



REVISIONS			
REV.	ISSUES	DATE	APPROVED

FOR PREVIOUS REVISION HISTORY SEE EECAD DEPARTMENT OR DOCUMENT CONTROL GROUP

LV Bias Probe
 RED A=18V
 Black B= Com
 Orange C= 24V insert command
 Green D= Outer limit Com
 Blue E= Outer limit N.O. (closes when on outer limit)

TB1 terminals connect to J4 9-pin Dsub on Glassman Pressure Switch Relay Chassis

- 1- GROUND
- 2- COMMON (RETURN FOR ALL PROGRAMMING) (BLACK WIRE)
- 3- MODIFIED HV ENABLE-SEE DWG "GLASSMAN MOD2016" (BLUE WIRE)
- 4- V MON (0-10V IS 0-450KV) (BROWN WIRE)
- 5- V PROG (0-10V FOR 0-450KV) (RED WIRE)
- 6- LOCAL V CONTROL (LOCAL DIAL OUTPUT)
- 7- I MON (0-10V IS 0-3mA) (ORANGE WIRE)
- 8- I PROG (0-10V FOR 0-3mA) (YELLOW WIRE)
- 9- LOCAL I CONTROL (LOCAL DIAL OUTPUT)
- 10- +10V (SENT DIRECTLY TO XVME 244 DIGITAL INPUT CARD FOR "READY" SIGNAL bit 2.
- 11- HV ENABLE (TIED TO TB1-10, BECAUSE THIS WAS NOT A PROPER ENABLE SIGNAL FOR OUR USE)
- 12- HV STATUS (WHITE WIRE)

GLASSMAN TANK PRESSURE SWITCH CABLE (J5 connection) Panel mount GOB12-88PNE

A: Black
 B: Brown
 C: Red
 D: Orange
 E: Yellow
 F: Green
 G: Blue
 H: White

J4 connection from pressure switch relay chassis to Glassman remote TB1 Panel mount 9 pin female D-sub connector

X2 connection	TB1 connection
1: Black	2
2: Brown	4
3: Red	5
4: Orange	7
5: Yellow	8
6: Green	
7: Blue	3
8: White	12

GLASSMAN TANK PRESSURE SWITCH CONNECTION BOX

Color	Terminal	Component
A: Black	QPSH-AP-42 (output 1)	
B: Brown	QPSH-AP-42 (+24V)	
C: Orange	QPSH-AP-42 (Analog Out)	
D: Blue	QPSH-AP-42 (Common)	
E: White	QPSH-AP-42 (output 2)	
F: Violet	Ashcroft COMMON	
G: Yellow	Ashcroft N.O. (shorts to common at pressure)	
H: Green	Ashcroft N.C.	

J2 PSS connection (AMP PT02E-12-8S)

Color	Terminal
A: Black	24V
B: Brown	K6 drive
C: Red	24V
D: Orange	K7 drive
E: Yellow	K6 NC
F: Green	K6 NC
G: Blue	K7 NC
H: White	K7 NC

J2 interlocks are presently shorted by a dummy plug until final system is detailed for these interlocks

J6 Hardware interlocks connection (Souriau UTSO-12E8S)

Color	Terminal
A: Black	24V
B: Brown	Dipole magnet relay (Future)
C: Red	24V
D: Orange	Global intlk relay (Future)
E: Yellow	24V
F: Green	LV Bias relay (Future)
G:	
H:	

J6 interlocks are presently shorted by a dummy plug until final system is detailed for these interlocks

J3 connection to EPICS cards 15pin female Dsub on panel

Color	Terminal	Component
1 Black	EPICS digital output. HV Enable	
2 Brown	EPICS digital input. HV status	
3 Red	EPICS digital input. SF6 Interlock OK	
4 Red-Black	EPICS digital input. Dipole Interlock OK	
5 Pink	EPICS digital input. Global Interlock OK	
6 Orange	EPICS digital input. LV Bias Probe retracted	
7 yellow	EPICS digital input. PSS system A OK	
8 Dark green	EPICS digital input. PSS system B OK	
9 light green	EPICS digital input. Glassman ready	
10 Dark blue	EPICS ADC input. SF6 pressure	
11 light blue	EPICS DAC output. Vprogram	
12 Violet	EPICS DAC output. Iprogram	
13 Grey	No connect	
14 White	EPICS DAC common	
15 Grey-Black	EPICS DIO common	

Cross-Connect WAGO block ITF21-1 on front of rack ITF21

Terminal	Component
81	To XVME244 digital output channel 1 IGLK100DIOLWTB.B0
82	To XVME244 digital input channel 1 IGLK100DIOFLRDB.B0
83	To XVME244 digital input channel 2 IGLK100DIOFLRDB.B1
84	To XVME244 digital input channel 17 IGLK100DIOFHRDB.B0
85	To XVME244 digital input channel 18 IGLK100DIOFHRDB.B1
86	To XVME244 digital input channel 19 IGLK100DIOFHRDB.B2
87	To XVME244 digital input channel 20 IGLK100DIOFHRDB.B3
88	To XVME244 digital input channel 21 IGLK100DIOFHRDB.B4
89	To XVME244 digital input channel 3 IGLK100DIOFLRDB.B2
90	To XVME566 ADC card channel 1 IGLK100TANKPSI
91	To C1068 DAC channel 1 IGLK100HVSET
92	To C1068 DAC channel 2 IGLK100HVSET
93	
94	To C1068 DAC card breakout common
95	To XVME244 card breakout common

OWNER	DATE	
HANSKNECHT	2/13/19	
CHECKED	DATE	TITLE
APPROVED	DATE	
ENGINEER	DATE	
J HANSKNECHT		

Thames Jefferson University Accelerator Facility
 UITF GLASSMAN 450KV CONTROL WIRING SCHEMATIC
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