_DR\_Interior/X\_acc
  - b. For offset or centerline pole
    - i. /S2\_C\_PF\_Slot\_DR\_Interior/X\_acc
    - ii. /S2\_C\_PF\_Slot\_DR\_Interior/Y\_acc
    - iii. /S2\_C\_PF\_Slot\_DR\_Interior/Z\_acc
5. Apply displacement time histories to the toepan and footrest.
  - a. For the toepan plane
    - i. Function.XY=Disp3002\_fcn
    - ii. Joint=Joint\_footwell1
  - b. For the footrest plane
    - i. Function.XY=Disp3000\_fcn
    - ii. Joint=Joint\_footrest