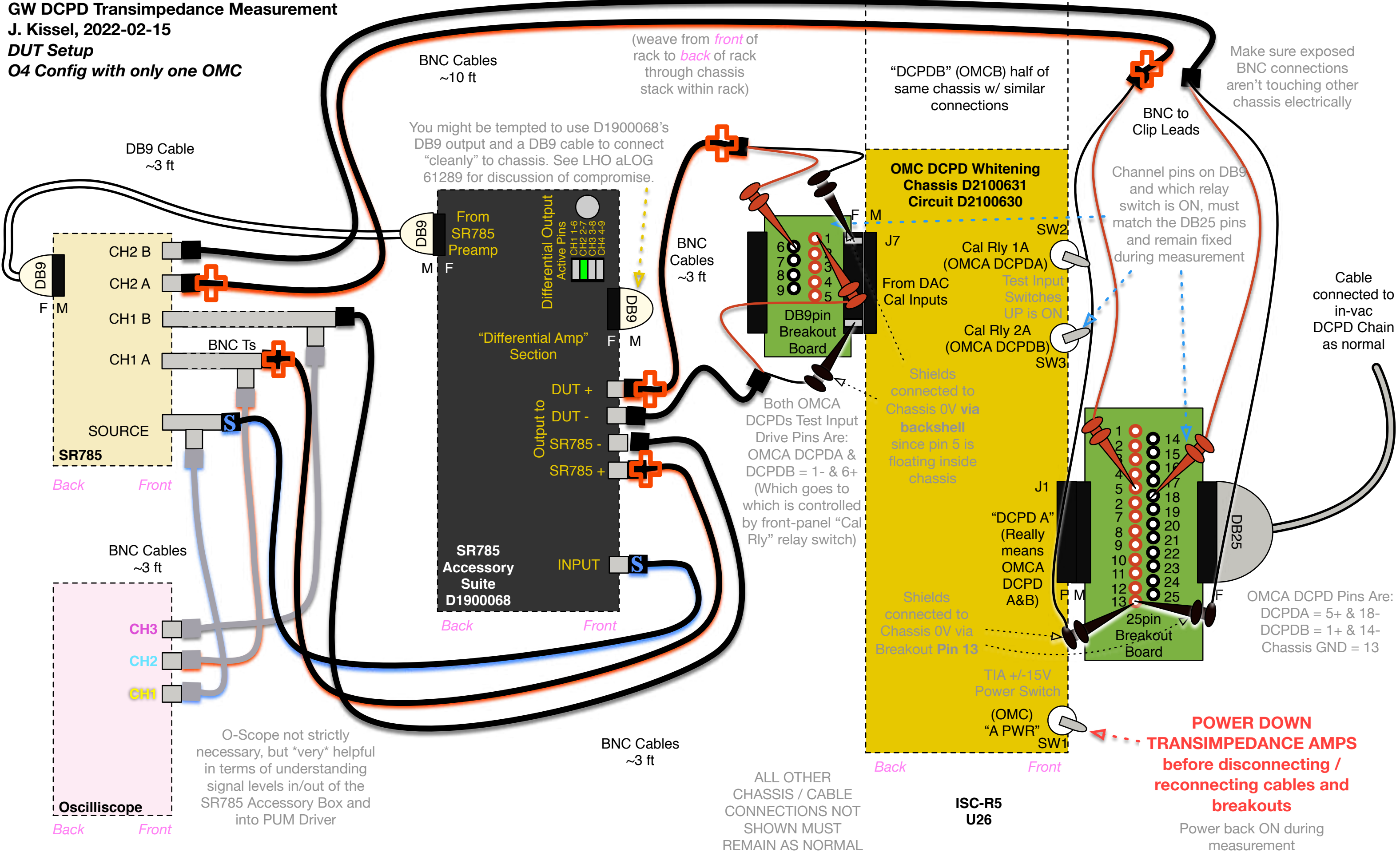


GW DCPD Transimpedance Measurement

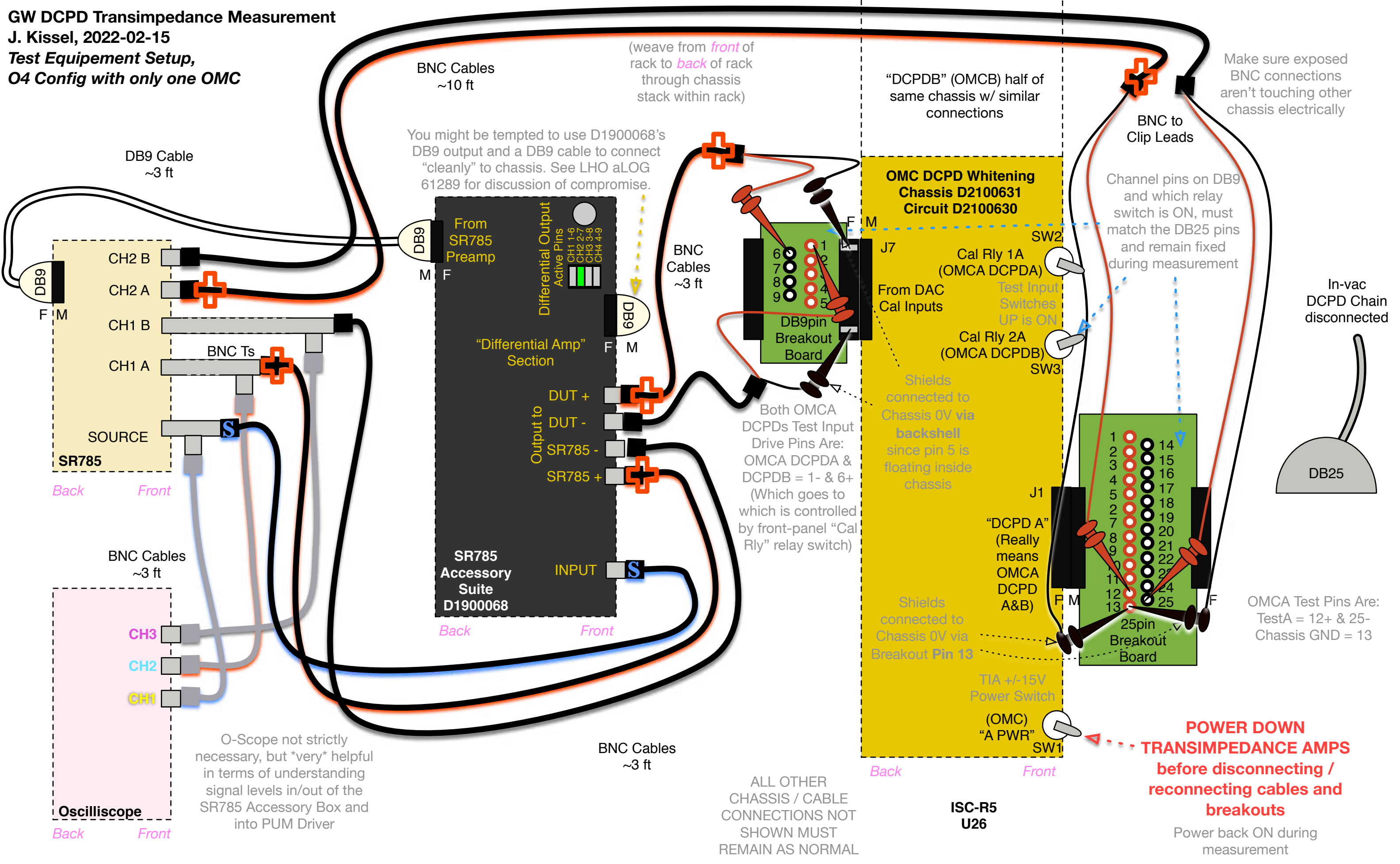
J. Kissel, 2022-02-15

DUT Setup

O4 Config with only one OMC



GW DCPD Transimpedance Measurement
J. Kissel, 2022-02-15
Test Equipment Setup,
O4 Config with only one OMC



BNC Cables
~10 ft

(weave from *front* of rack to *back* of rack through chassis stack within rack)

“DCPDB” (OMCB) half of same chassis w/ similar connections

Make sure exposed BNC connections aren't touching other chassis electrically

DB9 Cable
~3 ft

You might be tempted to use D1900068's DB9 output and a DB9 cable to connect “cleanly” to chassis. See LHO aLOG 61289 for discussion of compromise.

Channel pins on DB9 and which relay switch is ON, must match the DB25 pins and remain fixed during measurement

In-vac DCPD Chain disconnected

BNC Cables
~3 ft

OMC DCPD Whitening Chassis D2100631
Circuit D2100630

SW2

Cal Rly 1A (OMCA DCPDA)

Test Input Switches UP is ON

Cal Rly 2A (OMCA DCPDB)

SW3

Shields connected to Chassis 0V via **backshell** since pin 5 is floating inside chassis

Both OMCA DCPDs Test Input Drive Pins Are:
 OMCA DCPDA & DCPDB = 1- & 6+
 (Which goes to which is controlled by front-panel “Cal Rly” relay switch)

Shields connected to Chassis 0V via Breakout Pin 13

“DCPD A” (Really means OMCA DCPD A&B)

TIA +/-15V Power Switch (OMC) “A PWR”

SW1

OMCA Test Pins Are:
 TestA = 12+ & 25-
 Chassis GND = 13

CH2 B
CH2 A
CH1 B
CH1 A
SOURCE
SR785

Back Front

“Differential Amp” Section

SR785 Accessory Suite D1900068

Back Front

BNC Cables
~3 ft

CH3
CH2
CH1

Oscilloscope

Back Front

O-Scope not strictly necessary, but *very* helpful in terms of understanding signal levels in/out of the SR785 Accessory Box and into PUM Driver

BNC Cables
~3 ft

ALL OTHER CHASSIS / CABLE CONNECTIONS NOT SHOWN MUST REMAIN AS NORMAL

ISC-R5 U26

POWER DOWN TRANSIMPEDANCE AMPS before disconnecting / reconnecting cables and breakouts

Power back ON during measurement