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Base case: m = Obj(w)
Prove: size Obj(w) = size' Obj(w) 0

size Obj(w)
\/ Obj(w) → 1
=> 1

size' Obj(w) 0
\/ Obj(w) → 1 + acc
=> 1 + 0
=> 1

Step case: if size m1 = size' m1 0 and size m2 = size' m2 0,
m = Wire(m1,m2)
Theorem: size(m) + acc' = size' m acc'
Theorem proof:
Base case: m = Obj(w)
Prove: size Obj(w) + acc' = size' Obj(w) acc'

size Obj(w) + acc'
\/ [Obj(w) → 1] + acc'
=> 1 + acc'

size' Obj(w) acc'
\/ Obj(w) → 1 + acc'
=> 1 + acc'

Step case: for any acc', if size(m) + acc' = size' m acc' and m1,m2 satisfy m
Prove: size Wire(m1,m2) + acc' = size' Wire(m1,m2) acc'

size Wire(m1,m2) + acc'
\/ [Wire(m1,m2) → size m1 + size m2 + 1] + acc'
=> size m1 + size m2 + 1 + acc'

size' Wire(m1,m2) acc'
\/ Wire(m1,m2) → size' m1 (size' m2 (1+acc'))
=> size' m1 (size' m2 (1+acc')) [let acc1 = 1+acc']
=> size' m1 (size' m2 (acc1))
=> size' m1 (size m2 acc1) [let acc2 = size m2 acc1]
=> size' m1 acc2
=> size m1 + acc2
=> size m1 + size m2 + acc1
=> size m1 + size m2 + 1 + acc
So if acc' = 0, theorem remains satisfied, and size(m) = size' m 0