

## SYSTEM START-UP

1. Turn-on DR500 and I/O box UPS.
2. Turn-on PR generator, monitor & lamp.
3. Turn-on gantry vacuum pump.
4. Turn-on curing vacuum pump(s) if not already on.
5. Check computer, glue box & compressed air were left-on.

## BEFORE STARTING GANTRY ASSEMBLY PROGRAM

1. Register module and parts in DB (Registration & Assembly).
2. Clean frame glue pad areas with alcohol.
3. Make sure frames are completely seated on mounting pins – especially on TEC
4. Lightly tighten top 2 frame clamps for both TEC and TOB.
5. Check thermistor heights in recesses & HV wire continuity – TOB only
6. **Check clamps are positioned in dents and clear of silicone**
7. **Check hybrid tool vacuum cups are not misaligned before putting in place.**
8. Check hybrid tool vacuum cups are seated flat on hybrid.
9. Sensor & Hybrid glue dispensers filled & tip lengths checked.
10. Glue dispensers properly seated on tool rack.
11. New glue test strip put in place on assembly plate.
12. Silver epoxy dispensed on to the frames.
13. Sensors on supply plate with double stripe at the top – TOB
14. Check that HV wire/connector is clear of hybrid.
15. Curing vacuum connected and plumbed for # of modules being made.
16. Set Siliindex.dat for number of modules being made if not starting with module #1.
17. I/O box on/off switches are all in off position.
18. I/O box top switches are in the “RMT” position, not “MAN”.
19. **Check TEC stiffeners are centered & positioned in recess after vacuum is on.**

## RUNNING GANTRY ASSEMBLY PROGRAM

1. Start MMI fresh for each run.
2. Monitor module assembly –  
GANTRY CAN NOT BE LEFT UNATTENDED DURING ASSEMBLY
3. Be ready to pause assembly if there are problems – Use F3 or FEEDHOLD in MMI window. Use F3 again or RELEASE to resume program.
4. Use I/O chart on electronics rack to confirm what valves or switches error messages are referring to.
5. Recovery mode proceeds with all assembly steps from wherever it restarts.
6. If using recovery mode, remember sensor “0” is **NOT** first sensor placed.
7. If a sensor has to be removed, follow these steps:
  - Clean all glue off of sensor and frame. On Tec modules this means cleaning glue off of stiffener. If far sensor is removed this may mean also removing near sensor. Removed sensor may not seat and cause vacuum leak if all old glue is not removed.
  - Manually apply new glues (3140 and silver epoxy) to frame.
  - Place sensor(s) in supply position. Be sure to manually turn-on sensor supply position vacuum thru the virtual I/O interface in the MMI (sensors need to be under vacuum when their position is re-measured).
8. After final assembly survey, turn-on curing vacuum valve for the assembly plate in use. Monitor vacuum before and after responding “OK” to switching off gantry assembly plate vacuum.

## AFTER MODULE ASSEMBLY IS DONE

1. Turn-off all systems turned-on,  
EXCEPT FOR CURING VACUUM PUMPS THAT ARE IN USE
2. Update frame count in UCSB DB.