

TECHNICAL MANUAL

ORGANIZATIONAL

TROUBLESHOOTING

VOLUME II - PART 2

**TURRET
FOR
COMBAT ENGINEER VEHICLE,
M728
(2350-00-795-1797)**

CHAPTER 4 (CONT)

**TURRET FAULT
ISOLATION DIAGRAMS**

CHAPTER 5

**FIRE CONTROL
FAULT ISOLATION
DIAGRAMS**

5-1

CHAPTER 6

**CBR FAULT ISOLATION
DIAGRAMS**

6-1

CHAPTER 7

**LIGHTING FAULT
ISOLATION DIAGRAMS**

7-1

FOLDOUTS

**EQUIPMENT LOCATION
INFORMATION AND
SCHEMATICS**

This copy is a reprint which includes current
pages from Changes 1 and 2

Technical Manual
No. 9-2350-222-20-2-2-2

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 15 September 1980

Technical Manual
Organizational Troubleshooting

Volume II - Part 2

TURRET
FOR
COMBAT ENGINEER VEHICLE,
M728
(2350-00-795-1797)

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 you letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 6129943000. A reply will be furnished to you.

*This manual in conjunction with TM 9-2350-222-20-2-1, TM 9-2350-222-20-2-2-1, TM 9-2350-222-20-2-2-2, TM 9-2350-22-24-1, TM 9-2350-222-20-2 -3-2 supersedes the turret portion of TM 9-2350-222-20, September 1965, including all changes.

TABLE OF CONTENTS

		Paragraph	Page
PART 1			
Chapter 1		...	...
Thru			
Chapter 4		...	...
Foldouts		...	...
PART 2			
Chapter 4.	TURRET FAULT ISOLATION DIAGRAMS	...	4-76
(Cont)			
Chapter 5.	FIRE CONTROL FAULT ISOLATION DIAGRAMS	...	5-1
Chapter 6.	CBR FAULT ISOLATION DIAGRAMS	...	6-1
Chapter 7.	LIGHTING FAULT ISOLATION DIAGRAMS	...	7-1
Foldouts	EQUIPMENT LOCATION INFORMATION AND SCHEMATICS	...	...

4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 1 OF 78)

SYMPTOM: (15) Electric Drive (DC) Motor fails to run
 (16) Electric Drive (DC) Motor makes excessive noise
 (17) Electric Drive (DC) Motor runs continuously
 (18) Incorrect accumulator gage pressure
 (25) Main gun fails to elevate/depress with Manual Elevation Hand Pump
 (26) Main gun fails to elevate/depress with Gunner's Handle
 (27) Main gun fails to elevate/depress with Commander's Handle
 (28) Main gun creeps or elevates/depresses without palm switch pressed
 (29) Main gun oscillates or drives errtically.

TEST EQUIPMENT Multimeter

PERSONNEL: Two

	FOLDOUT	CALLOUT
UNIT LOCATION: Master Control Panel	4	4
Gunner's Control Box	1	2
Gunner's Control Handle	1	19
Commander's Control Handle	2	12
Equilibrator Pressure Gage	1	6
Turret Power and Searchlight	1	9
Relay Box		
Pressure Switch	1	11
Elevating Mechanism	3	8
Equilibrator Charging Assembly	1	7
Hydraulic Power Pack	1	10
Pressure Gage	1	18
Hand Traverse Drive	1	3
Manual Elevation Hand Pump	I	13

REFERENCES: (1) TM 9-2350-222 -20-2-3 for removal and replacement of components
 (2) ETM 643-091-9400R/JPG for procedures to: Use multimeter
 Disconnect electrical connectors
 (3) TM 9-2350-222-10 for procedure to:
 Lock and release turret traversing lock

EQUIPMENT CONDITION: Vehicle parked, power off.

4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 2 OF 78)

0
— WARNING —
DO NOT TRAVERSE
TURRET OR ELEVATE
GUN WITHOUT AN
ASSISTANT TO WARN
PERSONNEL IN THE
AREA OF POTENTIAL
SAFETY HAZARDS

02
NOTE
DON'T OPERATE THE
ELECTRICALLY
DRIVEN PUMP FOR
LONG PERIODS OF
TIME. YOU WILL
RUN DOWN THE
BATTERIES

03
MAKE SURE THAT
HYDRAULIC SYSTEM
HAS NO EVIDENCE
OF OIL LEAKAGE

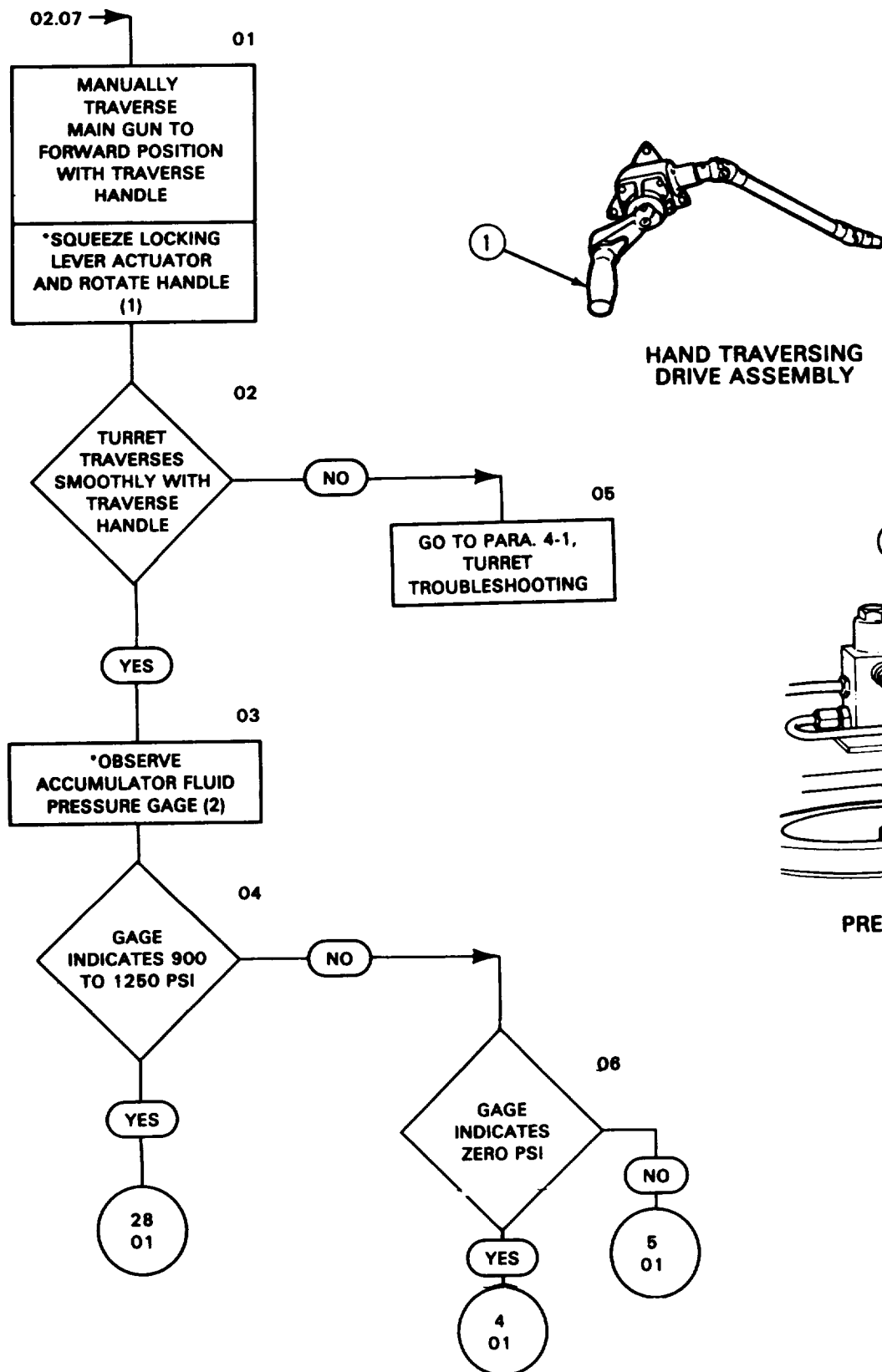
04
RELEASE GUN
TRAVEL LOCK
(TM-10)

05
RELEASE TURRET
TRaversING LOCK
(TM-10)

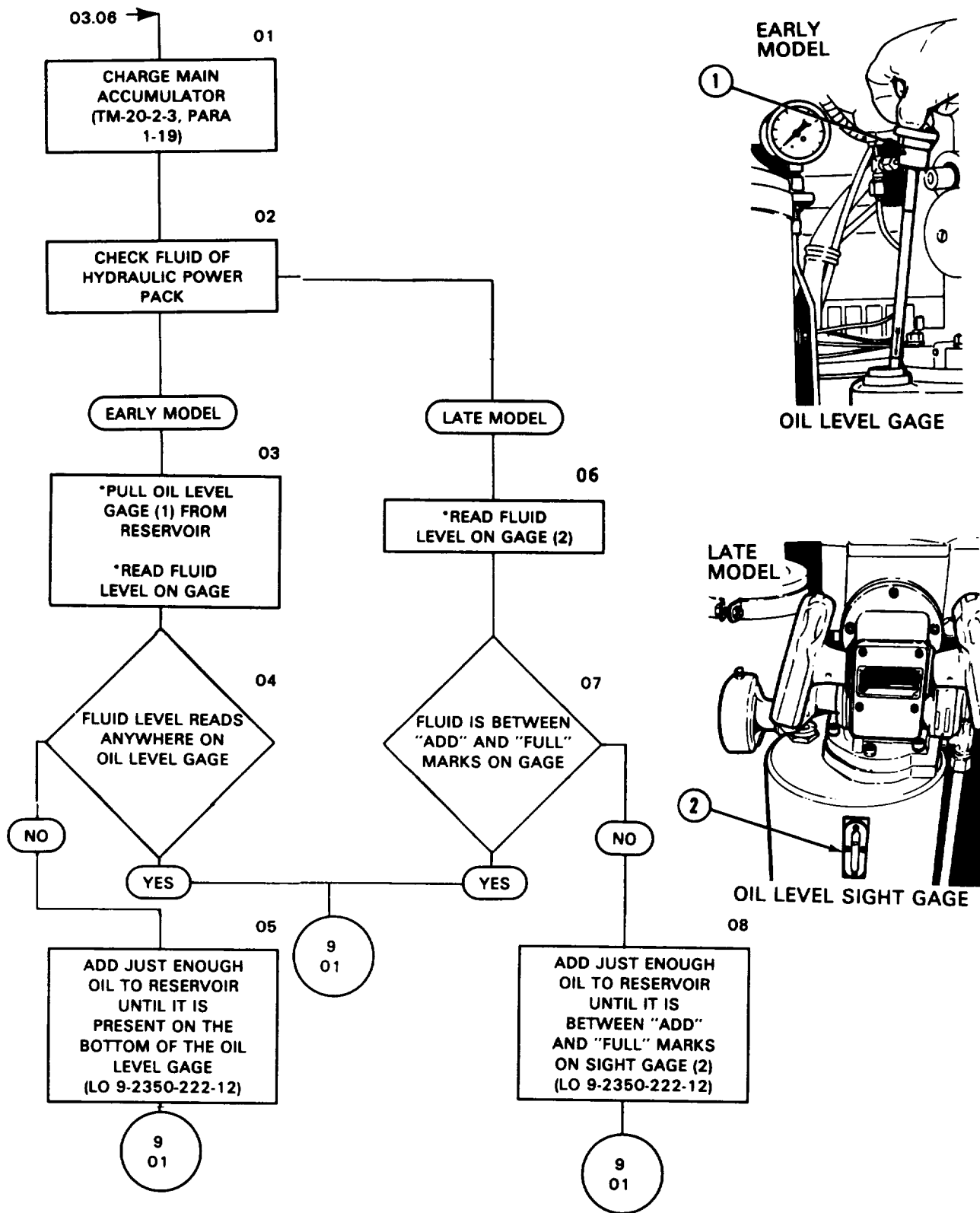
06
- WARNING -
MAKE SURE CREW
MEMBERS ARE IN
SAFE POSITIONS
AND DRIVER HAS
LOWERED HIS SEAT
AND HAS HEAD DOWN
BEFORE OPERATING
MANUAL TRAVERSING
OR ELEVATING
HANDLES

07
CAUTION
DEFLATE HULL
TURRET SEAL TO 0
PSI (TM-10)

+ 3.01

4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 3 OF 78)

4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 4 OF 78)



4.2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 5 OF 78)

03.06 →

01

MANUALLY ELEVATE OR DEPRESS MAIN GUN TO LEVEL POSITION BY TURNING THE MANUAL ELEVATION PUMP HANDLE (1)

02

CAUTION

ENGAGE TURRET TRAVERSING LOCK BEFORE REDUCING HYDRAULIC PRESSURE TO ZERO TO PREVENT DAMAGE TO THE PIN LOCK (TM-10)

03

•ENGAGE TURRET TRAVERSING LOCK

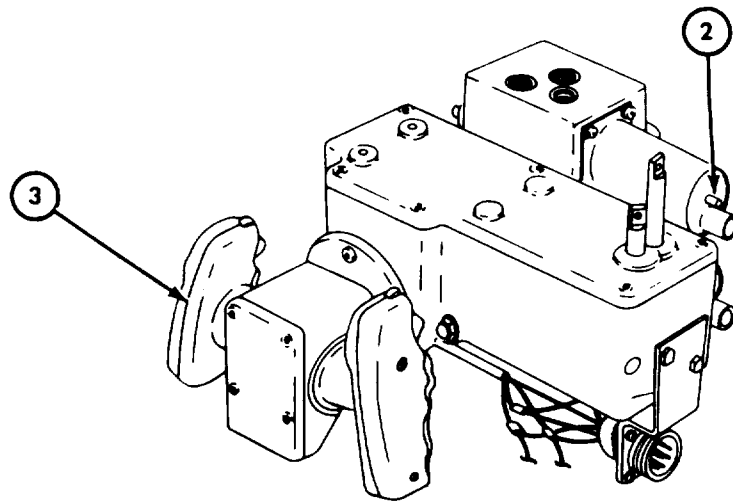
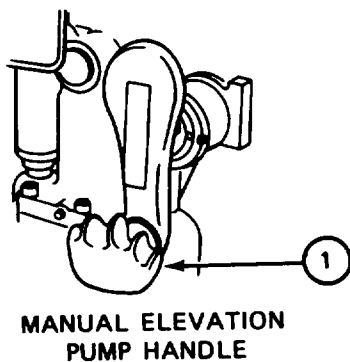
04

REDUCE HYDRAULIC PRESSURE TO ZERO

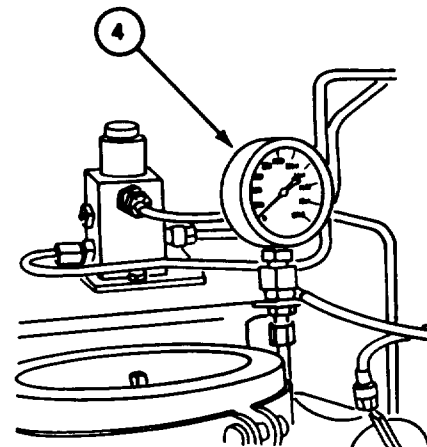
•PRESS AND HOLD POWER SOLENOID PLUNGER (2) IN

•SLOWLY ELEVATE GUNNER'S HANDLE (3)

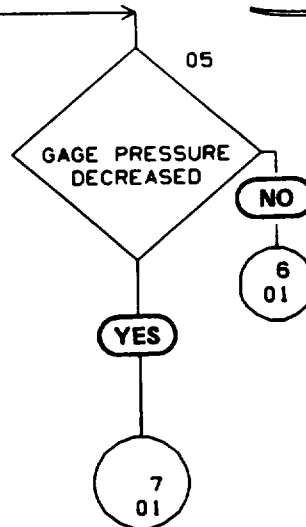
•OBSERVE ACCUMULATOR FLUID PRESSURE GAGE (4)



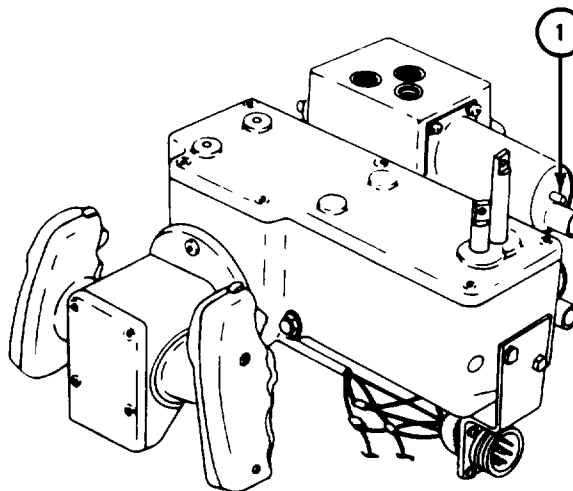
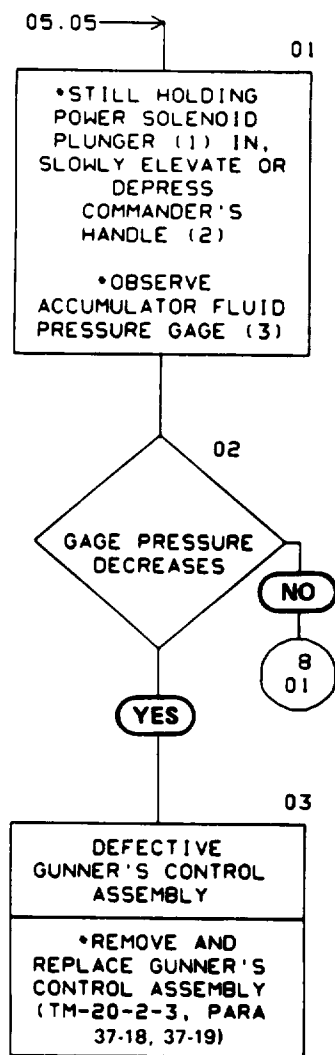
GUNNER'S CONTROL ASSEMBLY



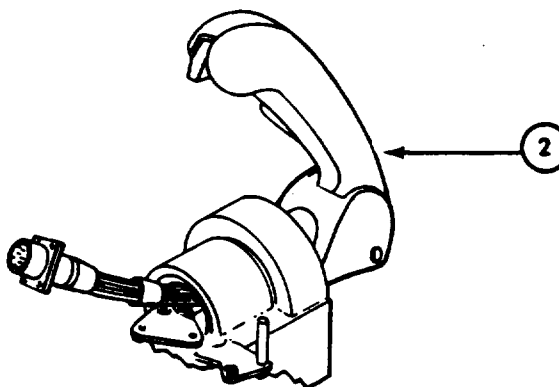
PRESSURE GAGE



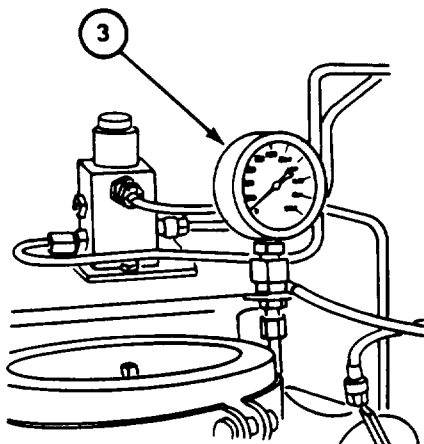
4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 6 OF 78)



GUNNER'S CONTROL ASSEMBLY

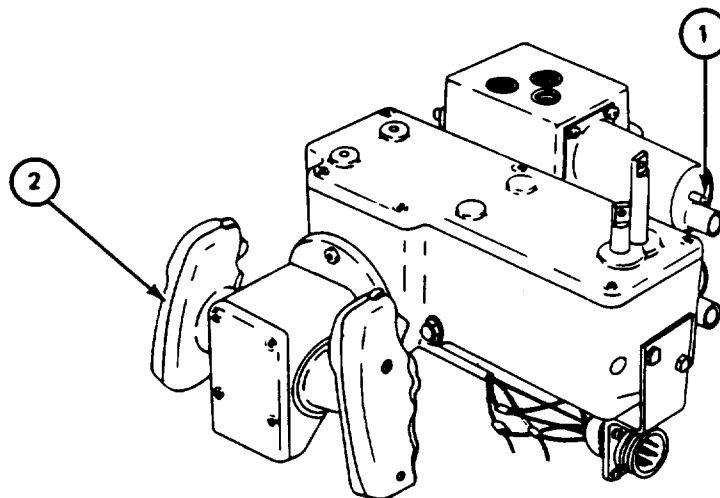
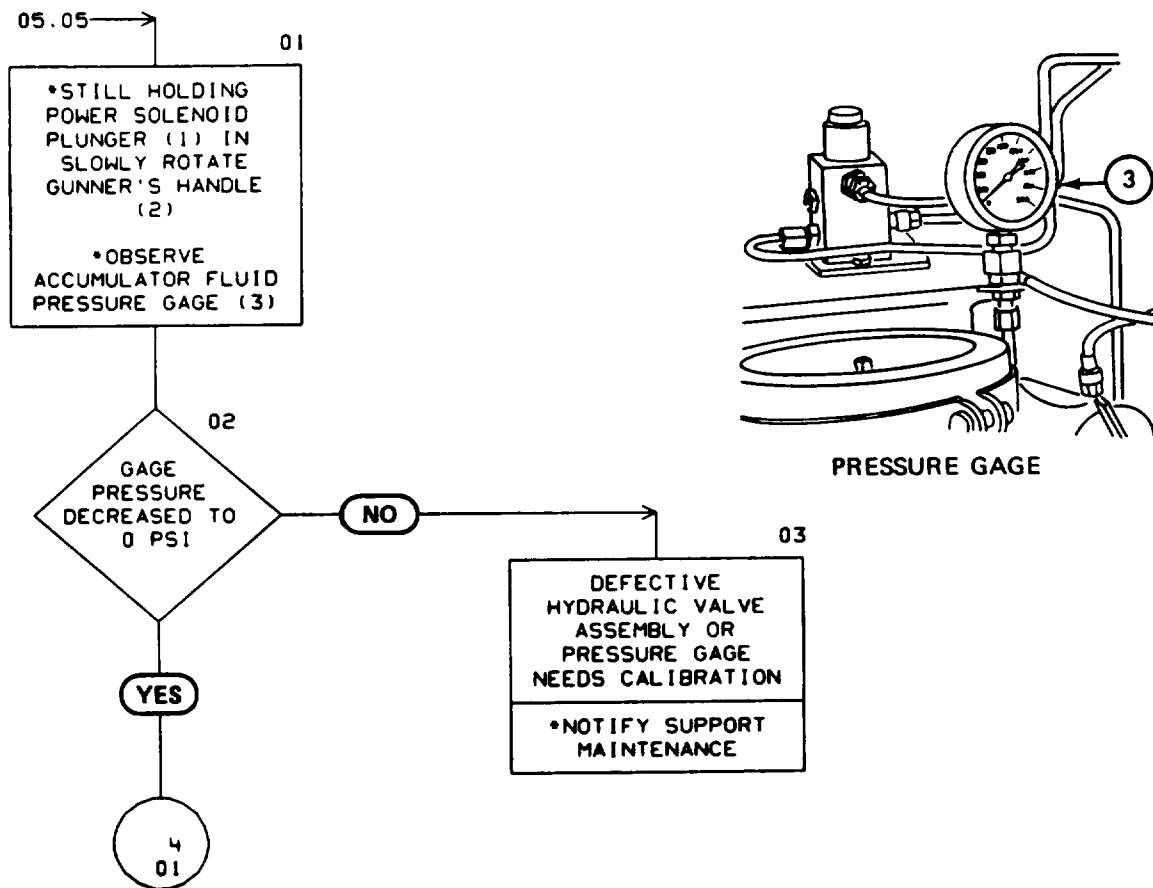


COMMANDER'S CONTROL HANDLE



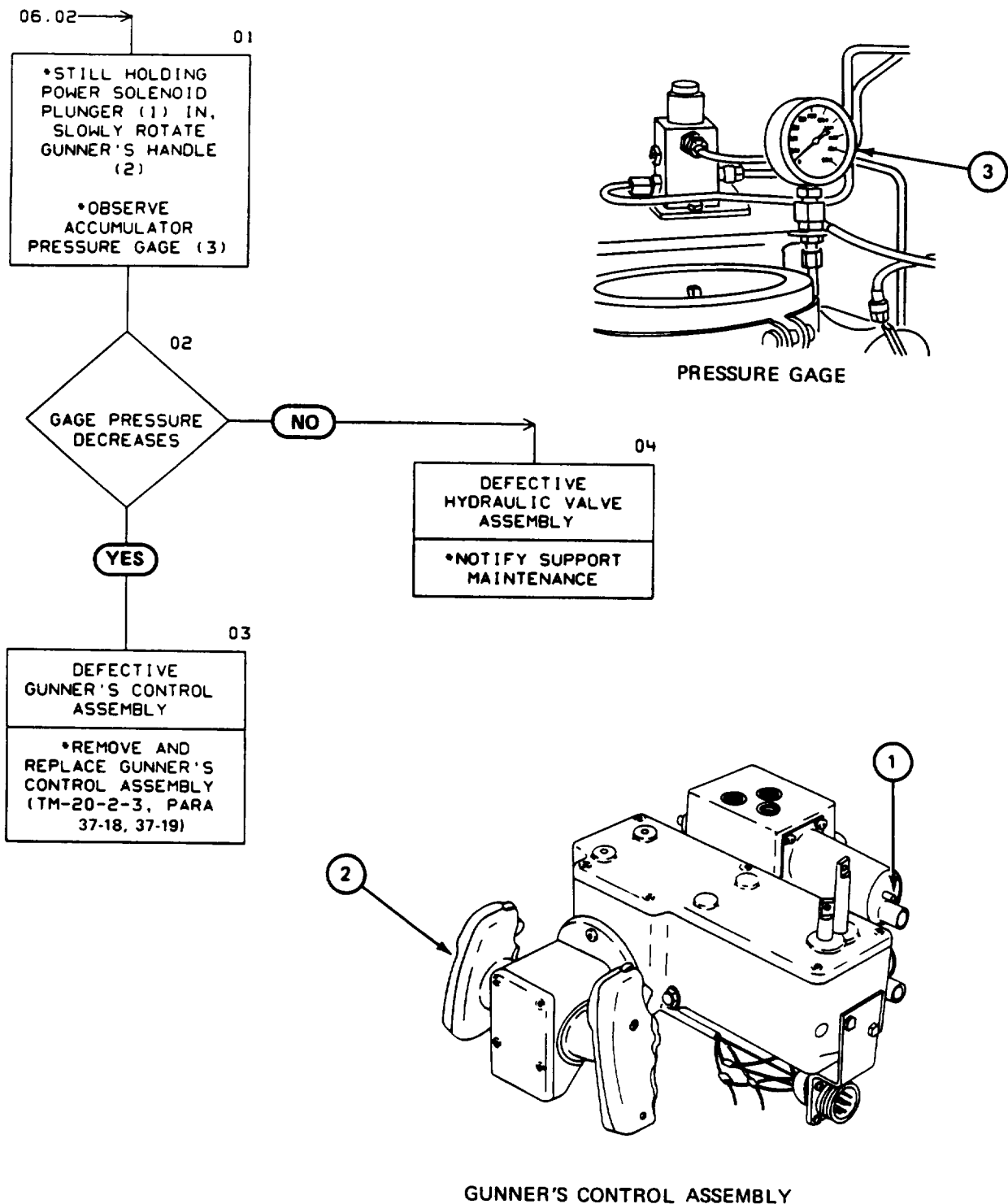
PRESSURE GAGE

4.2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 7 OF 78)

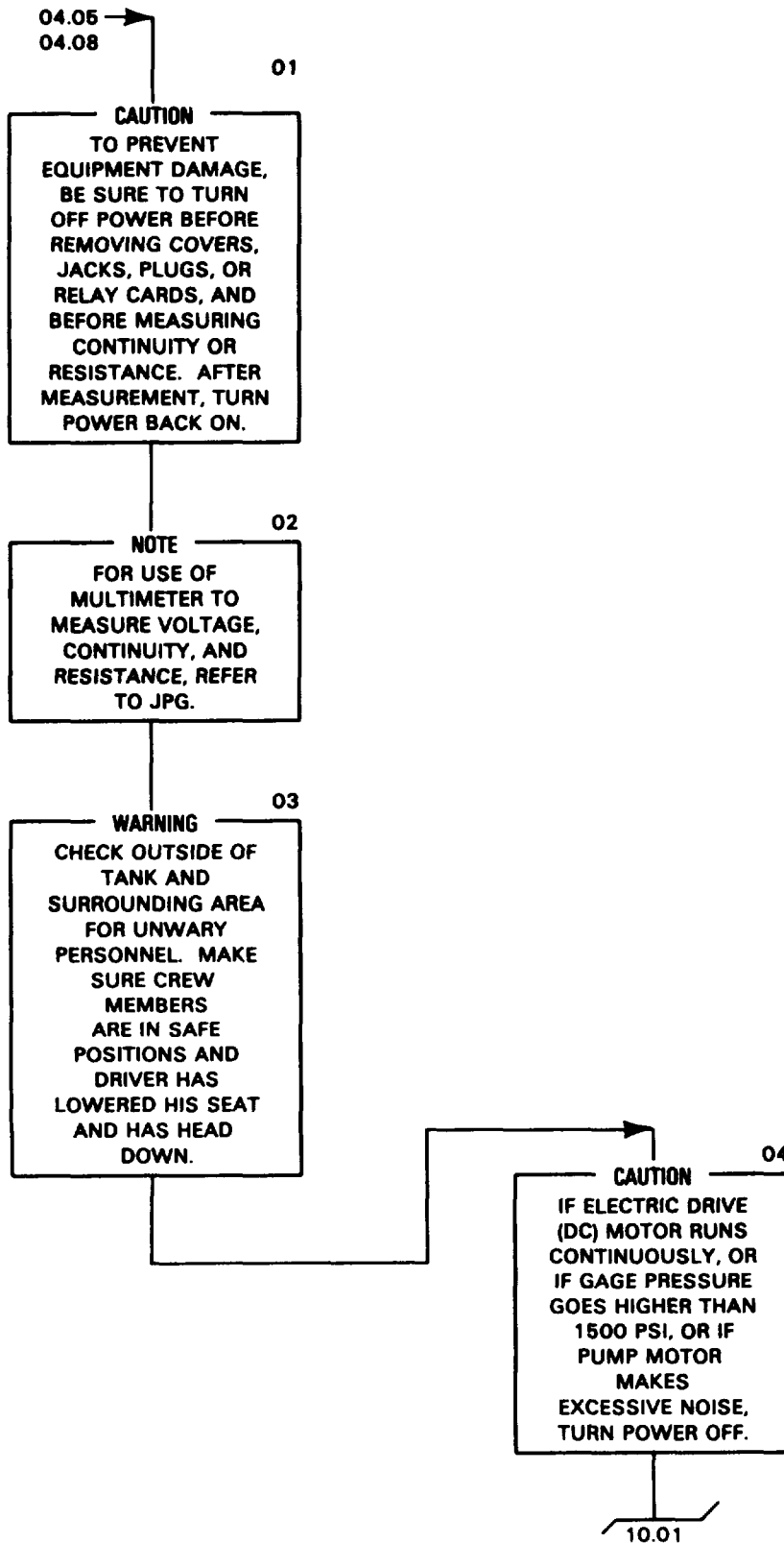


GUNNER'S CONTROL ASSEMBLY

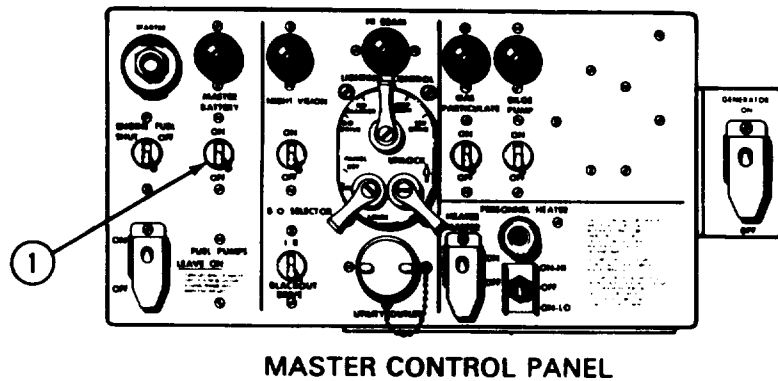
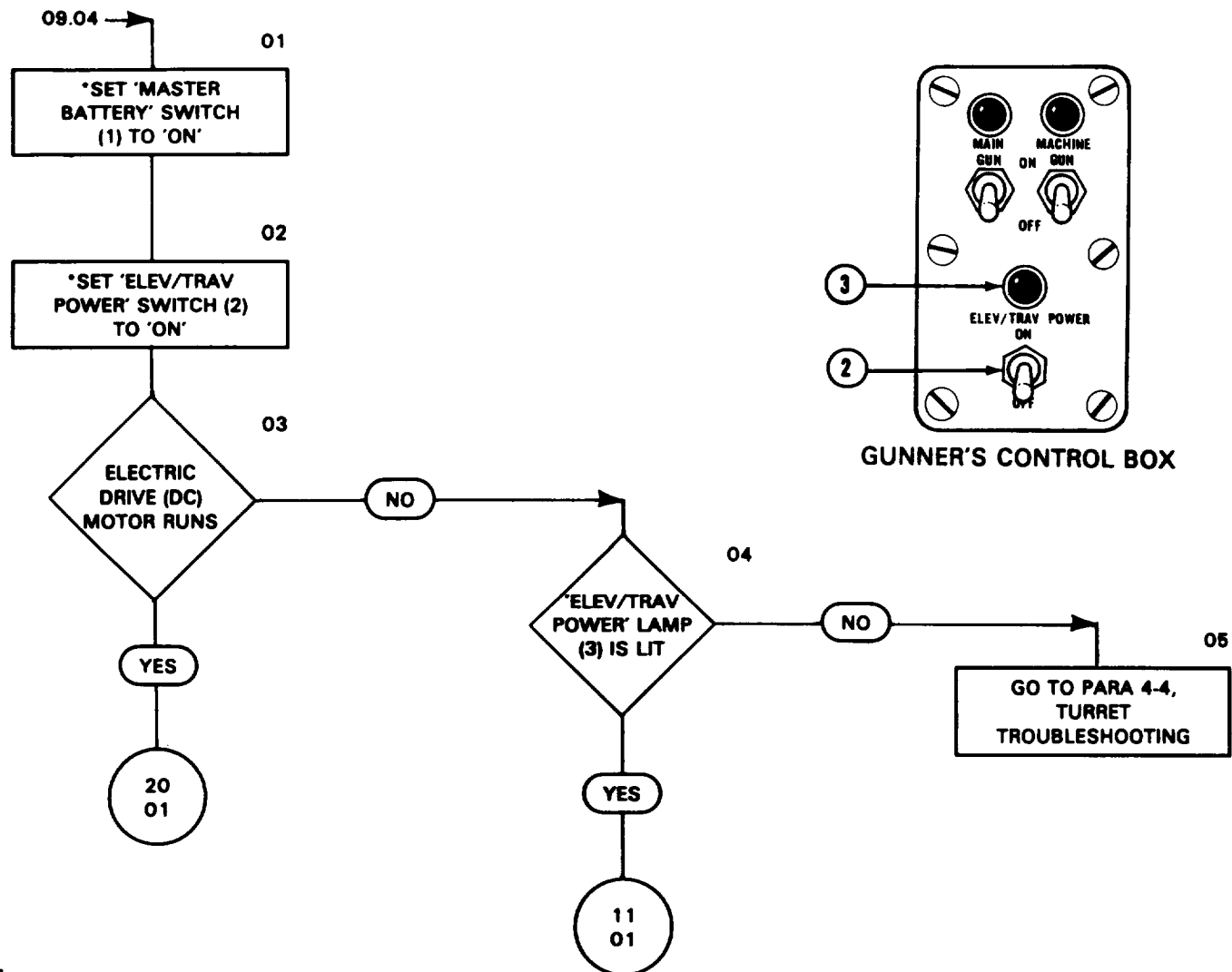
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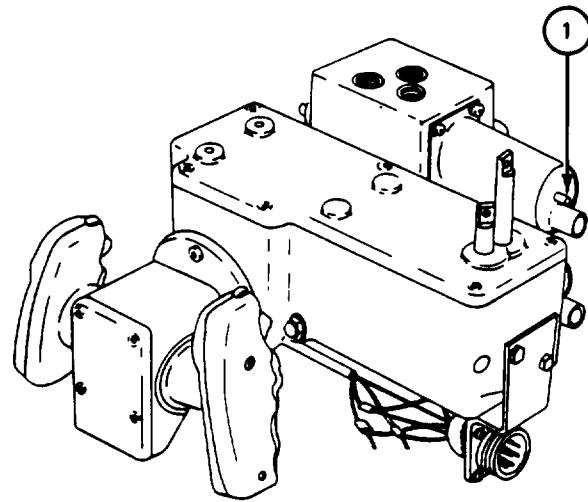
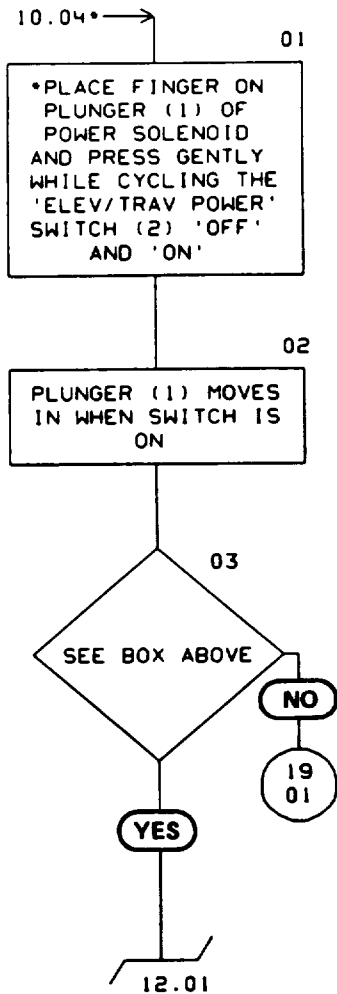
4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 9 OF 78)



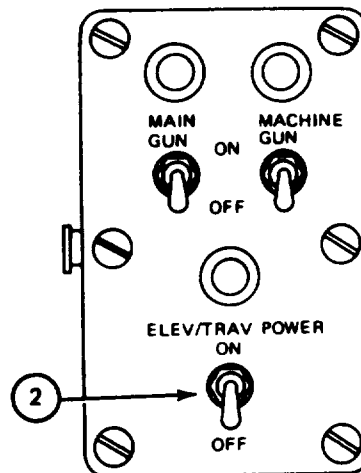
4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 10 OF 78)



4-2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 11 OF 78)

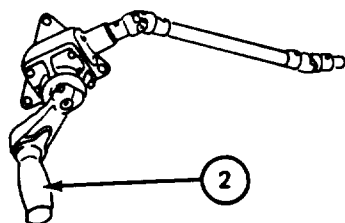
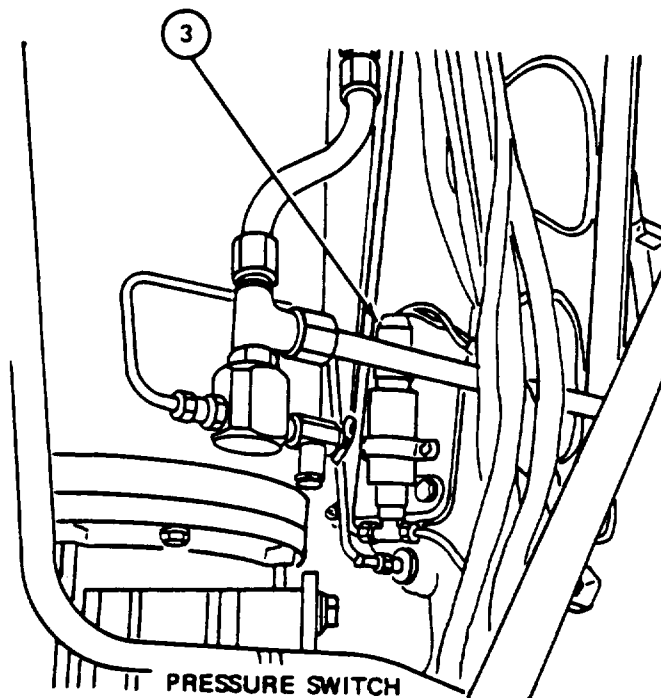
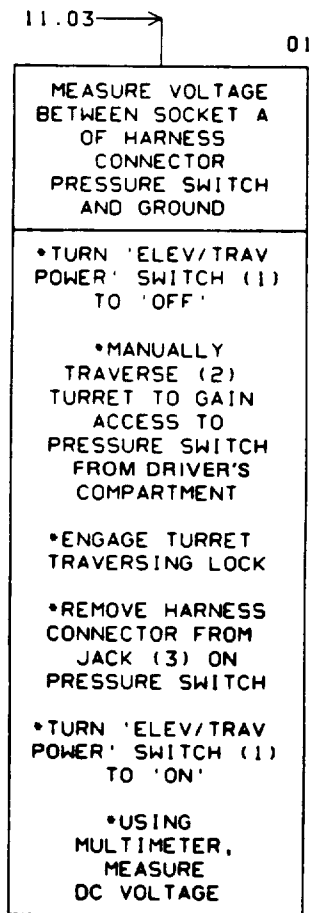


GUNNER'S CONTROL ASSEMBLY

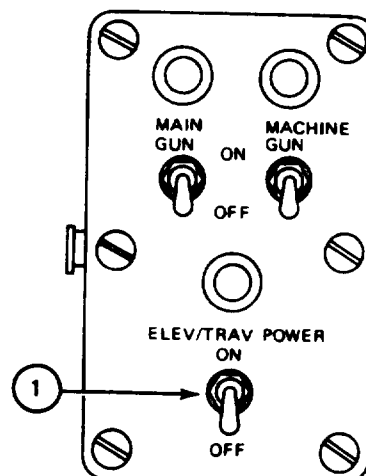


GUNNER'S CONTROL BOX

4.2. MAIN GUN ELEVATE/DEPRESS TROUBLESHOOTING (SHEET 12 OF 78)



HAND TRAVERSING
DRIVE ASSEMBLY



GUNNER'S CONTROL BOX