

P027 from 9/30/2016

Hall B Pre-Power-Up Interlock Checkout Procedure

Note:

VX is the derived parameters and VTX_{XX}_DAQ (defined as in DRG B00000-09-00-180):

```
V1 := (VT5_Daq + VT6_Daq + VT7_Daq); //VOLTS//S1 + Coil A + S10
V2 := (VT7_Daq + VT8_Daq + VT9_Daq); //VOLTS//S10 + Coil B + S3
V3 := (VT9_Daq + VT10_Daq + VT11_Daq); //VOLTS//S3 + Coil C + S4
V4 := (VT11_Daq + VT12_Daq + VT13_Daq); //VOLTS//S4 + Coil D + S5
V5 := (VT13_Daq + VT14_Daq + VT15_Daq); //VOLTS//S5 + Coil E + S6
V6 := (VT15_Daq + VT16_Daq + VT17_Daq); //VOLTS//S6 + Coil F + (S7 + S2) //Lead
In resistive voltages
V7 := (VT5_Daq + VT4_Daq + VT3_Daq); //VOLTS//S10 + Vac_break_in +
Lead_Ext_In
V8 := (VT3_Daq); //VOLTS//S9 + Lead_Ext_In
V9 := (VT2_Daq); //VOLTS//Lead Ext solder joint @ vcl cold end
V10 := (VT1_Daq); //VOLTS//VCL In
V16 := (VT1_Daq + VT2_Daq + VT3_Daq + VT4_Daq + VT5_Daq); //VOLTS// Resistive
section IN
//whole magnet V11 := VT22_Daq; //VOLTS
//Whole magnet RT lead to lead
//V16 := VTXXX_DAQ/1000000; //VOLT//Whole magnet 4.2K lead to lead
VTXX_Daq: VT2_Daq + VT3_Daq + VT4_Daq + VT5_Daq + VT6_Daq + VT7_Daq + VT8_Daq
+ VT9_Daq + VT10_Daq + VT11_Daq + VT12_Daq + VT13_Daq + VT14_Daq + VT15_Daq +
VT16_Daq + VT17_Daq + VT18_Daq + VT19_Daq + VT20_Daq
//Lead Out resistive voltages
V12 := (VT21_Daq); //VOLTS//VCL Out
V13 := (VT20_Daq); //VOLTS//Lead ext solder joint @ vcl cold end
V14 := (VT19_Daq); //VOLTS//S8 + Lead_Ext_Out
V15 := (VT17_Daq + VT18_Daq + VT19_Daq); //VOLTS//(S7 + S2) + Vac_Break_in +
Lead_Ext_In
V17 := (VT17_Daq + VT18_Daq + VT19_Daq + VT20_Daq + VT21_Daq); //VOLTS
// Resistive section out
```

P027 from 10/3/2016

Hall B Pre-Power-Up Interlock Checkout Procedure

Note:

VX is the derived parameters and VTXX_DAQ (defined as in DRG B00000-09-00-180):

```
V1 := (VT5_DAQ + VT6_DAQ + VT7_DAQ); //VOLTS//S3 + Coil A + S10
V2 := (VT7_DAQ + VT8_DAQ + VT9_DAQ); //VOLTS//S4 + Coil B + S3
V3 := (VT9_DAQ + VT10_DAQ + VT11_DAQ); //VOLTS//S4 + Coil C + S5
V4 := (VT11_DAQ + VT12_DAQ + VT13_DAQ); //VOLTS//S6 + Coil D + S5
V5 := (VT13_DAQ + VT14_DAQ + VT15_DAQ); //VOLTS//S1 + Coil E + S6
V6 := (VT15_DAQ + VT16_DAQ + VT17_DAQ); //VOLTS//S1 + Coil F + (S7 + S2) //Lead
In resistive voltages

V7 := (VT5_DAQ + VT4_DAQ + VT3_DAQ); //VOLTS//S10 + Vac_break_in +
Lead_Ext_In

V8 := (VT3_DAQ); //VOLTS//S9 + Lead_Ext_In

V9 := (VT2_DAQ); //VOLTS//Lead Ext solder joint @ vcl cold end IN

V10 := (VT1_DAQ); //VOLTS//VCL In

V16 := (VT1_DAQ + VT2_DAQ + VT3_DAQ + VT4_DAQ + VT5_DAQ); //VOLTS// Resistive
section IN

//whole magnet V11 := VT22_DAQ; //VOLTS//Whole magnet RT lead to lead

//V18 := VTXX_DAQ/1000000; //VOLT//Whole magnet 4.2K lead to lead
VTXX_DAQ: VT2_DAQ + VT3_DAQ + VT4_DAQ + VT5_DAQ + VT6_DAQ + VT7_DAQ + VT8_DAQ
+ VT9_DAQ + VT10_DAQ + VT11_DAQ + VT12_DAQ + VT13_DAQ + VT14_DAQ + VT15_DAQ +
VT16_DAQ + VT17_DAQ + VT18_DAQ + VT19_DAQ + VT20_DAQ

//Lead Out resistive voltages
V12 := (VT21_DAQ); //VOLTS//VCL Out
```