

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	OD	PER ECO #763	6/27/03	G.NYSTROM

For purchased parts refer to the BOM's listed for the assembly

Elevation Servo System Components

Elevation Servo Block Diagram And Electrical Schematics See Sheet 4

Elevation Drive Screw Assembly  
DWG 1015176  
BOM 1015176

Elevation Limit Switch Assembly  
DWG 1055165  
BOM 1055165

Elevation Lower Limit Stop Assembly  
DWG 1055182  
BOM 1055182

Antenna's 1, 2, 3 & 6

Antenna's 4 & 5

Elevation Encoder Assembly (Heidenhain)  
DWG 1055186  
BOM 1055186

Elevation Encoder Assembly  
DWG 1015185  
BOM 1015185

- 1170697 Brake Mount
- 1170024 Brake Spacer
- 1170671 Drive Cover
- 1171066 El Stop Retainer
- 1171064 Bellows Shaft
- 1170028 Bellows Retainer
- 1170029 Bellows Adapter
- 1170667 Resolver Mtg. Plate
- 1170009 Motor Retainer
- 1170012 El Drive Body
- 1170013 Bearing Mtg. Gimbal RH
- 1170014 Bearing Mtg. Nut LH
- 1170015 Shaft Retainer
- 1170016 Bearing Retainer
- 1170017 Bearing Mtg. Nut RH
- 1170018 Bearing Mtg. Gimbal LH
- 1170670 Tachometer Cover
- 1400005 Motor Coil
- 1170030 Nut Bearing Retainer
- 1170001 Brake Retainer Lock
- 1170019 Torquer Arbor
- 1170002 Brake Retainer Nut
- 1170673 Resolver Support Plate
- 1171068 El Stop Cover
- 1170030 Nut Bearing Retainer
- 1170053 Spacer Bellows Support
- 1015186 Elev. Bellows Assembly
- 1170733 Bellows Guide
- 1170187 Brake Key
- 1170188 Motor Key
- 1170668 Nut Ring
- 1706720 Tach Rotor Clamp
- 1170698 Tach Rotor Mount
- 1171053 El Motor Flex Hose Coupling
- 1171067 El Stop Housing
- 1170708 El Drive Limit Ring
- 1150013 Elev Drive Screw

- 1170656 Gear Idler
- 1170657 Gear Pinion
- 1170658 Gear Switch
- 1170678 Switch Mount
- 1170679 Switch Shaft
- 1170680 Bearing Retainer
- 1170681 Switch Spacer
- 1170683 Switch Bearing Flange
- 1170684 Bearing Spacer
- 1170685 Bearing Screw

Following Limit Encoder  
1390002

- 1170686 Encoder Bracket

- 1171076 Lower Limit Stop

- 1171131 Encoder Mount
- 1171130 Encoder Base
- 1390006 Encoder
- 1171162 Encoder Ext.
- 1171164 Encoder Shaft
- 1171161 Alignment Tool
- 4055186 Assembly Procedure

- 1170900 Encoder Mount
- 1170899 Encoder Base
- 1390005 Encoder

**1055190 DWG Encoder Coupling**  
**1055190 BOM Encoder Coupling**

- 1170904 Hub
- 1170905 Flange
- 1170961 Captive screw

**1055189 DWG Disk Pinning**  
**1055189 BOM Disk Pinning**

Other parts associated with the elevation axis, which are of interest:

Elevation bearing assembly, RH -- DWG 1055203 and BOM 1055203  
 Elevation bearing assembly, LH -- DWG 1055202 and BOM 1055202  
 Reflector support Weldment -- 1170518  
 Elevation bearing assembly procedure-- 4055202

- NOTES:
- SMA PART NUMBERS ARE (INVISIBLY) LINKED TO THE ASSOCIATED DOCUMENT(S).
  - TBD (TO BE DETERMINED) PARTS DO NOT HAVE DOCUMENTATION AT THIS TIME.

- 1015176-2 Assy Schematic Elev. Motor
- 4015176 Assembly Procedure
- 4055168 El Drive Screw Alignment Procedure

METRIC		Dwg Date	Chk Date	Smithsonian Astrophysical Observatory Submillimeter Array Project	
THIRD ANGLE PROJECTION		Dsgn Appd Date		SMA ANTENNA DRAWING TREE	
REMOVE BURRS AND BREAK SHARP EDGES		Dsgn Appd Date		ELEVATION SERVO SYSTEM	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		Engr Appd Date	G. Nystrom 6/24/03	Size D	Code Ident No. 50944
TOLERANCES - MILLIMETERS		Engr Appd Date		Dwg. No. 10050000003	Rev. OD
.X.X		Contract		Scale NONE	Visio Pro V5.0
.XX				Sheet 3 of 12	
.XXX					
DASH NO.	NEXT ASSY	USED ON	MATL	FIN	