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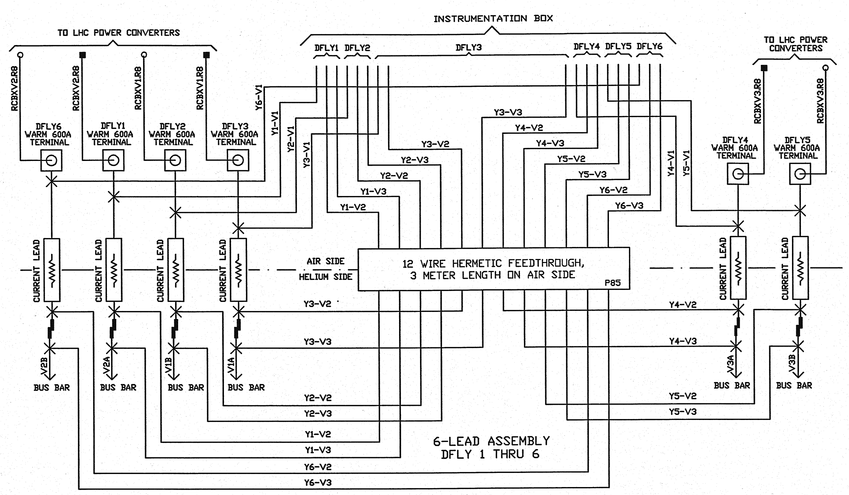
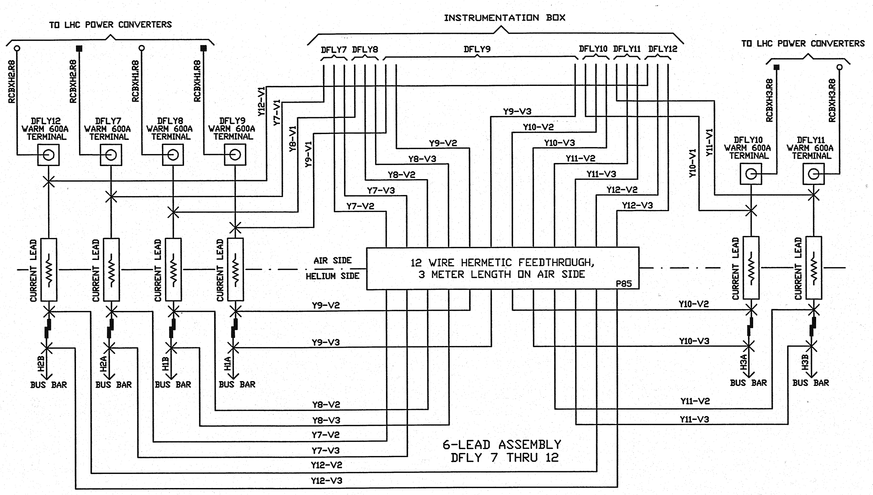
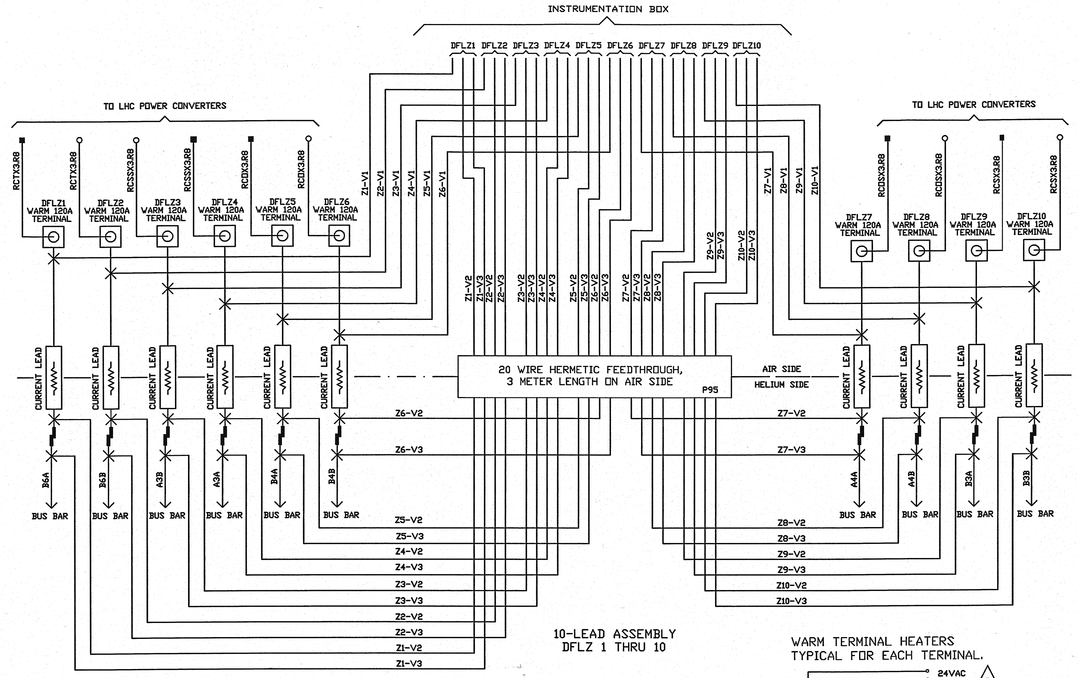
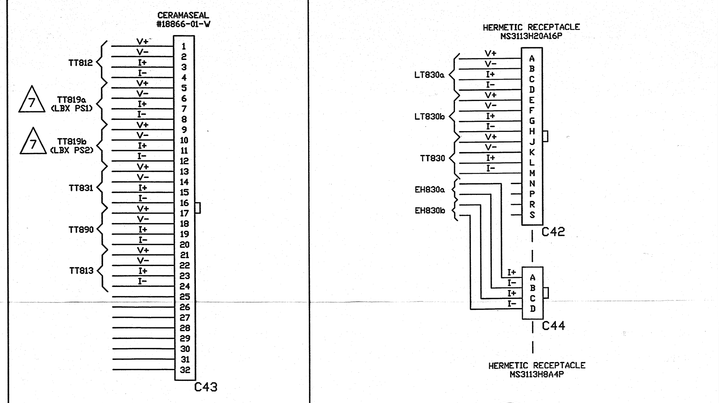


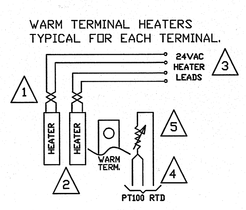




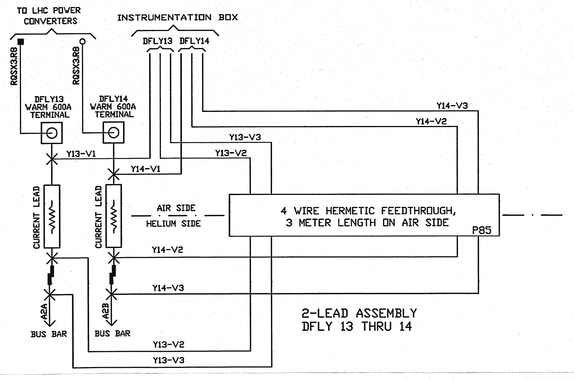


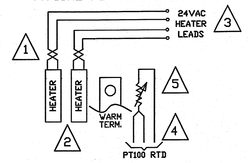
4 CRYOGENIC PIPING SIGNALS

5 LEAD CHAMBER SERVICE PORT

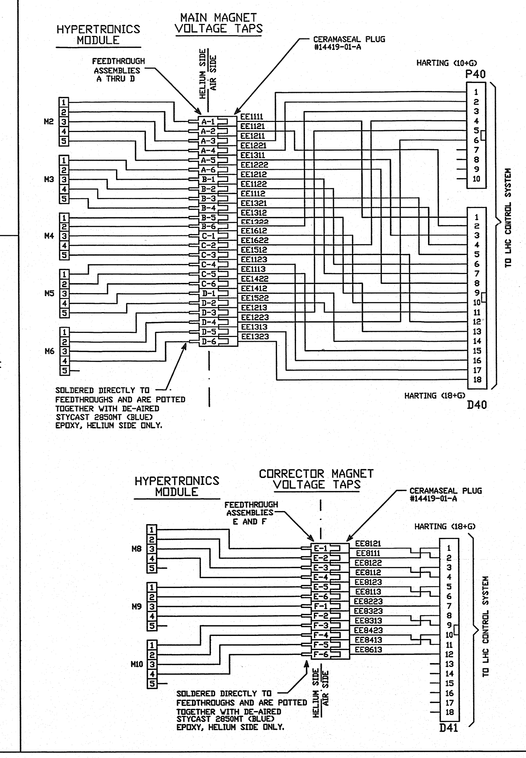


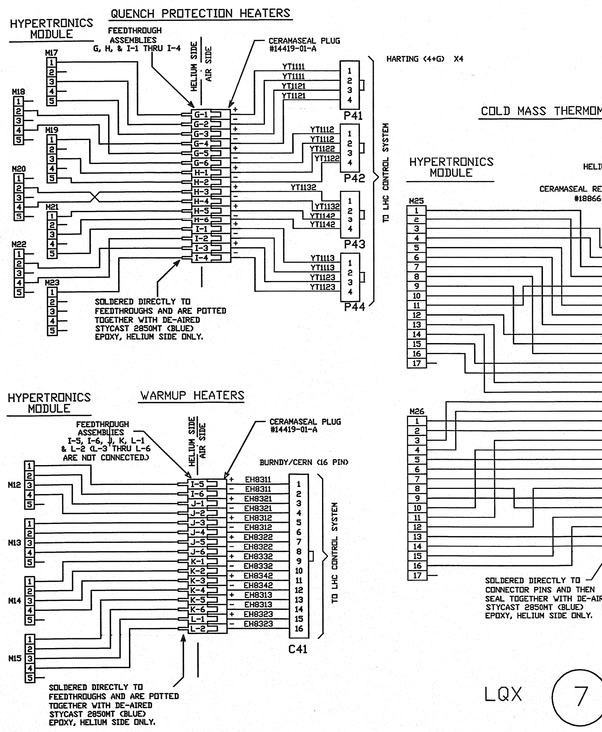
1 600A LEADS (DFLY) 1 THRU 14

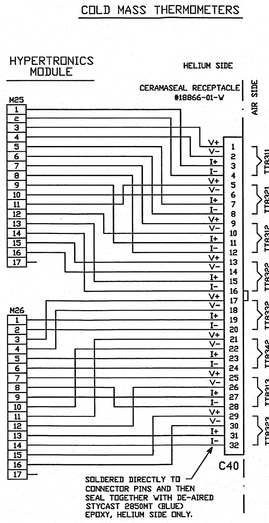


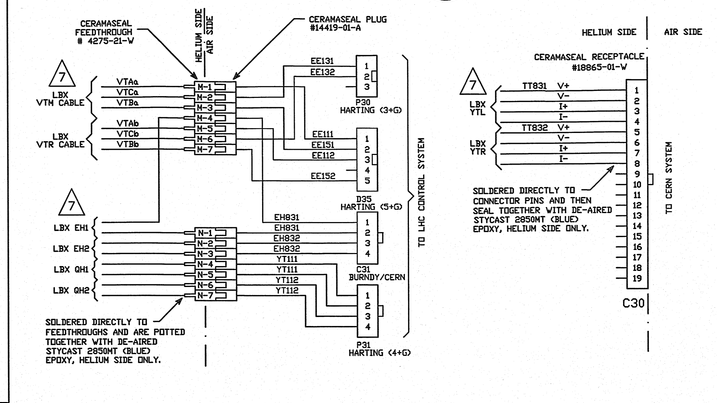


2 120A LEADS (DFLZ) 1 THRU 10

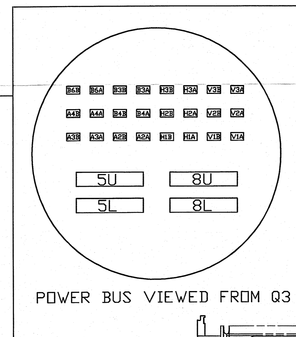




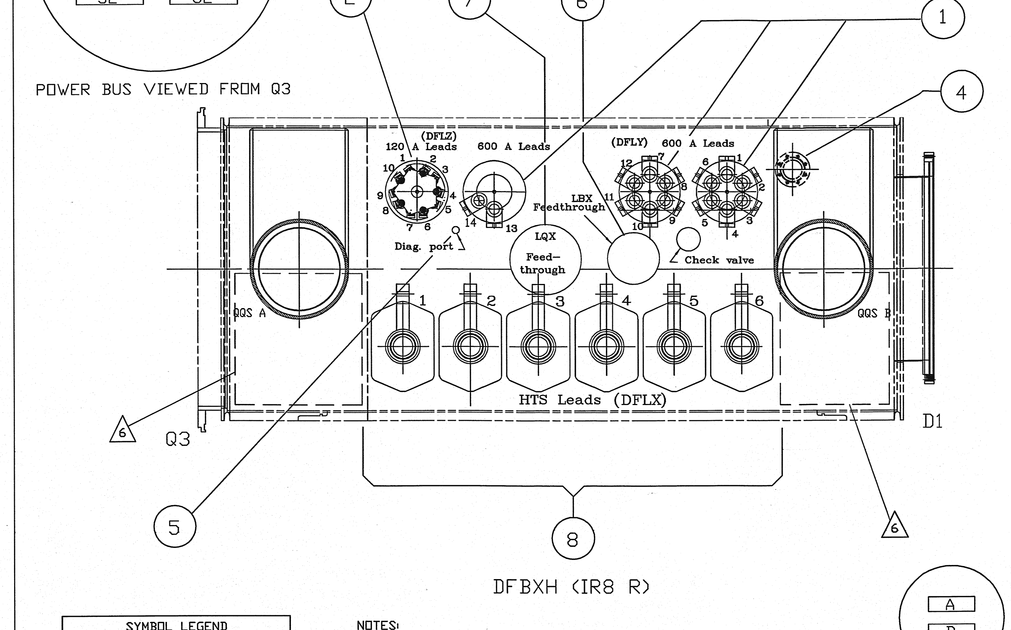




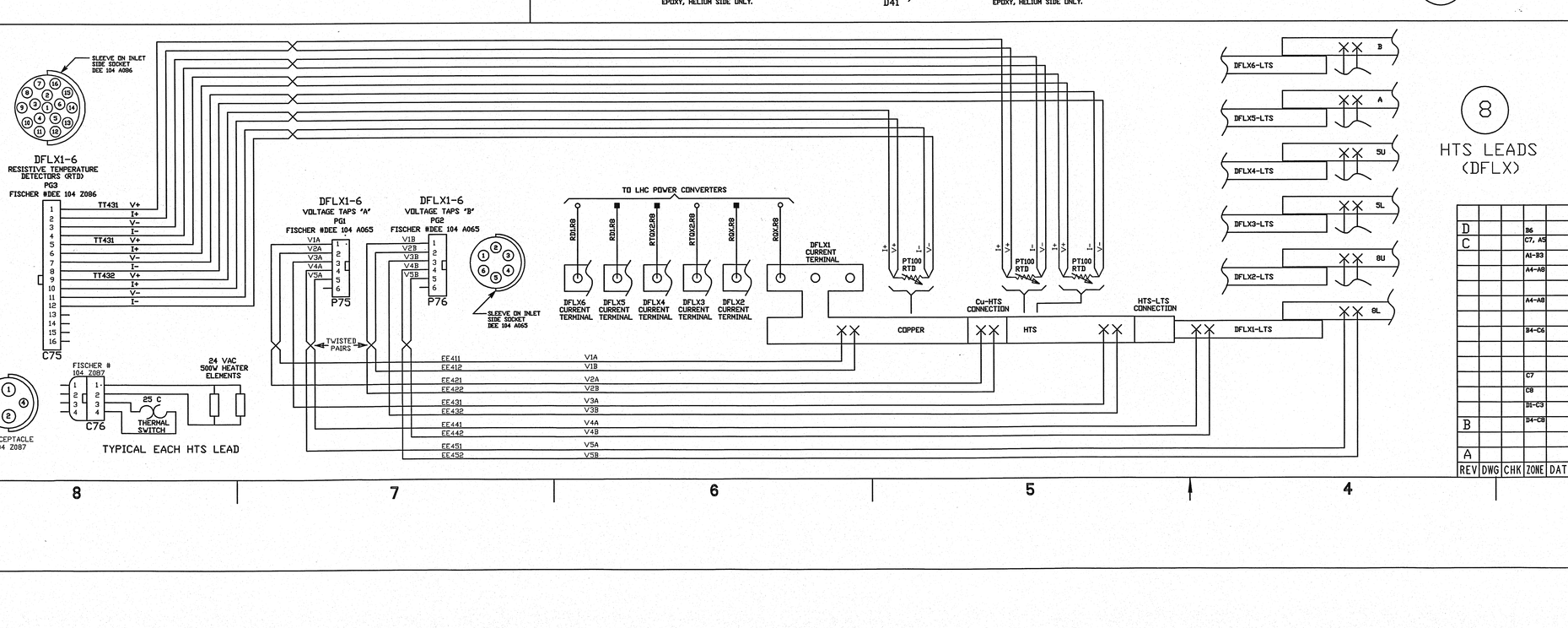
LQX 7



POWER BUS VIEWED FROM Q3



DFBXH (IR8 R)



8 HTS LEADS (DFLX)

SYMBOL LEGEND	
■	= A SIDE
○	= B SIDE
X	= SOLDER JOINT
	= CORRECTOR BUS SPLICE 600A LAP JOINTS PER LBNL PROCEDURE M980 AND 120A LAP JOINTS PER LBNL PROCEDURE M983.
	= MAIN BUS SPLICE PER LBNL PROCEDURE M985

NOTES:

1. BUNDLE AND LABEL EACH 4-WIRE HEATER CABLE WITH "DH#11", FOLLOWED BY THE CURRENT LEAD DESIGNATION, FOR EXAMPLE "I13". WIRE LENGTH TO BE 3 METERS.
2. DFLY HEATER TOTAL POWER 32W @ 24V, DFLZ HEATER TOTAL POWER 20W @ 24V.
3. HEATERS TO BE POWERED IN PARALLEL WITH 24V SUPPLY. CONNECTIONS MADE AT CERN.
4. BUNDLE AND LABEL EACH 3-WIRE RTD CABLE WITH "TT#91", FOLLOWED BY THE CURRENT LEAD DESIGNATION, FOR EXAMPLE "Z09". WIRE LENGTH TO BE 3 METERS.
5. SENSOR RESISTANCE PER IEC 751, CLASS B.
6. LOCATIONS OF CERN INSTRUMENT BOX
7. CONNECTIONS MADE AT TUNNEL INSTALLATION BY CERN

REV	DWG	CHK	ZONE	DATE	CHANGES
	B6				REDRAW TO REFLECT ACTUAL BUILD EE1612 MOVED FROM D40-14 TO D40-10, EE1412 MOVED FROM D40-10 TO D40-14, EE1622 MOVED FROM D40-13 TO D40-4, EE1422 MOVED FROM D40-4 TO D40-13.
	C7, A5				1) a) ADDED 19 AND 32 PIN CONN. PINOUTS, b) CORRECTED P79 WIRING, c) CHANGED C42, C43, C44.
	A1-B3				2) a) ADDED NOTES 8) ADDED VIEW OF POWER BUSS.
	A4-A8				3) IN BOX 5: a) ADDED CERN-SPECIFIED CONNECTOR DESIGNATIONS, b) CHANGED HTS LEAD THERMOMETER PINOUTS IN P79 AND P76. c) CHANGED HTS LEAD VOLTAGE TAP PINOUTS IN P75 AND P76.
	A4-A8				4) IN BOX 7: a) ADDED CERN-SPECIFIED CONNECTOR DESIGNATIONS, b) CHANGED HTS LEAD THERMOMETER PINOUTS IN C75, c) CHANGED HTS LEAD VOLTAGE TAP PINOUTS IN P79 AND P76.
	B4-C6				5) IN BOX 6: a) CHANGED CONNECTORS FROM FISCHER TO HARTING AND BURNDY, b) CHANGED VOLTAGE TAP DESIGNATIONS, c)ADDED CERN G/P, HEATER DESIGNATIONS, c) CHANGED WARM UP HEATER DESIGNATION, e) CHANGED C40 PINOUTS AND ADDED EE DESIGNATIONS.
	C7				6) IN BOX 5: CHANGED CONNECTOR CONFIGURATION.
	C8				7) IN BOX 4: ADDED NOTE.
	D5-C3				8) IN BOX 2: a) SEPARATE POWER FOR HEATERS, b) WIRE LABELS SIMPLIFIED, c) CHANGED FEEDTHROUGH DESIGNATION.
	D4-C8				9) IN BOX 1: a) SEPARATE POWER FOR HEATERS, b) WIRE LABEL & SIMPLIFIED, c) CHANGED FEED THROUGH DESIGNATION. ADDED NOTES 7 - 9, ADDED INSTRUMENT BOX, POWER BUS CROSS SECTION. CHANGED HEATER CONNECTIONS FOR DFLY AND DFLZ, CLARIFIED DFLY AND DFLZ DATA, FEEDTHRU CORRECTED DFLX VOLTAGE TAPS, TEMP. SENSOR AND HEATER POWER, UPDATED CONNECTORS FOR CRYOPIPING SIGNALS, LEAD CHAMBER SERVICE PORT, LBX, AND LQX.

UNLESS OTHERWISE SPECIFIED: TOLERANCES: X.X ± 0.1, X.XX ± 0.03, X.XXX ± 0.010, FRAC. ± 1/64, Angles ± 1.00°, FINISH 125 RMS
DO NOT SCALE PRINT
THREADS ARE CLASS 2
CHAMFER ENDS OF ALL SCREW THREADS 30°
CUT BURRS, 1.5 THREAD RELIEF ON MACHINED THREADS
BREAK EDGES .015 MAX ON ANGULAR WORK
REMOVE BURRS, FELT SPLATTER & LOOSE SCALE
IN ACCORDANCE WITH ANSI Y14.5M & 846.1

SHOP ORDERS: ACCT NO., REQN, ISSD, DATE

SURFACE TREATMT		
IDENT METHOD		
PROJECT NUMBER		
PROJECT NAME		
DWG BY	J. STIRKKINEN	DATE 04-23-02
CHK BY	B. BINGHAM	DATE 12/14/05
APP BY	J. ZBASNIK	DATE 12/16/05

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

LHC IR FEEDBOX ELECTRICAL
DFBXH (IR8 R) WIRING DIAGRAMS

MICROFILMED: PATENT CLEAR:
DWG. TYPE: ASSEMBLY
SHOWN ON:
SCALE: 1/1
DO NOT SCALE PRINTS
SHEET 1 OF 1
Z5LCE2 DESIGN ACCT. NO.
LH2004 CATEGORY CODE
25I6206 REV. D
LEGAL FILE:

POWER BUS VIEWED FROM D1