

Appendix D

Data Book of Launch Site facilities

This appendix describes the details of launch site facilities for the Epsilon LV.

D1. M Assembly Tower

The height of each floor in M Assembly Tower is shown in Figure D1-1, and the floor plans of 8th and 9th in M Assembly Tower are shown in Figure D1-2.

Figure D1-3 shows the positional relation between the LV coordinate system and the launch facilities. Adjustment of clocking is necessary if PL antenna test is carried out at the launch site.

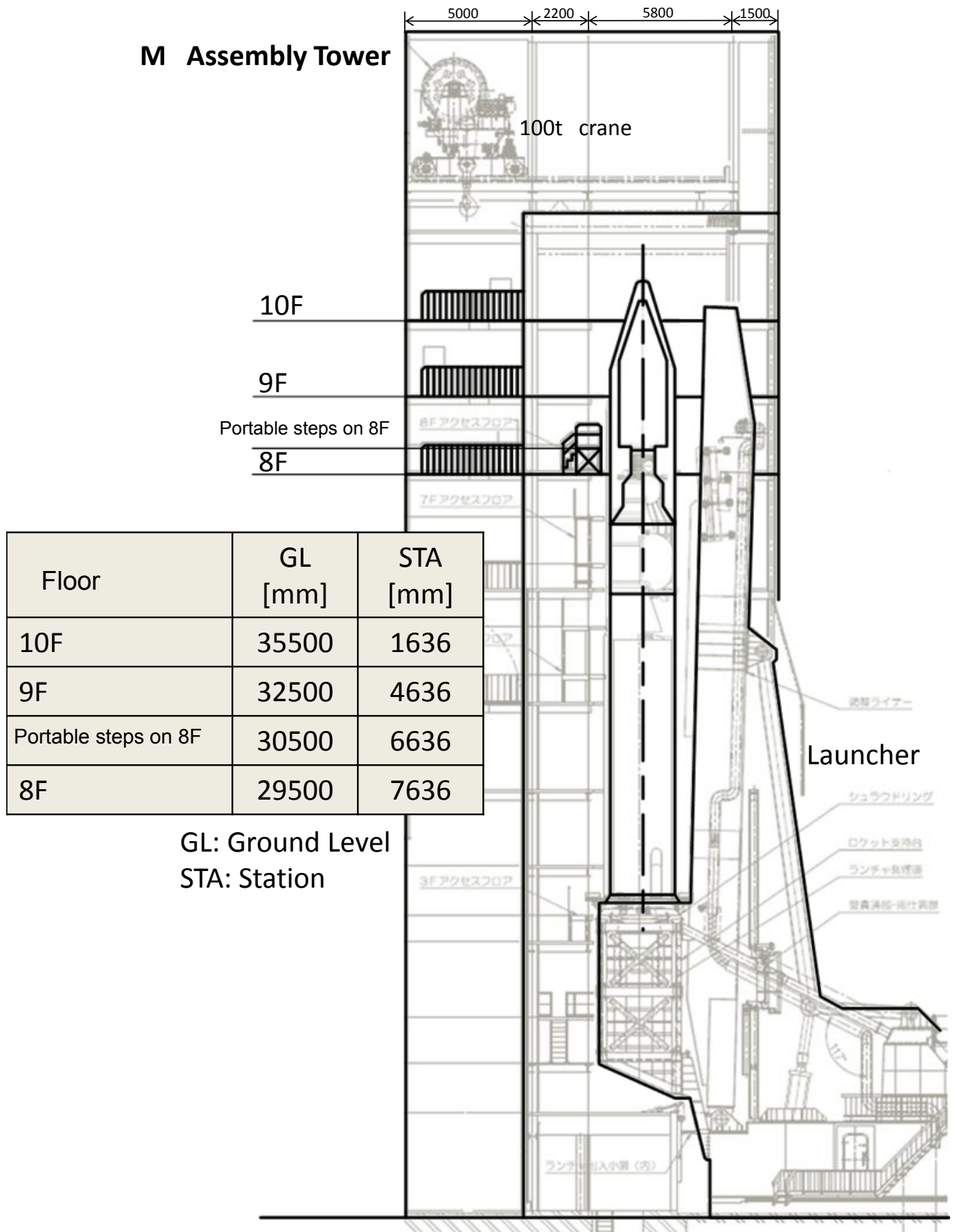


Figure D1-1 Height of each floor in M Assembly Tower

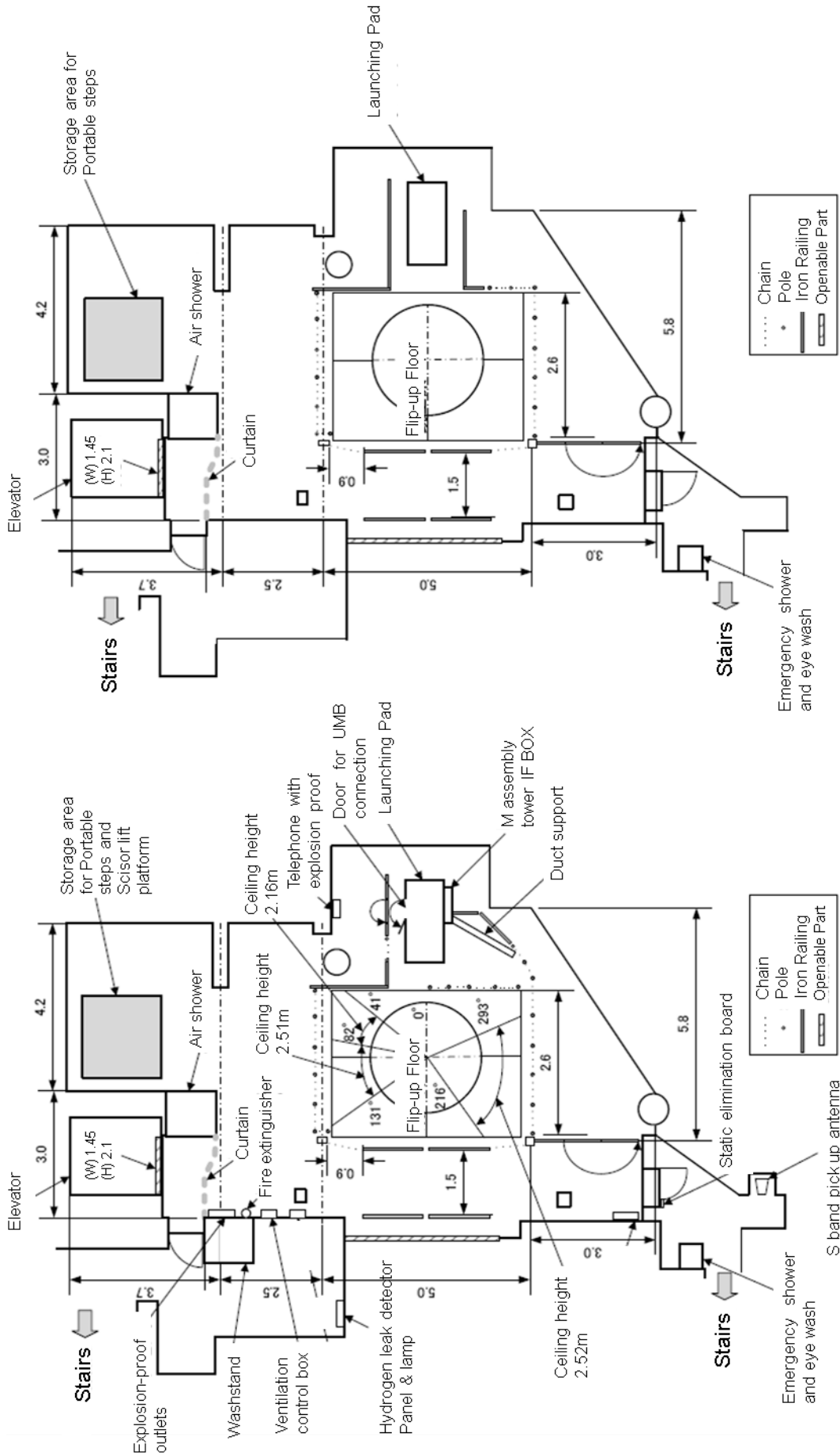


Figure D1-2 Floor plans of 8th (left) and 9th (right) in M Assembly Tower

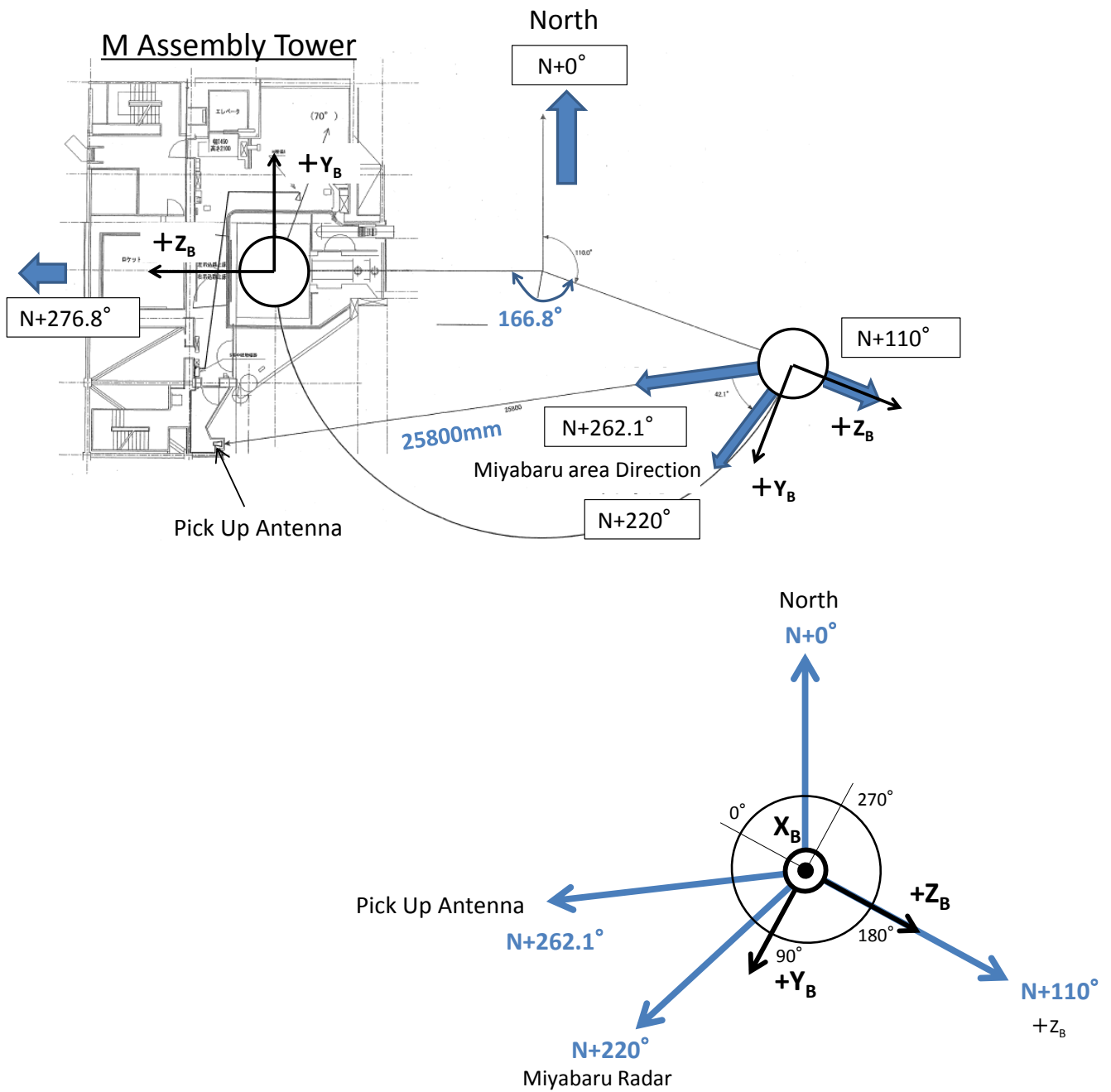


Figure D1-3 Positional Relation between LV Coordinate System and Launch Facilities

D2. Umbilical for PL

(1) Umbilical system diagram in launch site

A PL, when placed in Clean Room (CR) or Clean Booth (CB) in M Assembly Building, M Assembly Tower or on Launching Pad, is accessible from PL control room in Epsilon Control Center (ECC), Check-Out Room next to CR in M Assembly building, and M Control Center. (These facilities are described in Chapter 5.)

The diagram of PL system harness at the launch site including Electrical Ground Support Equipment (EGSE) and its details are shown in Figure D2-1 and Figure D2-2, respectively.

(2) I/F BOX connector

The identification and part number of each I/F BOX connector linked to EGSE are shown in Table D2-1.

(3) SA-BOX connector

The identification and part number of each SA or I/F BOX connector linked to LV are shown in Table D2-2.

(4) Connector pin assignment

The umbilical connector pin assignment for PL is shown in Figures D2-3 and D2-4.

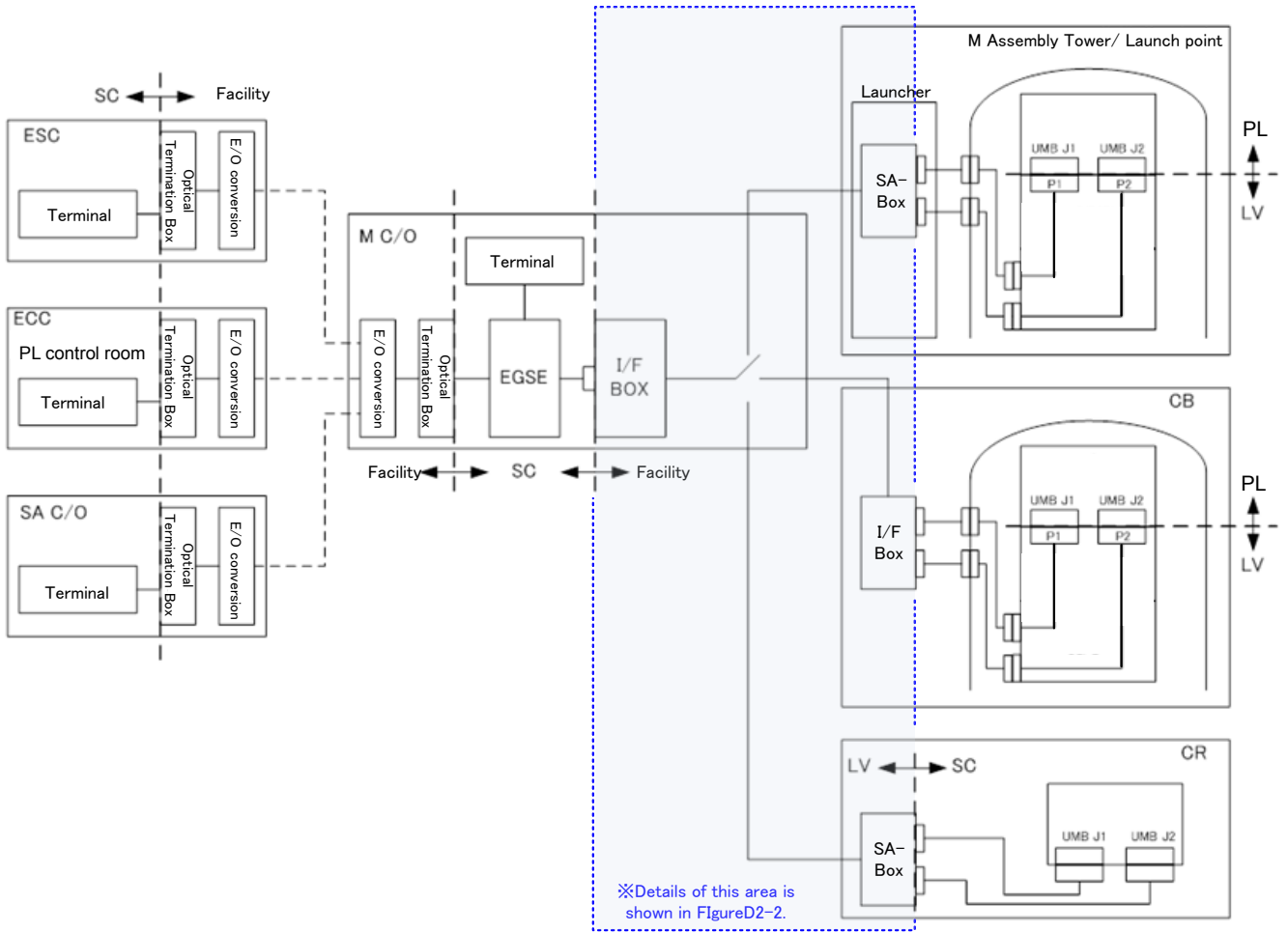


Figure D2-1 Diagram of PL System Harness at Launch Site including EGSE (Example)

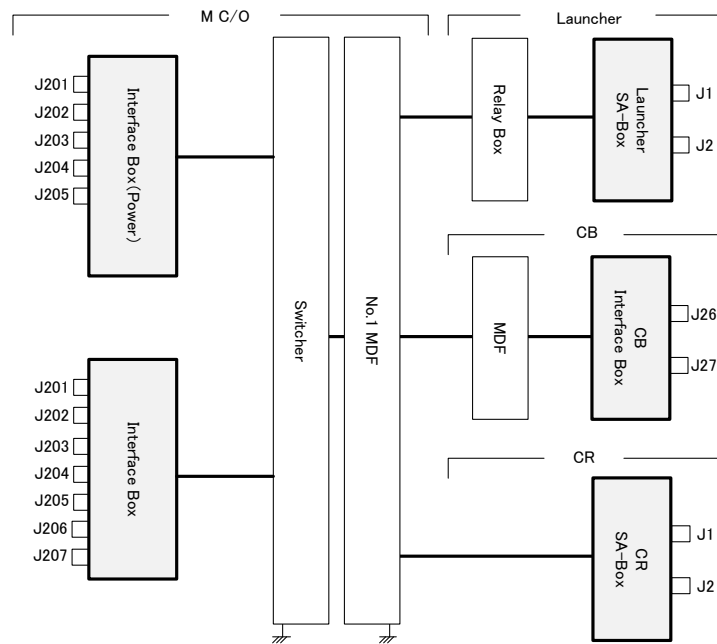


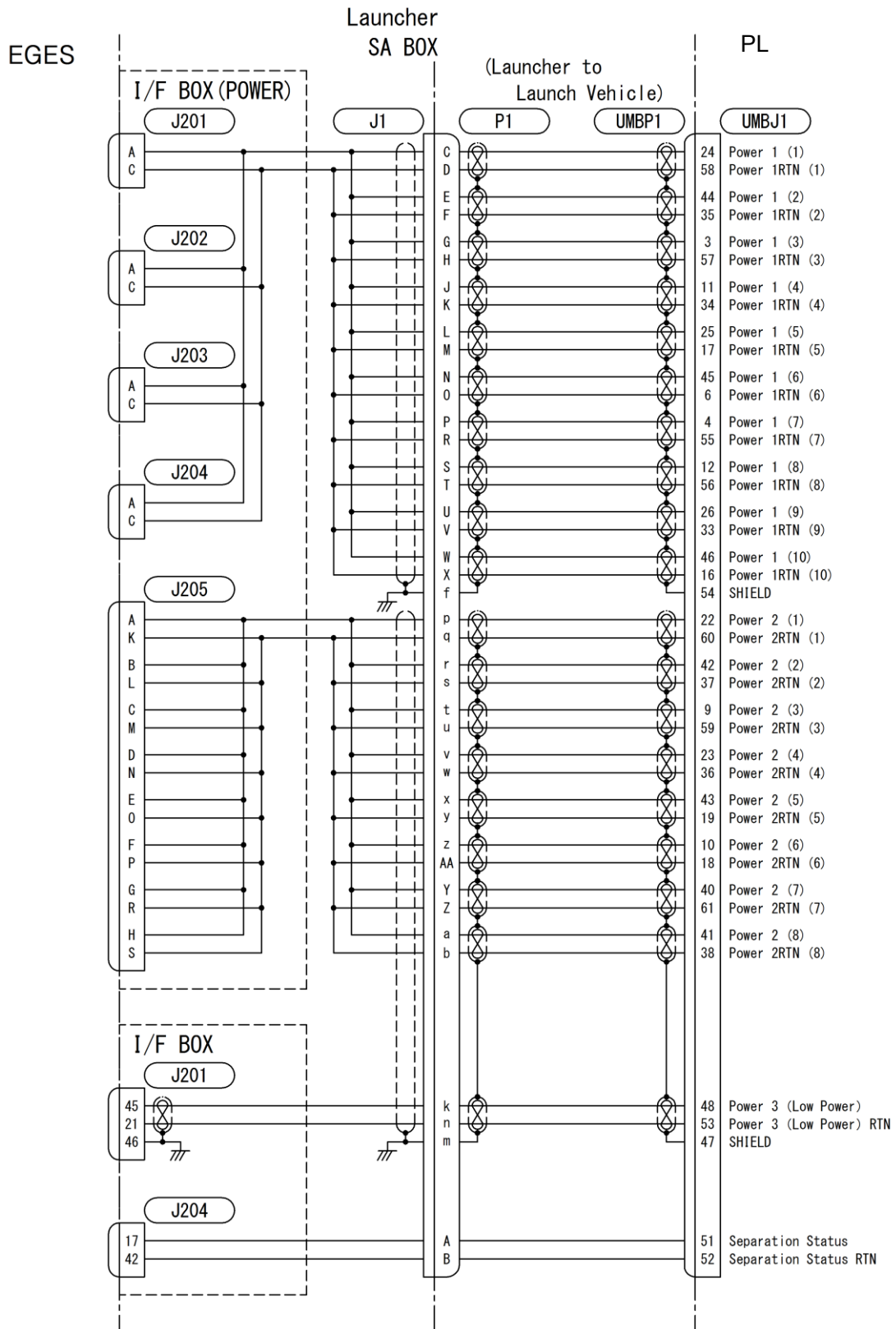
Figure D2-2 Details of Diagram of PL System Harness at Launch Site

Table D2-1 Interface BOX Connectors in Check-Out Room of M Assemble Building

Name	Connector Identification	Part Number
Interface BOX (Power)	J201	N/MS3102A 28-6P
	J202	N/MS3102A 28-6P
	J203	N/MS3102A 28-6P
	J204	N/MS3102A 28-6P
	J205	CA3102A32A10P-R
Interface BOX	J201	57-20500-D35
	J202	57-20500-D35
	J203	57-20500-D35
	J204	57-20500-D35
	J205	57-20500-D35
	J206	DEU-9P-FOR
	J207	DEU-9S-FOR

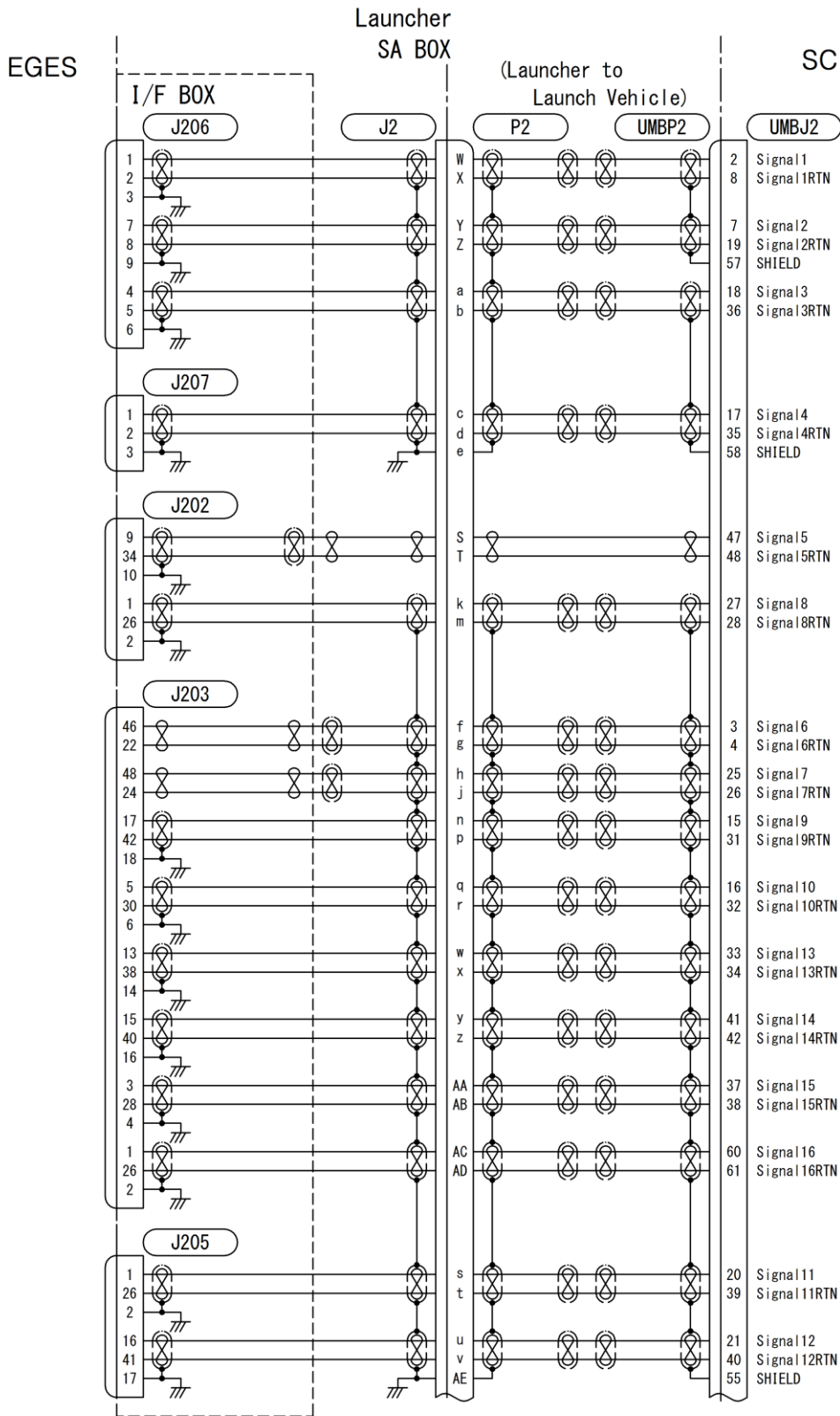
Table D2-2 SA-BOX Connectors in Launcher, CB and CR

Name	Connector Identification	Part Number
Launcher SA-BOX	J1	CA3102E32A-10S
	J2	CA3102E32A-10S
CB Interface BOX	J26	CA3102A32A-10S
	J27	CA3102A32A-10S
CR SA-BOX	J1	CA3102A32A-10S
	J2	CA3102A32A-10S



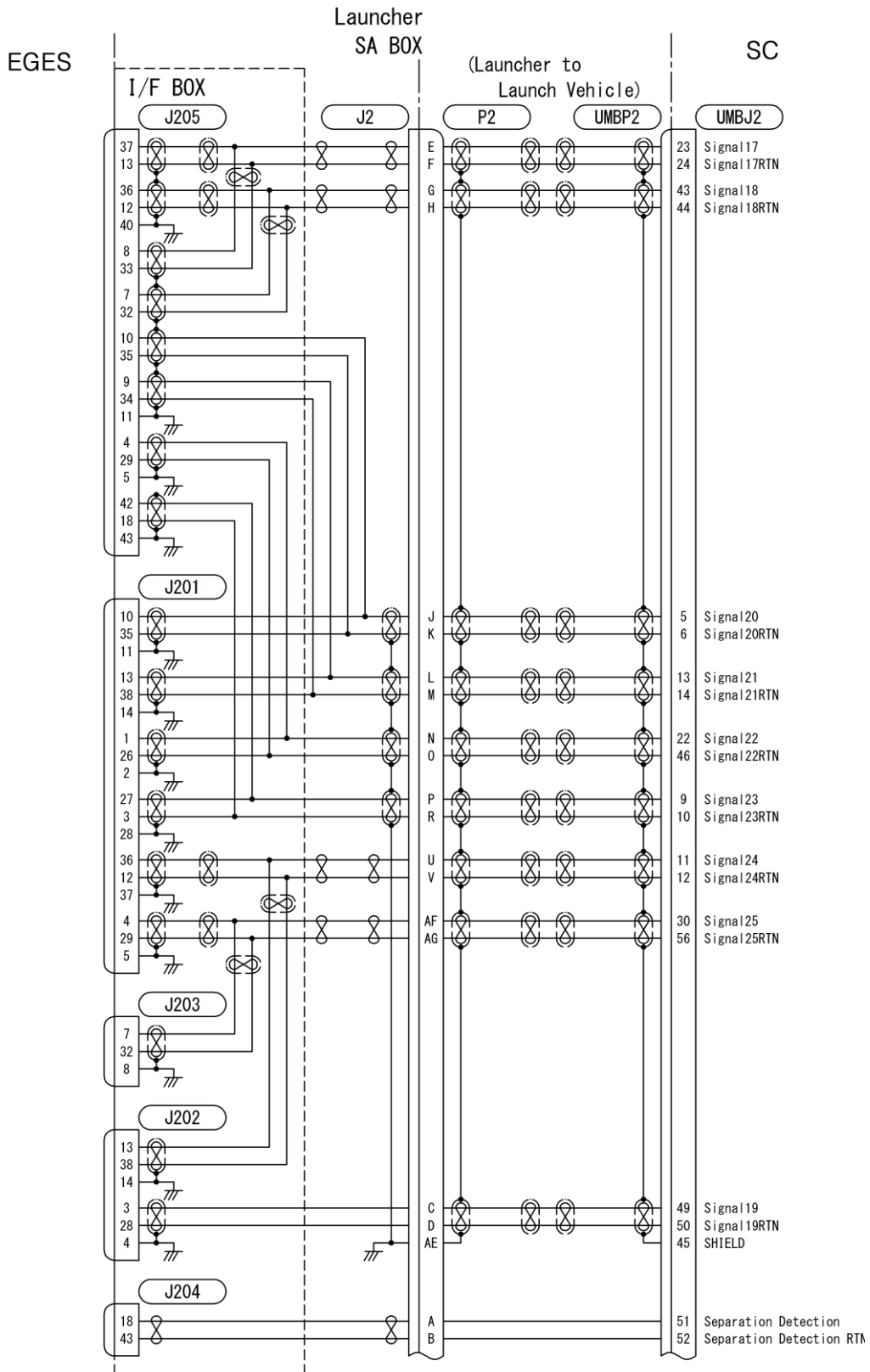
*Launcher SA-BOX connector J1, CB Interface BOX connector J26 and CR SA-BOX connector J1 have the same pin assignment. Signal names for PL are examples.

Figure D2-3 Umbilical Connector Pin Assignment for PL (UMB1)



*Launcher SA-BOX connector J2, CB Interface BOX connector J27 and CR SA-BOX connector J2 have the same pin assignment. Signal names for PL are examples.

Figure D2-4(1/2) Umbilical Connector Pin Assignment for PL (UMB2)



*Launcher SA-BOX connector J2, CB Interface BOX connector J27 and CR SA-BOX connector J2 have the same pin assignment. Signal names for PL are examples.

Figure D2-4(2/2) Umbilical Connector Pin Assignment for PL (UMB2)

D3. M Assembly Building (CR and CB)

The environment of the PL preparation areas are shown in Table D3-1.

Table D3-1 Environment of PL Preparation Areas

Item		specification	note	
C R	Environment	Cleanliness	Class 100,000	
		Temperature	21 to 25°C	
		Relative	40 to 50%	
		Room Dimensions (L/W/H)	14.7 m × 11.5 m × 14.3 m	
	Ceiling Crane	Lifting Load	5 ton × 1 unit	
		Lift Height	12 m	
		Speed	continuously variable	
	Moving Range	7 m × 12 m		
Air Lock	Room Dimensions (L/W/H)	7.6 m × 8 m × 9.7 m		
	Shutter Dimensions	6.8 m × 9.7 m		
C B	Environment	Cleanliness	Class 100,000	
		Temperature	20 to 25°C	
		Relative	40 to 50%	
		Room Dimensions (L/W/H)	8 m × 12.7 m × 14.3 m	including a 3-meter diameter space for a PLF Stand to temporarily hold a PLF.
		Shutter Dimensions (L/W/H)	8 m × 13 m	
	Ceiling Crane	Lifting Load	2.5 ton × 2 units	single girder
		Lift Height	15.6 m	
		Distance between Hooks	1.2 m	
Moving Range		6.3 m × 9.5 m		

D4. Scissor Lift Platform

The scissor lift platformas shown in Figure D4-1 is used to access a PL through fairing access doors in M Assembly Tower. Since each floor has a different structure, the use of the diving board is defined in JOP.

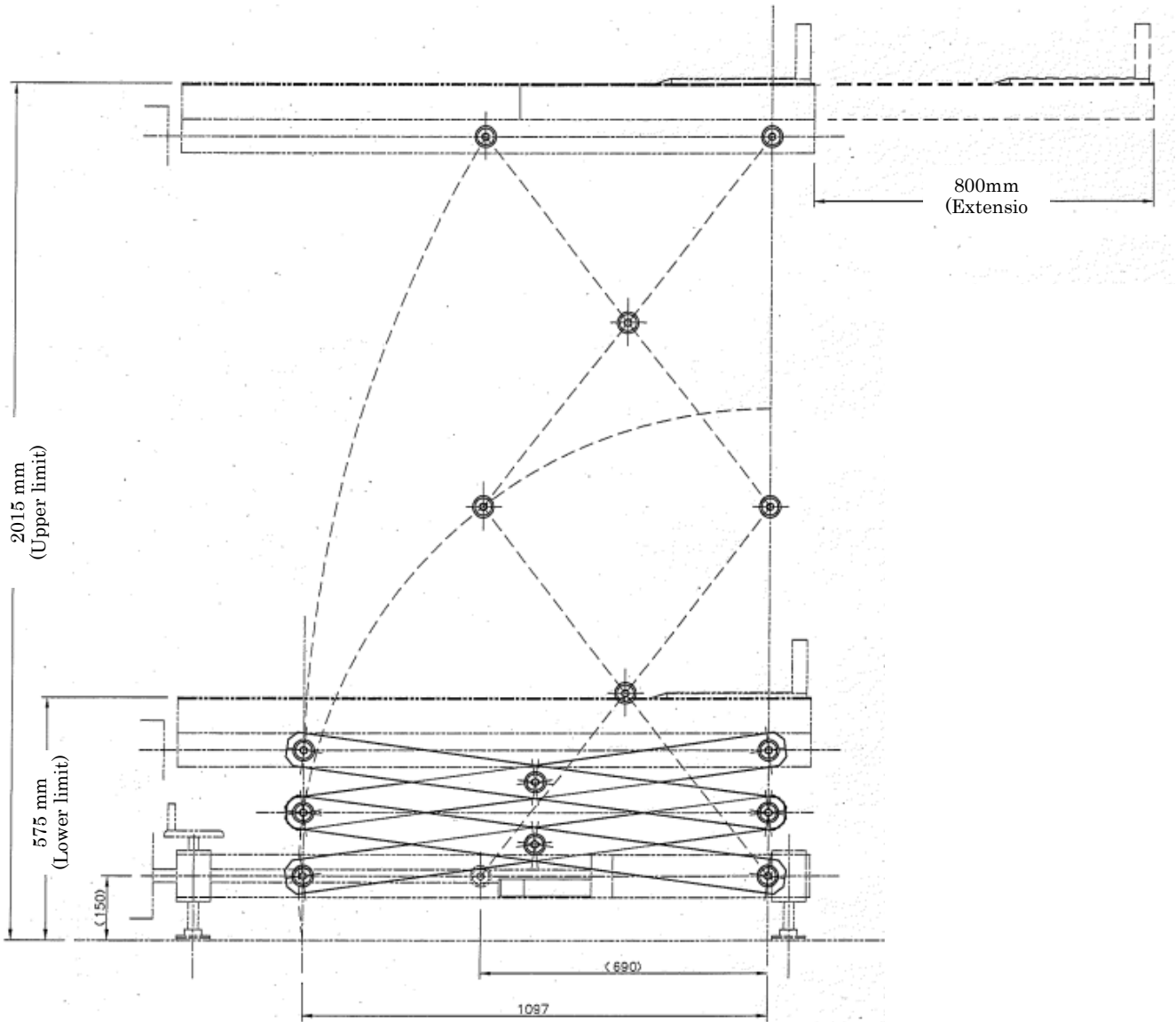


Figure D4-1 Outline of Diving Board