

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

Army Medical Department Supply Information

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Special Notice

This Supply Bulletin is Dedicated Entirely To The
Maintenance Engineering and Operations Information

SECTION 1. MEDICAL MAINTENANCE OPERATIONS INFORMATION

1-1. ANALYZER, HEMATOLOGY, 6630-01-468-9142

a. Two problems seem to be inherent to the Beckman Coulter Hematology Analyzer, Model AcT10 after setting without use for a period of time. The first problem is associated with a solenoid valve located on the right side of the unit behind the service door. The primary problem is that after setting, the valve starts to freeze up. When this occurs, the red blood cell bath located behind the front service door overflows and drains under the unit. In order to remedy this condition, the operator/technician must go into the diagnostics menu and select the solenoid screen. From this screen each solenoid can be activated. The technician should verify that as the solenoid is electronically activated, it also opens and closes the valve that it is connected to. If this fails to happen, gentle pressure applied to the valve as the button on the monitor screen is activated will often free the stuck valve.

b. The second issue encountered with this unit is a leaky 250mL syringe also located behind the right service entry door. There are three syringes located in the center of the unit. The small one on the right side has been found to leak aspirant. Interestingly enough, Beckman Coulter has included extra replacement syringes for the other sizes but not for the 250mL syringe, which is the one that often leaks. Replacement is the only way to correct this condition.

1-2. CONTINENTAL X-RAY SYSTEM, 6525-01-312-6411

a. When checking or calibrating the automatic exposure unit on the Continental X-ray System, 6525-01-312-6411, it is important to note the density controls at the generator only work for the Over Table Tube. When the Under Table Tube is selected the density controls on the Spot Film Unit must be used.

b. The two controls are not interchangeable and function independent of each other. The schematic diagrams that are provided by the OEM do not show the difference in the connections, but after study of the circuits there is a switching between the two different density switches when the spot film switch and the 200 MAS spot film technique are selected.

1-3. DEFIBRILLATOR TESTER, DT2000A

Medical Maintenance Operations Division at Tracy, California (MMOD-CA) Test, Measurement, and Diagnostics Equipment (Special Purpose) (TMDE-SP) calibration lab has found a significant number of Defibrillator Testers, DT2000A with the 50.5-ohm resistor broken from its connections or snapped off the board. This is caused by overcharging or mishandling. The DT2000A cannot be charged over 400 joules without causing damage to the unit. Damaged will also occur if the DT2000A is dropped or rigorously handled. Care should be taken when handling.

1-4. DIGITAL X-RAY SYSTEM, 6525-01-505-7780

a. The Dexis Dental X-ray Units, that use Panasonic laptops for the acquisition of the image, have been indicating battery problems (flashing red light) on start-up. The system won't recognize the battery and a BIOS upgrade is necessary. The batteries appear faulty but it is actually the way the computer recognizes the battery in the BIOS.

b. System (BIOS UPGRADE):

(1) Go to Panasonic Website (<http://tcc.toughbook.com>) and register your name and address so you can access the download page.

(2) Log in to the download page of the Panasonic website. Search for file name *28m2bl13.zip* and download to your hard drive.

(3) After extracting the files:

-- Create two bootable diskettes with no config.sys or autoexec.bat. Label one BIOS and the other EC.

--Copy the contents of the BIOS folder to the BIOS diskette, and the contents of the EC folder to the EC diskette.

-- Ensure the computer has the AC adapter connected.

-- Re-boot the computer, booting from the EC diskette first.

-- When finished, remove the EC diskette and reset the computer with the BIOS diskette in drive A.

-- When finished remove the diskette and restart your computer. Once the computer has been restarted press F2 (BIOS setup). Enter current date and time, select save settings and exit.

-- Once the computer has been restarted press F2 (BIOS setup). Go to the exit screen and select Refresh Battery. This will start the battery refresh procedure. When the procedure is completed the computer will turn off.

c. Medical Maintenance Operations Division, Tobyhanna, Pennsylvania (MMOD-PA) made a zip file that contains the boot disk information and the BIOS upgrade. It saves a little time and makes the upgrade procedure easier.

d. If you have questions, please contact the MMOD-PA at DSN 795-7134 or commercial 570-895-7134.

1-5. FLUID WARMER, 6515-01-465-2059

a. Belmont Instrument Corporation suggests in its service manual that during the scheduled maintenance of the Fluid Warmer, Model FMS 2000, the fluid should be warmed by using the unit's re-circulation method prior to the checkout. This method only warms the fluid contained in the small reservoir and not the whole IV fluid and keeps the rest at a cooler temperature.

b. Technicians in the field have found that the best method of warming the fluid prior to checkout is by running the unit to infuse and feeding the line back into the IV bag for a few minutes instead of simply pressing the re-circulate.

c. This method will enable the unit to warm the entire solution, making it more accurate during testing.

1-6. INFUSION PUMP, 6515-01-486-4310 AND 6515-01-452-0625

a. Transducer cover membrane deficiency:

(1) Prior to performing scheduled maintenance on the Alaris Medsystem III Infusion Pump, the technician should inspect the transducer cover membrane for any air bubbles.

(2) The formation of air bubbles in the membrane has been known to affect the unit during the software calibration, because the transducer is not completely touching the cassette due to the air space in-between the sensor and the membrane.

(3) To correct this problem, simply replace the original membrane cover (part number 138356). Following their replacement procedure simply remove the old membrane, clean the sensor, and replace with a new membrane.

b. Depleted lithium battery symptoms:

(1) The lithium battery has a 3-to-5 year life expectancy, depending on use. When the battery is depleted, the unit will show the following symptoms:

- Unit will not turn on right away when power on button pressed.
- Unit will not hold date and time.
- Unit will not hold software calibration most of the time.

(2) Upon installation of the lithium battery, the connector for this battery may become disconnected during assembly. This will cause the same symptoms but with a known good lithium battery installed. This can possibly cause more problems to the technician that is troubleshooting the piece of equipment.

(3) To prevent the connector from coming loose, it is recommended to secure the connector with a small zip tie.

1-7. SAFETY ANALYZER, 6625-01-142-8233

The 232 M Safety Analyzer has a mode switch with a choice of Case Leakage/Ext lead. This mode switch has a high failure rate. During testing normal or reverse polarity and open or closed ground, the 232 M will show no significant reading. All other mode selections will function normally. If your unit has an inoperative mode switch it will need to be replaced. The switch cannot be repaired in the field. Please send your unit to MMOD-CA for calibration and repair.

1-8. STANDING OPERATING PROCEDURES (SOP) FOR DEPOT-LEVEL SERVICES

In an effort to provide current information, the external SOPs for the three MMODs have been updated. The SOPs are located in Appendix A for MMOD-PA, Appendix B for MMOD-CA, and Appendix C for MMOD-UT. The SOPs include services provided, points of contact, and procedures for requesting services. If you require a service that is not listed, please contact a MMOD for coordination and assistance. Please do not send them equipment without prior coordination. The SOPs are also posted on our website at <http://www.usamma.army.mil/maintenance/>.

1-9. TABLE, OPERATING, FIELD, 6530-01-353-9883

The field operating table, model 2080, manufactured by Steris Corporation, LIN T00029, is supplied with a number of accessory components. The list of accessories supplied with the table is taken from the Medical Procurement Item Description (MPID). Appendix D shows a picture for each part. For ease of inventory and operational readiness, you should make a copy of this list and include it with the manufacturer's literature.

1-10. VERIFICATION PROCEDURES FOR THE NARKOMED M REGULATORS

Currently there are no verification procedures for the external O2 and N2O regulators supplied with the anesthesia machine. The USAMMA has developed procedures to verify the performance of the regulators. ALL test procedures verify that the regulators operate according to Flotec specifications. Appendix E gives verification steps for the O2 regulator, part #RN510-600. Appendix F gives verification steps for the N2O regulator, part #RNJM05-6005.

Appendix A. Tobyhanna Standing Operating Procedures

U.S. Army Medical Materiel Agency
 Maintenance Engineering & Operations Directorate
 Medical Maintenance Operations Division, Tobyhanna PA
 External Standing Operating Procedures

MCMR-MMM-DP

April 2004

1. Purpose

To provide guidance to units and organizations requesting services from the U.S. Army Medical Materiel Agency (USAMMA) Medical Maintenance Operations Division, Tobyhanna (MMOD-PA) at Tobyhanna Army Depot, Tobyhanna PA.

2. Scope

These procedures are applicable to all units and activities requesting support.

3. Mission

The USAMMA Medical Maintenance Operations Division, Tobyhanna, provides depot-level services and functions in support of TDA and TOE medical equipment and is the center of excellence for optical equipment, audiometers and dental handpieces. MMOD-PA has the capability to refurbish and rebuild medical equipment to like-new condition, provide repair and return services, administer a Medical Equipment Standby Equipment Program (MEDSTEP), and provide on-site support.

4. Hours of Operation

Normal duty hours are 0630 to 1600 (ET) Monday through Friday. If you need assistance or service please contact the following personnel:

Chief	(570) 895-7744	DSN 795-7744
Shop Supervisor	(570) 895-7134	DSN 795-7134
Production Control	(570) 895-7601	DSN 795-7601
Work Order Status	(570) 895-7843	DSN 795-7843
Fax	(570) 895-7699	DSN 795-7699
Website:	http://www.usamma.army.mil/maintenance/index.html	

5. Services Available

5.1. All TO&E equipment except high capacity x-rays

5.2. All TDA equipment listed in Table 1

5.3. On-site technical assistance (requested through Headquarters, USAMMA)

5.4. Telephonic technical assistance

5.5. Military Entrance Processing Station (MEPS) Direct Exchange Program equipment listed in Table 2

5.6. Medical Equipment Standby Program

5.7. Training

(continued) Appendix A. Tobyhanna Standing Operating Procedures

TABLE 1. TDA EQUIPMENT		
MICROSCOPES	PHOROPTERS	LENSOMETERS
Nikon – Labophot 1 & 2	Marco RT300	Marco 101
Olympus – BH & U	Leica 11625	Leica 21 65 70
All Cambridge	All American Optical	
All Leica	All Bausch & Lomb	
All AO		
All Bausch & Lomb		
<u>SLIT LAMP</u>	<u>KERATOMETER</u>	<u>VISION TESTER</u>
TOPCON – SL30 & SL6E	Leica 71 21 35	AFVT 2300
<u>AUDIOMETERS</u>		
All Tracor/Tremetrics		
All Maico		
All Beltone		
Grason-Stadler – GSI10, 16, 27, 27A, 28, 33 and 38		
<u>DENTAL HANDPIECES</u>		
Impact Air 45		
Kavo 635		
Kavo 642		
Lares 557-757		
Mid West, XGT		
Mid West, Shorty 1 and 2 Speed (Slow Speed)		
Mid West, Tradition (High Speed)		
Mid West, Shorty Nose Cone (Fits on Shorty 2 Speed)		
Mid West, Prophy Angle		
Mid West, Quiet Air		
Mid West, 8000 I		
Star, 430		
Star, Titan Scaler		

(continued) Appendix A. Tobyhanna Standing Operating Procedures

TABLE 2. MEPS EQUIPMENT			
NSN	NOMENCLATURE	MODEL	MFR
6515-01-C01-0001	Audiometer	HT Wizard	Tremetrics
6515-01-305-1161	Audiometer	RA400	Tracor, Inc.
6515-01-C19-0018	Bio-Acoustic Simulator	BA-201	Quest Electronics
6640-00-930-9034	Centrifuge, Lab	CL	International Equip Co.
6640-01-141-0798	Centrifuge, Lab	225	Fischer Scientific
6640-01-432-0443	Centrifuge, Lab	C412	Jouan, Inc.
6640-01-C03-0004	Centrifuge Lab	708T	Drucker, Co.
6640-01-C03-0005	Centrifuge Table Top	Centra CL4	International Equip Co.
6640-01-C03-0006	Centrifuge, Lab	Z230	National Labnet
6515-01-C05-0001	Electrocardiograph	Elite	Burdick Corp.
6515-01-430-3523	Electrocardiograph	Elite II	Burdick Corp.
6540-00-299-8587	Lantern Color Perc. Tester	Farnsworth	Macbeth Division
6540-00-181-8037	Lens Measuring Instr.	12603	Cambridge Instr.
6540-00-299-8134	Lens Measuring Instr.	21-65-70	Bausch & Lomb
6540-01-417-7951	Lens Measuring Instr.	101	Marco Equipment
6540-01-C12-0001	Lens Measuring Instr.	EL-7S	Cambridge Instr.
6530-01-429-4649	Light Exam	48600	Welch Allyn, Inc.
6650-01-207-0829	Microscope Binocular	Labophot	Nikon, Inc.
6650-01-325-3747	Microscope Optical	Various	American Optical
6515-01-C13-0001	Monitor, Vital Signs	SPOT 420	Welsh Allen
6515-01-416-1966	Monitor, Vital Signs	Vitalmax 800	Pace Tech, Inc.
6540-01-432-1910	Refractor, Automatic Eye	1200M	Marco Equipment
6540-01-432-1912	Refractor, Automatic Eye	595	Humphrey Instr.
6540-01-C18-0003	Refractor, Automatic Eye	ARK-760A	Marco Equipment

(continued) Appendix A. Tobyhanna Standing Operating Procedures

(continued) TABLE 2. MEPS EQUIPMENT			
NSN	NOMENCLATURE	MODEL	MFR
6540-01-375-9031	Vision Tester, Stereoscope	2300	Stereo Optical Co.
6670-01-C19-0005	Scale, Person Weighing Digital	PW200-3011	Mettler Toledo

6. Requesting Services

6.1. Prior to sending any nonstandard medical equipment not listed in the table above, call DSN 795-7601 to ensure that the items can be supported at this Division.

6.2. When shipping equipment for servicing please use the following address:

US Army Medical Materiel Agency
 Medical Maintenance Operations Division – PA
 Warehouse 4, Bay 1
 Tobyhanna Army Depot
 Tobyhanna PA 18466-5063
 DODAAC: W25AT5

6.3. All units, organizations, facilities or agencies other than active army (P84 and medical P1 funds) are required to reimburse USAMMA for all services. Army National Guard and Army Reserve units are not required to submit funding citations as their respective Headquarters provide funds on an annual basis to cover their medical equipment. Funding documentation from other reimbursable customers must include the following:

- Document number to include owning DODAAC and address
- Funding citation
- Authorized amount (amount authorized for service)
- Point of contact and telephone number
- Nomenclature of item
- National stock number, management control number, or non-standard number
 - Model number and quantity sent with serial numbers
 - Any accessories, maintenance manuals, or other materiel that may be required to perform service on the equipment
 - Identification of all accessories

6.4. Questions concerning funding or fund citations may be answered by calling the Production Controller at 570-895-7601 or DSN 795-7601.

6.5. All customers may request maintenance services by submitting either a DA Form 2407 (or automated equivalent), DD Form 1348-1 or DD Form 1149 shipping documents.

(continued) Appendix A. Tobyhanna Standing Operating Procedures

6.6. All equipment that comes in reusable containers should be shipped in those containers. All other equipment should be properly packaged so that no further damage will occur. Place a copy of the maintenance request inside the container with the equipment.

6.7. Accessories and maintenance manuals must be sent with the equipment to prevent delays in the repair or service. All accessories sent with the equipment shall be indicated in the remarks section of the shipping document.

6.8. The Maintenance Expenditures Limit (MEL) shall be included in the remarks section of the shipping form. Failure to include the MEL will result in delays.

6.9. When active army units submit equipment that belongs to a serviced unit, the owning units address and DODAAC will be annotated in the remarks section of the shipping document.

6.10. Equipment items not listed in services available or on the USAMMA maintenance website will not be sent without prior coordination.

6.11. The USAMMA MMOD-PA is not responsible for billing customers. For questions concerning billing please call the USAMMA Resource Management Division at 301-619-2111 or DSN 343-2111.

7. Direct Exchange

7.1. The MMOD-PA provides an equipment Direct Exchange Program for the MEPS. When a piece of equipment fails, the MEPS calls the MMOD-PA for an exchange. The replacement equipment is sent out immediately to the requesting MEPS. The MEPS then sends their broken equipment to MMOD-PA for repair and placement back into the Exchange Program.

7.2. The MMOD-PA provides a Direct Exchange Program for selected equipment. To qualify for a DX, the equipment must be the same make and model, and must be repairable. No direct exchange will be complete until both parties are satisfied with the equipment they received.

8. Medical Standby Equipment Program (MEDSTEP)

The MMOD-PA provides a loaner item for selected items. A list of MEDSTEP assets available at the MMOD-PA is published periodically in the SB 8-75 series bulletins. MEDSTEP assets may only be utilized to provide temporary replacement for equipment being serviced at the MMOD-PA. When the owners original equipment is received back, the MEDSTEP item, to include all accessories, must be returned to the MMOD-PA. Reimbursable customers that use MEDSTEP must provide funds as necessary to restore the MEDSTEP item back to serviceable condition.

9. Cannibalization Point

The MMOD-PA maintains unserviceable assets of selected medical equipment for cannibalization. Authorized customers may request parts from cannibalization for mission critical medical equipment when parts are not available from any other source.

(continued) Appendix A. Tobyhanna Standing Operating Procedures

10. Training

Repair and calibration training of various medical equipment is available. Training is tailored to meet your requirements. Training can be provided either in your facility or in the Division facilities. On-site training costs are based upon travel, per diem, the labor rate and training hours. Contact us about your training needs at (570) 895-7613 or DSN 795-7613.

Chief, Medical Maintenance
Operations Division
USAMMA

Appendix B. Tracy Standing Operating Procedures

U.S. Army Medical Material Agency
Maintenance Engineering & Operations Directorate
Medical Maintenance Operations Division, Tracy California

External Standing Operating Procedures

MCMR-MMM-DC

April 2004

1. Purpose

To provide guidance to units and organizations requesting services from the USAMMA's Medical Maintenance Operations Division-California (MCMR-MMM-DC) at Defense Distribution Center, Tracy Location, Tracy CA 95376-5050.

2. Scope

These procedures are applicable to all units and activities requesting support.

3. Mission

The USAMMA Medical Maintenance Operations Division, Tracy, provides depot-level services and functions in support of x-ray equipment and Special Purpose Test Measurement Diagnostic Equipment.

4. Hours of Operation

Normal duty hours are 0500 to 1530 (PT) daily Monday through Friday, excluding holidays. A telephone recorder is available on DSN 462-4557 or commercial 209-839-4557 and will record messages after duty hours. When leaving messages please speak clearly so your message will be understood. If you require a response, leave your name, telephone number, and the work order number, if available. Recorded calls will be responded to on the following workday.

	Commercial	DSN
Chief	209 839-4556	462-4556
Shop Supervisor	209 839-4560	462-4560
Production Control	209 839-4557	462-4557
Fax	209 839-4563	462-4563
Website	http://www.usamma.army.mil/maintenance/index.html	

5. Services Available

5.1. All TO&E except optical equipment

5.2. All equipment listed in the table below

5.3. On-site technical assistance (request must be made to Headquarters, USAMMA)

5.4. X-ray acceptance inspections (request must be made to Headquarters, USAMMA)

5.5. Telephonic technical assistance

5.6. X-ray repair and return services

(continued) Appendix B. Tracy Standing Operating Procedures

5.7. Calibrate and repair special purpose test, measurement, and diagnostic equipment

5.8. Training

NOMENCLATURE	MODEL NUMBER
Shelter Expandable which include	
Continental, VP-4s, and CTs	
X-Ray Apparatus Field Dental	D3152/Siemens
X-Ray Film Processing Machine	AFP14X-3MIL/AFP
Collimator, Over Table	70-40001/Trex
Collimator, Under Table	70-40004/Trex
Spot Film Device	CS-8952/Trex
X-Ray Porta-ray	1200/Dynarad
X-Ray Processing Machine	Curix60/Agfa
X-Ray Apparatus Dental	Alpha MPDX/Dynarad
X-Ray Apparatus Radiographic	Clinix VP-4/Picker
<u>TUBEHEADS</u>	
X-Ray Tubes	B100/Varian
	Sapphire 150 th /Varian
	Emerald/Varian
	Diamond 150 th /Varian
	PX-1312C/Dunlee
	PX-1301C/Dunlee
	PX-1302CQ/Dunlee
	PX-1351C/Dunlee
	PX-1352C/Dunlee
	PX-1402CQ/Dunlee
	PX-1402EQ/Dunlee
	PX-1412CS/Dunlee
	PX-1412CQ/Dunlee
	PX-1436CQ/Dunlee
	PX-1436EQ/Dunlee
	PX-1436ES/Dunlee

(continued) Appendix B. Tracy Standing Operating Procedures

NOMENCLATURE	MODEL NUMBER
(continued) X-Ray Tubes	PX-1429EQ/Dunlee
	PX-1482AQ/Dunlee
	Maxi Ray-75/General Electric
	Maxi Ray-75R/General Electric
	Maxi Ray-75AMX/General Electric
	Maxi Ray-75FLXR/General Electric
	Maxi Ray-76 18NR/General Electric
	Maxi Ray-100/General Electric
	Maxi Ray-100 18NR/General Electric
	Maxi Ray-100 FLXR/General Electric
	BI-150/Siemens
	350-10/Phillips
	500541/1200/Dynarad
<u>TMDE EQUIPMENT</u>	
Meter X-Ray Calibration Multimeter Radiographic, w/mAs Meter X-ray Calibration & Verification System	UNFORS, 710-L PMX-III; 07-472 07-457; 07-472; 07-473
Gas Flow Analyzer Calibrator Gas Flow	VT-Plus RT-200
Anesthetic Gas Analyzer	Riken 1802D
CO2 Analyzer	2820
Analyzer NIBP	Cufflink
IV Pump Analyzer	IPT-1
Defibrillator Analyzer TPA Tester Defibrillator	Impulse 4000 DT2000A
Densitometer, SU150/P	07-423
Simulator, Medical Function Calibrator Generator, ECG	215M ECG 100
Computer, Laptop	Various
Foot Candle Meter	9-118
Oscilloscope, Digital	THS720P
Wattmeter, Ultrasound Therapy	UW-4 UMR 3-C UMR 3-D
Simulator, Pulse Oximetry	INDEX 2M _{FE} Cardiosat EF

(continued) Appendix B. Tracy Standing Operating Procedures

NOMENCLATURE	MODEL NUMBER
Test Cassette, X-Ray	07-467
Test Set, Electrosurgical	454A RF302
Tester, Current Leakage	232M
Tester, Ventilator	Pneuvview 36000I

6. Requesting Services

6.1. Prior to sending any nonstandard medical equipment not listed in the table above, call DSN 462-4557 to ensure that the items can be supported at this Division.

6.2. When shipping equipment for repair or service, please use the following address:

U.S. Army Medical Materiel Agency
 Medical Maintenance Operations Division
 Building T-255, Tracy Site
 25600 Chrisman Road
 Defense Distribution Center
 Tracy, CA 95376-5050
 DODAAC: W62SEV

6.3. All units, organizations, facilities or agencies other than Active Army (P84 and medical P1 funded) are required to reimburse USAMMA for all services. Army National Guard and U.S. Army Reserve units are not required to submit fund citations as their respective Headquarters provide funds on an annual basis to cover their medical equipment. Funding documentation from other reimbursable customers must include the following:

➤ Document number to include owning DODAAC or UIC, and address
➤ Funding citation
➤ Authorized funding (amount authorized for service)
➤ Point of contact and telephone number
➤ Nomenclature of item
➤ National stock number, management control number, or non-standard number
➤ Quantity of items to include serial numbers
➤ Any accessories, maintenance manuals, or other materiel which may be required to perform services on the equipment
➤ Identification of all accessories

6.4. Questions concerning funding or fund citations may be answered by calling DSN 462-4557 or commercial 209 839-4557.

6.5. All customers may request maintenance services on their medical equipment by submitting either a DA Form 2407 (or the automated equivalent) or DD Form 1348-1, Shipping Document.

(continued) Appendix B. Tracy Standing Operating Procedures

6.6. All equipment that has reusable containers will be shipped in those containers. If equipment does not have reusable container equipment will be packed so that no further damage can occur.

6.7. Place a copy of the document being used as the maintenance request inside the shipping container with the equipment. The transportation personnel or the commercial carrier often removes documents placed on the outside of the container.

6.8. Accessories and maintenance manuals must be sent with the equipment to prevent delays in the repair or service. All accessories or materials sent with the equipment shall be indicated in the remarks section of the DA Form 2407 and DD Form 1348-1 or by other documentation.

6.9. The Maintenance Expenditure Limit (MEL) shall be included in the remarks section of either the DA Form 2407 or DD Form 1348-1. Failure to include the MEL will result in delay of repairs.

6.10. When Active Army units submit equipment to the MMOD-CA that belongs to another unit, the owning unit, address, and DODAAC will be given in the remarks section of either the DA Form 2407 or DD Form 1348-1. Unless otherwise specified, after repairs are completed the equipment will be returned to the owning unit.

6.11. Equipment items not listed in 5. Services or on the USAMMA Maintenance website should not be sent without prior coordination.

6.12. The USAMMA Medical Maintenance Operations Division-California (MMOD-CA) is not responsible for billing reimbursable customers. For questions concerning billing call USAMMA's Resources Management Division at DSN 343-2111 or commercial 301-619-2111.

6.13. Any questions regarding MMOD-CA's services, work order status, complaints, technical assistance or general information may be answered by calling DSN 462-4557/4556/4560 or commercial 209 839-4557/4556/4560. Please have the work order number available when you call.

7. Direct Exchange of X-ray Tube Heads

An exchange for x-ray tubes may be requested by calling customer assistance at DSN 462-4560/4556 or commercial 209-839-4560/4556. A questionnaire will be faxed to your activity to determine the appropriate information for the exchange.

8. Medical Standby Equipment Program

The USAMMA MMOD-CA provides a Medical Standby Equipment Program (MEDSTEP) for selected x-ray equipment. A list of the MEDSTEP assets available at the MMOD-CA is published periodically in the SB 8-75 Series Bulletins. MEDSTEP assets may only be utilized to provide serviceable temporary replacement for equipment being serviced at the MMOD-CA. The USAMMA Maintenance Engineering and Operations Directorate must approve exceptions. Exceptions may be requested telephonically by calling DSN 343-4365 or commercial 301-619-4365. Once the owners original equipment is received back, the MEDSTEP item, to include all accessories, must be returned to the MMOD-CA. Reimbursable customers that use

(continued) Appendix B. Tracy Standing Operating Procedures

MEDSTEP must provide funds as necessary to restore the MEDSTEP item back to serviceable condition.

9. Cannibalization Point

The USAMMA MMOD-CA maintains unserviceable assets of selected medical equipment for cannibalization. Authorized customers may request parts from cannibalization for mission critical medical equipment when parts are not available from any other source.

10. Training

Repair and calibration training of various x-ray equipment is available. Training is tailored to meet your requirements. Training can be provided either in your facility or in the Division facilities. On-site training costs are based upon travel, per diem, the labor rate and training hours. Contact us about your needs at DSN 462-4556 or commercial 209-839-4556.

11. Test Measurement, and Diagnostic Equipment (TMDE)

All field medical unit special purpose TMDE-SP such as defibrillator testers, electro surgical test sets, and x-ray calibration sets are supported with repair and calibration services. To maintain capability when TMDE-SP is turned in for repair or calibration a like item may be borrowed.

Chief, Medical Maintenance
Operations Division
USAMMA

Appendix C. Hill Standing Operating Procedures

U.S. Army Medical Materiel Agency
Maintenance Engineering & Operations Directorate
Medical Maintenance Operations Division, Hill AFB Utah
External Standing Operating Procedures

MCMR-MMM-DU

April 2004

1. Purpose

To provide guidance to units and organizations requesting services from the U.S. Army Medical Materiel Agency (USAMMA) Medical Maintenance Operations Division, (MMOD-UT) at Hill Air Force Base Utah.

2. Scope

These procedures are applicable to all units and activities requesting support.

3. Mission

The USAMMA Medical Maintenance Operations Division provides depot-level services and functions in support of all field TOE medical equipment (except x-ray). We have the capability to refurbish and rebuild field medical equipment to like-new condition, provide repair and return services, administer a Medical Standby Equipment Program (MEDSTEP) and on-site support.

4. Hours of Operation

Our duty hours for the Maintenance Division are 0500 to 1630 (MT), Monday through Friday. If you need assistance or service for field TOE medical equipment, please contact the following personnel:

Chief	(801) 586-4947	DSN 586-4947
Shop Supervisor	(801) 586-4948	DSN 586-4948
Production Control	(801) 586-4949	DSN 586-4949
Fax	(801) 586-5058	DSN 586-5058

Website: <http://www.usamma.army.mil/maintenance/index.html>

5. Services Available

- 5.1. All maintenance significant medical materiel except high capacity x-rays and optical equipment.
- 5.2. On-site technical assistance (request must be made to Headquarters, USAMMA)
- 5.3. Telephonic technical assistance
- 5.4. Medical Equipment Standby Program
- 5.5. Repair of TO&E medical equipment
- 5.6. Parts support to AMEDD Limited Support Items (ALSI)

6. Requesting Services

6.1. Prior to sending any nonstandard medical equipment, call DSN 586-4949 to ensure that the items can be supported at this division.

6.2. When shipping equipment for repair or service, please use the following address:

U.S. Army Medical Materiel Agency
6149 Wardleigh Road
Bldg. 1160, Bay 1
Hill AFB, UT 84056-5848
DODAAC: W81PYK

6.3. The owning or supporting unit is responsible for ensuring that the equipment is cleaned and disinfected prior to shipping the item to our Division for service.

6.4. Each equipment item must be shipped with the following:

- ◆ All accessories needed to operate, test and/or calibrate the unit
- ◆ Manufacturer's service literature for non-standard equipment
- ◆ DA Form 2409 (for manual systems), or a work history printout (for automated systems)
- ◆ DA Form 2407 containing the following:
 - unit name and address
 - DODAAC
 - point of contact
 - commercial/fax telephone numbers
 - priority
 - brief description of the problem or requested service (i.e., repair and return)

We request that you contact us prior to shipping non-standard equipment.

6.5. Upon receipt of your equipment, an automated work order will be generated and faxed to your point of contact. Please reference our work order number regarding all inquiries.

6.6. When services are completed, the equipment will be shipped to your return address and POC. A copy of our closed automated work order will be returned with the equipment for updating your unit's records.

6.7. Equipment that is not economically repairable will be condition coded in accordance with applicable regulations. The owning or supporting unit will be notified for disposition instructions. Equipment items will be returned to your unit or disposed of locally, in which case your unit will be provided a copy of the closed automated work order and a signed copy of the DD Form 1348 for your records.

6.8. Repairs or services that will exceed the One Time Expenditures Limit (OTEL) or Maximum Expenditure Limit (MEL) will require a waiver approved by your organization commander or designee prior to the accomplishment of any repairs or services.

(continued) Appendix C. Hill Standing Operating Procedures

6.9. All units, organizations, facilities or agencies other than active army (P84 and medical P1 funds) are required to reimburse USAMMA for all services. Army National Guard and army reserve units are not required to submit funding citations as their respective Headquarters provide funds on an annual basis to cover their medical equipment. Funding documentation from other reimbursable customers must include the following:

- Document number to include owning DODAAC and address
- Funding citation
- Authorized amount (amount authorized for service)
- Point of contact and telephone number
- Nomenclature of item
- National stock number, management control number, or non-standard number
- Model number and quantity sent with serial numbers
- Any accessories, maintenance manuals, or other materiel that may be required to perform service on the equipment
- Identification of all accessories

6.10. On-site maintenance support for field TOE equipment is available from our Division and should be coordinated with us first to ensure availability of manpower and resources. All requests for on-site maintenance support must be through appropriate command channels to the Commander, U.S. Army Medical Materiel Agency, ATTN: MCMR-MMM, 1423 Sultan Drive, Fort Detrick, MD 21702-5001. Requests must include name and location of the requesting unit and work site, specific requirement to include estimated man-hours, recommendation, and priority from local command.

7. Repair Parts for Field TOE Equipment

7.1. Repair parts to support equipment for which the manufacturer or other sources will no longer supply parts may be requested from our Medical Maintenance Division, commercial 801-586-4950/4948. All requests will require your unit name, address, DODAAC, point of contact, commercial/fax telephone numbers, the NSN of the end item and the part number(s) of the items requested.

7.2. Repair parts to support equipment for which the parts are available from the manufacturer or other sources will not be provided by us. We will, however, assist you in obtaining a source of supply.

8. Medical Standby Equipment Program (MEDSTEP)

8.1. MEDSTEP assets will not be used to fill equipment shortages, replace uneconomically repairable items or expand operational missions.

8.2. MEDSTEP assets will be requested through our Medical Maintenance Division at commercial 801-586-4949. All requests will require your unit name, address, DODAAC, point of contact, commercial/fax telephone numbers, and a brief description of your requirement.

(continued) Appendix C. Hill Standing Operating Procedures

8.3. The requesting unit is responsible for the care and maintenance of the MEDSTEP item and to ensure the item is cleaned and properly packed prior to returning the item to our Division.

9. Cannibalization Point

The MMOD-UT maintains unserviceable assets of selected medical equipment for cannibalization. Authorized customers may request parts from cannibalization for mission critical medical equipment when parts are not available from any other source.

10. Training

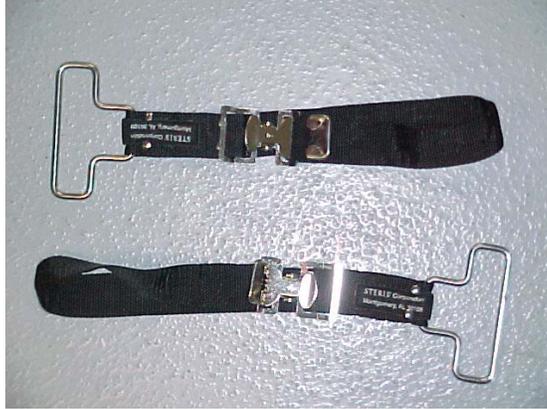
Repair and calibration training of various medical equipment is available. Training is tailored to meet your requirements. Training can be provided either in your facility or in the Division facilities. On-site training costs are based upon travel, per diem, the labor rate and training hours. Contact us about your training needs at 801-586-4947.

Chief, Medical Maintenance Operations
Division
USAMMA

Appendix D. Operating Table Components

TABLE, OPERATING, FIELD MODEL 2080, 6530-01-353-9883

Adhesive Tape Holder (Pair), Part #P018688-091



Winged Ether Screen Assy, Part #P077033-091



Lateral Braces (Pair), (AKA Kidney Bridge Post)
Large: Part #P626397-001, Small: Part #P626397-002



Wrist Holder Assy. (Pair), Part #P077036-091
(No longer available from Steris Corp.)



Knee and Footrest Assy. (Pair), Part #P077040-091



Pads, (Complete packaging of 3), Part #P150830177



(continued) Appendix D. Operating Table Components

Pad, Foot Section, Part # P093074-001



Pad, Back Section, Part # P093075-001



Pad, Head Section, Part # P093076-001



X-ray Top Sections (Head, Back, Seat, Leg), Part 129357-096



3" Arm Board Pad, Part #P150830-168



Arm Board w/o Pad, Part #P056130-001

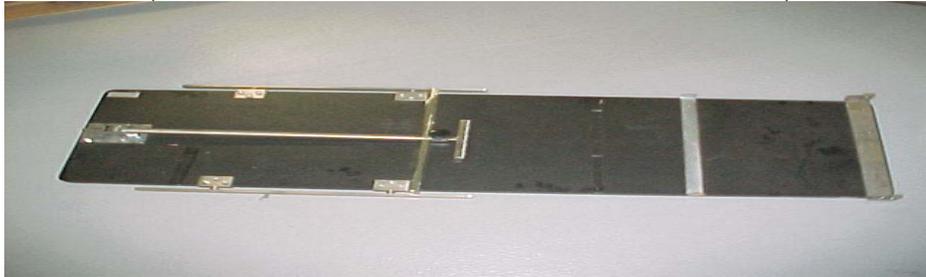


(continued) Appendix D. Operating Table Components

Clark Sockets (4 ea), Part #77038-091
Sold in Pairs \$255
(No longer available from Steris Corp.)



62" Image Intensifier Board, Part # BF16-400
(NOT SUPPLIED WITH CURRENT ISSUED TABLES)



Appendix E. External O2 Regulator Verification

Install External O2 Regulator to H or K size Oxygen cylinder.
Make sure cylinder has 250 - 3000 psi..



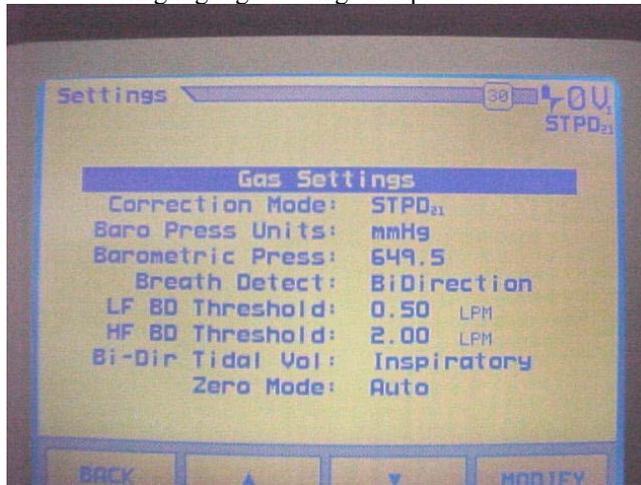
Install one end of Oxygen hose to the O2 regulator output connector.
Setup VT Plus to read oxygen pressure.
Power up and let it zero after 5 minutes.
Press the pressure test mode button.
Press the setup button.
Highlight settings and press enter.



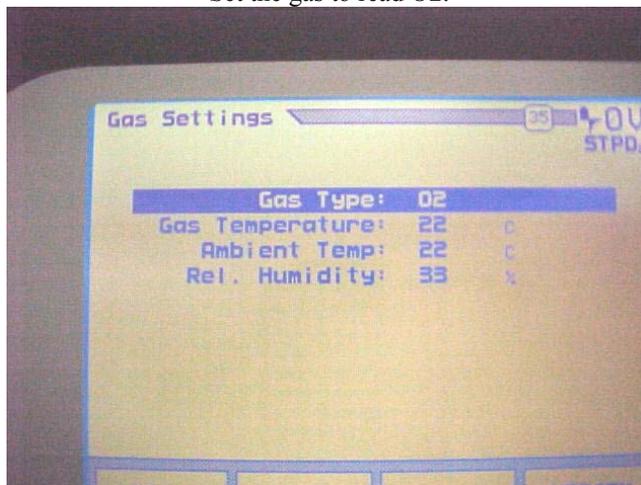
Highlight gas settings and press enter.



Highlight gas settings and press enter.



Set the gas to read O2.



Press back until in the pressure test mode again.

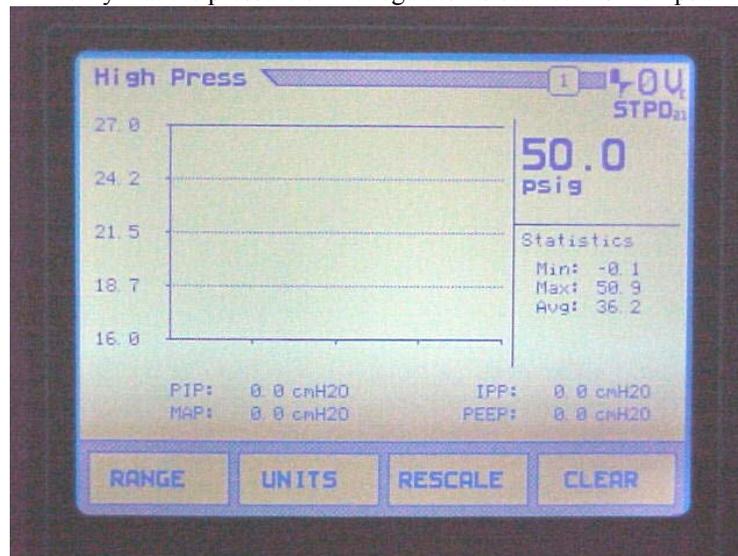
(continued) Appendix E. External O2 Regulator Verification

Install the other end of the oxygen hose to the positive pressure connection of the VT Plus.



Open the oxygen (H or K) cylinder.

Verify that the pressure of the regulator is between 49 - 54 psi.



Disconnect the oxygen hose from the O2 regulator.
Disconnect the O2 regulator from the oxygen cylinder.

Appendix F. External N2O Regulator Verification

Connect N2O cylinder adapter to H or K size cylinder of nitrous oxide.



Connect external N2O regulator to N2O cylinder adapter.



(continued) Appendix F. External N2O Regulator Verification

Connect one end of a blue N2O hose to the regulator output connector.



Connect the other end of the blue N2O hose to the N2O fitting from the Narkomed Kit Part # 4114807 (fitting with male connection).

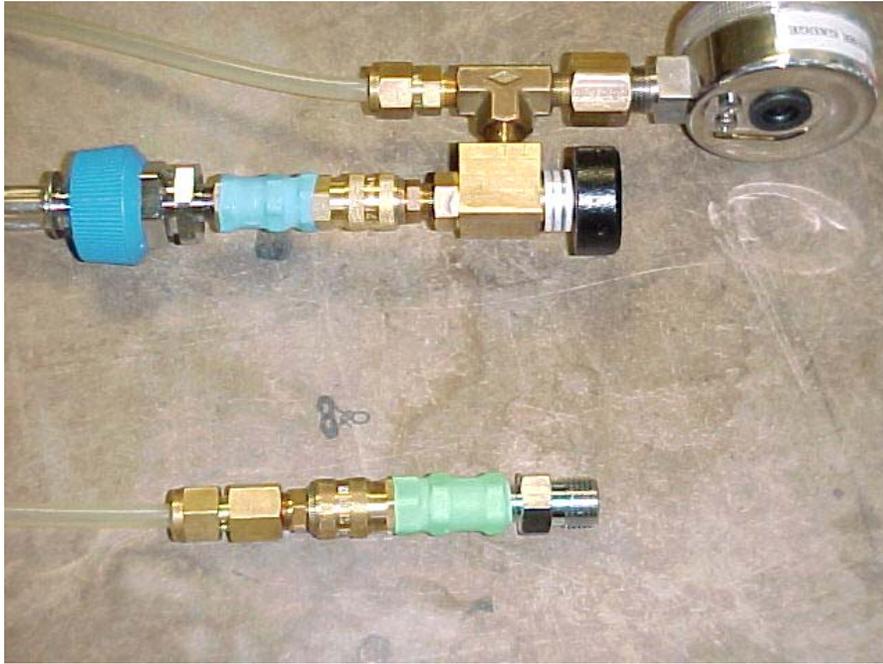


Connect the High Pressure Test Gauge to the N2O fitting.

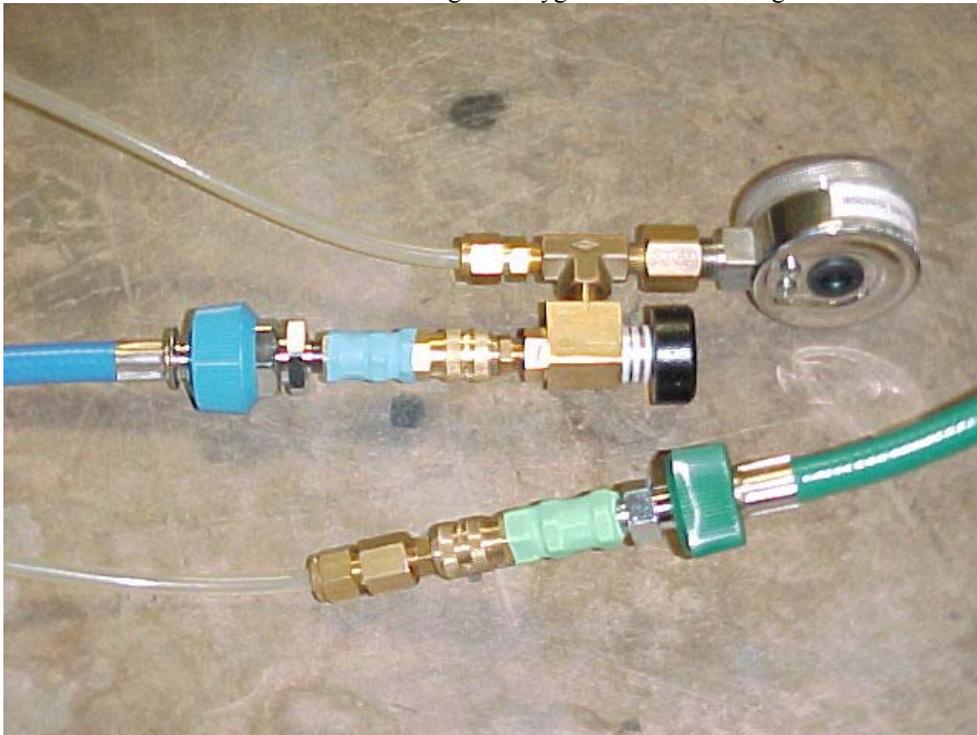


(continued) Appendix F. External N2O Regulator Verification

Connect the hose of the High Pressure Test Gauge to male oxygen fitting from the Narkomed Kit Part #4114807.



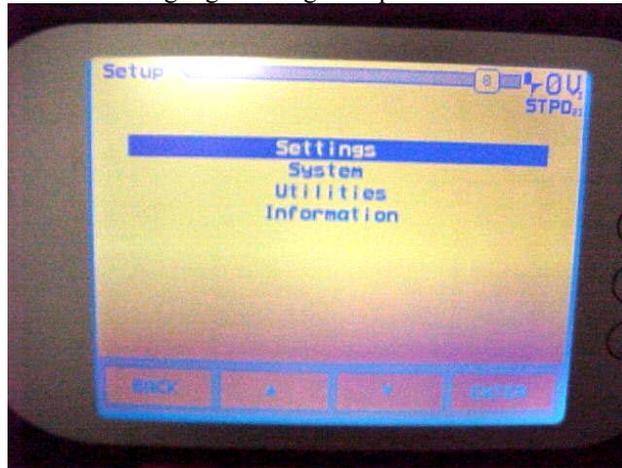
Connect one end of the green oxygen hose to the fitting.



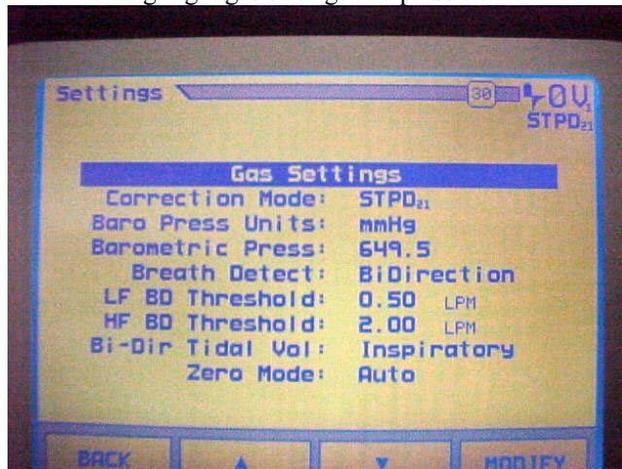
Setup the VT Plus to read N2O.
Power up and let it zero after 5 minutes.
Press the pressure test mode button.

(continued) Appendix F. External N2O Regulator Verification

Press the setup button.
Highlight settings and press enter.



Highlight gas settings and press enter.



Set the gas to read N2O.



Press back until in the pressure test mode again.

(continued) Appendix F. External N2O Regulator Verification

Connect the other end of the oxygen hose to the positive pressure connection of the VT Plus.

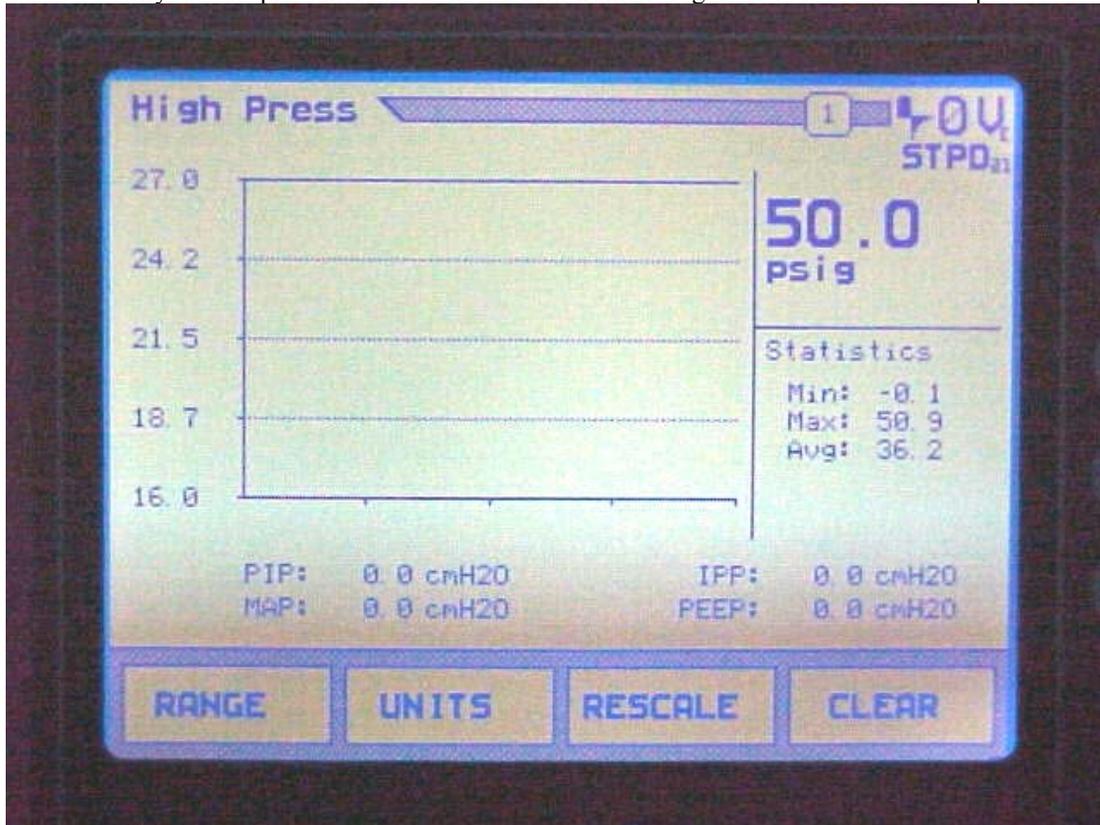


Open the N2O (H or K) cylinder.
Press and hold the push button on the High Pressure Test Gauge.



(continued) Appendix F. External N2O Regulator Verification

Verify that the pressure read on the VT Plus from the regulator is between 49 - 54 psi.



Disconnect all fittings, hoses, and components of this test and return to proper location.

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By Order of the Secretary of the Army:

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