Pack Master – Calibration
X30 - 3.24.509
X35 – 4.01.509

X 35 Apollo system
Software versions 4.01.509 for X35 and 3.24.509 for X30
Calibration for Pack Master is accessed through the configuration tab
Step 1/6

Use the proper adjustment hole on the opener following the chart below.
Place a block under the packer wheel that has Pack Master spindle that will keep the opener tip off the ground before starting your calibration. (for best results, use a block about 2” tall, or just tall enough to keep the tip off the ground. An excessively tall block may skew the calibration.)
The Wizard will guide you through the calibration this will take you to the minimum sensor load.

<table>
<thead>
<tr>
<th>Opener Type</th>
<th>Depth Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>3320 PHD</td>
<td>8</td>
</tr>
<tr>
<td>3320 XTC</td>
<td>7</td>
</tr>
<tr>
<td>3720 ICD</td>
<td>1 – Walking axle free to move</td>
</tr>
</tbody>
</table>
Step 2/6

we start by setting the minimum sensor load. **Drive power** will start at 0% this will give you a Hydraulic Pressure and Calibration Value based on the weight of the opener. You need to increase **Drive Power** using the **plus arrow** until the **Hyd. Pressure and Calibration Value** numbers start to increase (Drive power will generally be 3-5% when these numbers start to increase).
Step 3/6

Enter the Sensor load using the Packing Force Chart found in operators manual to determine correct number. Make sure you use the correct line for unit you are calibrating. (PHD, XTC or 3720)

Take the Hydraulic Pressure you got from the previous step and use it on the chart to find your Packing Force (Sensor Load) that will be entered.

155 lbs.
Step 3/6

Sensor load from the Pack Master Packing Force Chart. Press the Yellow Arrow to go to the next screen to find the max sensor load.
Increase the Hydraulic pressure
- To approximately 1750 psi for 3320 QDA and XTC.
- To approximately 1150 on a 3710/3720.
Use + tab to increase
Step 5/6

Use the packing force chart to calculate your maximum sensor load. Make sure you use the correct line for the unit you are calibrating. (PHD, XTC or 3720)

Use the hydraulic pressure to find the packing force using the chart in the operators manual in Chapter 13.

280 lbs.
Step 6/6

Calibration is complete
Go to settings page for Pack Master to confirm the **Minimum Sensor load, Maximum Sensor Load, Minimum ADC** and **Maximum ADC** have been saved.

- Numbers should be similar to the ones on right, but will vary with each installation.

Also confirm your Control Type is selected to **Pack Force**.
The Control Settings page you need to confirm the type of drill you are using and ensure that the Maximum Pressure is set correctly.

- **Using 3320 XTC or PHD** the Maximum Pressure needs to be 2500 psi.
- **Using 3710/20 or 3310** the maximum pressure needs to be 1500 psi.
To avoid a pressure spike when reengaging at the headlands the Maximum PWM value should be adjusted to 50%.

If the controller response is too slow you can change to medium fast as well.