

Shot Type 3: BLO Checklist S-AB-P-124 Rev G

This procedure prepares Beamlines 1 through 4 for a Type 3 propagating shot from Laser Sources in short- or long-pulse mode of operation.

Prerequisites:

All standard Pre-operations checklists must be completed by the BLO (S-AB-P-156 or S-AB-P-146) and the ALT (S-AB-P-155).

Checklist:

Review the Master Template pop-up when the SD sends the PRESHOT signal.

- 1
- Confirm or correct the M W C status of the software processes listed in the Day Orders/Master Template or verbal instructions from the SD.
 - For BL1 & 2 include NT0D.
 - Discuss any errors with the SD
 - Press the “Accept” button on the Template review pop-up when complete.

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- 2 Issue the ALT’s Checklist. Coordinate with the ALT to make any necessary configuration changes.

**If this is not the first Type 3 shot of the day
and the alignment has not expired skip to step 8.**

Set HWP2 to 0 counts, to select the Sources beam.

3

	OK	N/A	
BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BL2	<input type="checkbox"/>	<input type="checkbox"/>	
BL3	<input type="checkbox"/>	<input type="checkbox"/>	
BL4	<input type="checkbox"/>	<input type="checkbox"/>	

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- 4 Communicate with the LSO that Beamlines is prepared to receive a Sources beam for alignment. For BL1 and BL2 request the Sources crosshair is installed.

(continues)

Align the Sources beam so that it is pointed and centered within alignment tolerances on the Injection-ASP. Inform the LSO when finished.

Note: the LSO will do the alignment of BL3 and 4.

	OK	N/A	Time of Alignment		
5	BL1	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>		
	BL3	<input type="checkbox"/>	<input type="checkbox"/>		
	BL4	<input type="checkbox"/>	<input type="checkbox"/>		

Note: Laser alignment expires after 60 minutes. If 60 minutes has passed (or will have passed at the time of shot) since alignment, inform the SD and realign (or re-check pointing and centering) at his instruction.

Insert the Injection ASP shutter.

	OK	N/A		
6	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

7 Inform the LSO that Beamlines is finished with the beam.

Confirm the Injection-Cal is inserted.

	OK	N/A		
8	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

Open the NT0D shutter.

	OK	N/A		
9	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	

Set the Injection Throttle (HWP1) to pass the specified amount of energy from the Laser Sources beam per System Science.

	OK	HWP-1 Counts	N/A	
10	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

Set the IRAT Spectrometer filtration to the settings specified by System Science.

11		OK	N/A	<input type="checkbox"/>
	BL1	<input type="checkbox"/>	<input type="checkbox"/>	
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	

12 Select **lock** from the *balign command* menu.

Select **Compare** ⇒ (select the appropriate macro) (with cross-hair IN (or OUT upon PI request)) from the Macros pull-down menu.

- 13
- Print macro results.
 - Review the macro reports for errors. Do not proceed until each macro is clean.
 - Review results with the SD

14 Instruct the ALT to perform his checklist.

For a long-pulse shot, in *calshot*, select the appropriate calorimeters and click *Ready for Charge*

15		OK	N/A	<input type="checkbox"/>
	BL1	<input type="checkbox"/>	<input type="checkbox"/>	
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

Review the ALT Checklist

- Repeat this checklist for each beam in the shot

Confirm:

- 16
- Side panels are installed on the IRDP, IRAT and Injection tables
 - Filtration in front of the ED and the shutter is open
 - Filtration in front of the NF camera and the shutter is open
 - Spectrometer beam block is inserted/removed the beam
 - PI special setups are in place (or have been removed)

17 Click the “Checklist” button
(continues)

Wait to review the Type 3 Shot checklist with the SD

- ALT has secured the IRDP, IRAT, Injection areas
- Repeat this checklist for each beam in the shot

18 Confirm:

- Type 3 Shot checklist complete
- Review the device position macro reports for accuracy. Note any exceptions.
- The required diagnostics are ready.
- Injection Throttle setting _____%
- System Science or PI special setups installed/removed

Participate in the shot

19 Monitor subsystem performance periodically throughout the shot.

On entering POSTSHOT

- Report any issues or concerns to the Shot Director and receive direction as to how to proceed.
- Review the Calorimetry data.
- Review the ED energy data.
- Review the NF image.
- Attach macro to this checklist prior to delivery to SD at end of shift.
- In the event of an ABORT: Report any issues or concerns to the Shot Director and receive direction as to how to proceed. (Record the information in the BLO logbook)

(done)

BLO: _____ **Date:** _____ **Time:** _____