

### REVIEW ALL INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING INSTALLATION

#### GENERAL NOTES:

- Instructions are intended for qualified door mechanics using proper tools and equipment.



WARNING! – Components under **extreme spring tension** can cause **SERIOUS INJURY** or **DEATH**.

- Refer to installation instructions also provided with the chain, crank or motor operator.
- The terms “fire door“, “fire doors”, “door” and “doors” apply generally to Fire Doors and Counter Fire Doors. The terms “operator” and “operators” apply generally to retrofit fire door chain, crank and motor operators. If an instruction refers to a specific type, it will be noted as such.
- Instructions refer to doors operated from the left side (tension adjusting wheel on the right side).
- Retrofit operators are provided in accordance with requirements for the type and size of door indicated at the time of order. *If the items provided are not correct for actual field conditions*, contact the factory for further instruction.
- Ultimate acceptability of any fire door is the decision of the Authority Having Jurisdiction.

#### INSTALLATION:

**NOTE:** Retrofit operators are intended for installation on existing rolling steel fire doors to replace traditional operating and governor systems and eliminate spring tension release. They may also be installed on existing doors to replace similar type failsafe operating systems. Retrofit operators may not be the proper solution to all causes of improperly operating fire doors.

- 1) Open door and secure bottom bar to prevent curtain from closing.
- 2) Carefully release spring tension. **CAUTION:** *Adjust spring tension only when the curtain is in the open position.*



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- 3) Re-engage tension arm (or place tension lock pin) into tension adjusting wheel with it set at a neutral position (no initial turns of tension with the door open). When using cable or sash chain to hold the tension arm, securely attach it to the tension bracket or to a convenient location on the wall above the bracket. It is not necessary for this cable or chain to be run through the wall. **DO NOT** use a fusible link on the tension side of the door.

- 4) Remove existing operating and governor components.
- 5) Install operator per installation instructions provided with the fire door chain, crank or motor operator. Temporarily engage and secure the operator release.
- 6) Remove the means originally used to secure bottom bar and prevent curtain from closing.
- 7) Check normal operation of the door.

**NOTE:** In the rare occurrence of a door that does not operate properly (such as slipping of the chain or crank operator when opening the door), and there are no apparent obstructions or binding, additional tension adjustment or a different driven (door) sprocket providing more or less reduction may be necessary – contact the factory for further instruction. **CAUTION: Adjust spring tension only when the curtain is in the open position.**



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- 8) Install the fusible links and cable.
  - One fusible link must be located at the release on the retrofit operator.
  - One fusible link must be located within 12” of the ceiling, but not within the area 4” down from the ceiling and 4” away from the wall.
  - One fusible link must be located on the opposite side of the wall, within 12” of the ceiling, but not within the area 4” down from the ceiling and 4” away from the wall.
  - All fusible links and cable must be installed so that the separation of any fusible link will cause the door to close.

**NOTE:** If the door is to be connected to a release device with automatic closing activated by an alarm system or detector(s), a fusible link must still be located at the release on the retrofit operator, but one is not required to be within 12” of the ceiling or on the opposite side of the wall. The release device can be mounted at any convenient location that provides for proper release of the door. Consult NFPA-80 or the Authority Having Jurisdiction for required location(s) of detector(s).

**NOTE:** If there is not an existing through-wall sleeve, or if a new sleeve is to be installed, use ½” EMT conduit as a sleeve through the wall. Cut the conduit so that it extends through the wall and into the set collars provided. The ends of the conduit should be ¼” inside the set collar on each end. File the ends of the conduit so there are no sharp edges.

- 9) Drop test the door to verify proper operation and full closing.
  - Separate the fusible link from the cable (typically at the link furthest from the door on the opposite side of the wall), through the alarm system or detector(s), or as otherwise required by the Authority Having Jurisdiction.
  - The door must close at an average rate of no faster than 24 inches per second and no slower than 6 inches per second.
  - The bottom bar must come to rest on the floor/sill.



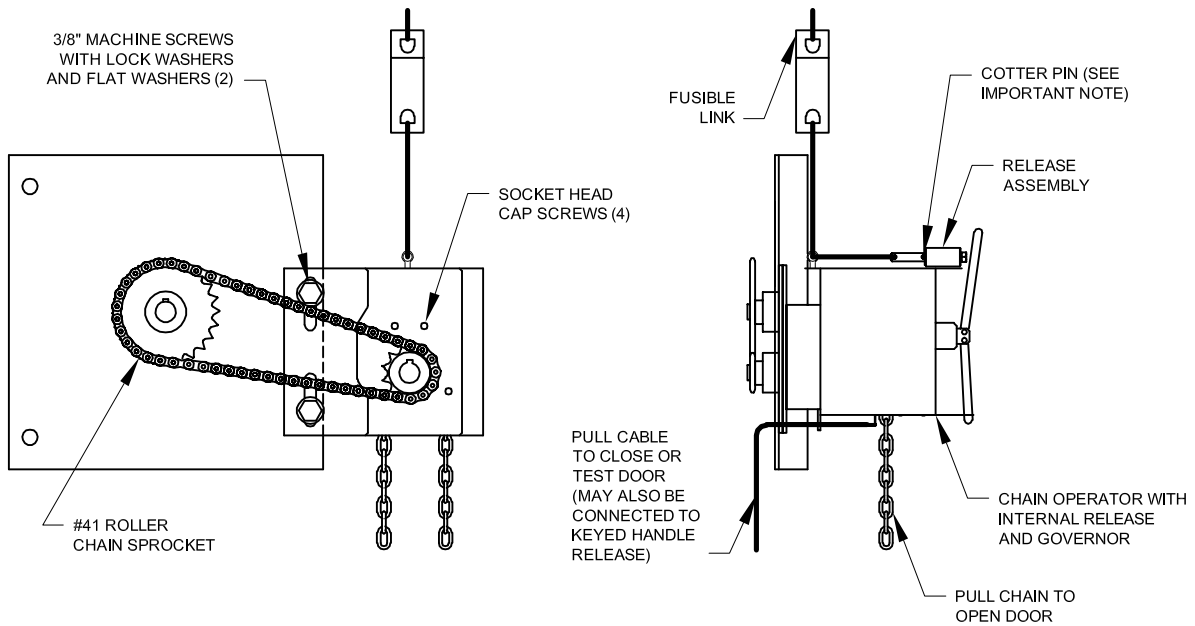
**WARNING!** – Components under **extreme spring tension** can cause **SERIOUS INJURY** or **DEATH**.

**If the door closes as indicated**, the drop test was successful. Reset the door and drop test one more time to confirm the door was reset properly, and then reset the door again.

**If the door does NOT close as indicated**, check for any obstructions, areas where binding may occur, or possible further tension adjustment. **CAUTION: Adjust spring tension only when the curtain is in the open position.**

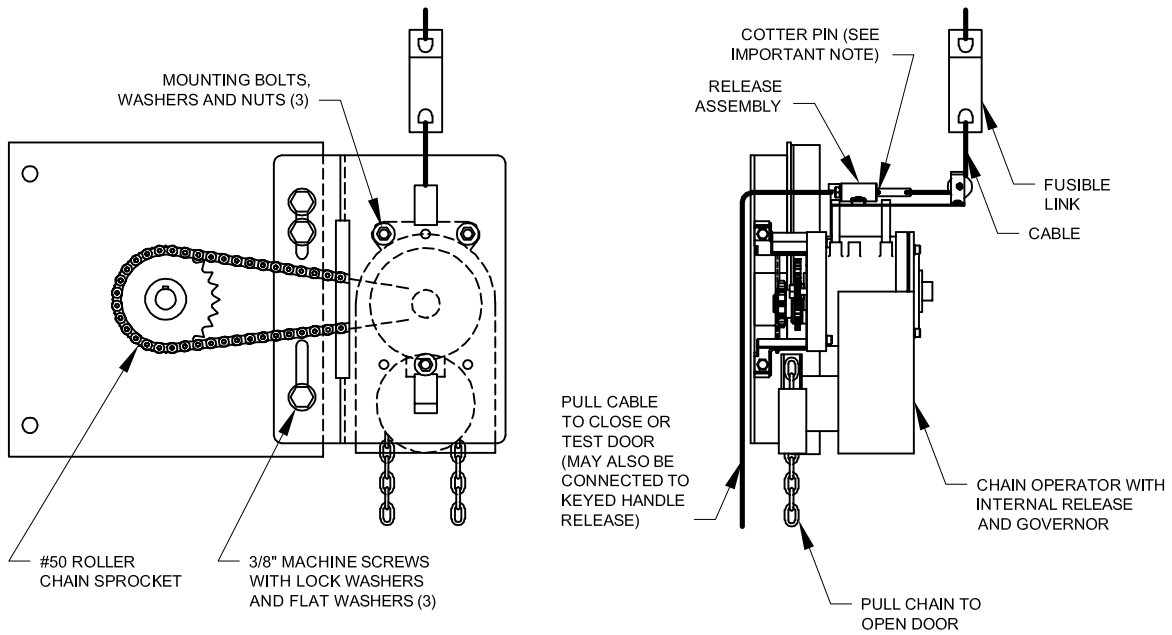
- Reset the door and drop test until the door closes satisfactorily.
- After a successful drop test, reset the door and drop test one more time to confirm the door was reset properly, and then reset the door again.

10) Make sure WARNING and DROP TEST labels are attached to the door (or the wall if the guides are concealed). On the *ANNUAL FIRE DOOR DROP TEST RECORD* label, write the date the door was tested, your name, and your company name on the lines provided. Complete the *ROLLING FIRE DOOR INSPECTION AND DROP TEST FORM* provided. Distribute copies as noted on the form.

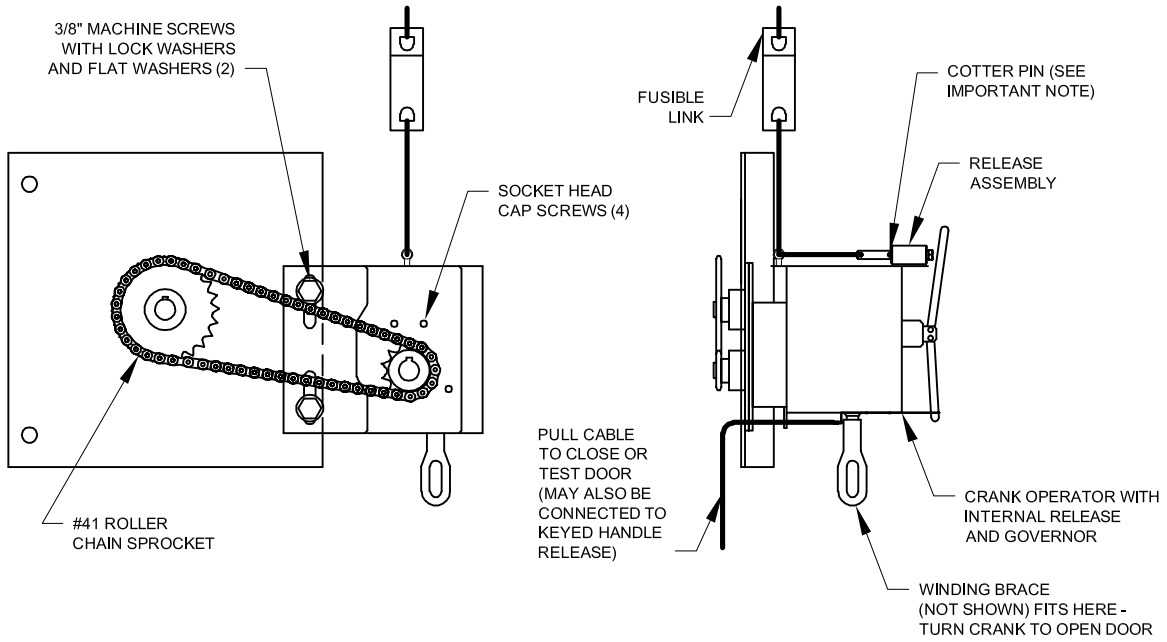


**FHCM RETROFIT CHAIN OPERATOR**

**IMPORTANT NOTE:**  
 FOLLOWING INSTALLATION OF CHAIN OPERATORS SHOWN ON THIS PAGE, REMOVE COTTER PIN FROM RELEASE ASSEMBLY!

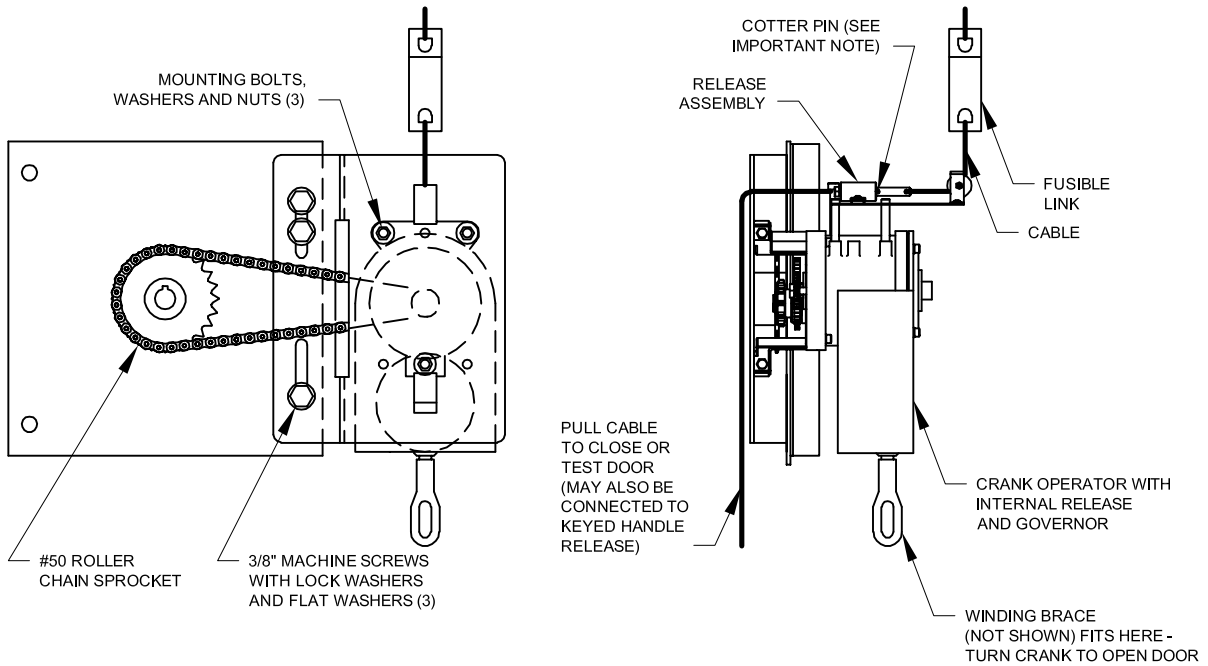


**FHC RETROFIT CHAIN OPERATOR**

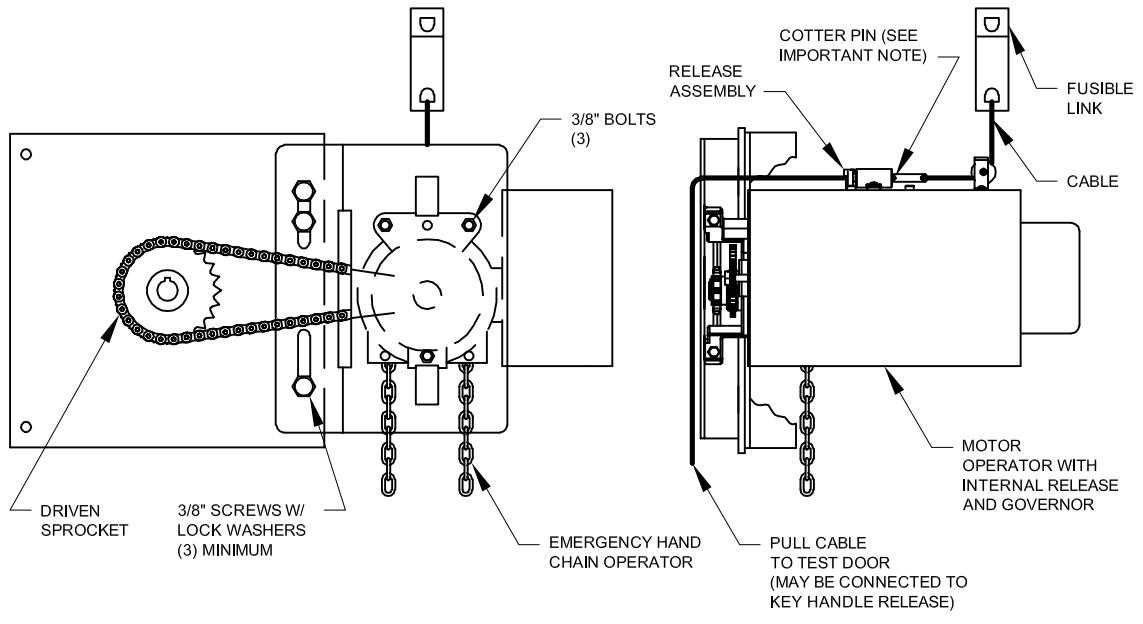


**FHKM RETROFIT CRANK OPERATOR**

**IMPORTANT NOTE:**  
 FOLLOWING INSTALLATION OF CRANK OPERATORS SHOWN ON THIS PAGE, REMOVE COTTER PIN FROM RELEASE ASSEMBLY!

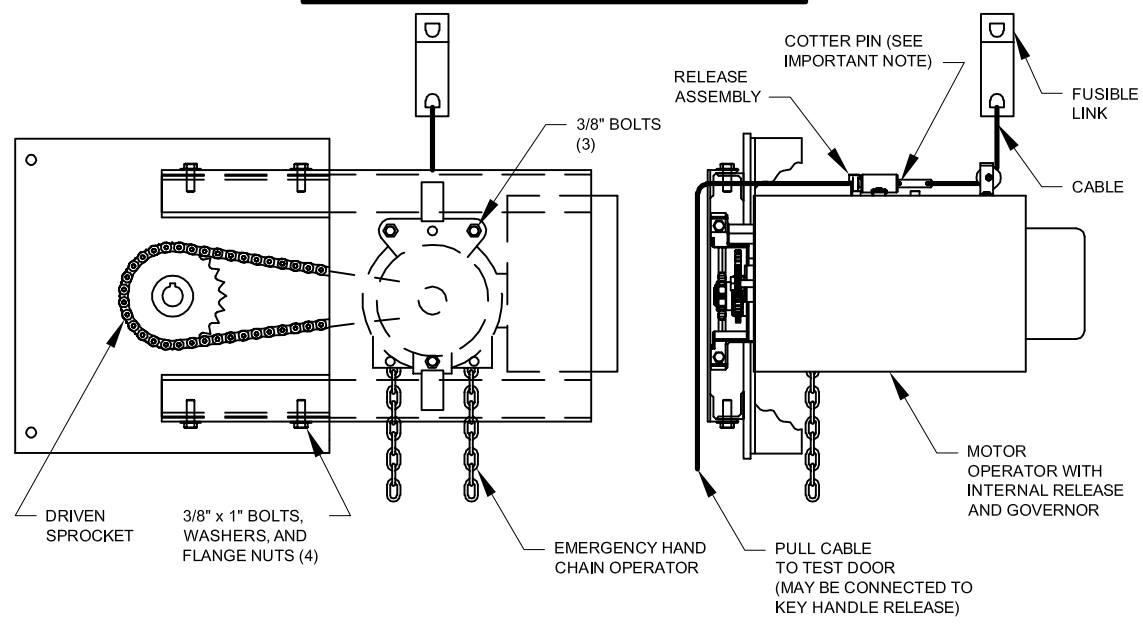


**FHK REROFIT CRANK OPERATOR**

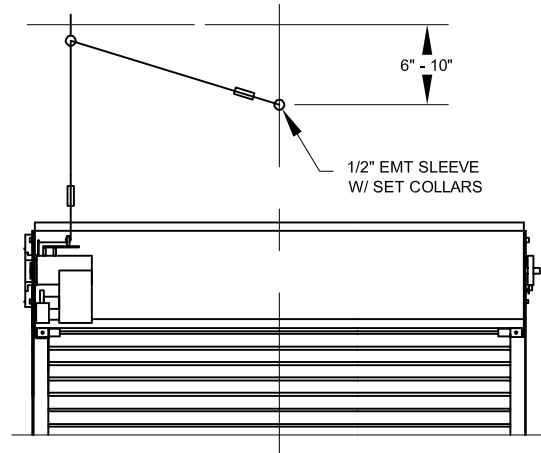
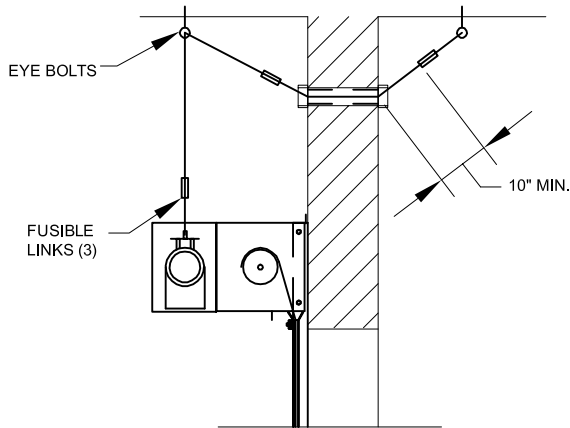


MODEL FGh RETROFIT MOTOR OPERATOR (STANDARD MOUNT)

**IMPORTANT NOTE:**  
 FOLLOWING INSTALLATION OF FGh MOTOR OPERATOR, REMOVE COTTER PIN FROM RELEASE ASSEMBLY!



MODEL FGh RETROFIT MOTOR OPERATOR (HEAVY DUTY MOUNT)

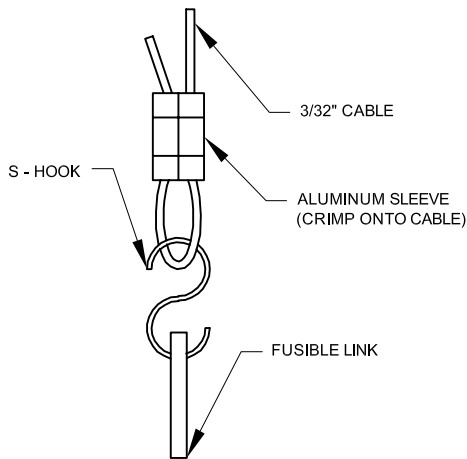


**NOTE:** If the door is to be connected to a release device with automatic closing activated by an alarm system or detector(s), a fusible link must still be located at the release on the retrofit operator, but one is not required to be within 12" of the ceiling or on the opposite side of the wall. The release device can be mounted at any convenient location that provides for proper release of the door. Consult NFPA-80 or the Authority Having Jurisdiction for required location(s) of detector(s).

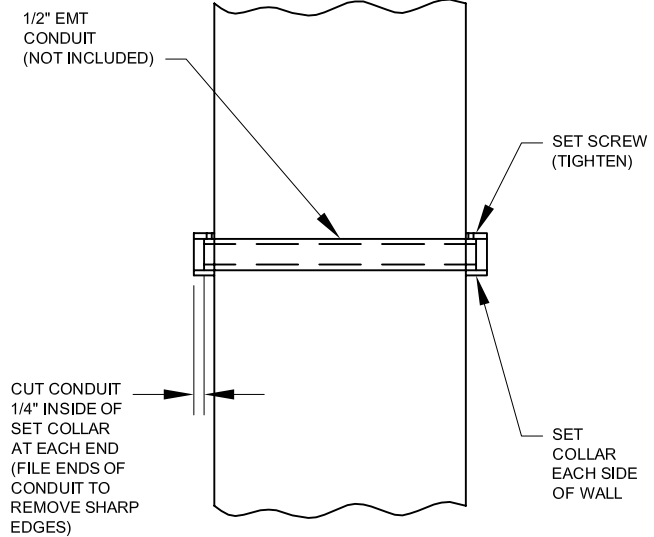
CENTERLINE  
OF OPENING

FUSIBLE LINKS MUST BE  
ARRANGED SO THAT SEPARATION  
OF ANY LINK WILL ALLOW  
DOOR TO CLOSE COMPLETELY

TYPICAL RELEASE FOR CHAIN, CRANK & MOTOR OPERATED DOORS IS SHOWN



TYPICAL CABLE CONNECTION  
TO FUSIBLE LINK  
(CONNECTION TO EYE  
OR RELEASE IS SIMILAR)



TYPICAL SLEEVE  
THROUGH WALL

TYPICAL FUSIBLE LINK ARRANGEMENT IS SHOWN  
(MODIFICATIONS MAY BE REQUIRED DUE TO FIELD CONDITIONS)