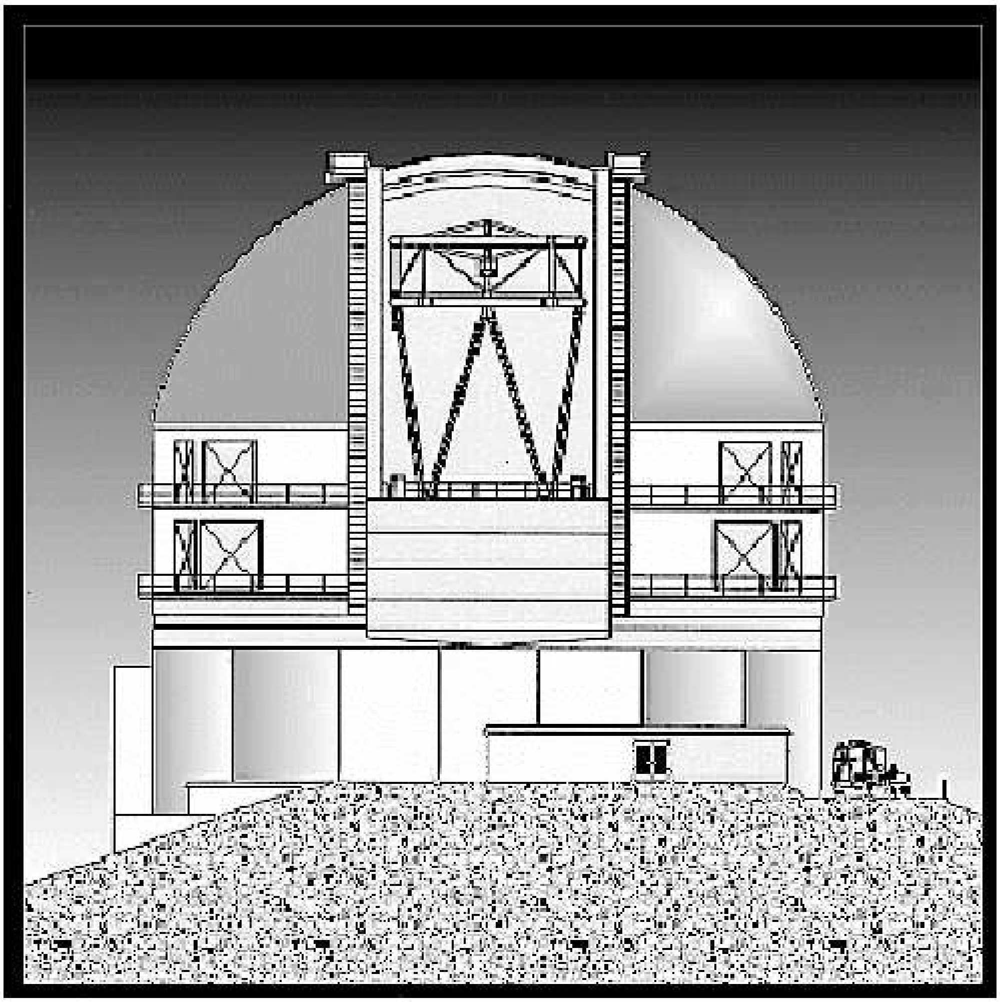
GEMINI
8-M Telescopes
Project

ICD-G0004
Revision D

Telescope Hard Stop Angular Limits and Decelerations



M. Warner/J. Oschmann

June 19, 1997

GEMINI PROJECT OFFICE 950 N. Cherry Ave. Tucson, Arizona 85719
Phone: (520) 318-8545 Fax: (520) 318-8590

ICD-G0004
Revision Control Descriptions

Revision:	Original release
Date:	November 10, 1993
Approved:	J. Oschmann
Description:	

Revision:	B
Date:	July 21, 1995
Approved:	Keith Raybould, Larry Stepp, Rick McGonegal, David Robertson
Description:	Increased allowable decelerations to 1.2 deg/sec^2, altitude; 4 deg/sec^2 azimuth (from 0.77 and 3.0 respectively). Minor changes to stop/limit locations and damper range.

Revision:	C
Date:	January 22, 1997
Approved:	J. Oschmann, K. Raybould, L. Stepp, R. McGonegal
Description:	Changed Rotation about Axis values. Changed Elevation and Azimuth limit values. Added information to end note. (See Change Control Form #37).

Revision:	D
Date:	June 19, 1997
Approved:	
Description:	Changed Zenith and CW Azimuth observation limit and damper compressed position values and CCW Azimuth damper compressed position value to match interface drawings. Added two interface drawings. (See Change Control Form #78).

This General Interface Document allocates the telescope hard stop angular limits and decelerations. See drawings 90-GP-0001-0002, 90-GP-0001-0003, and 90-GP-0001-0061, along with ICD 1.1.12/1.1.13, for details.

	Zenith	**Horizon Observing**	**Horizon Maintenance**	**CW (Positive) Azimuth**	**CCW (Negative) Azimuth**
Observation Limit	90.0	15	n/a	360	-180
MCS DVL Zero	90.02	14.9	2.73	362	-182
PMAC Limit	90.02	14.9	2.73	362	-182
GIS Limit Switch	90.05	14.85	2.68	364	-184
Damper Start Position	90.4	14.5	2.33	365	-185
Damper Compressed Position	92.73	12.17	0	367.67	-188.25

An elevation value of zero degrees is horizon pointing.
An azimuth value of zero degrees is north pointing (True North).

Note: Azimuth rotations measured from nominal north-pointing telescope position. This is the Gemini coordinate system zero, which is due North (True North). When east-pointing, the telescope is at an angle of 90° in our overall coordinate system. This is the center of rotation of the Az axis.