Collider Run II Shot Setup Documentation

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"NOSPAM")

Sequencer: Pbar

Collider Aggregate: **Run II Prepare to Load Pbars**

Previous Aggregate: Run II Continue Shot Setup

Purpose of this Aggregate:

How to get back to stacking form here: Finish this aggregate and
then run both the Run II Revert to Stack Lattice and the Run II
Return to Stacking aggregates.

```
::: SET_SEQ FILE 80                   .
      File #80 opens shutters
      A:ISHUTO SET TIMER REFER      0F                              ok
      A:ESHUTO SET TIMER REFER      0F                              ok
      A:ISHUTO TURN DEVICE ON                                       ok
      A:ESHUTO TURN DEVICE ON                                       ok
      A:ISHUTC TURN DEVICE OFF                                      ok
      A:ESHUTC TURN DEVICE OFF                                      ok
::: SET_SEQ FILE 81                   .
      File #81 sets shutter timer references.
      A:ISHUTO SET TIMER REFER      90                              ok
      A:ESHUTO SET TIMER REFER      90                              ok

::: SET_DEVICE A:CNFRQU A:CENFRQ    .
      Sets the Accumulator unstacking center revolution frequency paramenter
      (CNFRQU) to the value of the Accumulator center revolution requency (CENFRQ).
::: SET_DEVICE A:R2DDS1 A:CNFRQU    .
      Sets the Accumulator LLRF Synth #1/h parameter (A:R2DDS1) equal to the
      Accumulator unstacking center revolution frequency paramenter (CNFRQU).
::: SET_DEVICE A:CNFRQU *=2         .
      Multiplies the Accumulator unstacking center revolution frequency paramenter
      (CNFRQU) by 2.

::: SET_SEQ FILE 82                   .
      File #82 sets up CW RF for Spreading
      a:r2cwt1 SET TIMER REFER      0F                              ok
      a:r2cwt1 SET DEVICE           0
      ok

      a:r2cwt2 SET TIMER REFER      0F                              ok
      a:r2cwt2 SET DEVICE           0                               ok

      A:IBMS1  REMOVE TIMER EVNT    80                              ok
      A:IBMS2  REMOVE TIMER EVNT    80
       ok

      A:R1H2FB ALARM MINMAX         10        40                   ok
      A:R1H1FB ALARM MINMAX         10        40                   ok

::: WAIT_DEVICE V:NXBNCH              .
      Waits for the state V:NXBNCH to be set to 36.
::: INSTRUCT 276                      D
::: WAIT_FOR EVENT C3                 .
      Waits for TCLK event $C3 (Collider open injection helix).
::: INSTRUCT 272                      .
```

```
      TCLK event $C3 has been issued indicating that the Tevatron helix
   is open. Complete this aggregate and then proceed to the next one
   'Load Collider Pbars.'

               Interrupt anywhere in this box to continue.
```

::: START_PGM P2   .
    Starts the antiproton source RF curve generator and control program
    (Werkema).   This program will be used to load the unstacking ARF1 curve.
::: ACKNOWLEDGE   .

```
      Load P2 file 8 for ARF1

         ┌────────┐   ┌────────┐
         │   OK   │   │ Cancel │
         └────────┘   └────────┘
```

::: WAIT_FOR SECS 5   .
::: CHECK_DEVICE A:R4BKMP SAVE_SET .
::: CHECK_DEVICE A:RCBKHD SAVE_SET .
::: SET_DEVICE A:R2DDS1 +=5   .
::: CTLIT_DEVICE A:CMPS01 OFF   .
    Turns off 4-8 GHz core momentum PIN switch.
::: CTLIT_DEVICE A:CPPS01 OFF   .
    Turns off 2-4 GHz core momentum PIN switch.
::: CHECK_DEVICE A:R4CDPS SAVE_SET .
    ARF4 cavity phase set.
::: SETIT_DEVICE A:R4CDPS =0   .
    ARF4 cavity phase set.
::: SETIT_DEVICE A:R4CDPS =-30   .
    ARF4 cavity phase set.
::: SETIT_DEVICE A:R4PHRG =600   .
    ARF4 cavity phase set.
::: SETIT_DEVICE A:VSAPRC =3   .
    Sets the VSA #1 marker percentage.
ok   INSTRUCT 248   .

```
      Move on the the appropriate unstacking aggregate. For Pbars to
   the MI only or studies use Run II Unstack & Transfer. To load
   up a 36 X 36 Tevatron store use Run II Load Collider Pbars.

               Interrupt anywhere in this box to continue.
```

Collider Aggregate: Run II Prepare to Load Pbars has been completed.
Next Aggregate: Run II Load Collider Pbars
How to get back to stacking form here: Finish this aggregate and then run both the Run II Revert to Stack Lattice and the Run II Return to Stacking aggregates.