# **CHAPTER**

76

# ENGINE CONTROLS



#### CHAPTER 76 ENGINE CONTROLS

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#### CHAPTER 76 ENGINE CONTROLS

<u>SUBJECT</u>	TITLE	PART NO.
76	ENGINE CONTROLS	
76-10-01	HAND TOOL SET - CONTROL STAND, DISASSEMBLY/ASSEMBLY	C76002-24, -25, -26
76-10-02	PROTRACTOR - THRUST REVERSER LEVERS, FORWARD AND REVERSE	G76002-19
76-10-03	DOWEL SET - THRUST LEVER CONTROL STAND	F80195-1
76-10-04	TOOL SET - AUTOTHROTTLE SERVO ASSEMBLY	J22001-1, -8

#### **76-CONTENTS**



PART NUMBER: C76002-24, -25, -26

NAME: HAND TOOL SET - CONTROL STAND, DISASSEMBLY/ASSEMBLY

**AIRPLANE MAINTENANCE: YES** 

AMM 76-11-01, AMM 76-11-02 and AMM 27-62-22

**COMPONENT MAINTENANCE: NO** 

USAGE & DESCRIPTION: The C76002-24 hand tool set is used on 737-300 thru -500 airplanes prior

to line number 2002 with Electronic Flight Instrument System (EFIS)

reinforced control stands.

The C76002-25 tool set is used on all 737-300 thru -500 airplanes from line number 2002 and on with EFIS reinforced control stands without a tie

rod through the spline shaft.

The C76002-26 hand tool set is used on 737-600 thru -900 airplanes.

C76002 is used in conjunction with a customer-furnished wrench and torque wrench to assemble and disassemble the Electronics Flight Instrument System (EFIS) type control stand and flight levers.

Refer to AMM 76-11-01, AMM 76-11-02, AMM 27-62-22 and the current

C76002 drawing for complete usage instructions.

C76002-24, -25 and -26 consist of:

	C76002-24		
QUANTITY	NOMENCLATURE	PART NUMBER	
1	90 DEGREE SCREWDRIVER	C76002-2	
1	RIGHT CONTROL SHAFT WRENCH	C76002-6	
2	TIE ROD NUT WRENCH	C76002-7	
1	CONTROL SHAFT NUT WRENCH	C76002-8	
1	LOCKWASHER REMOVAL TOOL	C76002-9	
1	LOCKWASHER BREAK TOOL	C76002-10	
1	CONTROL SHAFT NUT SOCKET	C76002-30	
1	STORAGE BOX		

	C76002-25		
QUANTITY	NOMENCLATURE	PART NUMBER	
1	90 DEGREE SCREWDRIVER	C76002-2	
1	RIGHT CONTROL SHAFT WRENCH	C76002-6	
1	CONTROL SHAFT NUT WRENCH	C76002-8	
1	LOCKWASHER REMOVAL TOOL	C76002-9	
1	LOCKWASHER BREAK TOOL	C76002-10	
1	CONTROL SHAFT NUT SOCKET	C76002-30	
1	STORAGE BOX		



C76002-26			
QUANTITY	NOMENCLATURE	PART NUMBER	
1	90 DEGREE SCREWDRIVER	C76002-2	
1	CONTROL SHAFT NUT WRENCH	C76002-8	
1	LOCKWASHER REMOVAL TOOL	C76002-9	
1	LOCKWASHER BREAK TOOL	C76002-10	
1	CONTROL SHAFT NUT WRENCH	C76002-21	
1	RIGHT CONTROL SHAFT NUT WRENCH	C76002-22	
1	CONTROL SHAFT NUT SOCKET	C76002-30	
1	STORAGE BOX		

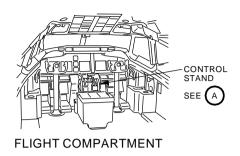
**WEIGHT:** C76002-24 or -25 - 2 lbs (1 kg)

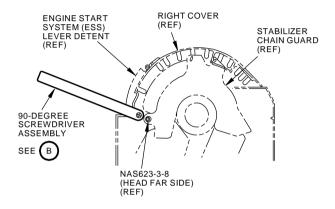
C76002-26 - 3 lbs (1.4 kg)

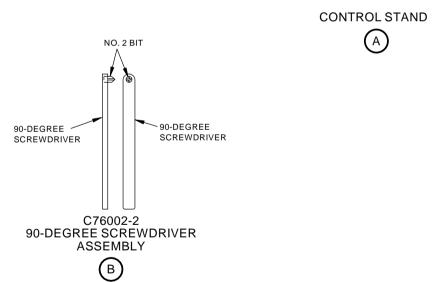
**DIMENSIONS:** C76002-24, -25 or -26 - 2 x 15 x 7 inches (51 x 381 x 178 mm)

**NOTE:** C76002-24, -25 and -26 supersede C76002-1, -14 and -20 respectively.









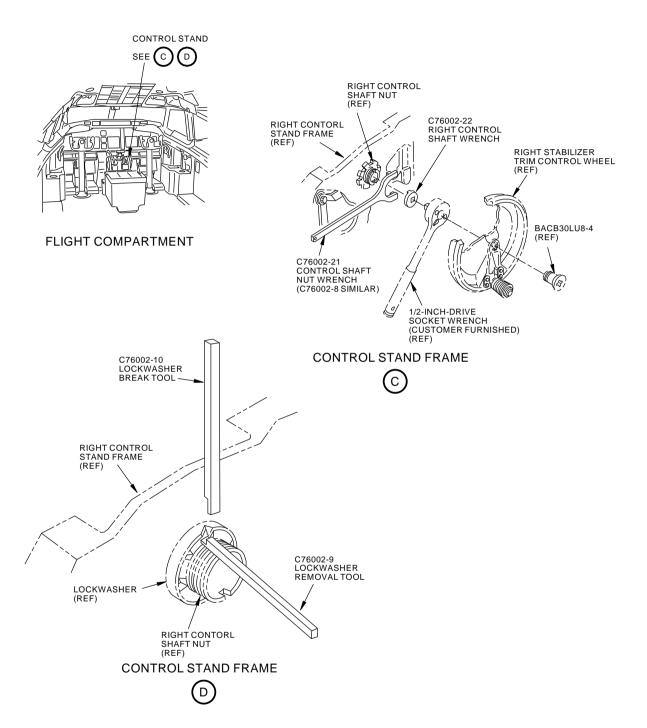
K40066 S0006832167\_V3

Control Stand Disassembly/Assembly Hand Tool Set Figure 1 (Sheet 1 of 3)

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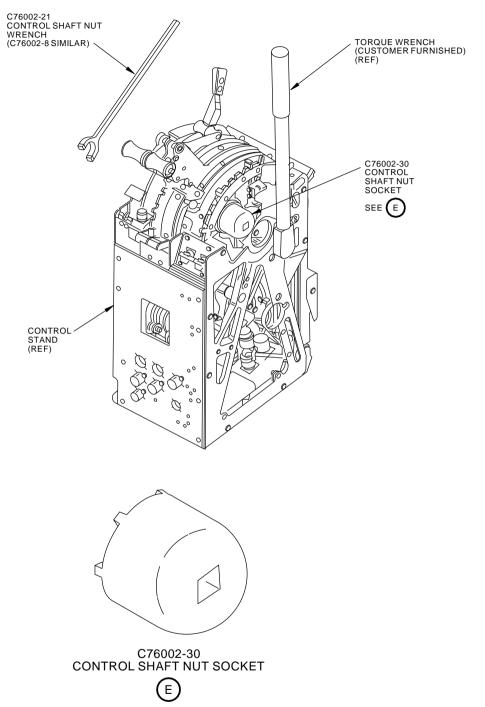
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#### Control Stand Disassembly/Assembly Hand Tool Set Figure 1 (Sheet 2 of 3)

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1849114 S0000327992\_V2

Control Stand Disassembly/Assembly Hand Tool Set Figure 1 (Sheet 3 of 3)

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PART NUMBER: G76002-19

NAME: PROTRACTOR - THRUST REVERSER LEVERS, FORWARD AND

**REVERSE** 

**AIRPLANE MAINTENANCE: YES** 

AMM 27-00-00, AMM 27-11-00, AMM 27-11-41, AMM 27-31-00, AMM 27-31-51, AMM 27-31-61, AMM 27-41-00, AMM 31-31-00, AMM 31-51-00

**COMPONENT MAINTENANCE: YES** 

CMM 76-11-07

**USAGE & DESCRIPTION:** The G76002-19 protractor is used on all 737 airplanes.

The G76002 is used for full travel angular measurements of the forward

and reverse thrust reverser levers.

Refer to AMM 27-00-00, AMM 27-11-00, AMM 27-11-41, AMM 27-31-00, AMM 27-31-51, AMM 27-31-61, AMM 27-41-00, AMM 31-31-00, AMM 31-51-00, CMM 76-11-07, and the current G76002 drawing for complete

usage instructions.

The G76002-19 consists of:

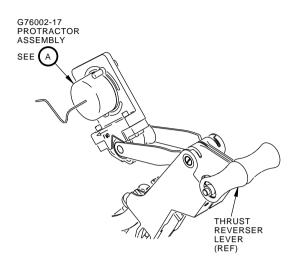
G76002-19			
QUANTITY	NOMENCLATURE	PART NUMBER	
1	PROTRACTOR ASSEMBLY	G76002-17	
1	STORAGE BOX		

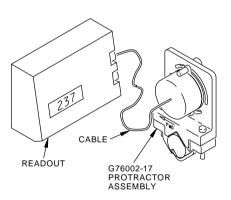
**WEIGHT:** 10 lbs (4.5 kg)

**DIMENSIONS:** 3 x 6 x 12 inches (76 x 152 x 305 mm)

**NOTE:** G76002-19 supersedes G76002-15.







G76002-17 PROTRACTOR ASSEMBLY



L72604 S0006832170\_V3

Protractor Figure 1

76-10-02

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PART NUMBER: F80195-1

NAME: DOWEL SET - THRUST LEVER CONTROL STAND

**AIRPLANE MAINTENANCE: YES** 

AMM 27-62-22, AMM 76-11-01, AMM 76-11-02, AMM 76-11-11, AMM

76-11-71

**COMPONENT MAINTENANCE: NO** 

**USAGE & DESCRIPTION:** The F80195-1 thrust lever control stand dowel set is used on all 737

airplanes.

F80195-1 is used as a lever lock on the engine control stand in removing a single lever without displacing the remaining levers. One F80195-2 dowel is inserted from the left side of the control stand and displaces the thrust lever shaft. The other F80195-2 dowel is inserted from the opposite side, leaving a space for the thrust control lever that is to be removed.

For complete usage instructions for 737-100 and -200, refer to  $\mbox{\sc AMM}$ 

76-11-11, AMM 76-11-71 and the current F80195 drawing.

For complete usage instructions for 737-300 thru -500, refer to AMM

76-11-01, AMM 71-11-02 and the current F80195 drawing.

For complete usage instructions for 737-600 thru -900, refer to AMM 27-62-22, AMM 76-11-01, AMM 71-11-02 and the current F80195 drawing.

F80195-1 consists of:

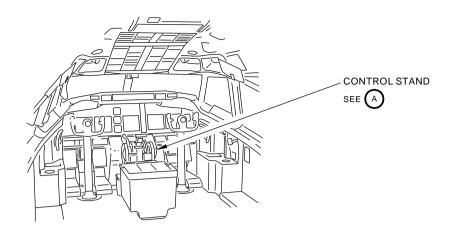
F80195-1			
QUANTITY	NOMENCLATURE	PART NUMBER	
2	DOWEL	F80195-2	
1	STORAGE BOX		

**WEIGHT:** 0.5 lbs (0.23 kg)

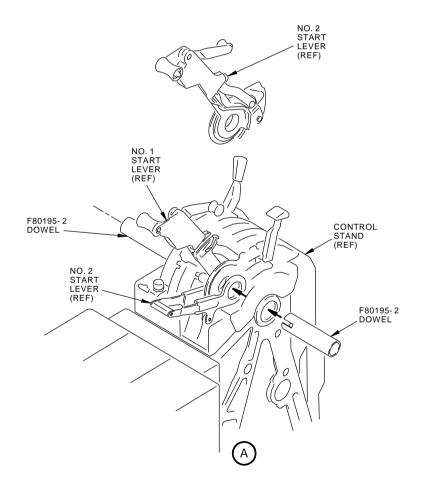
**DIMENSIONS:** 2 x 9 inches (51 x 229 mm)

**NOTE:** F80195-1 supersedes SE76-1004.





#### FLIGHT COMPARTMENT



M27227 S0006832172\_V3

#### Thrust lever Control Stand Dowel Set Figure 1



PART NUMBER: J22001-1, -8

NAME: TOOL SET - AUTOTHROTTLE SERVO ASSEMBLY

**AIRPLANE MAINTENANCE: YES** 

AMM 76-11-05

**COMPONENT MAINTENANCE: YES** 

CMM 22-32-24

USAGE & DESCRIPTION: The J22001-1 (preferred) or J22001-8 (option) tool set is used on 737-600

thru -900 airplanes. The tool components of J22001-1 may be used during both line and component maintenance. The tool components of J22001-8

are used during line maintenance only.

J22001 is used with a customer-furnished 3/8-inch torque wrench. J22001

is used for removal or installation of the 254N1155 seal nut and the SL7165C14C bearing locknut of the 254A1140 autothrottle servo

assembly.

Refer to AMM 76-11-05, CMM 22-32-24 and the current J22001 drawing

for complete usage instructions.

J22001-1 and -8 consist of:

J22001-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	BEARING NUT WRENCH	J22001-2
1	SEAL NUT WRENCH	J22001-3
1	SHAFT WRENCH	J22001-4
1	STORAGE BOX	

J22001-8		
QUANTITY	NOMENCLATURE	PART NUMBER
1	BEARING NUT WRENCH	J22001-2
1	SHAFT WRENCH	J22001-4
1	STORAGE BOX	

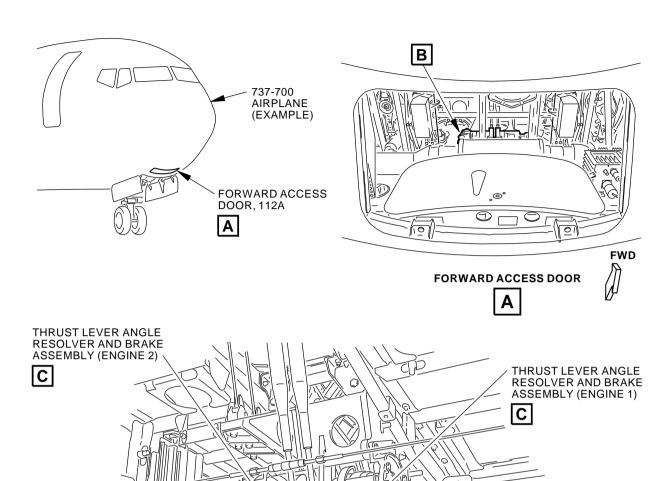
**WEIGHT:** J22001-1 - 3 lbs (1.4 kg)

J22001-8 - 2 lbs (0.9 kg)

**DIMENSIONS:** 1 x 6 x 6 inches (25 x 152 x 152 mm)

**NOTE:** J22001-1 replaces J22001-8 for future procurement.





M62850 S0006832174\_V4

BRAKE SHAFT (REF)

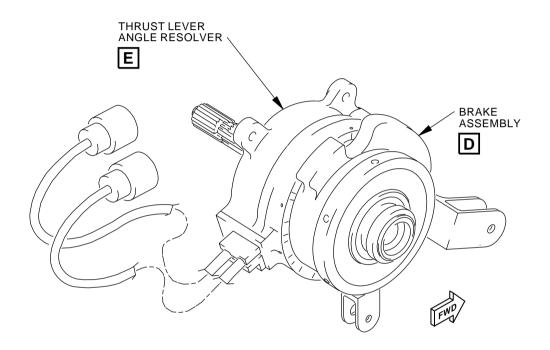
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Autothrottle Servo Assembly Tool Set Figure 1 (Sheet 1 of 5)

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THRUST LEVER ANGLE RESOLVER



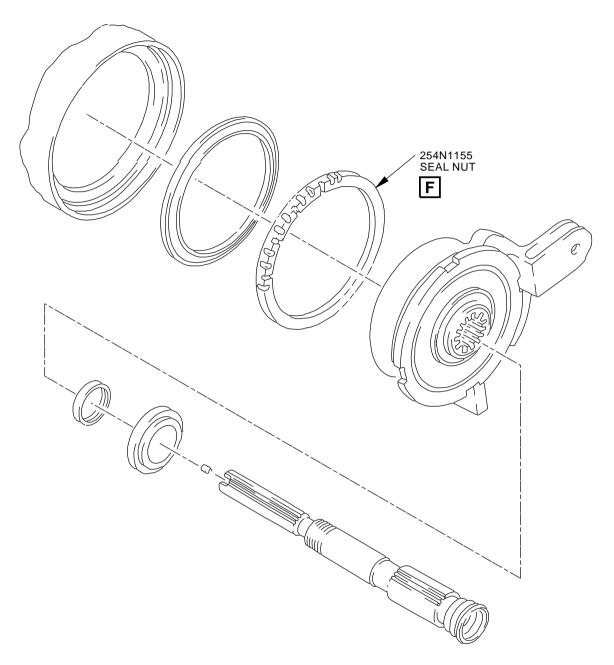
2431060 S0000562895\_V1

Autothrottle Servo Assembly Tool Set Figure 1 (Sheet 2 of 5)

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THRUST LEVER ANGLE RESOLVER



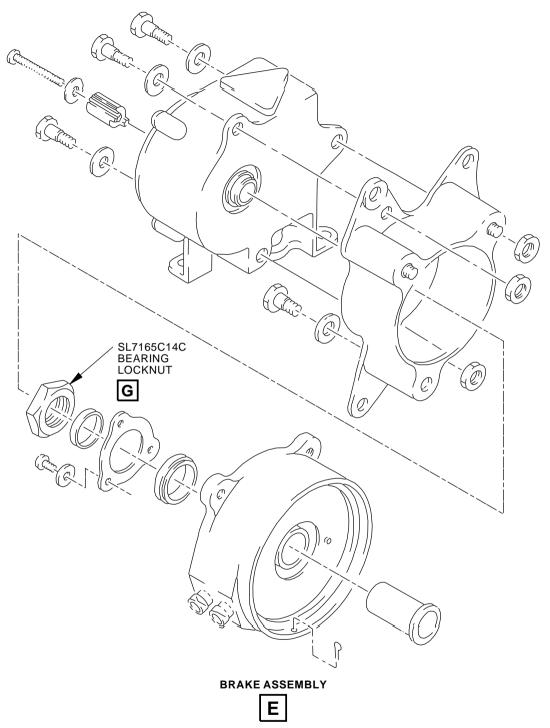
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Autothrottle Servo Assembly Tool Set Figure 1 (Sheet 3 of 5)

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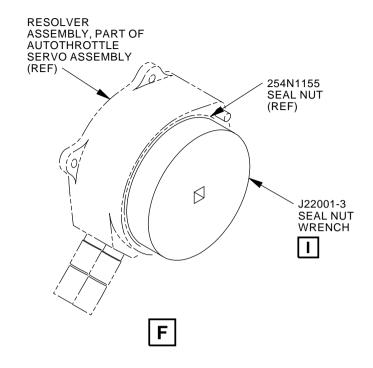
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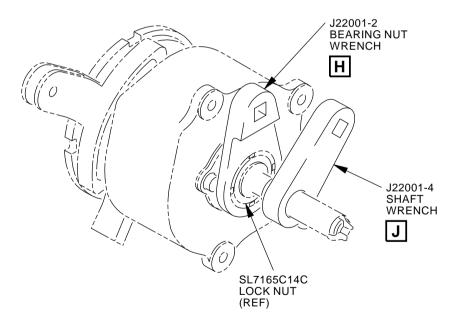
Autothrottle Servo Assembly Tool Set Figure 1 (Sheet 4 of 5)

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Autothrottle Servo Assembly Tool Set Figure 1 (Sheet 5 of 5)

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