## Series 3 Technician's Installation and Service Training Manual ZAP Motor Assembly Service (Bowden Cable Replacement)

Release the belt tension from the operator by lifting the over-ride lever. Disconnect the adjusting chain from the D shackle.

On the bracket connecting the override lever to the track or jamb of the door, remove the retaining c-clip and place the c-clip in a place where it will not be lost.

It is not necessary to remove the operator from the torsion shaft to complete the following.

Using a pair of pliers or a 8mm wrench. Loosen the nut on the end of the Bowden Cable on the operator head. Set the nuts and lock washers in a place where they will not be lost. (Figure A)

Ensure you remove the nut and washer on the lower end of the connecting rod as well. (Figure B)

Remove the C clip that connects the Bowden cable to the lower bracket on the operator. (Figure C)

Remove the Bowden cable by sliding it through the bottom bracket on the operator. (Figure D)

Slide the new Bowden cable into the bottom bracket on the operator. (Figure D)

Replace the c-clip onto the Bowden cable above the bottom bracket on the operator. (Figure E)

Replace the lower nut and lock washer onto the end of the Bowden cable lug and ensure it is screwed all the way to the bottom of the threaded shank. (Figure F)

Insert the lug fully into the upper bracket and secure in place with the lock washer and nut. (Figure G)

Reconnect the Bowden cable to the bracket connecting the override lever to the track or jamb of the door.

Reconnect the adjusting chain from the D shackle and the over-ride lever. Adjust belt tension and lock the over-ride lever down.

## ZAP Series 3 Simply Logical

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Figure G



Figure B







Figure D





Figure F