

For use with machine Code Numbers 10337; 10403

February, 1999



This manual covers equipment which is no longer in production by The Lincoln Electric Co. Specifications and availability of optional features may have changed.

Safety Depends on You

Lincoln arc welding and cutting equipment is designed and built with safety in mind. However, your overall safety can be increased by proper installation ... and thoughtful operation on your part. **DO NOT INSTALL, OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL AND THE SAFETY PRECAUTIONS CONTAINED THROUGHOUT.** And, most importantly, think before you act and be careful.

**SUPPLEMENTAL OPERATOR'S MANUAL**

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SUPPLEMENTAL OPERATORS MANUAL THIS OPERATING MANUAL IS ONLY FOR USE AS A SUPPLEMENT TO THE ORIGINAL IM537-A Dated August, 1996 or IM591 Dated June, 1997

Items in this SUPPLEMENTAL OPERATORS MANUAL refers to the corresponding pages and items in the original IM537-[] or IM591-[] which are changed for the use of 30lb. wire spools.

PAGE A-1 INSTALLATION

PHYSICAL DIMENSIONS

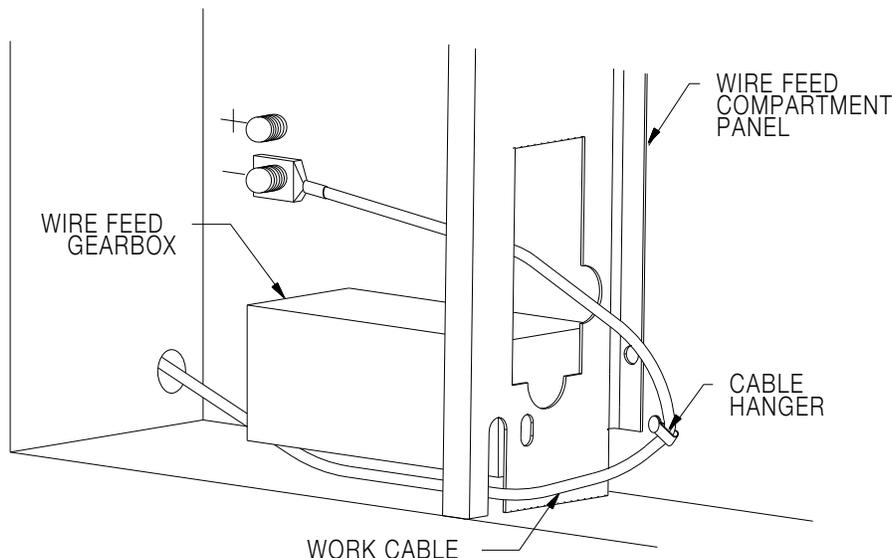
Height	Width	Depth	Weight
16 in.	12.6 in.	19.7 in.	59 lbs.
406 mm.	320 mm.	500 mm.	26.8 kg.

PAGE A-2 IDENTIFY AND LOCATE COMPONENTS

New item	This supplemental book
New item	S18221 Spindle Adapter

PAGE A-4 WORK CABLE INSTALLATION

- Changed item 3. Route the cable under the Wire Feed Gearbox (6), through the lower slot in the wire feed compartment panel, through the plastic cable hanger attached to the center panel and back through the large opening in the wire feed compartment panel to the appropriate output stud. (See below)



SP 170-I (12 IN.) AND SP-170T (30 LB.)



PAGE B-2 DESIGN FEATURES AND ADVANTAGES

Changed 2nd last “•” of “Design Features and Advantages” to: Spindle accommodates both 8 in. (200mm.) diameter and 12 in. (305mm.) diameter spools of wire.

**PAGE B-3 WELDING OPERATIONS
SEQUENCE OF OPERATION
Wire loading**

Changed figures: Refers to Figure B.2a and B.3a

Changed text in right column: The welder is shipped from the factory ready to feed 12" (305mm.) diameter spools with 4" (102 mm.) maximum width. These spools fit on a 2" (51 mm.) diameter spindle that has a built in friction brake to prevent overrun of the spool and excess slack in the wire. Adjust the brake tension with the thumbscrew on the spindle hub, until the reel turns freely but with little or no overrun when wire feeding is stopped. Do not overtighten.

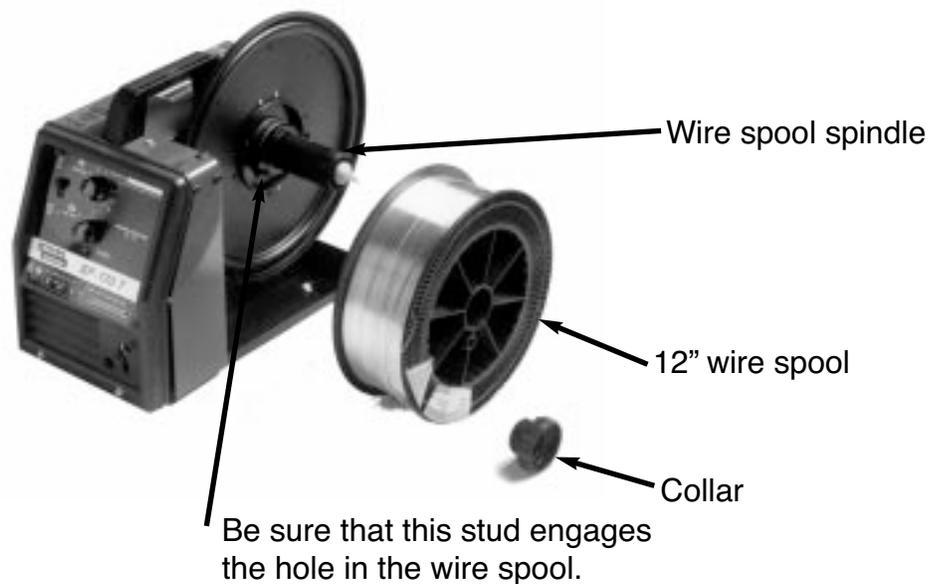


Figure B.2a

To use 8" (200 mm.) diameter spools the S18221 Spindle Adapter must be mounted on the spindle in between the 8" spool and the retaining collar. See Figure B.3a.

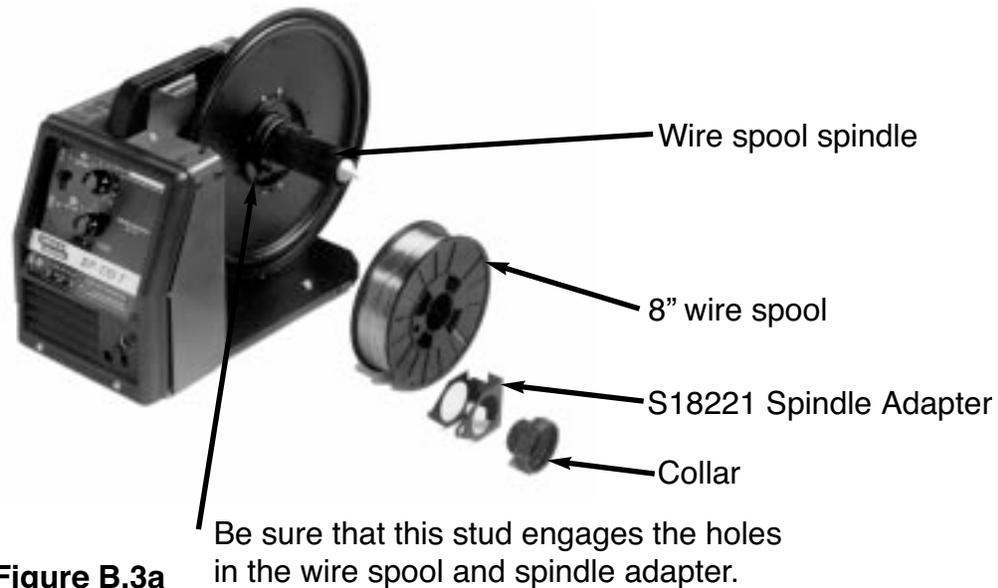


Figure B.3a

PAGE B-3 or B-4 FRICTION BRAKE ADJUSTMENT

Item 1 to 3 replaced by: TENSION ADJUSTMENT. Adjust the brake tension with the wire spool thumb screw, located inside the retaining collar, until the wire reel turns freely but with little or no overrun when wire feeding is stopped.

PAGE F-1 Wiring Diagram

Wiring Diagram M18221 is replaced by M18716, copy of which is included on page 5 of this addendum. Wiring Diagram M18931 is replaced by M18932, copy of which is included on page 6 of this addendum.

PAGE P-259-A.1 or P-297-A.1

Present code numbers for this machine are 10337, 10403, 10489 and 10633. Specific part number changes are listed below.

PAGE P-259-B.1 or P-297-B.1

Spot/Stitch Timer Kit is changed from K695-1 to K695-3.

PAGE P-259-C.1 or P297-C.1

Item 1 Case Side replaced by	L10150
Item 3 Wiring Diagram (Codes 10337 & 10403) replaced by	M18716 (SP-170T)
Item 3 Wiring Diagram (Codes 10489 & 10633) replaced by	M18932 (SP 170-I)
Item 4 Case door replaced by	L10151
Item 5 Procedure sheet replaced by	L10153 (located inside spool cover)

PAGE P-259-D.1 or P297-D.1

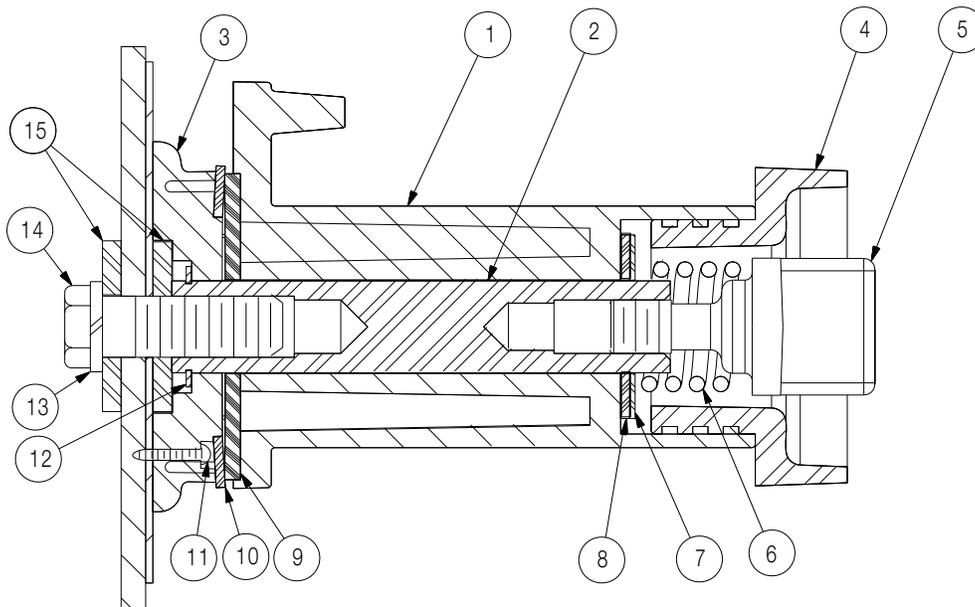
Item 6 Center panel (SP-170T) replaced by	L10149
Item 6 Center panel (SP 170-I) replaced by	L10520-1
Items 9-17 Spindle components replaced by	See Attached Parts List on Page 4

The following items are not illustrated:

New item 23 Spindle support	S23710
New item 24 Spool Cover (includes Backing Plate)*	L10152
New item 25 Insulation (for PC Board)	S22740
New item 26 Compartment Panel	M18228

* Order Procedure Sheet separately per Page P-259-C.1 (above)

PAGE P-259-E.1 or P297-E.1 Item 2 Case Back & Bottom replaced by G3046-1

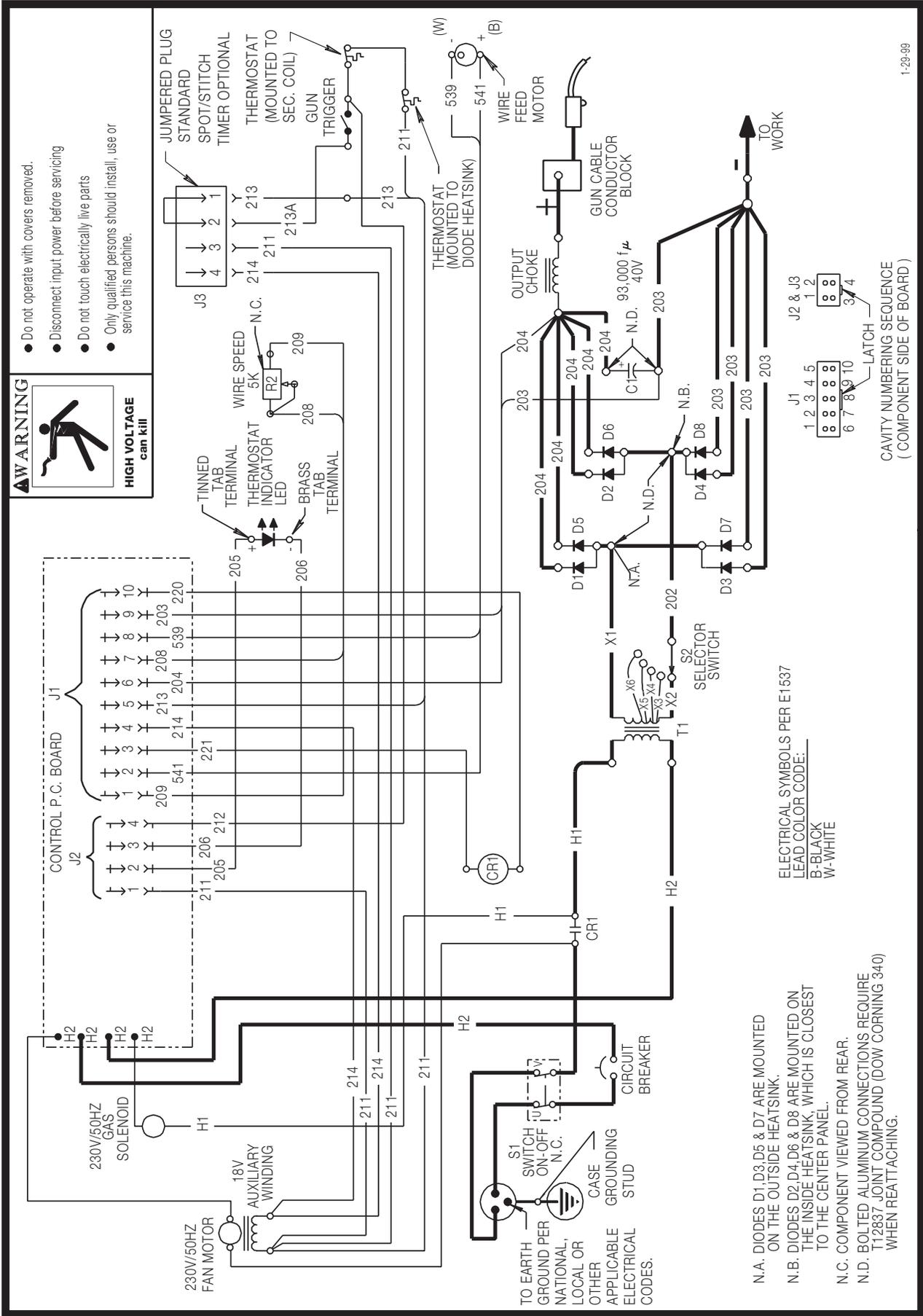


ITEM	PART NO.	DESCRIPTION	REQ'D
1	M14560	SPINDLE	1
2	S17434	SPINDLE SHAFT	1
3	M14586-1	SPINDLE HUB	1
4	M14587-1	RETAINING COLLAR	1
5	T14813	THUMB SCREW	1
6	T11862-14	COMPRESSION SPRING	1
7	T12965	KEYED WASHER	1
8	S17435-1	FRICTION WASHER	1
9	S17435	FRICTION WASHER	1
10	T12965-1	KEYED WASHER	1
11	S8025-62	SELF TAPPING SCREW	2
12	S9776-12	RETAINING RING	1
13	E106A-15	LOCK WASHER	1
14	T8833-5	HHCS 1/2"X1 1/2"	1
15	S9262-14	PLAIN WASHER	2

5-1-97

SP 170-I (12 IN.) AND SP-170T (30 LB.)

SP 170-I / 30 LB. SPOOL WIRING DIAGRAM



- Do not operate with covers removed.
- Disconnect input power before servicing
- Do not touch electrically live parts
- Only qualified persons should install, use or service this machine.



N.A. DIODES D1, D3, D5 & D7 ARE MOUNTED ON THE OUTSIDE HEATSINK.
 N.B. DIODES D2, D4, D6 & D8 ARE MOUNTED ON THE INSIDE HEATSINK, WHICH IS CLOSEST TO THE CENTER PANEL.
 N.C. COMPONENT VIEWED FROM REAR.
 N.D. BOLTED ALUMINUM CONNECTIONS REQUIRE T12837 JOINT COMPOUND (DOW CORNING 340) WHEN REATTACHING.

ELECTRICAL SYMBOLS PER E1537
 B-BLACK
 W-WHITE

J1
 1 2 3 4 5
 6 7 8 9 10

J2 & J3
 1 2
 3 4

LATCH

CAVITY NUMBERING SEQUENCE
 (COMPONENT SIDE OF BOARD)

1-29-99

M18932

SP 170-I (12 IN.) AND SP-170T (30 LB.)



NOTES
