## TABLE OF CONTENTS

GENERAL INFORMATION		FRONT PANEL	
Safety and Preparation for Use	1-3	Signal Input and Filters	4-5
Specifications	1-5	Sensitivity, Reserve, Time	
Abridged Command List	1-7	Constants	4-7
ŭ		CH1 Display and Output	4-12
GETTING STARTED		CH2 Display and Output	4-15
Your First Measurements	2-1	Reference	4-18
The Basic Lock-in	2-3	Auto Functions	4-21
X, Y, R and q	2-7	Setup	4-23
Outputs, Offsets and Expands	2-9	Interface	4-24
Storing and Recalling Setups	2-13	Warning Messages	4-26
Aux Outputs and Inputs	2-15		
r riproduction production	•	REAR PANEL	4.07
GENERAL INFORMATION		Power Entry Module	4-27
Safety and Preparation for Use	1-3	IEEE-488 Connector	4-27
Specifications	1-5	RS232 Connector	4-27
Abridged Command List	1-7	Aux Inputs (A/D Inputs)	4-27
Abhagea Commana List	1-7	Aux Outputs (D/A Outputs)	4-27
GETTING STARTED		X and Y Outputs	4-27
	0.4	Signal Monitor Output	4-28 4-28
Your First Measurements	2-1	Trigger Input	
The Basic Lock-in	2-3	TTL Sync Output	4-28
X, Y, R and q	2-7	Preamp Connector	4-28 4-29
Outputs, Offsets and Expands	2-9	Using SRS Preamps	4-29
Storing and Recalling Setups	2-13 2-15	DDOCD A MMINIC	
Aux Outputs and Inputs	2-13	PROGRAMMING	- 4
CD020 DACICC		GPIB Communications	5-1
SR830 BASICS	0.4	RS232 Communications	5-1
What is a Lock-in Amplifier?	3-1	Status Indicators and Queues	5-1
What Does a Lock-in Measure?	3-3	Command Syntax	5-1
The SR830 Functional Diagram	3-5	Interface Ready and Status	5-2
Reference Channel	3-7	GET (Group Execute Trigger)	5-2
Phase Sensitive Detectors	3-9	DETAILED COMMAND LIST	5-3
Time Constants and DC Gain	3-11	Reference and Phase	5-3 5-4
DC Outputs and Scaling	3-13	Input and Filter	5-4 5-5
Dynamic Reserve Signal Input Amplifier and Filters	3-15 3-17	Gain and Time Constant	5-6
Input Connections	3-17 3-19	Display and Output	5-8
Intrinsic (Random) Noise Sources	3-19	Aux Input and Output	5-9
External Noise Sources	3-21	Setup	5-10
Noise Measurements	3-25 3-25	Auto Functions	5-11
Noise Measurements	3-23	Data Storage	5-12
OPERATION		Data Glorage Data Transfer	5-15
	4.4	Interface	5-19
Power On/Off and Power On Tests	4-1	Status Reporting	5-20
Reset	4-1	States Reporting	0 20
[Keys]	4-1	STATUS BYTE DEFINITIONS	
Spin Knob	4-1 4-2	Serial Poll Status Byte	5-21
Front Panel BNC Connectors	4-2	Service Requests	5-22
Key Click On/Off	4-2	Standard Event Status Byte	5-22
Front Panel Display Test	4-2 4-2	LIA Status Byte	5-23
Display Off Operation	4-2 4-3	Error Status Byte	5-23
Keypad Test	4-3 4-4	<b>,</b>	
Standard Settings	4-4		