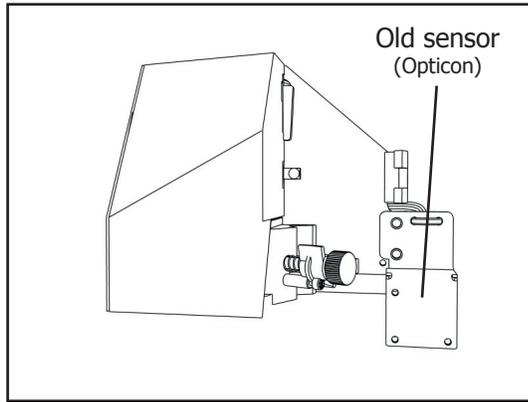


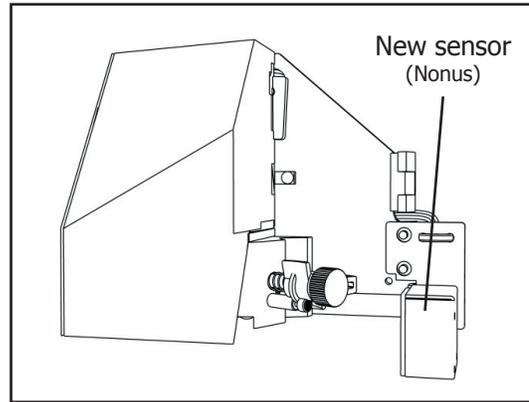
14140 NE 200th St. Woodinville, WA. 98072 PH: (425) 398-8282 FX: (425) 398-8383

## 600Ae - Opticon to Nonus Sensor replacement

**Description:** This procedure describes the steps for upgrading the sensor on the 600Ae carriage assembly. (*See below*)



Old style sensor



New style sensor

### Tools Required:

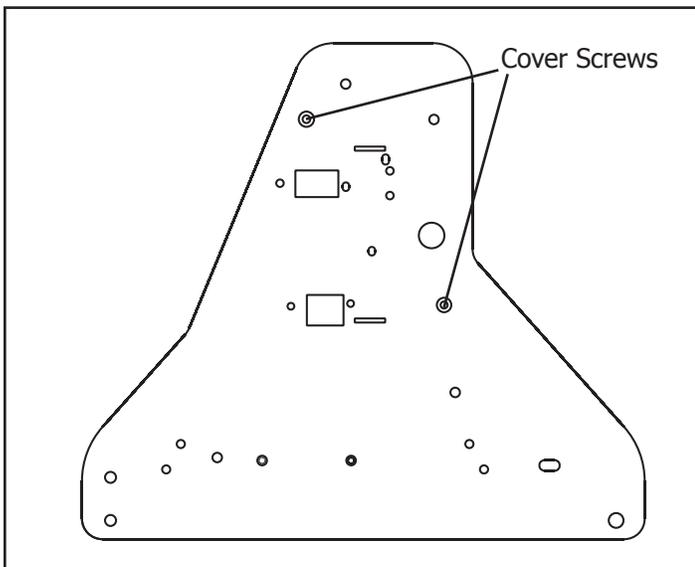
- Philips screwdriver (w/small tip)
- 11/32 Socket & Driver
- 9/64" allen wrench

### Included with the upgrade kit

- 1) Sensor unit.
- 2) (2) Screws for mounting new sensor.
- 3) Tyrap
- 4) This procedure

### 1 Remove the left end cover

1. Remove the two (2) black phillips screws on the left side of the machine that hold the left cover on.
2. Remove the left end cover from the machine and set it aside.

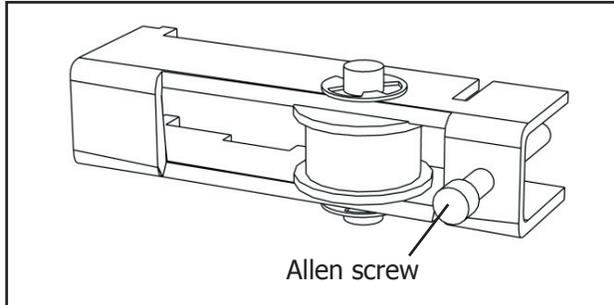


Left end plate

## 2 Remove the carriage assembly

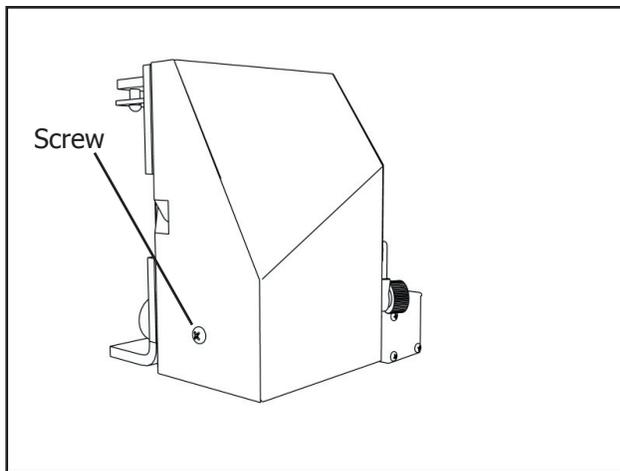
1. Loosen the 9/64" allen screw on the Y axis belt tensioner until the belt is loose enough to remove from the carriage.

**NOTE:** Count the number of turns it takes to loosen the tensioner so you can get the right tension while tightening it up again.

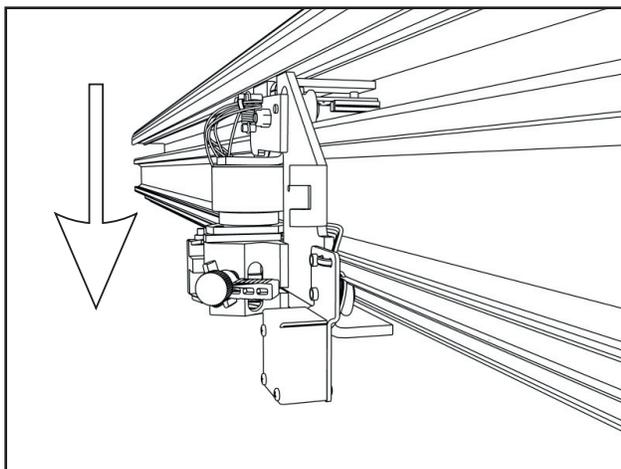


Y axis belt tensioner

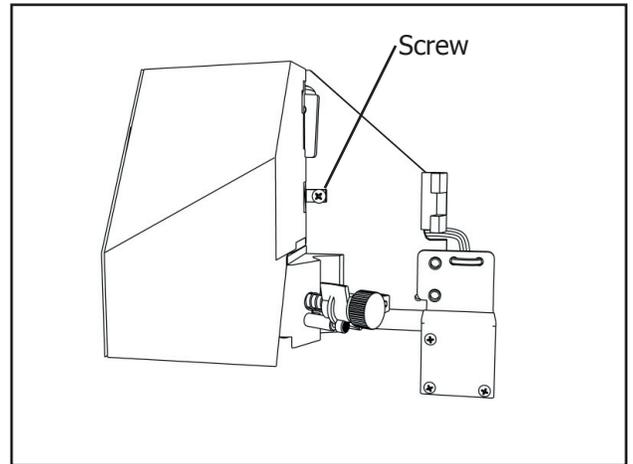
3. One screw on the left side.



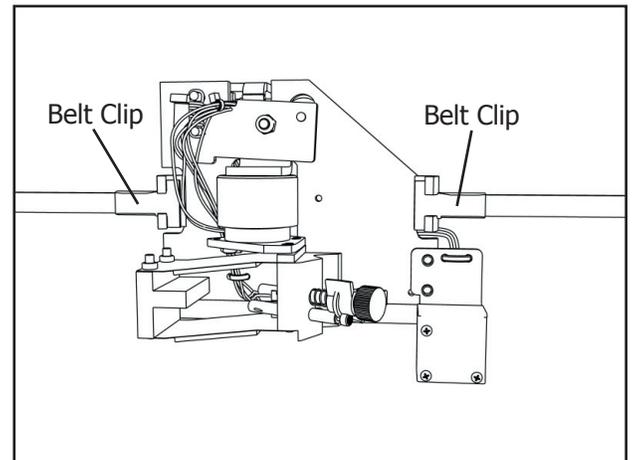
5. Remove the carriage from the rail by pushing down on the top of the carriage.



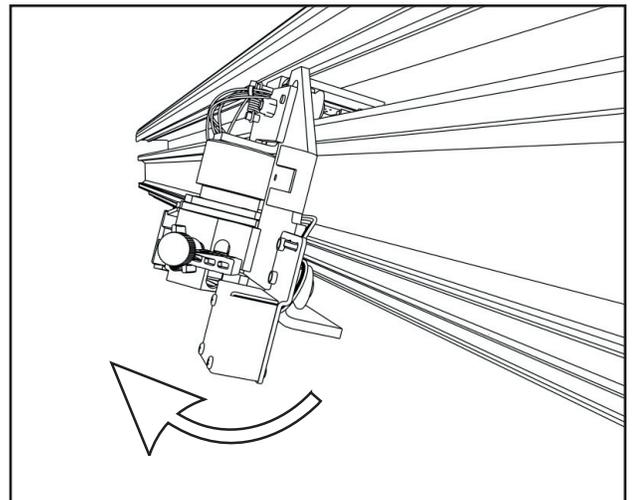
2. Remove the cover on the carriage. One screw on the right side.



4. Un-clip the ends of the belt from the carriage.

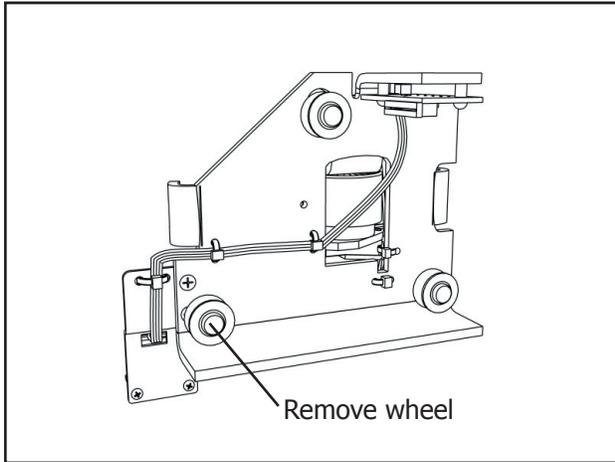


6. Pull the bottom towards you. The whole carriage assembly will come off the rail.

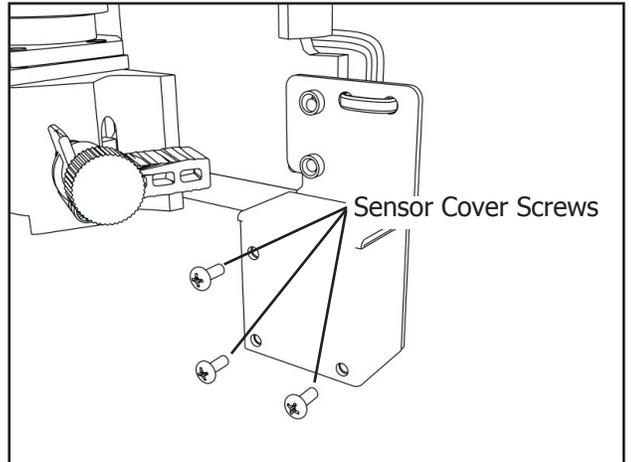


### 3 Removing the old sensor

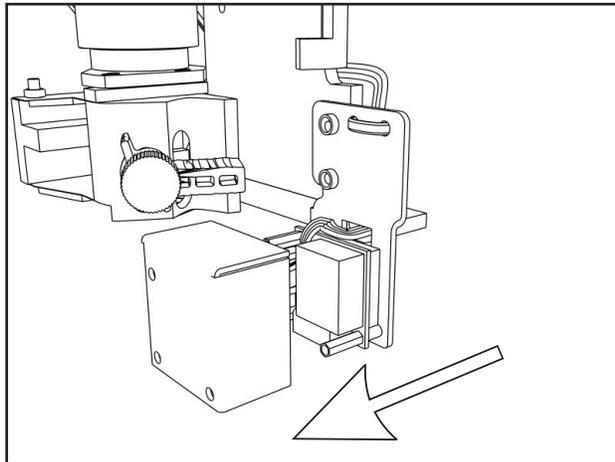
1. On the back of the carriage are 3 wheels, remove the bottom left wheel using the 11/32" socket driver (from the back).



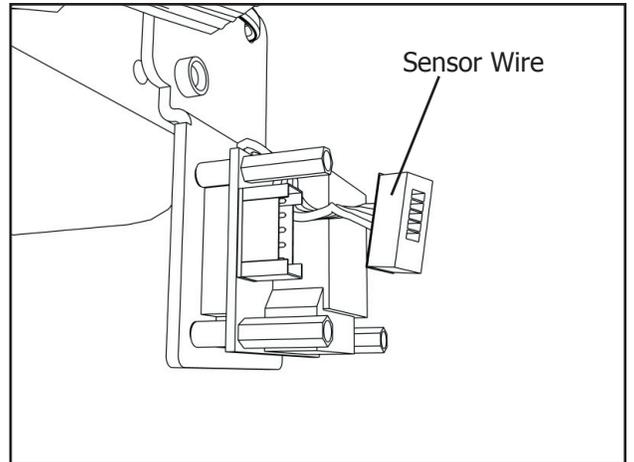
2. Remove the three screws holding the sensor cover on.



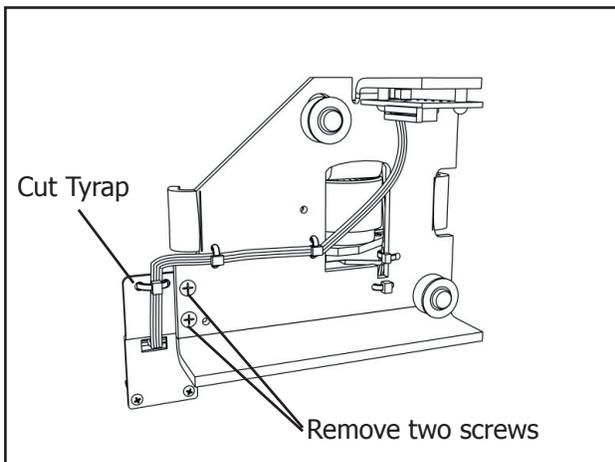
3. Remove the sensor cover from the carriage.



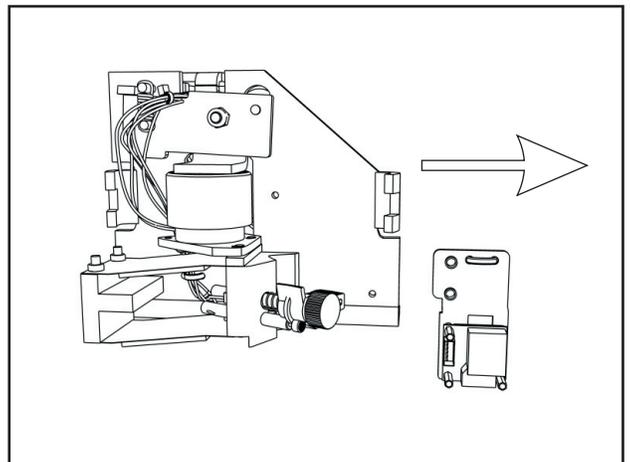
4. Un-Plug the sensor wire. CAUTION: Be careful not to pull the wire too hard.



5. Remove the two screws behind the wheel.  
**Note:** Cut the tyrap on the sensor bracket that holds the sensor wire.

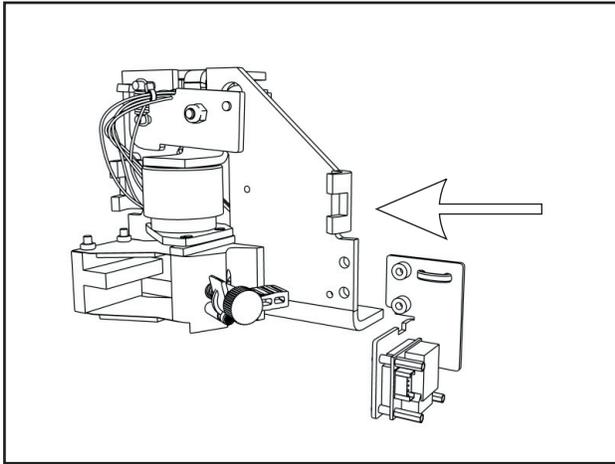


6. Pull the wire through the opening on the sensor bracket then remove the old sensor bracket from the carriage.

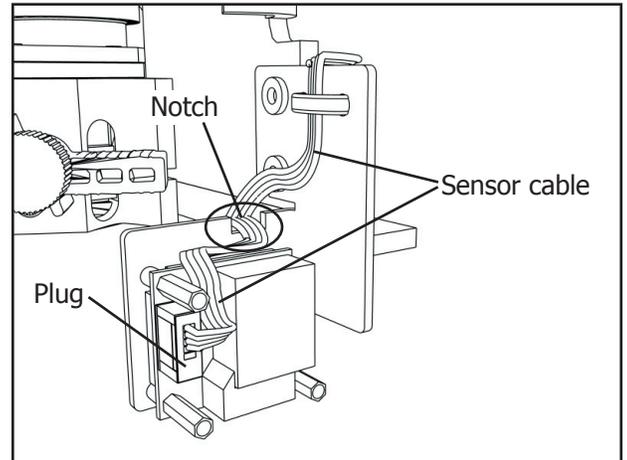


## 4 Installing the new sensor

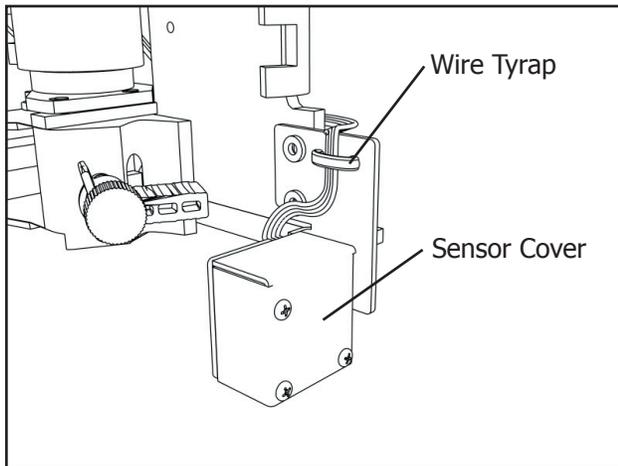
1. Install the new sensor bracket on the carriage.  
NOTE: Remove the sensor cover before installing



2. Plug in the sensor wire as shown. Route the wire as shown to make sure it's out of the way of the cover when installed. Look for the 'Notch' in the bracket

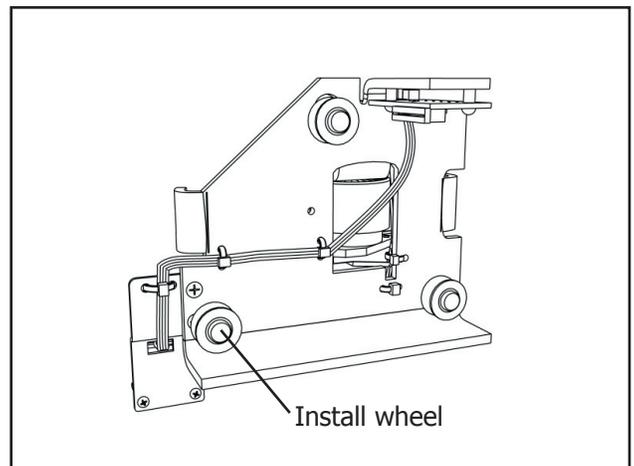


3. Install the included wire tyrap to hold the sensor wire in place. Install the sensor cover that was removed in step 1. NOTE: Make sure the sensor cable does not get pinched in the cover



4. Re-install the wheel on the back of the carriage.

Note: If the wheel is attached using a HEX bolt you can tighten the bolt snug. If it's attached using a nylock nut then make sure you don't overtighten the nut. In both cases the wheel should rotate freely without play.



Follow the procedure in "Removing the Carriage" in reverse order to install the carriage. If problems arise contact Ioline Tech Support.