



OPERATING AND SERVICE MANUAL

(HP PART NO. 00297-902)

MODEL 297A
SWEEP DRIVE

SERIALS PREFIXED: 139-, 439-

Reproduced With Permission Courtesy Agilent Technologies, Inc.

Copyright Hewlett-Packard Company

TABLE OF CONTENTS

Section	Page	Section	Page
I GENERAL INFORMATION	1-1	IV PRINCIPLES OF OPERATION	4-1
1-1. General Description	1-1	4-1. Introduction	4-1
1-3. Uses	1-1	4-3. Power Supply	4-1
1-5. Instrument Identification	1-1	4-5. Motor	4-1
1-7. Power Cable	1-1		
II INSTALLATION	2-1	V MAINTENANCE	5-1
2-1. General Information	2-1	5-1. Introduction	5-1
2-3. Mechanical Inspection	2-1	5-3. Cabinet Removal	5-1
2-5. Mounting	2-1	5-5. Lubrication	5-1
2-6. Mounting on the 302A Wave Analyzer	2-1	5-7. Test Equipment	5-1
2-8. Mounting on the Bench Stand	2-1	5-9. Troubleshooting	5-1
2-10. Power Requirements	2-2	5-10. Power Supply	5-1
2-12. In-Cabinet Performance Check	2-2	5-12. Gear Trains	5-1
2-14. Reshipment	2-2	5-14. Motor and Gear Replacement	5-2
III OPERATION	3-1	5-15. Motor Replacement	5-2
3-1. General Information	3-1	5-17. Gear Replacement	5-2
3-3. Operating Controls	3-1	5-19. In-Cabinet Performance Check	5-2
3-5. Sweep Sector Operation	3-1	5-20. RPM Check	5-2
3-6. Sweep Sector Operation with Model 302A	3-1	5-22. Torque Check	5-2
3-8. Sweep Sector Operation with Devices other than the Model 302A	3-1	5-24. Power Supply Check	5-2
3-10. Sweep Voltage Output	3-1	VI REPLACEABLE PARTS	6-1
		6-1. Introduction	6-1
		6-3. Ordering Information	6-1

LIST OF ILLUSTRATIONS

Number	Title	Page
1-1.	Model 297A Sweep Drive	1-0
2-1.	Model 297A Mounted on 302A	2-0
2-2.	Assembled Bench Stand	2-1
2-3.	Model 297A Mounted on Bench Stand	2-2
3-1.	Operating Controls	3-2
5-1.	Schematic Diagram	5-2
6-1.	Exploded View, Model 297A	6-4

LIST OF TABLES

Number	Title	Page
1-1.	Specifications	1-1
5-1.	Test Equipment	5-1
6-1.	Replaceable Parts, Electrical	6-1
6-2.	Replaceable Parts, Mechanical	6-2