

Timing Resolver locations

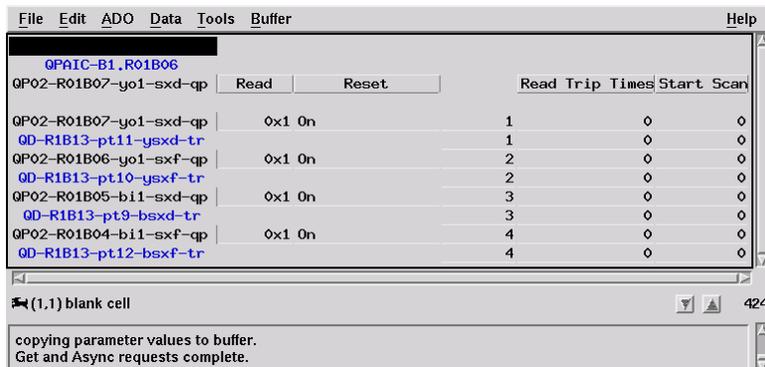
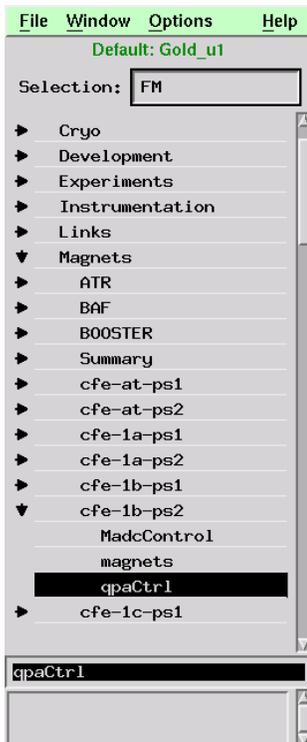
Total 12 Timing Resolvers are distributed in the RHIC tunnel alcoves. Their locations are at 1B, 3B, 3C, 5B, 5C, 7A, 7B, 7C, 9A, 9B, 9C and 11B.

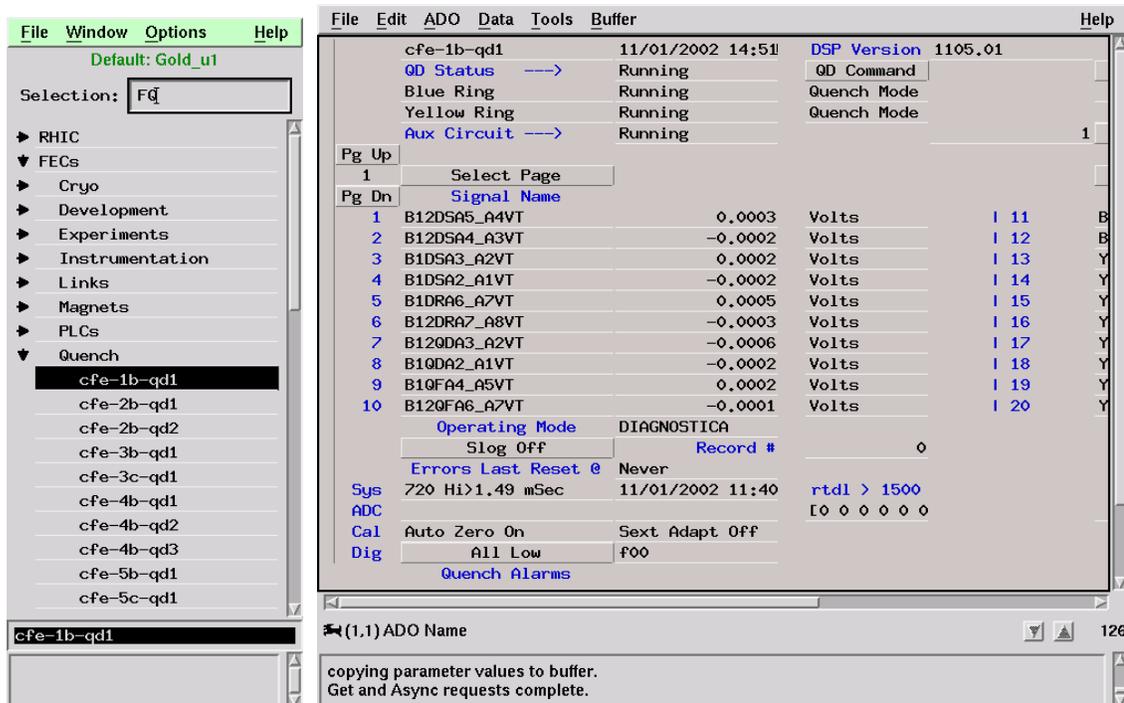
Test equipment required

1. Single trace storage scope
2. Portable PC with xterminal emulation program (Reflection) loaded.
3. Timing Resolver signal breakout board.
4. Two 25 pin D-sub cables.
5. Tools such as screw drivers etc.

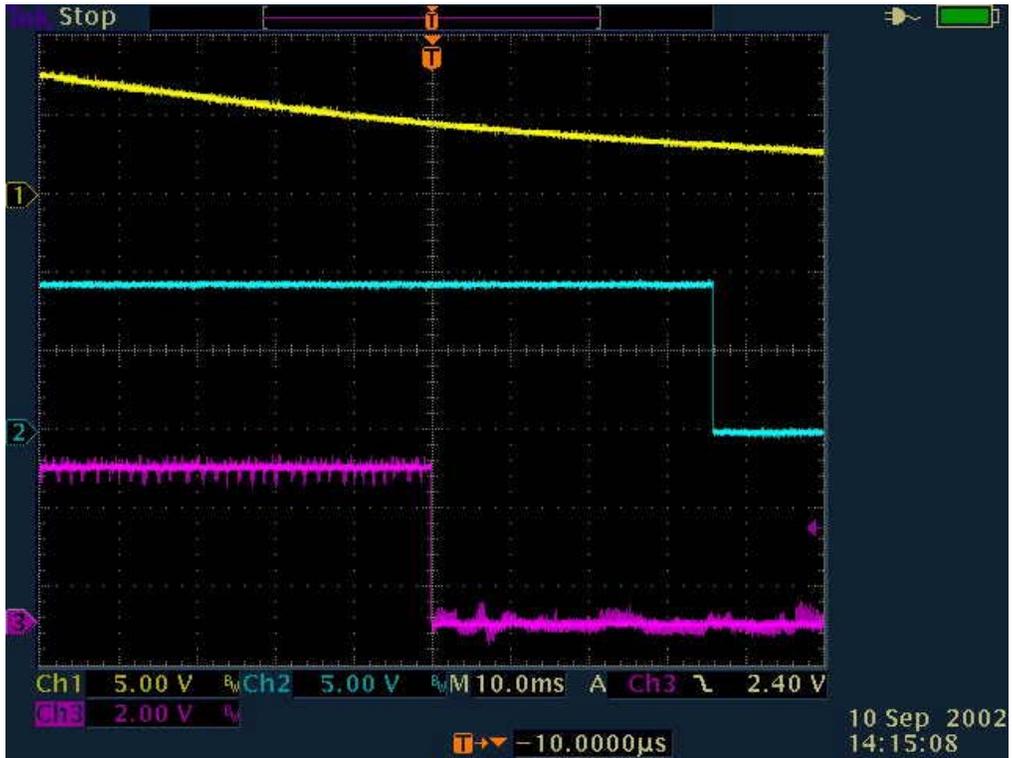
Test Procedure

1. Connect the D-sub cables to the signal breakout board and the Timing Resolver.
2. Set up the scope according to the following parameters:
 - a. Vertical sensitivity – 2 V/div
 - b. Time base 10 ms/div
 - c. Trigger:
 - i. Channel #1
 - ii. Method – single
 - iii. Low going edge
 - iv. Level – 5 volt
3. Connect the scope probe to the test point on the breakout board. Refer to schematic for the pin arrangements.
4. From the notebook, start up the Reflection program
5. Telnet to acnsun77.pbn.bnl.gov with your own ID and password.
6. Bring up the following pet pages.

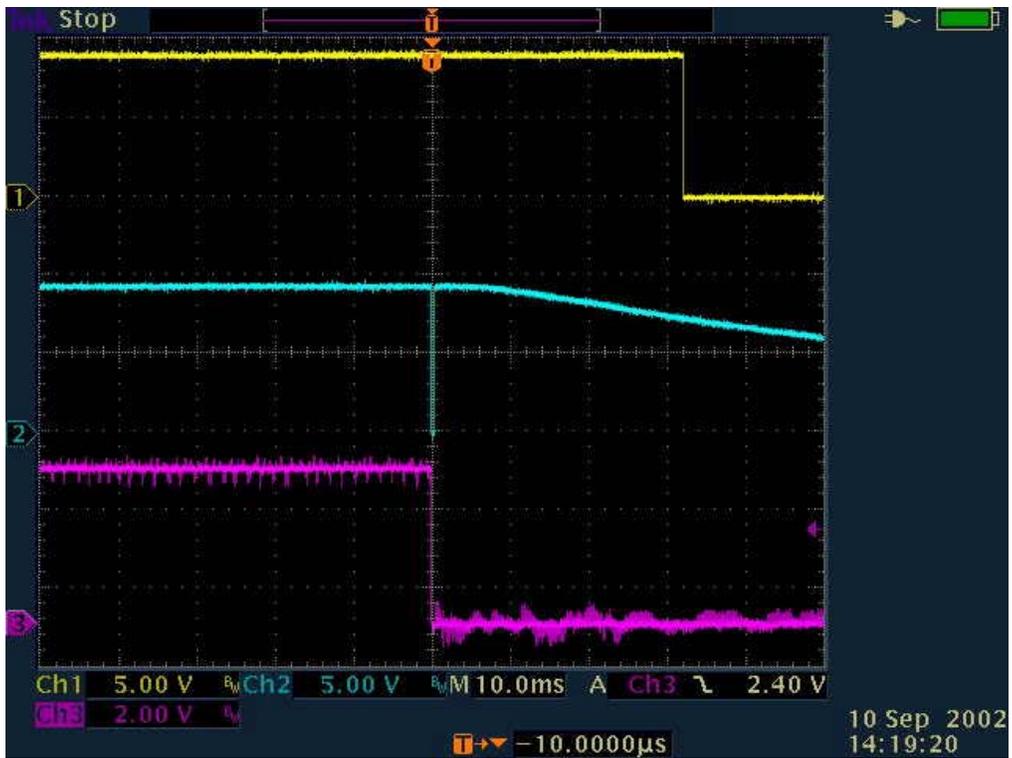




7. From console window, type
 - cd ~wing ;change to Wing Louie subdirectory
 - qlup1001b ;execute quenchLinkUp for alcove 1001B script (for other alcoves, change to qlupxxxxx, whereas xxxxx represents the alcove name.
8. From the qpaCtrl pet page, confirm that all QPA are “ON”.
9. Change the scope trigger from “Single” to “Auto”
10. Verify the signal level is at 10-12Volts, then change the trigger back to “single”.
11. Walk to the QPA that is going to be tested.
 - a. Remove the front panel AC fuse.
 - b. Wait until the fans are stopped, then reinstall the fuse.
12. Verify the recorded trace does not have spike(s) during the ramp down. The following photos show the good and the bad trace. If the record trace is similar to the bad trace, replace the QPA UVPROM and redo the test. If the record trace is similar to the good trace, then check off the data sheet and continue the test with another QPA from step 3.



Good QPA without any spikes during down ramp (yellow color trace)



Bad QPA with spike during down ramp (cyan color trace)