

```

1 (set-option :produce-proofs true)
2 (declare-datatypes () ((Action
3                           (failure)(resume)(timeout)(resets)(start)(tick)(ask)(fail)
4                           (FUN_Action_Bool (failed Action)(tt Bool))
5                           (Synchro (action Action))))))
6 (declare-const lb1:sva_SV0:1:1| Bool)
7 (declare-const lb2:sva_SV0:1:1| Bool)
8 (declare-const lb0:sva_SV0:1:1| Bool)
9 (declare-const l:hb_B:13:1| Action)
10 (declare-const l:ra:1:1| Action)
11 (assert (= (FUN_Action_Bool failure true) (FUN_Action_Bool failure lb1:sva_SV0:1:1|)))
12 (assert (= (FUN_Action_Bool resume false) (FUN_Action_Bool start lb2:sva_SV0:1:1|)))
13 (assert (= l:hb_B:13:1| (FUN_Action_Bool fail lb0:sva_SV0:1:1|)))
14 (assert (= lb1:sva_SV0:1:1| lb2:sva_SV0:1:1|))
15 (assert (or (not (or lb1:sva_SV0:1:1| lb2:sva_SV0:1:1|)) lb0:sva_SV0:1:1|))
16 (assert (= (Synchro fail) l:ra:1:1|))
17 (check-sat)
18 (get-proof)

```

```

unsat
((proof
 (let ((?x40 (FUN_Action_Bool start lb2:sva_SV0:1:1|)))
 (let ((?x36 (FUN_Action_Bool resume false)))
 (let (($x41 (= ?x36 ?x40)))
 (let ((@x44 (rewrite (= $x41 false))))
 (mp (asserted $x41) @x44 false)))))))

```