

Date	14 Feb 2017	Service Note #	4500-3011	Updated	NA
Product	ezFill 4500		Created By	J. Yangco	
Description	ECO1439 Drive Motor Encoder Replacement				

Release	<input checked="" type="checkbox"/>	Internal	<input checked="" type="checkbox"/>	Distributors	<input checked="" type="checkbox"/>	Customers
----------------	-------------------------------------	-----------------	-------------------------------------	---------------------	-------------------------------------	------------------

Parts Required	Serial Numbers Affected
4500 Encoder Replacement Kit Option #1 consists of the following: <ul style="list-style-type: none"> • 2700-0023 Encoder • 2700-0055 Pigtail for Encoder Option #2 consists of the following: <ul style="list-style-type: none"> • 2700-0023 Encoder • 4712-0009 WM1837 Molex Terminals (x4) • 4710-0116 WM-1784 Molex Receptacle • Molex Hand Crimp Tool 	4501638 and older

Drive Motor Encoder Replacement

Reason: A new encoder has been sourced which eliminates the need for soldering during replacement.

Pre-requisite: Proper training in servicing the instrument.

Molex Crimping Tool Part No. 63819-0900





http://www.molex.com/molex/products/datasheet.jsp?part=active/0638190900_APPLICATION_TOOLIN.xml&channel=Products

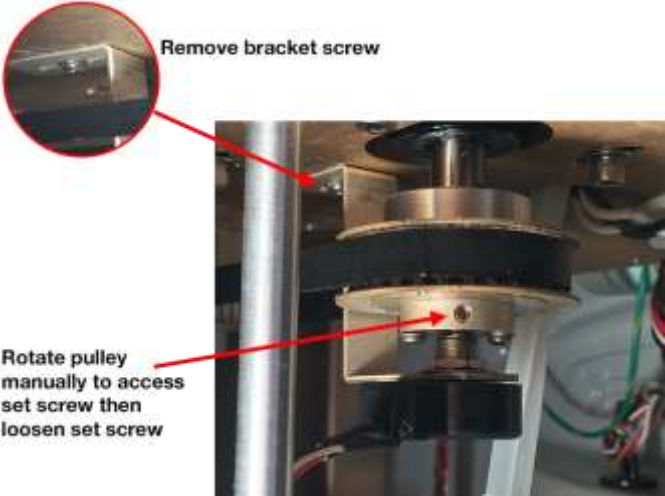
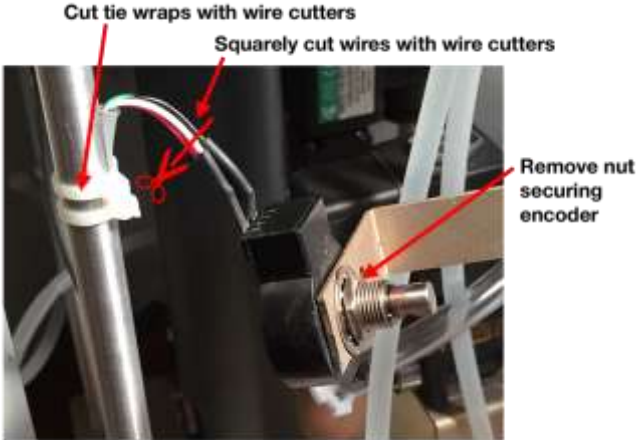
Hand Crimp Tool for Male and Female Crimp Terminals, 16-24 AWG Wire

Solution / Action



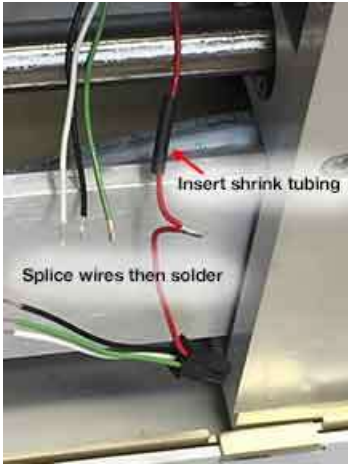


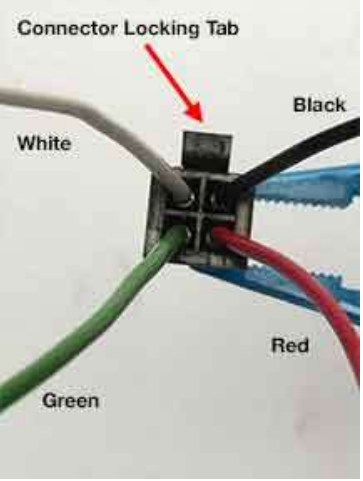
Before proceeding, discharge any static electricity from your body by touching a bare screw from the instrument. Turn off the instrument and disconnect the AC power cord.


Step 1	<p>Turn the power off. Unplug and remove the power cord from the back of the instrument. Disassemble the rear cover by removing the 4 pan head screws on the inside flange and 4 pan head screws on the back of the instrument.</p>
	<p> When removing the back cover care should be taken not to damage the internal tubing.</p>
	 <p>Step 1</p>

<p>Step 2</p>	<p>With the rear cover pulled away from the instrument, locate the encoder. Remove the screw that secures the encoder bracket, then turn the motor pulley manually to access the set screw as shown. Using a 1/16 inch hex key, loosen the set screw so the encoder can be pulled away from the pulley.</p>  <p style="text-align: center;">Step 2</p>
<p>Step 3</p>	<p>Cut the wires on the encoder then remove the nut that secures the encoder.</p>  <p style="text-align: center;">Step 3</p>



Below pictures for Option 1 and 2 are for reference only.

<p>Step 4</p>	<p style="text-align: center;">OPTION #1</p> <ul style="list-style-type: none"> Strip the ends of the wires approximately 0.25 inch (6.5mm) with wire stripper. Add shrink tubing then splice the wire ends one at a time matching the colors of the wires from the existing wires to the pigtail assembly. Solder the wires together using appropriate soldering technique.  <p style="text-align: center;">Splice and solder wires</p>	<p style="text-align: center;">OPTION #2</p> <ul style="list-style-type: none"> Strip the ends of the existing wires approximately 0.125 inch (3mm) with wire stripper. Using the Molex crimping tool, crimp the terminals using proper crimping techniques.  <p style="text-align: center;">Crimp terminals with Molex crimp tool</p>
	<ul style="list-style-type: none"> Slide the shrink tubing so as to cover the soldered joints then use a heat gun or equivalent to shrink the tubing.  <p style="text-align: center;">Use heat gun to shrink tubing</p>	<ul style="list-style-type: none"> Insert the terminals into the connector housing by following wire placement as shown. Gently pull on each wire to make sure it is securely attached.  <p style="text-align: center;">Insert wires into connector</p>

<p>Step 5</p>	<p>Install the new encoder on the bracket and then attach the encoder to the pulley securing it with the set screw. Fasten the encoder bracket on the bottom plate.</p>
<p>Step 6</p>	<p>Connect the new encoder to the new encoder connector and secure the cable wires with tie wraps similar to as shown below.</p> <div data-bbox="548 531 781 604" data-label="Text"> <p>Make sure to have enough wire slack so as not to strain connection</p> </div> <div data-bbox="548 768 764 821" data-label="Text"> <p>Secure wire cable with tie wrap</p> </div>  <p style="text-align: center;">Step 6</p>
<p>Step 7</p>	<p>Temporarily install the rear cover and test the instrument for proper operation. If everything is operating normally, secure the rear cover. This completes the service.</p>