**Startup (开机操作）:**

**1.** Open all the switches

(打开所有电源开关）

**2.** Wait for powermeter to get ready, then connect lightsource to Channel 1 for reference. Make sure the powermeter unit is in dBm.

(等待powermeter开机，把光源和Channel 1连接准备取reference，powermeter的单位调成dBm）

**3.** Open 'Beetle Station' and 1xN software. Click **'Take Reference'** on software. Make sure the IL is in 0 dB.

（打开Beetle Station 和1xN的软件。点击**Take Reference**,确保IL显示0 dB）

**4.** Click **'Calibration'** until status is green. If there are errors on the 'Error Log', call the engineers.

(点击**‘Calibration’**直到status变成绿色。如果在'Error Log'里面有错误显示的话，找工程师来）

**Turn off （关机操作）**

**1.** Click **’Close’**

(点击Close)

**2.** Close Beetle

（关闭Beetle软件）

**3.** Turn off all the switches.

（关闭所有开关）

**Alignment（对准操作）：**

**5.** First making sure the preheating heater is on, and preheated for at least 5min.

(首先确保预热的加热器是开的，并且已经开开预热至少5分钟了)

**6.** Click **‘Reset’**, go back to home position.

(点击**Reset**，回到原点）

**7.** Select the right product, single mode 1xN or multimode 1xN.

（选择正确的产品, single mode or multimode）

**8.** Do fiber splicings on each channel.

(做各个channel的fiber splicing）

**9.** Prepare Fiber/Ferrule and Lens Cap on the clamps, align the 8-degree angle.

(准备好fiber/ferrule和lens cap，夹在夹子上，对好8度角）

**10.** Place magnet on the jig and place sleeve.

(放好磁铁和sleeve）

**11.** Apply epoxy on the lens cap top surface using the needle tool. Take caution here that the epoxy shouldn't be too much.

（使用 针在lens cap的上表面涂胶，注意胶不要太多）

**12.** Adjust three micrometers on the ferrule side to get IL <40dB (eg. -35dB)

（通过粗调ferrule，让IL值小于40）

**13.** Click **'Alignment'** to start finding minimum IL automatically.

(点击**‘Alignment’**，开始自动对准）

**14.** When the loss is low enough, remove the magnet and drop the sleeve. Apply epoxy between ferrule and sleeve.

(当loss足够小了，拿走磁铁让sleeve掉下来，在ferrule和sleeve之间上胶。）

**15.** Then rotate the sleeve to have uniform epoxy. Also, using the tweezer, try to hold the sleeve and push the sleeve down so that the sleeve can have close contact with the lens cap, leaving epoxy as little as possible in the gap. This is very import.

（旋转sleeve让胶变得均匀。另外非常重要的一步：用镊子夹住sleeve然后将sleeve往下推一推，使得sleeve和lens cap之间有非常好的接触不留空隙，使得胶尽可能的不留在间隙当中。）

**16.** Push the heating rod in to heat the components and click **'Back-Align'** again until the status is green. Before clicking, making sure the IL is lower than -5dB

(推入加热棒去加热器件，然后点击**'Back-Align'**直到status变绿色。注意在点击之前，确保IL小于-5dB）

**17.** If the loss meet the criteria, then go to the next step. If the loss is still high, adjust the micrometer in Z to higher the ferrule for about 0.05mm. And then click the ‘Back-Align’ again. Repeat this step until the loss meets the criteria.

（如果此时loss满足要求了，那就进入下一步；如果没有，调整Z轴使得ferrule高一点点，大约0.05mm，然后再次点击‘Back-Align’。重复此步骤直到loss满足要求。）

**18.** Click ‘Curing’, open the heating rod heater switch, and close the preheating heater switch.

(点击**‘Curing'**按钮去开始自动curing，打开加热棒的加热按钮，同时关闭预热器按钮）

**19.** When the curing program is finished and the status is ready. Remove the components and go back to step 5.

(当curing结束后，status是绿色的时候，拿掉器件，开始下一个回到步骤5）

**简洁版：**

**开机操作：**打开所有开关 à 取power meter reference à 打开Beetle软件 à 取reference à 点击calibration à 点击reset

**关机操作：**点击Close à 关闭Beetle软件 à 关闭所有电源开关

**对准操作：**

1.预热器打开预热

2. 点击Reset

3. 选择Product

4. Spicing fiber

5. 对好8度角

6. 放sleeve

7. 用垫片涂胶

8. 粗调到好于-20dB

9. 点击Alignment

10. 放下sleeve在尾巴涂胶

11. 旋转再下压sleeve

12. 推入加热棒

13. 确保IL好于-5dB

14. 点击Back-Align

15. 如果IL不满足要求拉高ferrule 0.05mm然后再次Back-Align

16. 点击Curing

17. 打开加热棒开关然后关闭预热器开关

18. 结束后打开预热器开关点击Reset