

**ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT
MAINTENANCE MANUAL**

**DUAL TIME BASE, TEKTRONIX MODEL 7B92A
(NSN 6625-01-027-0265)**

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AND THE AIR FORCE
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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Communications and Electronics Materiel Readiness Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703.

For Air Force, submit AFTO Form 22 (Technical Order System Publication Improvement Report and Reply) in accordance with paragraph 6-5, Section VI, T.O. 00-5-1. Forward direct to prime ALC/MST.

In either case, a reply will be furnished direct to you.

TABLE OF CONTENTS

	Page
SECTION 0 INTRODUCTION	
Scope	0-1
Indexes of Publications	0-1
Maintenance Forms, Records, and Reports	0-1
Reporting Equipment Improvement Recommendations (EIR).....	0-1
Destruction of Army Electronics Materiel	0-1

TABLE OF CONTENTS

		Page
	LIST OF ILLUSTRATIONS	v
	SAFETY SUMMARY	vii
SECTION 1	OPERATING INSTRUCTIONS	
	INTRODUCTION.....	1-1
	INSTALLATION.....	1-1
	FRONT-PANEL CONTROLS, CONNECTORS, AND INDICATORS	1-2
	Main Triggering Controls.....	1-2
	Sweep Controls.....	1-4
	Delayed Triggering Controls	1-5
	Front-Panel Inputs.....	1-5
	FUNCTIONAL CHECK.....	1-5
	Setup Procedure	1-6
	Sweep Functions.....	1-6
	Triggering Functions	1-7
	GENERAL OPERATING INFORMATION.....	1-8
	Main Triggering	1-8
	Main Trigger Modes	1-8
	Main Trigger Coupling.....	1-9
	Main Trigger Source.....	1-10
	Input Impedance	1-10
	Trigger Slope.....	1-10
	Trigger Level	1-10
	Selecting Sweep Rates.....	1-12
	Time Measurement	1-12
	Display Modes.....	1-12
	Delay Time Multiplier.....	1-13
	Delayed Sweep Triggering.....	1-13
SECTION 2	SPECIFICATION	2-1

WARNING

THE FOLLOWING SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO AVOID PERSONAL INJURY, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.

SECTION 3	THEORY OF OPERATION	
	Block Diagram Description.....	3-1
	Detailed Circuit Description.....	3-1
	Main Trigger Generator.....	3-1
	Delaying Sweep Generator	3-3
	Delayed Trigger Generator.....	3-4
	Delayed Sweep Generator	3-6
	Horizontal Logic.....	3-6
	Output Amplifier.....	3-7
	Readout.....	3-7

TABLE OF CONTENTS (cont)

SECTION 4	MAINTENANCE	Page
	Preventive Maintenance	4-1
	Cleaning	4-1
	Visual Inspection	4-1
	Lubrication	4-1
	Semiconductor Checks	4-2
	Adjustment After Repair	4-2
	Troubleshooting.....	4-3
	Troubleshooting Aids.....	4-3
	Troubleshooting Equipment	4-6
	Troubleshooting Techniques	4-6
	Corrective Maintenance	4-8
	Obtaining Replacement Parts	4-8
	Soldering Techniques.....	4-8
	Component Removal and Replacement	4-9
	Adjustment After Repair	4-11
	Repackaging For Shipment.....	4-11
SECTION 5	PERFORMANCE CHECK/CALIBRATION	
	Preliminary Information	5-1
	Test Equipment Required.....	5-1
	Part I Performance Check.....	5-4
	Outline for Part I Performance Check	5-4
	A. Trigger Sensitivity.....	5-4
	B. Horizontal System	5-4
	Preliminary Procedure	5-4
	A. Trigger Sensitivity.....	5-5
	B. Horizontal System	5-10
	Part II Calibration.....	5-16
	Outline for Part II Calibration	5-16
	A. Trigger Sensitivity (SN B070000-above).....	5-16
	B. Trigger Sensitivity (SN B069999-below)	5-16
	C. Horizontal System.....	5-17
	Preliminary Procedure	5-17
	A. Trigger Sensitivity (SN B070000-above).....	5-18
	B. Trigger Sensitivity (SN B069999-below)	5-25
	C. Horizontal System.....	5-33
SECTION 6	OPTIONS	
SECTION 7	REPLACEABLE ELECTRICAL PARTS	
SECTION 8	DIAGRAMS AND CIRCUIT BOARD ILLUSTRATIONS	
SECTION 9	REPLACEABLE MECHANICAL PARTS	

Change Information

TABLE OF CONTENTS (CONT)

		Page
APPENDIX A	REFERENCES.....	A-1
APPENDIX B	MAINTENANCE ALLOCATION	
Section	I. Introduction.....	B-1
	II. Maintenance Allocation Chart for Dual Time Base, Tektronix Model 7B92A.....	B-3
	III. Tool and Test Equipment Requirements for Dual Time Base, Tektronix Model 7B92A.....	B-4
	IV. Remarks	B-5
APPENDIX C	REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) (Not applicable)	
APPENDIX D	EXPENDABLE SUPPLIES AND MATERIALS LIST (Not applicable)	

LIST OF ILLUSTRATIONS

Figure No.		Page
Frontispiece	7B92A Dual Time Base	
1-1	Location of Variable and Mainframe Selector multi-pin connectors	1-1
1-2	Location of release latch.....	1-2
1-3	Front-panel controls and connectors	1-3
1-4	Effect of MAIN TRIGGERING LEVEL and SLOPE controls on crt display.....	1-11
1-5	Area of graticule used for most accurate time measurements	1-12
1-6	Typical alternate sweep display	1-13
2-1	Dimensional drawing.....	2-5
4-1	Lubrication procedure for a typical cam switch.....	4-2
4-2	Semiconductor lead configurations.....	4-4
4-3	Inter-board multi-pin connector assembly.....	4-5
4-4	End-lead multi-pin connector assembly.....	4-5
4-5	Location of pin numbers of Interface connector	4-5
5-1	Main Triggering level range	5-6
5-2	Delayed Triggering level range.....	5-6
5-3	Variable Time/Division range	5-13
5-4	Fast delay time accuracy	5-14
5-5	DC balance. (Circle denotes correct trigger point.).....	5-19
5-6	Trigger Sensitivity. (Circle denotes correct trigger point.).....	5-19
5-7	Main Triggering level range. (Circle denotes triggering limits.).....	5-19
5-8	Delayed Triggering level range. (Circle denotes triggering limits.)	5-21
5-9	DC balance. (Circle denotes correct trigger point.).....	5-26
5-10	Trigger sensitivity. (Circle denotes correct trigger point.)	5-26
5-11	Main Triggering level range. (Circle denotes triggering limits.).....	5-27
5-12	Delayed Triggering level range. (Circle denotes triggering limits.)	5-29
5-13	Correct DTM Scale and Delay Start adjustment (circle)	5-34
5-14	Variable Time/Division range	5-38
5-15	Fast delay time accuracy	5-39

LIST OF ILLUSTRATIONS (cont)

The illustrations in Section 8 are located near their associated diagrams on the foldout pages.

Figure No.

8-1	Circuit board locations
8-2	Block diagram
8-3	A3 Coupling Switch circuit board
8-4	A5 Delayed Triggering Switch circuit board
8-5	A2 Source Switch circuit board
8-6	A4 Mode Switch circuit board
8-7	A1 External Input circuit board
8-8	A8 Main Trigger circuit board (SN B070000-above)
8-9	A8 Main Trigger circuit board (SN B069999-below)
8-10	A9 Delayed Trigger circuit board (SN B070000-above)
8-11	A9 Delayed Trigger circuit board (SN B069999-below)
8-12	A6 Interface circuit board
8-13	A6 Interface circuit board
8-14	A6 Interface circuit board
8-15	A7 Logic circuit board (SN B059999-below)
8-16	A7 Logic circuit board (SN B060000-above)
8-17	A12 Readout circuit board
8-18	Location of Sweep Timing adjustments
8-19	Location of Main Trigger adjustments (SN B069999-below)
8-20	Location of Delayed Trigger adjustments (SN B069999-below)
8-21	Location of Main Trigger adjustments (SN B070000-above)
8-22	Location of Delayed Trigger adjustments (SN B070000-above)

LIST OF TABLES

Table No.

Page No.

2-1	Electrical Characteristics	2-1
2-2	Environmental	2-4
2-3	Physical.....	2-4
3-1	7B92A Readout Character Selection.....	3-8
5-1	Test Equipment.....	5-2
5-2	Sweep Timing	5-11
5-3	Fast Timing	5-12
5-4	Fast Sweep Linearity.....	5-12
5-5	Differential Delay Time Accuracy.....	5-13
5-6	Fast Differential Delay Time Accuracy.....	5-14
5-7	Sweep Timing	5-36
5-8	Fast Timing	5-37
5-9	Fast Sweep Linearity.....	5-37
5-10	Differential Delay Time Accuracy.....	5-39
5-11	Fast Differential Delay Time Accuracy.....	5-39

SAFETY SUMMARY

This manual contains safety information that the user must follow to ensure safe operation of this instrument. WARNING information is intended to protect the operator; CAUTION information is intended to protect the instrument. The following are general safety precautions that must be observed during all phases of operation and maintenance.

WARNING

Ground the Instrument

To reduce electrical-shock hazard, the mainframe (oscilloscope) chassis must be properly grounded. Refer to the mainframe manual for grounding information.

Do Not Operate in Explosive Atmosphere

Do not operate this instrument in an area where flammable gases or fumes are present. Such operation could cause an explosion.

Avoid Live Circuits

Electrical-shock hazards are present in this instrument. The protective instrument covers must not be removed by operating personnel. Component replacement and internal adjustments must be referred to qualified service personnel.

Do Not Service or Adjust Alone

Do not service or make internal adjustments to this instrument unless another person, capable of giving first aid and resuscitation, is present.

WARNING

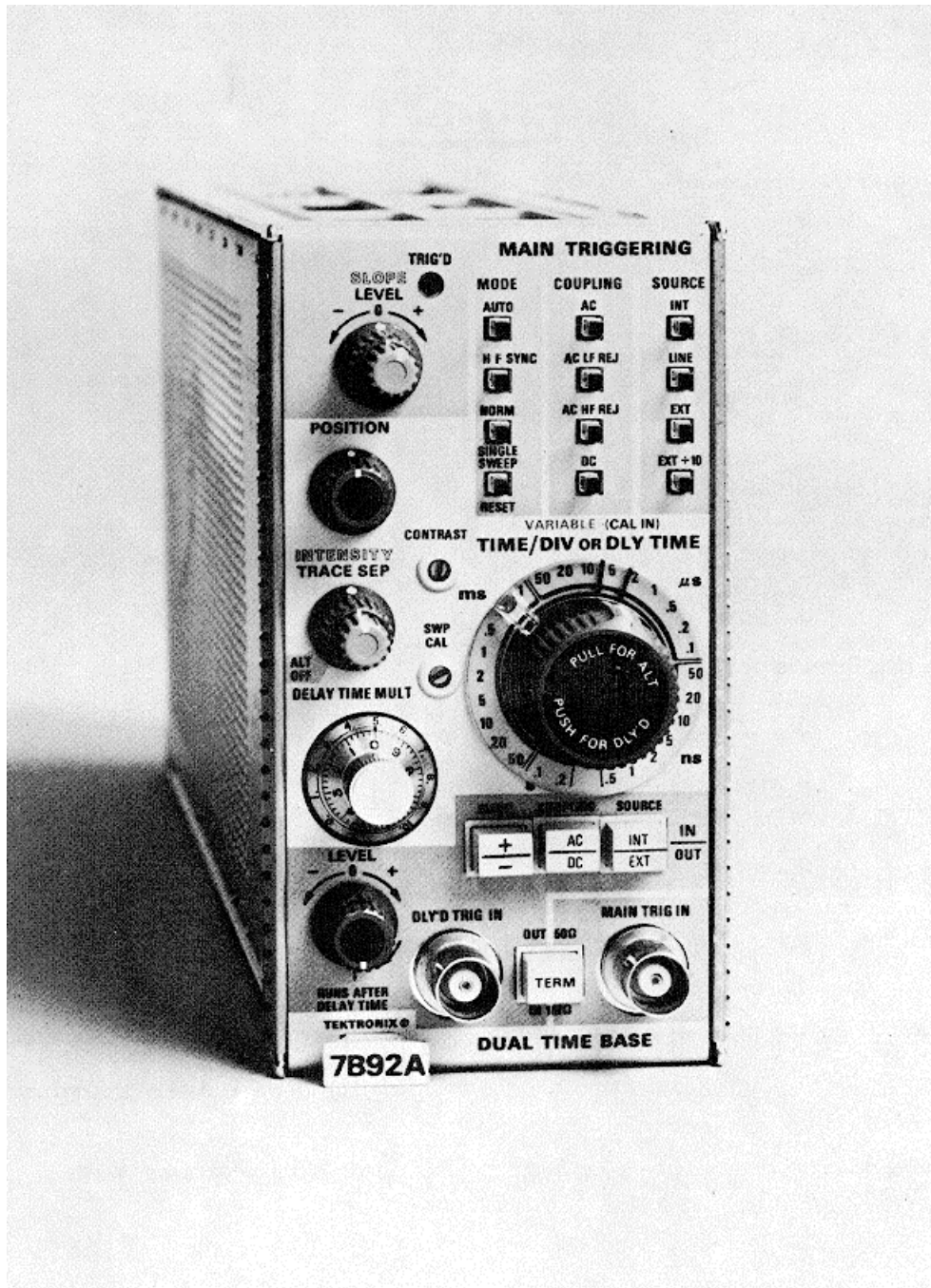
Warning Statements

Warning statements accompany potentially dangerous procedures in this manual. The following warnings appear in this manual and are listed here for additional emphasis.

To avoid electrical shock, disconnect the instrument from the power source before soldering.

To avoid electrical shock, disconnect the instrument from the power source before replacing components.

Handle silicone grease with care. Avoid getting silicone grease in eyes. Wash hands thoroughly after use.



REV B, JUN 1978

SECTION 0**INTRODUCTION****0-1. Scope**

This manual contains instructions for organizational, direct support, and general support maintenance of Dual Time Base, Tektronix Model 7B92A. Throughout this manual Dual Time Base, Tektronix Model 7B92A is referred to as the 7B92A.

0-2. Indexes of Publications

a. DA Pam 310-4. Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

0-3. Maintenance Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System (Army). Air Force personnel will use AFM 66-1 for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 735-11-2/NAVSUPINST 4440.127E/AFR 400-54/MCO 4430.3E and DSAR 4140.55.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19C and DLAR 4500.15.

0-4. Reporting Equipment Improvement Recommendations (EIR)

a. Army. If your 7B92A needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications and Electronics Materiel Readiness Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703. We'll send you a reply.

b. Air Force. Air Force personnel are encouraged to submit EIR's in accordance with AFM 900-4.

0-5. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

OPERATING INSTRUCTIONS

INTRODUCTION

The 7B92A Dual Time Base unit provides normal, delayed, intensified, and alternate sweep operation for TEKTRONIX 7000-Series Oscilloscopes. Calibrated sweep rates from 0.2 second to 0.5 nanosecond and triggering to 500 megahertz are provided. The 7B92A is intended for use with high-frequency 7000-Series Oscilloscope systems; however, most 7B92A functions are compatible with all 7000-Series Oscilloscopes.

Other features include lighted pushbutton switches, compatibility with indicator oscilloscopes having an alphanumeric readout system, and 0 to 9.8 times continuous sweep delay. A VARIABLE control allows continuously variable sweep rates between calibrated steps. Also, when operating in the AUTO MAIN TRIGGERING Mode, a bright base line is displayed in the absence of a trigger signal.

This section describes the operation of the front-panel controls and connectors, and provides a functional check and general operating information for this instrument.

NOTE

The ALT OFF position, which allows the Intensified mode of operation, is applicable to instruments SN B060000-above.

INSTALLATION

The 7B92A is designed to operate in the horizontal plug-in compartment of the oscilloscope. This instrument can also be installed in a vertical plug-in compartment to provide a vertical sweep on the crt. However, when used in this manner, there are no internal triggering or retrace blanking provisions, and the unit may not meet the specifications given in the Specification section of this manual.

Before proceeding with installation, check the settings of the Time/Div Variable Selector multi-pin connector and the Mainframe Selector multi-pin connector (see Fig. 1-1). The Time/Div Variable Selector determines whether the front-panel Time/Div VARIABLE control operates in conjunction with the delaying or delayed sweeps. The Mainframe Selector adapts the 7B92A to the oscilloscope mainframe being used. The two mainframe selections are:

1. 7800 and 7900-Series Oscilloscopes.
2. All other 7000-Series Oscilloscopes.

NOTE

The 7B71 will not delay the 7B92A for displaying alternating Delaying and Delayed sweeps. Instead, it causes a sweep lock-up to occur under the following conditions; with the 7B71 in the A horizontal compartment

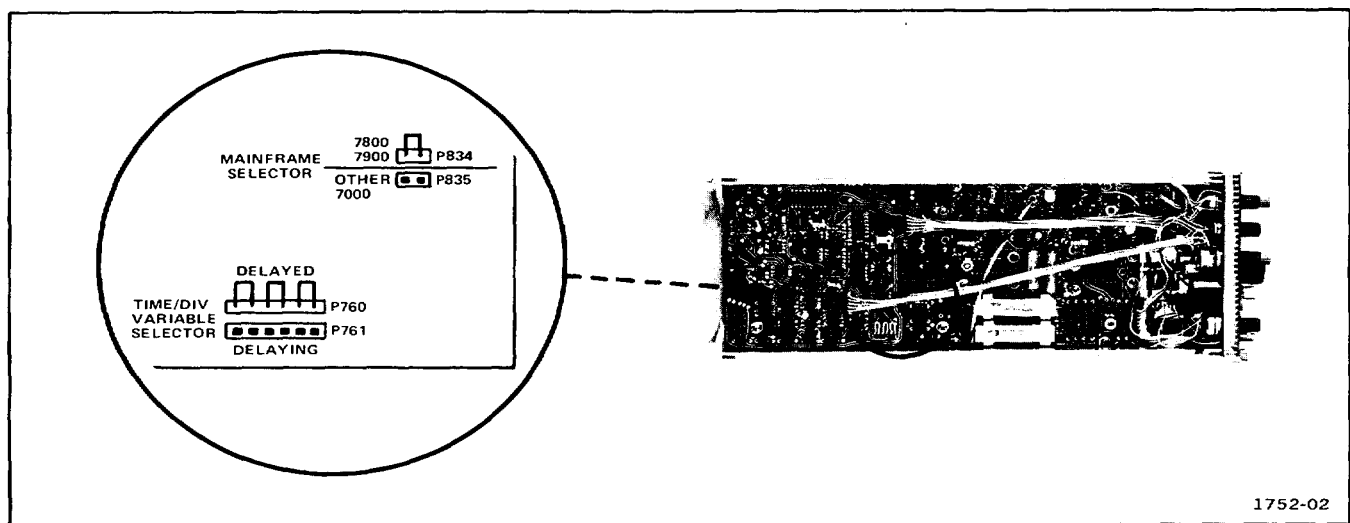


Fig. 1-1. Location of Variable and Mainframe Selector multi-pin connectors.