

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

Army Medical Department Supply Information

Headquarters, Department of the Army, Washington, DC 20310-2300

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You can improve this publication. If you find any mistakes, or you know a way to improve it, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the U. S. Army Medical Materiel Agency, ATTN: MCMR-MMS-P, Fort Detrick, MD 21702-5001.

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NOTICE

This Supply Bulletin is devoted entirely to
Medical Maintenance Information

SECTION 1. MEDICAL MAINTENANCE GENERAL INFORMATION

1-1. ABAXIS BLOOD GAS ANALYZER, MODEL PICCOLO

a. The USAMMC-SWA Medical Maintenance Section recently identified possible problems with the Piccolo. They have recommended that operators increase the regimen of cleaning the printer and results card slot daily and the air filter bi-weekly. It only takes about 5 minutes to do all of it. All you need is some canned air and a Phillips screwdriver. Of course this is no guarantee to alleviate the problems, but it is a mitigating effort worth doing.

b. Abaxis has a FAQ site that may be useful. Please see website http://www.abaxis.com/_support/piccolo_support/pic_faq.html.

1-2. ALARIS INFUSION PUMPS, MODEL 2863B

a. Several infusion pump problems have been identified by field technicians. The following are identified problems and the recommended fixes.

b. Both unit batteries are failing because of long-term storage. When internal memory battery fails the calibration, memory is lost, rendering the unit inoperative. Failure of the main unit battery results in reduced operational time.

Recommendation: Unit needs to be charged every 6 months and the internal battery needs to be replaced every two (2) years. Replacement cost of memory battery is \$29.73 (part #2860711) and cost of the main battery is \$78.75 (part #2860703).

c. Drive motors are subject to premature wear causing unit to fail calibration or to alarm and give operational errors frequently.

Recommendation: Replace defective drive motor assemblies. Cost of replacement is \$525.00 per channel (part #2860745). Unit has three channels.

d. Research on defective pump assemblies revealed in the FDA Alert dated September 12, 2001, that the manufacturer (Cardinal Health formerly IVAC/Alaris) acknowledged the defective pumps. The manufacturer has stated that if the pumps have never been in for replacement they will honor the recall. Please call 800-854-7128 ext 7643. Pressure transducer membranes fail over time resulting in inaccurate calibration which results in pressure errors.

Recommendation: Replace transducer membranes. Cost of replacement is \$0.78 per channel (part #138356). Unit has three channels.

e. There are several units with internal water damage destroying the main processor and printed circuit board assembly as a result of defective unit seals.

Recommendation: Check case seals and/or replace the case gasket seal. Cost of replacement is \$17.26 for top seal (part #2860513). Cost of \$18.51 for bottom seal (part #2860547).

1-3. AVAILABLE OPERATOR AND MAINTENANCE LITERATURE

Operator and maintenance literature for medical equipment is available on CDs. Located at appendices A, B, C, D, E, and F are the table of contents for six CDs that are now available from the USAMMA National Maintenance Point. To obtain a copy of this literature, call DSN 343-4379 or commercial 301-619-4379.

1-4. INVASIVE MONITORING OF mA FOR THE PHILIPS BV 300 C-ARM

a. There is an internal closed-loop monitoring circuit for mA that compares the actual mA with the set mA. If there is a difference, the system adjusts itself. However the capability exists to read mA invasively.

b. Refer to appendix G for steps and graphic illustrations of this procedure.

1-5. LIFEPAK 10 DEFIBRILLATOR/MONITOR, NSN 6515-01-453-4003

a. Tolerances differ on different defibrillator brands. For the Physio Control Lifepak 10, the acceptable tolerance for the energy delivered is plus or minus 7%. This value is mentioned in the Service Manual pages 3-9 to 3-10 in the Testing and Troubleshooting section of the book.

b. Currently, the military uses the Impulse 4000 Defibrillator and Transcutaneous Pacer Analyzer as one of the testing medical devices to check for the defibrillator's accuracy output. The Impulse 4000 testing equipment uses an automated testing function that is loaded by the manufacturer to test the Lifepak 10. Although the testing tolerance limits are set at a default of 15%, which is not the same value as the Physio Control's tolerance. The tester is still adjustable to allow for the manufacturer's different tolerances when the operator chooses to reconfigure the testing device. Ensure that if the Impulse 4000 is set to the 7% tolerance. Please note that while the new tolerance may be set at 7%, the testing equipment will default to 15% on the lower 5 joules setting.

c. Be advised that during testing of the Lifepak 10 the amount of watts delivered should be the same as listed in the service manual.

1-6. MAINTENANCE DIRECTORATE PERSONNEL

a. The Maintenance Engineering and Operations Directorate (MEOD) serves as an Army Medical Department (AMEDD) focal point for multiple aspects of medical materiel maintenance. The MEOD is made up of the AMEDD National Maintenance Point (NMP), Maintenance Publications, and Medical Maintenance Operations Divisions (MMOD) to include depot-level operations at Tobyhanna, PA, Hill AFB, UT, and Tracy, CA.

b. The DSN prefix is 343 and commercial phone numbers are 301-619-XXXX.

Director, Maintenance Engineering and Operations Directorate (4407)
Administrative Assistant (4406)
Directorate Sergeant Major (4464)

Chief, AMEDD National Maintenance Point (4382)
Chief, Maintenance Publications (4366)
Chief, Maintenance Operations (4365)

c. Operations Divisions information.

Chief, MMOD, Hill AFB, UT (DSN 586-4947, commercial 801-586-4947)
Chief, MMOD, Tobyhanna, PA (DSN 795-7744, commercial 570-895-7744)
Chief, MMOD, Tracy, CA (DSN 462-4556, commercial 209-839-4556)

1-7. MAINTENANCE DIVISIONS' ADDRESSES

a. MMOD – UT

(1) Mail address

U.S. Army Medical Materiel Agency
Medical Maintenance Operations Division
ATTN: MCMR-MMM-DU
6149 Wardleigh Road
Building 1160
Hill Air Force Base, UT 84056-5848

(2) Freight address

U.S. Army Medical Materiel Agency
6149 Wardleigh Road
Building 1160, Bay 1
Hill Air Force Base, UT 84056-5848

b. MMOD – PA

(1) Mail address

USAMMA/MCMR-MMM-DU
ATTN: MCMR-MMM-DP
Tobyhanna Army Depot
11 Hap Arnold Boulevard
Tobyhanna, PA 18466-5063

(2) Freight address

U.S. Army Medical Materiel Agency
Medical Maintenance Operations Division
Warehouse 4, Bay 1
Tobyhanna Army Depot
Tobyhanna, PA 18466-5063

c. MMOD – CA

(1) Mail address

U.S. Army Medical Materiel Agency
Medical Maintenance Operations Division
ATTN: MCMR-MMM-DC
Building T-255, Tracy Site
Defense Distribution Center
P.O. Box 960001
Stockton, CA 95296-0970

(2) Freight address

U.S. Army Medical Materiel Agency
Medical Maintenance Operations Division
Building T-255, Tracy Site
25600 Chrisman Road
Defense Distribution Center
Tracy, CA 95304-9150

1-8. SURGICAL UNIT, ARTHROSCOPIC, NSN 6515-01-495-1668

The following additional information from the manufacturer is for those technicians who may have been unclear on the electrical leakage testing for the FMS 2000:

The Section V. Maintenance and Calibration Setup of the service manual addresses the use of a 12- to 16-gauge cannula to interface with the administration set during electrical safety testing. The purpose of the cannula in this test provides an electrical connection to the fluid for verification that the path is electrically safe. A larger or smaller cannula can be used for the electrical pathway. In the event that only a smaller 18-gauge cannula is available it can be used to test the leakage current; however, flow-rate testing, if performed, will be reduced as the unit will only allow 300 mmHg of back pressure. It is advisable to obtain a larger-bore cannula for verification and performance testing the flow rate.

1-9. THE U.S. ARMY MEDICAL MATERIEL AGENCY CENTRALIZED CLASS VIII REPAIR PARTS PROGRAM

a. The program provides a Class VIII repair parts support contingency to ensure deployable organizations with medical equipment are capable of deploying with fully mission capable (FMC) medical equipment. The program's objective is to make available to organizations with a field or sustainment maintenance capacity, the repair parts necessary to sustain deployable medical equipment. This document is located at appendix H.

b. The point of contact for additional information concerning the program is USAMMA's Medical Maintenance Operations Division Chief at DSN 343-4365, or commercial 301-619-4365.

1-10. TMDE PROGRAM MANAGER ADDRESS CHANGE

The office that approves TMDE requests has changed. Block 1A of DA Form 4062 (TMDE Acquisition Approval Analysis Data) and the "FOR" line on the Acquisition Memorandum's formerly used U.S. Army Aviation and Missile Command, AMSAM-TMD-LI, Redstone Arsenal. The address should now read,
TMDE Program Manager
SFAE-CSS-CS-T
Redstone Arsenal AL 35898-5000

Please make sure these changes are indicated on your submitted memo and DA Form 4062.

1-11. TOOL KIT, MEDICAL EQUIPMENT MAINTENANCE AND REPAIR: REPAIRMAN'S, NSN 5180-00-611-7923, LIN W45334

a. General Services Administration (GSA) is the integrated material manager for this tool kit. If your organization requires the tool kit and wishes to order one, please submit a DA Form 1348, Requisition Request Form, or GSA SF Form 344, Multiuse Standard Requisitioning/Issue System Document. The request can be submitted through your standard supply requisition system or faxed to GSA at 816-926-7971.

b. Refer to SC 5180-8-A14, Tool Kit Medical Equipment Maintenance and Repair: Repairman's. This SC can be found on the MEOD website at <http://www.usamma.army.mil/maintenance>.

c. If you need additional information please contact GSA at 816-926-6998.

d. If you have any questions or comments please call the USAMMA MEOD at DSN 343-4382 or commercial 301-619-4382.

1-12. USAMMA'S MEOD ON-LINE

a. The USAMMA's MEOD has a website to make finding that critical piece of maintenance information a little easier. We provide detailed information about our Medical Maintenance Divisions and have a customer comment card; test, measurement, and diagnostic equipment (TMDE); equipment support; imaging equipment; maintenance publications (to include on-line access to the maintenance supply bulletins and supply catalogs); and training opportunities. We've also provided government and manufacturer links that we've found to be helpful. Included in our site is a search capability that allows you to quickly locate information on a specific subject.

b. Our website is located at <http://www.usamma.army.mil/maintenance>. If you have questions about the information we've provided or recommendations for enhancements to our site, send an e-mail message using the link on our home page.

1-13. USAMMA TMDE CALIBRATION SUPPORT

a. For Table of Organization & Equipment (TO&E) organizations, TMDE support coordinators will coordinate with the Medical Maintenance Operations Division, Tracy, CA, (MMOD-CA) for maintenance and calibration services of TMDE-Special Purpose (SP) equipment. For TMDE-General Purpose (GP), coordination should be made through the local Area TMDE Support Team (ATST) or Area Calibration Laboratory (ACL) to provide maintenance and services.

b. For Table of Distribution & Allowances (TDA) organizations, the TMDE calibration support will be coordinated by the unit TMDE Coordinator through the local ATST or ACL to provide maintenance and services of TMDE-GP and TMDE-SP equipment. In the event there is not an ATST or ACL available within the geographical location, the TDA activity will be responsible for the required calibration and repair support of their equipment.

c. For changes concerning TMDE support please click the TMDE link on the MEOD website. The address of the website is www.usamma.army.mil/maintenance.

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Operator & Maintenance Literature for Medical Equipment *Disc 1*

10/20 Standards, Maintenance Allocation Chart, and Equipment List for Reportable Medical Equipment

6230-01-481-2214	Floodlight Emergency, Med-Tent-LT <u>Operator Guide and Parts List</u>
*6515-00-137-6511	Electrosurgical Apparatus Portable, LM-90 <u>Service Manual</u> <u>User Manual</u>
6515-01-279-6450	Monitor Oxygen Battery Power, 5120 <u>Operation and Maintenance Manual</u> <u>Service Manual</u>
6515-01-309-6647	Electrosurgical Apparatus Portable, Force 2 <u>Service Manual</u> <u>TM 8-6515-003-24&P</u>
6515-01-327-6798	Concentrator Oxygen, AS 005-1 <u>Patient Manual</u>
6515-01-429-1381 6515-01-453-4003	Defibrillator/Monitor-Recorder, Lifepak 10 <u>Operating Instructions</u> <u>Service Manual</u>
6515-01-434-4629	Concentrator Oxygen, AS 005-4 <u>Service Manual</u>
6530-01-321-5592	Table Operating Field (FST) <u>Assembly and Packing Instructions</u>
6530-01-325-9299	Ventilator Volume Portable, Bear 33 <u>Maintenance Manual</u> <u>Clinical Instruction Manual</u>
6630-01-411-2568	Analyzer, Clinical Chemistry, I-Stat 111000 <u>System Manual</u>
6630-01-415-1593	Analyzer Blood, Piccolo <u>Operator's Manual</u>

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*6640-01-257-1944 Centrifuge Laboratory, Microhematocrit, Compur 1100
6640-01-068-9612
Operating Manual and Servicing Instructions

6640-01-326-1590 Rotator Laboratory, 14-251-200
Instructions

6640-01-431-5696 Rotator Laboratory, 1314
Operation Manual

*** For parts support call Medical Maintenance Support Division, Utah (commercial 801-586-4949/4950 or DSN 586-4949/4950, fax X5058).**

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**Operator & Maintenance
Literature for Medical Equipment
*Disc 2***

4110-01-451-2356 <u>Maintenance Manual</u>	Refrigerator Solid State Biological, M-30TR
6515-00-137-6511 Service Manual	Electrosurgical Apparatus, Portable, SSE2L
6515-01-355-6479 <u>Operation and Maintenance Manual</u>	Vaporizer Anesthesia Drawover, 1101-9001-000
6515-01-378-4176 Operator's Manual Service Manual	Craniotome Power System, MD030
6515-01-414-3607 Service Manual Operation and Maintenance Manual	Cryosurgical System, CE-2000
6515-01-423-5796 6515-01-423-5872 <u>User's Guide</u> <u>Calibration/Maintenance Manual</u> <u>Schematics and Drawings Set</u>	Monitor Patient Vital Signs, 106EL w/spo2 Monitor Patient Vital Signs, 106EL
6515-01-432-2707 6515-01-432-2711 <u>Directions for Use</u> <u>Reference Guide</u> <u>Update</u>	Monitor Patient Vital Signs, 206EL w/spo2 Monitor Patient Vital Signs, 206EL w/spo2 and capnography
6515-01-434-1999 <u>Owners Manual</u>	Blood/Fluid Warmer & Infusion, System 1000 (Sims Level 1)
6515-01-435-5350 <u>Instruction Manual, Operation and Service</u>	Suction Apparatus Oropharyngeal, 325M
6515-01-464-0267 Operation and Service Manual	Ventilator Volume Portable, 754M Eagle
6520-00-181-7349 Installation and Repair Manual TM 8-6520-004-14&P	Dental Chair and Stool Unit, CM-185

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6520-01-456-7170	Dental Unit, Self-Contained, ADU-10CF Operation and Maintenance Manual Service Manual and Parts List
	Portable Air Compressor, AA-75CF Operation and Maintenance Manual Service Manual and Parts List
6525-01-325-3740	X-ray Apparatus, Portable, 1200
6525-01-457-1536	<u>Operation and Maintenance Manual</u>
6525-01-345-6089	Processing Machine Radiographic, Curix 60 Operator's Installation and Instruction Manual
*6530-01-429-6715	Sink Unit Surgical Scrub, RPC 1000 <u>Operator's, Organizational, Maintenance Manual</u>
6540-00-181-8037	Lens Measuring Instrument Ophthalmic, 4001 <u>Instruction Handbook</u>
6540-01-032-4518	Light Slit Ophthalmic, Marco V <u>Instruction Manual</u>
*6540-01-145-8775	Chair Optometry, Portable <u>Technical Manual</u>
6540-01-241-6965	Slit Lamp, SL-6E Service Parts List TM 8-6540-002-14&P
6545-01-302-0228	Sink Unit, Surgical Scrub, Field <u>TM 8-6545-001-24&P</u>
6640-01-258-0006	Shaking Machine Laboratory, Vortex Genie 2 <u>Operating and Installation Guides</u>
6640-01-316-5084	Centrifuge, 708T Operation and Service Manual
6650-01-293-7240	Microscope Optical, Labophot
6650-01-325-3747	Microscope Optical, Labophot2 <u>Operation and Preventive Maintenance</u>
6650-01-406-1828	Microscope Optical, BX40F3 <u>Instructions</u>

*** For parts support call Medical Maintenance Support Division, Utah (commercial 801-586-4949/4950 or DSN 586-4949/4950, fax X5058).**

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Operator & Maintenance Literature for Medical Equipment *Disc 3*

4110-01-117-3902 <u>TM 8-4110-001-24&P</u> <u>Commercial Operating Instruction Manual</u>	Refrigerator, Mechanical, Blood Bank, BBR37SS-1B-03
<u>4110-01-249-4476</u> Commercial Operating Instruction Manual Commercial Maintenance Manual	<u>Refrigerator, Mechanical, Blood Bank, CT1-1B-06</u>
4110-01-287-7111 <u>TM 8-4110-002-14&P</u> <u>Operational Manual</u> <u>Maintenance Manual</u>	Solid State Refrigerator, DLA-50T
<u>*4110-01-287-7111</u> Service Manual	<u>Thermostabilizer for Blood, RCB42 P</u>
<u>6515-01-174-1477</u> Instruction Manual, Operation and Service	<u>Suction and Pressure Apparatus, 317M</u>
6515-01-185-8446 <u>Instruction and Service Manual with Illustrated Parts List</u> <u>TM 8-6515-001-24&P</u>	Anesthesia Apparatus, 885A
6515-01-242-9123 6515-01-304-6497 <u>TM 8-6515-004-24&P</u> <u>Instruction Manual, Operation and Service</u>	Suction Apparatus, 308M
6515-01-267-2726 6515-01-267-2727 <u>TM 8-6515-013-14&P, 306M</u> <u>Instruction Manual, Operation & Service, 306 Series</u>	Suction Apparatus, 306
<u>*6515-01-291-1198</u>	<u>Defibrillator/Monitor-Recorder, 43110MC, Operating Guide</u>
<u>*6515-01-291-1199</u>	<u>Defibrillator Module, 43130M, Service Manual</u> <u>Monitor-Recorder Module, 43200M/MC/MD, Service Manual</u>
6515-01-313-6242 <u>Directions for Use Manual</u> <u>Technical Manual</u> <u>TM 8-6515-012-14&P</u>	Digital Thermometer, 600

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6515-01-383-0922	Anesthesia Ventilator, 7000 <u>Service Manual</u> <u>Operation and Maintenance Manual</u>
6515-01-452-0625	<u>Infusion Pump, MedSystem III</u> Service Bulletins MedSystem III Directions for Use Technical Service Manual MedSystem III Infusion System
6520-00-000-0158	Dental Light Set, LF II <u>TM 8-6520-001-24&P</u> <u>Installation Instructions, Operating Instructions, Use and Care Manual</u> <u>Service Manual, Repair Manual, and Parts List Manual</u>
6520-00-139-1246	Dental Compressor-Dehydrator, M5B <u>TM 8-6520-003-24&P</u> <u>Technical Manual</u>
6520-00-139-1246 6520-01-398-4613	<u>Dental Compressor-Dehydrator, PAC 6.7</u> Technical Manual, Defiance Electronics Owners Manual/Parts List, HP Series, Piston Air Products HP Series, 1 & 1-1/2 Horsepower, Pneumotive Service Procedures
6520-00-140-7663 6520-01-272-4531	Dental Operating Unit, Porta-Cart 3406 <u>Operation and Maintenance Instructions</u> <u>TM 8-6520-002-24&P</u>
6520-00-966-3729	Electric Laboratory Dental Furnace <u>Instructions for the Operation and Maintenance</u>
6520-01-333-5961	Dental System, FUS336 <u>Operation and Maintenance Instructions</u>
6520-01-343-8126	Portable Field Dental Unit, 2100M <u>Operation and Maintenance Manual</u>
6520-01-446-3783	Portable Dental Chair, ADC-01CS <u>Operation and Maintenance Manual</u>
6525-01-303-6235	<u>X-ray Processor, AFP 14X-3</u>
6525-01-370-7552	<u>Portable Dental X-ray System, ALPHA MPDX</u> Operation Manual Maintenance Manual

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<u>6525-01-422-6122</u>	<u>Processing Machine, Radiographic Film with Daylight Loader</u> Installation, Operation, Service, and Parts Manual
*6530-00-926-2151	Portable Sterilizer System, M-138
<u>Instructions</u> <u>TM 8-6530-004-24&P</u>	
<u>6530-01-244-0708</u>	<u>Field Hospital Surgical Light, 2420</u>
Service Manual	
6530-01-246-1906	Portable Intermittent Traction Machine, Tru-Trac TT-92B Series
<u>Operating Instructions</u> <u>Service Manual</u>	
6530-01-306-1771	Validator, 8" and 10"
<u>Operator's Manual</u> <u>Service Manual</u> <u>Parts List, 8"</u>	
<u>6530-01-308-7740</u>	<u>Sink Unit, 950S936</u> <u>Hamilton Installation Operation and Maintenance Manual</u>
6530-01-327-0686	Portable Ventilator, 750 and 750M
<u>TM 8-6530-009-24&P</u> <u>Instruction Manual, Operation & Service</u>	
<u>6530-01-374-8903</u>	<u>Portable Ventilator, Bird Avian</u> Operator/Service Manual
<u>6530-01-442-8720</u>	<u>Steam Sterilizer, MC 8 and MC 10</u> Service Manual GLS-8 and GLS-10
<u>6630-01-284-6546</u>	<u>Analog pH Meter, Orion Model 301</u> Commercial Maintenance and Operation Manual
<u>6630-01-300-8711</u>	<u>Analyzer, Sodium Potassium, 614</u> Instruction Manual Service Manual
6630-01-316-5085	Centrifugal Analyzer, QBC II
<u>Maintenance Manual for the QBC II Reader, Model 4477</u> <u>Operator's Manual For The QBC II Plus Centrifugal Hematology System and</u> <u>Maintenance Manual For The QBC Centrifuge, Model 4207</u>	
6630-01-364-8555	Portable Blood Gas Analyzer, GEM-STAT
<u>Comprehensive Service Manual</u> <u>Operator's Manual</u>	

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<u>6640-01-034-0479</u> Instruction Manual	<u>Colony Counter, 3325, 3326, 3327, 3328</u>
6640-01-143-2055 <u>TM 8-6640-001-24&P</u> <u>Operator's Manual</u>	SERO-FUGE and SERO-FUGE II Laboratory Centrifuge, 0521, 0522, 0541
<u>6640-01-283-9308</u> 6640-01-302-1025 <u>Operation/Instruction/Maintenance Manual</u>	<u>Viewer Agglutination</u> Oven, STG80
6640-01-315-5382 <u>Instruction Manual</u> <u>Service Manual</u>	Laboratory Centrifuge, Z 320
<u>6650-00-973-6945</u> Instruction Manual	<u>StereoZoom Series Microscope</u>
<u>6650-01-259-3008</u> Maintenance Manual Instruction Manual	<u>Field Microscope, FM 600</u>

*** For parts support call Medical Maintenance Support Division, Utah (commercial 801-586-4949/4950 or DSN 586-4949/4950, fax X5058).**

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Operator & Maintenance Literature for Medical Equipment *Disc 4*

4110-01-291-7046	Mechanical Field Ward Refrigerator <u>Operation and Maintenance Manual</u>
4110-01-320-1699	Redundant Refrigeration System, MBF-500 <u>Service Data Manual</u>
4110-01-358-3836	Refrigerator-Mechanical, Biological, ERB-5-0378 <u>Operation and Maintenance Manual</u>
4110-01-450-0060	<u>Blood Plasma Freezer, CTF1-1B-06</u> Service Manual Electronic Temperature Recorder Manual Monitor DTPM Series Installation and Operating Instructions Transformer & Recording Thermometer Installation, Operation and Service Manual
6515-01-150-7840	<u>Blood/Fluid Warmer, FLOTEM IIe</u> Operation Instruction Manual Technical Maintenance Manual
6515-01-241-7531	<u>Suction Apparatus (Uni-Suction Pump)</u> Description and Function Service Manual
6515-01-261-0484	Aspirator, RS-4, RS-6 & RS-5X <u>Operators Manual</u>
6515-01-293-5578	Doppler Ultrasound Instrument, D8 <u>Operator, Instruction and Service Manual</u>
6515-01-318-1558	Arthroscopic Surgical Unit, MIL-D-42048 <u>Maintenance Instructions</u>
6515-01-376-6564	Upper GI Fiberscopes, FG-24X, FG-27X, FG-29X, FG-32X, FG-34X <u>Owner's Manual</u>
6515-01-379-7852	Cutter-Vacuum, Orthopedic Cast, 940 <u>Maintenance/Operator's Manual</u>
6515-01-386-4354	Transcutaneous Electrical Nerve Stimulator, Maxima II <u>Operation Manual</u>

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6525-01-312-6411	Continental X-ray, CS-8952 <u>Operator's Manual 9023-401</u> <u>Volume I</u> <u>Volume II</u> <u>Shipping Retrofit Instructions, Manual 9023-407</u>
6525-01-369-7178	<u>Portable Darkroom X-ray, PDR-1</u> Technical Manual Operating Instructions and Service Manual
6525-01-384-9296	<u>X-ray Apparatus, Clinix VP4</u> System Operator's Guide System Installation Manual, Table/SynerGen Service Manual, X-ray Generator Installation Manual, Collimator Installation Manual, Table <u>Parts List for Clinix VP4</u> <u>Schematics 1 for Clinix VP4</u> <u>Schematics 2 for Clinix VP4</u>
6525-01-425-5216	Dental X-ray Apparatus, HDX <u>Installation, Operation & Maintenance Manual</u>
6525-01-468-1672	Portable Dental X-ray Unit, MinXray P200D Mark III <u>Installation and Operating Instructions</u>
6525-01-480-2199	<u>Medical Filmless Imaging System, (8 models)</u>
6530-01-127-2215 6530-01-206-6016	Whirlpool Bath, 290 <u>Maintenance Manual and Operating Instruction Manual</u>
6530-01-128-2442	<u>Whirlpool Bath</u> Mobile Hydrotherapy Unit -- Operation, Service and Repair Parts Manual Electric Turbine Ejector -- Operation, Service and Repair Parts Manual Electrical Converter -- Operation and Maintenance Manual
6530-01-244-1976 6530-01-207-0827	<u>Solution Warming Cabinet -- Two Compartment, 7924-SSDP</u> Operator's Manual Maintenance Manual
6530-01-244-8101	<u>Medi-Therm Hyper/Hypothermia, MTA-4700/MTA-4701/MTA-4702</u> Service Manual Operating Instruction Manual
6530-01-254-4135	<u>Mobile Ultrasonic Cleaner, MSC-900T-11/21</u> Operating Instruction Manual Maintenance Manual

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6530-01-306-9510	Sterilizer, Surgical Instrument and Dressing <u>Operator's Organizational Maintenance Manual</u>
6530-01-353-9883	<u>Surgical Tables</u> Maintenance Manual, 2080M and 2080M I.A. Equipment Manual, 2080IA
	Water Distribution and Waste Water Management System (WDWWMS) <u>Operator's and Organizational Maintenance Manual</u>
6545-01-435-6914	Water Distribution Set, Hospital, DEPMEDS
6545-01-434-9624	Wastewater Management Set, Hospital, DEPMEDS
6545-01-435-6013	Waste-Water Augmentation Set, Hospital, DEPMEDS
6545-01-480-6913	WDWWMS Maintenance Set, Hospital, DEPMEDS
6545-01-491-4732	Water Distribution Set, Hospital, MRI 84 Bed
6545-01-491-4728	Wastewater Management Set, Hospital, MRI 84 Bed
6545-01-491-4698	WDWWMS Maintenance Set, MRI 84 Bed
6630-01-344-9996	Plasma Coagulation Timing Instrument, Electra 750 <u>Service Manual</u>
6630-01-376-9823	Chemical Clinical Analyzer <u>Service Publication for the DT60 Analyzer and DTE Module</u> <u>Service Publication for the DTSC Module</u>
6640-00-765-0621	Water Bath, Imperial III <u>Instruction Manual</u>
6640-01-249-1212	Pipette Shaker, 0621010 <u>Technical Manual</u>
6640-01-291-8390	Hot Plate/Stirrer, 502 Series <u>Operating and Maintenance Manual</u>
6640-01-308-7749	Refrigerated Centrifuge, 3497 <u>Instruction Manual</u>

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3540-00-457-2699 <u>Operator's Manual</u> <u>Service Manual</u>	Hematron Dielectric Sealer, 4R4330/4R4340
4110-00-837-6441 <u>Service & Parts Manual</u>	Ice-O-Matic, C Series Cuber
4110-01-422-6809 Operators Manual Service Manual Repair Parts and Support Kits Instruction Insert	<u>Blood Bank Refrigerator, Harris</u>
4110-01-504-1157 <u>Owner's Instructions</u>	Commercial Refrigerator, Refrigerator/Freezer & Freezer
6515-01-153-9649 6515-01-283-6221 <u>Owner's Manual</u> <u>TM 8-6515-006-24&P</u>	Fiber Optic Light Source, 52-1201
6515-01-246-1938 <u>Maintenance and Service Manual</u> <u>TM 8-6515-008-24&P</u>	Suction Apparatus, 6003
6515-01-259-4307 <u>Operation, Maintenance, and Service Manual</u> <u>TM 8-6515-009-24&P</u>	Suction Apparatus, GOMCO 6053
6515-01-269-6056 <u>Operating & Service Manual</u>	Electrosurgery Unit, 774
6515-01-285-4617 <u>TM 8-6515-005-24&P</u>	Fiberoptic Bronchoscope, F3 and F3G
6515-01-293-5577 <u>Operator's Manual</u> <u>Service Manual</u>	Pulse Oximeter, 3040G
6515-01-318-1558 <u>TM 8-6515-010-14&P</u>	Arthroscopic Surgical Unit

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6515-01-327-4155	Endoscopic Instrument Light, DLMP-300 <u>Operation & Maintenance Manual</u> <u>TM 8-6515-007-24&P</u>
6515-01-358-9480	Thermal Drainage Unit, 2590-120G <u>Instructions for Operation and Maintenance</u>
6515-01-397-5212	MiniStim Peripheral Nerve Stimulator, MS-II <u>Instruction Manual</u>
6515-01-432-2707 6515-01-432-2711	Monitor Patient Vital Signs, 206EL w/spo2 Monitor Patient Vital Signs, 206EL w/spo2 and capnography <u>Update and Service Manual</u> <u>Directions for Use</u> <u>Reference Guide</u> <u>Update</u>
6515-01-446-6766	Oximeter, BCI 3303 <u>Clinician's Operation Manual</u> <u>Service Manual</u>
6515-01-457-1840	Anesthesia System, Narkomed M <u>Technical Service Manual</u>
6515-01-466-0971	Finger Pulse Oximeter <u>Instruction and Service Manual</u>
<u>6520-01-345-6089</u>	<u>Table Top Processor, Curix 60</u> Operator's Installation and Instruction Manual Technical Documentation
6525-01-496-4229	Ultrasound System PLUS, Sonosite <u>Service Manual</u>
6525-01-504-5002	Scanner, PcCR1417 (Automatic Cassette Loading Version) <u>Interface Guide, Version 2.5.1.09</u> <u>ACL4 System Installation Manual</u> <u>ACL4 System User Manual</u> <u>ACL4 System Service Manual</u>
6530-00-709-8175	Field Operating Table <u>TM 8-6530-011-14&P</u>

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6530-01-254-4135 <u>TM 8-6530-005-24&P</u>	Mobile Ultrasonic Cleaner
<u>6530-01-269-1802</u> Service Manual Operator Manual Installation Instructions Parts Catalog <u>Service Manual, Revision C, 5520, 5525, 5530</u> <u>TM 8-6530-007-24&P, Model 5520</u> <u>TM 8-6530-008-24&P, Model 5550</u>	<u>Warming Cabinets, 5540, 5545, 5550</u>
<u>6530-01-321-5592</u> Field Operating Table Assembly and Packing Instructions ARC Instruction Manual	<u>Field Operating Table with ARC</u>
6530-01-343-2033 <u>Operator Manual</u> <u>TM 8-6530-010-24&P</u>	Surgical Field Light, 2410MB
<u>6630-01-247-1331</u> Operator's Manual Operator Instructions Service Manual Parts Lists Schematics 820 Procedure Summary	<u>Digiclot II Coagulation Timer, 820</u>
6630-01-300-8711 <u>Operator's Guide</u> <u>Instruction Manual</u> <u>Service Manual</u>	Analyzer, ISE Na ⁺ /K ⁺ , 614
6640-01-416-7345 <u>Operator's Manual</u>	Centrifuge, SERO-FUGE 2000 Series
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N/A <u>TB MED 7</u>	Maintenance Expenditure Limits for Medical Materiel
N/A <u>TB MED 750-1</u>	Operating Guide for Medical Equipment Maintenance
N/A <u>AR 40-61 (Medical Logistics Policies and Procedures) Augmentation</u>	SB 8-75-11

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<u>N/A</u>	<u>Dexis Digital X-ray System</u> User's Manual System Requirements Installing DICOM Conformance Statement
N/A	Portable Oxygen Generation System, POGS 33 <u>Maintenance Manual</u> <u>Operations Manual</u>

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6515-01-104-0396	Light Source, MILS-1 <u>Operation and Maintenance Manual</u>
6515-01-287-0607	Tourniquet System, A.T.S. 1500 <u>Operator & Service Manual</u>
6515-01-290-8949	Ancillary Coaxial System <u>Instruction Manual</u>
6515-01-335-9383	<u>Surgical Microscope, Wild M650/M690</u> Training Manual Service Manual Spare Parts Manual Instructions for Use
6515-01-342-9195	Vital Signs Measurement System (Thermometer), 2080 <u>Service Manual</u>
6515-01-378-4529	Ultrasound Stimulator, Intellect Model 700-C <u>Operator's and Service Manual</u>
6515-01-397-5257	Surgical Operating Microscope, Wild M690 <u>Spare Parts Catalog</u>
6515-01-435-0050	Surgical Suction Apparatus, Gastrointestinal Abdominal Drainage, 326M <u>Operation & Service</u>
6515-01-457-1840	<u>Narkomed M Anesthesia System, Part No. 4114179</u> Operator's Instruction and Setup Manual Drager-Vapor 2000 Anaesthetic Vaporizer Instructions for Use <u>Technical Service Manual</u>
6515-01-503-3369	Pulse Oximeter, PalmSAT 2500 <u>Operator's Manual</u>
6520-01-045-6407	Ultrasonic Dental Unit with Automatic Fine Tuning, 2001 <u>Installation and Service Manual</u>
6525-01-099-2320	Portaray Heliodont 70 with Dentotime, D3152 <u>Maintenance Instructions</u>

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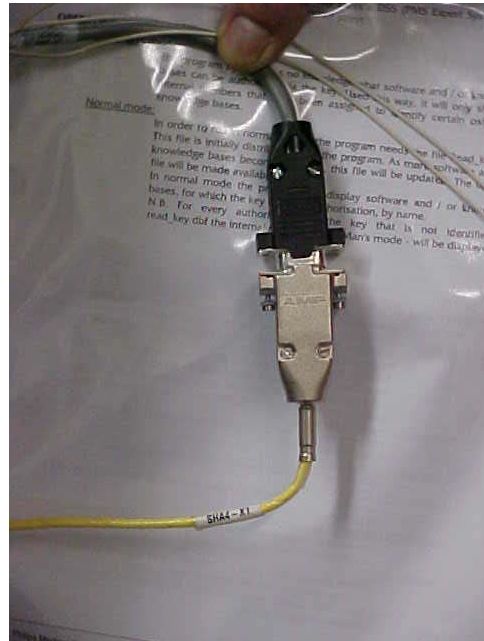
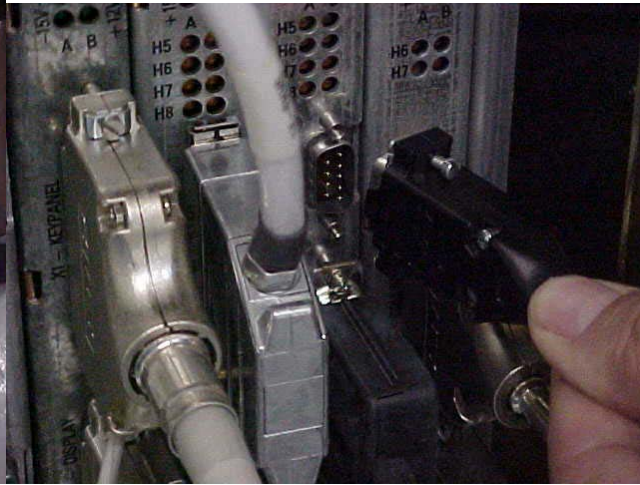
6525-01-268-5152 <u>Technical Documentation</u>	CURIX ID Camera, 8400/300/340/350
6525-01-503-7170 <u>Service Manual</u> <u>User Guide</u>	Ultrasound System, C1.99 PLUS and ELITE
6530-00-709-8175 <u>Service Data</u> <u>Service Manual</u> <u>TM 8-6530-011-14&P</u>	Field Operating Table
6530-01-292-7700 <u>Operator's Manual</u>	Ultraviolet Hand Lamp, Spectroline EN 140L - BV
6530-01-330-7455 <u>Draft Technical Manual - Operator's Manual</u>	Water Recovery System (Use with Sterilizer NSN 6530-00-926-2151)
6530-01-459-4569 <u>Instructions for Use and Operation</u>	COLPAC Master Chilling Units, C-2, C-5, C-6
6540-01-340-0844 Operation Instruction Manual Maintenance Instruction Manual	<u>Eye Magnet, Series 10K</u>
6545-01-284-3035 <u>Operation and Maintenance Manual</u>	Cystoscopic Kit, MILGUDI-1
6640-01-246-1989 <u>Instruction and Maintenance Manual</u>	Serological Water Bath, 148007
6640-01-271-4094 <u>Instruction and Maintenance Manual</u>	Dry Heat Incubator, 110444
6640-01-308-7749 <u>Instruction Manual</u>	Refrigerated Centrifuge, 3497
6640-01-315-5382 <u>Instruction Manual</u> <u>Service Manual</u>	Laboratory Centrifuge, Z320
6640-01-416-1385 Service Manual Service and Operating/Instruction Manual	<u>Flo-Thru CO2 Incubators, 325GVT, 325-1GVT</u>

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6640-01-463-0068	Automated Microbiological Panel Reader, AutoSCAN - 4
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6650-01-293-7240	Microscope Labophot
6650-01-325-3747	Microscope Labophot2
<u>Operation and Preventive Maintenance</u>	
6650-01-406-1828	Microscope, BX40 System
<u>Service Manual</u>	
6695-01-255-2855	Calibration Analyzer, RT-200
<u>Operation/Service Manual</u>	
N/A	Defibrillator Analyzer, QED-III
<u>Operator's Manual</u>	
N/A	Portable Dental X-ray Unit, MinXray P200D Mark III
<u>Installation and Operating Instructions</u>	
N/A	Power Instrumentation for Small Bone Surgery
<u>Instruction Manual</u>	

APPENDIX G: INVASIVE MONITORING INSTRUCTIONS

1. Remove front and left side panels
2. Remove cable SHA4-X1 from board SHA4
3. Install "test cable" in series with serial plug MAMEAS and cable SHA4-X1
4. Insert banana plugs into DC volt meter
5. Make x-ray and capture reading volts DC
6. VDC = 3 times mA actual (i.e. 4.5VDC = 1.5mA)



APPENDIX H: CENTRALIZED CLASS VIII REPAIR PARTS PROGRAM AND PROCEDURES

1. Repair parts for medical equipment encompass those components, supplies, and other materials necessary to facilitate unit and higher-level maintenance support of medical equipment. Medical equipment repair parts, though normally Class VIII or Class IX items, can include all supply classes where such parts or materials are required to perform maintenance services or equipment repairs to return an item to a fully mission capable status. Class VIII repair parts do not include accessories or consumable supplies i.e. pipettes, operator replaceable tubing or batteries, jars or collection containers, and so forth which should be provided and funded as part of the organization's Unit Level maintenance program.

2. The US Army Medical Materiel Agency (USAMMA) operates a centralized medical repair parts program for Army organizations resourced within the authority of Modified Table of Organization & Equipment (MTOE). The purpose of the program is to provide an adequate and responsive Class VIII repair parts support contingency to support AMEDD MTOE organizations. The necessity to execute and manage a centrally managed Class VIII repair parts program within the AMEDD, particularly for MTOE organizations is required and essential to ensure deployable organizations with medical equipment are fully mission capable (FMC) upon deployment to support contingencies and combat operations.

3. The program's objective is to make available, to organizations with a field or sustainment maintenance capacity, the repair parts necessary to sustain deployable medical equipment in a fully mission capable (FMC) status. It has been determined that a contributing factor to TOE organizations not having an effective medical maintenance program has been the inability of repairers to obtain parts needed to maintain unit's medical equipment.

a. Prevalent problems associated with the Class VIII repair parts process include parts no longer available from original equipment manufacturer (OEM) and a lack of standardization causing supply chain unresponsiveness, both of which result in frequently rejected parts requests at the local level.

b. Utilization of in-house medical maintenance expertise within the supply chain has proven to reduce many repair parts difficulties. Moreover, the availability of a robust inventory of existing assets and a depot level cannibalization point, coupled with 25K Credit Card Authority, has proven to significantly improve repair parts supply chain responsiveness and customer satisfaction.

c. Measurable benefits realized at the unit level, above and beyond the availability of class VIII repair parts to support a comprehensive medical maintenance program, are reduced costs associated with minimum order requirements, as well as a reduction in man-hours required for investigation and research.

d. Additionally, the centrally managed Class VIII repair parts program facilitates the development of a central source of supply with a comprehensive information repository capable of providing invaluable repair parts utilization data to build push packages to support contingency operations.

4. The Centralized Class VIII Repair Parts Program is not intended to provide initial supply or resupply of PLL stocks and/or inventories.

5. Management of USAMMA's centralized medical materiel repair parts program will be in accordance with AR 710-1, Centralized Inventory Management of the Army Supply System; AR 710-2, Inventory Management Supply Policy Below the Wholesale Level; AR 40-61, Medical Logistics Policies and Procedures; DA PAMs 710-2-1 and 710-2-2.

6. The Centralized Class VIII Repair Parts Program will provide sustainment level maintenance repair parts support to Army MTOE organizations. Funding for repair parts support differs depending on whether the organization is operating in garrison as opposed to operating in contingency operation. In addition to the unit's operating status, funding is also dependant on the unit's component.

a. Contingency Operations. Due to extreme conditions, as well as the extraordinary operation tempo associated with contingency operations, the Department of Defense allocates separate operating budgets (theater dollars) to support contingency operations. The US Army Medical Materiel Agency Centralized Class VIII Repair Parts Program will provide any and all repair parts support requested on a prepaid by theater or reimbursable basis for MTOE units in contingency operations.

(continued) APPENDIX H: CENTRALIZED CLASS VIII REPAIR PARTS PROGRAM AND PROCEDURES

b. Garrison Operations. Funding for Repair Parts Support of MTOE units operating in garrison (not contingency operations) is further defined as follows:

(1) Non-reimbursable (Sustainment Maintenance Program)

(a) COMPO 1 (Active Army). Repair parts support for active Army MTOE organizations includes all direct, general, and depot level maintenance parts and support requirements while the organization is in garrison.

(b) COMPO 2 (National Guard). Repair parts support for Army National Guard organizations includes all direct, general, and depot level maintenance parts and support requirements while the organization is in garrison.

(c) COMPO 3 (Army Reserve).

1) Reserve Component Hospital Decrement (RCHD). Repair parts support for the USAMMA managed RCHD program includes all direct, general, and depot level maintenance parts and support requirements while the equipment is in USAMMA's charge.

2) Mission Essential Equipment Training (MEET) and Clinically Operational Equipment Sets (COES). Repair parts support for the USARC managed MEET and COES equipment includes only depot level maintenance support parts requirements. Medical repair parts that are no longer available from commercial sources are the only exception. All repair parts excluding depot level maintenance support parts requirements and parts no longer available from commercial sources should be obtained through the unit's supporting Regional Training Site, Medical (RTS-Med).

(2) Reimbursable/Prepaid (Unit/MACOM Funded)

COMPO 6 (Army Prepositioned Stocks (APS)) All repair parts support for APS medical equipment must be funded by the APS program on a reimbursable or prepaid basis. The exception is APS that has been handed off to a unit participating in contingency operations, for which funding is provided by the theater.

7. Class VIII Repair Parts Support Request Procedures.

1. Typically, the medical maintenance support structure should coincide with the medical supply support structure. Medical maintenance personnel should attempt to utilize established supply channels to the maximum extent possible. Appropriate use of the supporting supply channel, i.e. MEDLOG, IMSA, SMLIM, assists in establishing consequential and future logistical support requirements.

2. Installation Medical Supply Activities (IMSAs) and Medical Logistics Battalions/Companies (MEDLOGs) providing sustainment level medical maintenance support should consider contacting USAMMA directly to obtain repair parts support.

3. Likewise, unit level maintenance organizations, which due to locality are experiencing difficulty or delays with conventional supply channels to the extent that equipment or unit readiness is significantly impacted, may consider contacting USAMMA to obtain repair parts support.

4. For sustainment level medical maintenance repair parts support, call USAMMA @ (801) 586-4947 or DSN 586-4948.

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By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

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Secretary of the Army*

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