Standard Electric Console REF 1020

Instruction for Use

PAL®
Power-Assisted Liposuction

MICROAIRE®

- TABLE OF CONTENTS -

Model 1020 Standard Electric Console
Instruction Manual

- SYSTEM OVERVIEW AND INTENDED USE -

The MiroAire Standard Electric Console – REF 1020 – is an electronic control system for operating the PAL-600E and PAL-650 handpieces. The console will also operate MicroAire Series 1000 Electric Instruments such as wire drivers, saws, and drills. Not for use with the 1641 Electric SmartDriver or throttleless instruments using a foot pedal.

The MicroAire 1020 is an instrument control console for driving small power instruments. It generates the signals necessary to run the motor in these instruments at the desired speed and direction as controlled by the operator. The speed is either adjusted by a lever on the instrument or by the knob on the front of the console. The approximate speed of the instrument is indicated by the light display on the front of the console next to the control knob.

Intended users are surgeons, physician's assistants, orthopedic operating room nurses, and circulating nurses.

The 1020 console is not intended to be sterile and should never be sterilized.

There are no known contraindications.

- EQUIPMENT CLASSIFICATION -

- CLASS 1
- Degree of electrical isolation: BF
- **Duty Cycle - 1000 Series Instruments:** This unit is designed for continuous operation with short-time loading. (1 Minute running, allow handpiece to cool to room temperature)
- **Duty Cycle - Electric PAL Handpiece**: Designed to operate for up to 20 minutes of continuous use with intermittenet operation over a period of 1-2 hours.
- **Ratings:** 240W
- **Input:** 100-230V∼,50-60 Hz, 240W

- APPLICABLE ACCESSORIES AND PART NUMBERS-

CONSOLE & ACCESSORIES DESCRIPTION	MICROAIRE PART (REF.) NUMBER
Standard Electric Console	REF. 1020
PAL® 600E	REF. PAL-600E
PAL® 650 LipoSculptor™	REF. PAL-650
Instrument cable for PAL-600E & PAL-650	REF. 1006-PALE
1000 Series Electric Motor Module, Throttless	REF. 1000E
1000 Series Motor with Throttle	REF. 1000ET
1000 Series Instrument Power Cable (12 feet +/- 4 inches)	REF. 1006-1000
1000 Series Micro Sagittal Saw Module	REF. 1922
1000 Series Micro Drill Module	REF. 1930
1000 Series 20° Angled Drill Module	REF. 1932
1000 Series Reciprocating Saw Module	REF. 1945
1000 Series Keyless Hall-Style Oscillating Saw Module	REF. 1950
1000 Series Hall-Style Sagittal Saw Module	REF. 1955
1000 Series Micro Oscillating Saw Module	REF. 1970
1000 Series Oscillating Foot Saw Module	REF. 1972
1000 Series Keyless Foot Oscillating Saw Module	REF. 1976
1000 Series Jacobs-Style Drill Module	REF. 1980
1000 Series AO Synthes-Style Drill Module	REF. 1990
1000 Series Wire Driver Module	REF. 1995
1000 Series High-Speed Drill Module	REF. 2130-000

- CONSOLE ICONS -

MARKINGS	DEFINITION
	Power “OFF”
	Power “ON”
	Speed Indicator
	Speed Control
	Handpiece
	Reverse Indicator

- CONSOLE MARKINGS -

MARKINGS	DEFINITION
	Attention, See Instructions for Use
	Product Catalog Number
	Authorized European Representative
	Product Serial Number
	Lot Number; Example (1010175891)
	Complies with BF Isolation requirements in accordance with UL 2601-1

- CONSOLE MARKINGS -

MARKINGS	DEFINITION
	Manufacturer
	Date of Manufacture YYYY-MM
	Expiration Date YYYY-MM
	European Conformity Mark
	Classified by Underwriter's Laboratories, Inc. with respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1.
	Stepping Prohibited
	Sitting Prohibited
	DO NOT expose to stray magnetic fields
	DO NOT Lubricate
	DO NOT Immerse
	Temperature Limitations
	Humidity Limitations
	Atmospheric Limitations
	Dispose of as per WEEE Directive 2002/96-EEC
	Caution: Federal Law (U.S.A.) restricts this device to sale by or on the order of a physician (or properly licensed practitioner)

INSTRUMENT MARKINGS [REFERENCE ONLY]

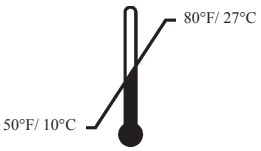
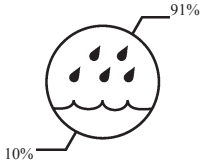
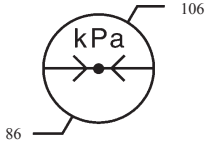
NOTE: Markings not applicable to the PAL handpieces.

	“Safe” or “Lock”	SAFE	Throttle safety lock is engaged.
	“Run” or “Load”	RUN	Throttle safety lock is NOT engaged.

- ENVIRONMENTAL PARAMETERS -

- OPERATING CONDITIONS -

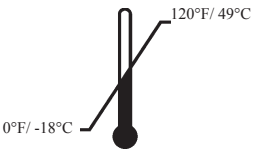
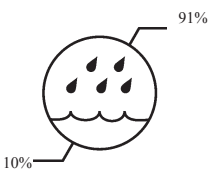
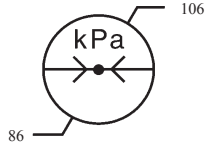
Devices have been tested and proven to operate within the following conditions:

		
Temperature	Humidity	Atmospheric

WARNING: If there is condensation present on the 1020 console, **DO NOT** operate the console.

- SHIPPING/ STORAGE CONDITIONS -

This device has been tested and proven to function after repeated exposure to the following conditions:

		
Temperature	Humidity	Atmospheric

Shipping: The materials and components used in the construction of this device were selected to insure that the device could be shipped by any standard commercial method without special handling conditions.

- IMPORTANT INFORMATION -

This manual has been written to help describe the procedures required to keep the MicroAire 1020 Standard Electric Console system operating properly.

Throughout the manual, the following terms are used to identify tips and precautions that will help avoid accidental injury to patients or personnel, or prevent damage to the system.

- DEFINITIONS: NOTE - WARNING - CAUTION -

Please read this manual and follow its instructions carefully. The words NOTE, WARNING, and CAUTION carry special meaning and should be carefully reviewed.

NOTE: Indicates special information to make maintenance easier or important instructions more clear.

WARNING: Indicates that the safety of the patient and/ or hospital personnel could be involved.

CAUTION: Indicates special service procedures or precautions that must be followed to avoid damaging the instrument and/ or system components.

- GENERAL WARNINGS -

WARNING: Risk of fire. Replace fuse with 3.15A/250V Slow Blow.

WARNING: Grounding reliability can only be achieved when the equipment is connected to equipment receptacle marked “Hospital Only” or “Hospital Grade.”

WARNING: Disconnecting the supply cord will isolate the console from the supply mains on all poles simultaneously.

WARNING: Risk of fire. Use only MicroAire cables to connect to the instrument.

WARNING: Explosion Hazard. Equipment and components are not suitable for use in the presence of flammable anesthetics or oxygen.

WARNING: Electric Shock. **DO NOT** remove cover.

WARNING: Type BF rating may only be maintained if the instrument is not used to bridge between the patient and ground.

WARNING: Use care to ensure that there is no electromagnetic interference between this device and other devices in use.

CAUTION: Federal law (USA) restricts this device to sale by or on the order of a physician or properly licensed practitioner.

CAUTION: Risk of overbalance due to sitting or stepping on console. DO NOT sit on or step on console.

NOTE: Continuous Operation with Short Time Loading. (1 Minute Running, Allow to cool to room temperature). *(1000 Series Instruments Only)*

-1020 STANDARD ELECTRIC CONSOLE -

NOTE: All personnel should become familiar with the power equipment before it is set up for use in any procedure. Personnel inserviced should include, but not limited to, central processing personnel, members of the surgical team, and the bioengineering department.

WARNING: Prior to use, all system components (console, cables, instruments, and accessories) should be inspected to detect any damage or malfunction. **DO NOT** use any component if damage is apparent.

WARNING: Prior to use, all system component manuals should be reviewed for important warnings and instructions for use.

WARNING: Eye protection must be worn when operating any power equipment. Dislodged burs, blades, or bone fragments can result in eye injury, blindness, or contamination of the eye from patient tissue or body fluids.

- SYSTEM CHECK, ASSEMBLY AND OPERATION -

1. Check the console and all cables for signs of damage or wear.

2. Inspect the handpiece for damage, or corrosion, or excessive wear.

WARNING: If any corrosion or debris is detected in/on the instrument, it must be considered contaminated. Either replace the instrument immediately or remove it from the sterile field and reprocess. If the instrument looks damaged or shows signs of excessive wear, it should not be used.

3. Starting with the console, plug the wall outlet power cord into the back of the unit. The plug only inserts one way.

4. Plug the handpiece cable into the receptacle located on the front left of the console by aligning the red dot on the cable with the red dot on the console.

CAUTION: DO NOT twist or force the plug into the outlet. Doing so could bend the pins in the cable and damage the cable and/or the console.

5. Firmly hold the handpiece and insert the handpiece cable into the back of the handpiece. Align the red dot on the cable with the red dot above the handpiece recepticle before inserting. **DO NOT twist or force the plug into the receptacle.**

6. Before plugging the console into the wall voltage outlet, check to see that the power switch on the front of the console is in the “OFF” position. Plug the power cord into a Hospital Grade outlet and turn the power switch to “ON” to activate the unit. The console will operate on 100 - 230V~ grounded outlets. Once the unit is turned on, the switch and all LEDs on the front panel will illuminate, and 4 short “beeps” will be heard. If the 4 short “beeps” are not heard, please refer to the Troubleshooting section. When the instrument is ready to run the console will give a single “short beep.”

NOTE: The “OFF” position is designated by ○ and the “ON” position is designated by |.

CAUTION: Check all surgical accessories before attaching them to the handpiece. Make sure that blades, drills, burs, and/ or cannulae are not dull or bent. Check that accessories lock correctly into the handpiece before operating the power instrument.

7. Make sure the throttle lock on the handpiece is in the  or SAFE position. Insert the surgical accessory into the handpiece, making sure it is secure.

NOTE: References to the throttle lock and throttle lever are applicable to the1000 Series instruments and PAL-600E only. The PAL-650 throttle slides from the **SAFE** position to **RUN**; it does not lock in place.

A) Make sure that when the throttle is on  or **SAFE** it prevents activation of the motor by the hand throttle.
B) Make sure that when the safety lock is on  or **RUN** it allows activation of the motor by the hand throttle.
C) Make sure that the throttle does not stick in the fully depressed position. If it has any tendency to stick, reclean and re sterilize the handpiece. If the handpiece still does not meet the above requirements, return the handpiece for service.

NOTE: Different handpieces have different mechanisms for attaching these components.

Please refer to the instructions specific to the handpiece.

8. With the surgical accessory inserted, test run the instrument in the sterile field for three (3) 10-second intervals, checking for any indication of irregular noise, or excessive heat or vibration. Irregular grinding noises may indicate impending failure or over heating of the handpiece. If any irregular grinding noises are present, return the instrument for service.

9. Check for excessive heat.

WARNING: Excessive heat is the most likely cause of patient injury. Any power instrument is subject to overheating, especially in the nose section. Even normal operation of the system in a cycle other than 1 minute “ON” and allowing the handpiece to cool to room temperature may cause the handpiece to become hot.

To Check for Overheating: Test run the handpiece for approximately 30 seconds. Periodically monitor the temperature of the nose section. The temperature should not rise above 115°F (46°C) and should not become uncomfortable to touch with gloved fingers. If the instrument temperature exceeds 115°F (46°C) please return it for service.

NOTE: Surgical usage, cleaning, and sterilization can be destructive to instruments. The following conditions may cause overheating or total failure of the instrument:

- Blood deposits, saline, and bone fragments often enter the forward section of the handpiece during operation. Saline causes corrosion, and blood produces restrictive deposits.
- Repeated sterilization removes grease from the bearings and leaves mineral deposits on moving parts. Regular maintenance is recommended to replace bearings, seals, and “o” rings.
- The force of cutting produces wear on bearings and oscillating mechanisms.

NOTE: References to the throttle lock and throttle lever are applicable to the1000 Series instruments and PAL-600E only. The PAL-650 throttle slides from the **SAFE** position to **RUN**; it does not lock in place.

10. To operate the handpiece slide the throttle lock to the or **RUN** position. Gently depress the throttle lever to activate the motor. Fully depress the throttle one time to obtain fine speed control.

11. To set the throttle maximum speed at other than 100%:

    A) Fully depress the throttle of the instrument.
    B) Use the control knob to set the maximum speed. (Constant LED indicates maximum set point).
    C) Maximum speed is now set for the desired instrument.

NOTE: The operator set value will be reset to 100% when the instrument is removed.

12. System is ready for use.

- TROUBLESHOOTING -

1. The 1020 Standard Electric Console provides audible signals to aid in trouble shooting possible problems with the console and the associated instrument.

    A) Four (4) short “beeps” should be heard when the 1020 Console is powered on. If the 4 short “beeps” are not heard, verify the following:
        i) The power cord is connected to the console and the power source.
        ii) The power switch is on.
        iii) The power switch LED is lit. If the power switch LED is not lit, or if it is lit and the four (4) short “beeps” are not heard, return the console for service.
    B.) Three (3) long “beeps” indicate an improper instrument type has been connected to the console. This signal is triggered if MicroAire 6000 series instruments or the 1641 SmartDriver is attached to the REF 1020. If a valid instrument is connected, remove and reinstall both ends of the cable. If this does not correct the problem, try another cable or contact MicroAire Customer Service. **Note:** See section " Applicable Accessories and Part Numbers" for a list of valid instruments.
    C) One (1) long “beep” followed by 3 short “beeps” indicates a bad motor in the handpiece. Try reconnecting both ends of the cable. If this does not correct the problem, try another cable or contact MicroAire Customer Service.

2. The 1020 Standard Electric Console is equipped with an automatic shut-off feature. If the motor of the handpiece is stalled for more than 2 seconds, the console will turn off power to the handpiece until the throttle is released and depressed again.

3. Handpiece cable is difficult to insert into the handpiece or the console.

    A) Align connectors and receptacles carefully. Make sure the pins on the cable are aligned with the matching holes in the console or handpiece receptacle. This connection is a tight fit to keep particles from getting inside the handpiece.
    B) Make sure the plug is pressed fully into the handpiece and that the “snap lock” is fully engaged.

4. Handpiece will not start.

A) Check that the console is “ON” (the main power switch is in the | position, with the switch illuminated) and the front panel LEDs are illuminated.
B) Make sure the throttle is in the or **RUN** position.
C) Make sure the maximum speed display indicates a maximum speed, and the light over the cable receptacle is illuminated.
D) Replace the handpiece cable.
E) Remove the handpiece and plug a different handpiece into the console and cable. If this handpiece runs properly, then return the faulty handpiece for service.
F) If the handpiece does not run properly, return the system (console, handpieces and cables) for service.

5. Handpiece runs slowly.

A) Check that the throttle is all the way in the or RUN position.
B) Replace the handpiece cable.
C) Remove the handpiece and plug a different handpiece into the console. If this handpiece runs at the proper speed, return the faulty handpiece for service.
D) If the second handpiece does not run properly, return the system (console, handpieces and cables) for service.

6. Maximum speed setting does not function properly.

A) Power down and then unplug the console. Follow steps 1-11 in section, "System Check, Assembly and Operation" to reset the system.
B) Try another handpiece in place of the one not adjusting properly.
C) If the second handpiece runs properly, then return the faulty handpiece for service.
D) If the second handpiece does not run properly, return the system (console, handpieces and cables) for service.

- ROUTINE CLEANING/DECONTAMINATION -

- 1020 CONSOLE CLEANING INSTRUCTIONS -

MiroAire’s powered surgical instruments (e.g. handpieces, handpiece cables) are normally sterilized by steam using either a gravity displacement or prevacuum sterilizer. For specific sterilization instructions for handpieces, see their respective Instructions for Use.

WARNING: The 1020 console and power cord should never be sterilized, immersed, or washed.

To Disinfect:

A) Turn off the console and unplug it from the wall outlet.
B) Wipe down the surface with germicidal cleaner or mild disinfectant.
C) Disinfect the console after each procedure and at the beginning of each day.

NOTE: Precautions should be taken to avoid allowing any moister inside of any console opening and/ or power cord.

IEC 60601-1-2 Compliance Summary

Table 1 - IEC 60601-1-2 Table 201

Guidance and Manufacturer's Declaration – Electromagnetic Emissions		
The MicroAire 1020 system is intended for use in the electromagnetic environment specified below. The customer or the user of the MicroAire 1020 system should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic Environment – Guidance**
Radio Frequency (RF) Emissions CISPR 11	Group 1	The MicroAire 1020 system uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	The MicroAire 1020 system is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Pass	

Table 2 - IEC 60601-1-2 Table 202

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
The MicroAire 1020 system is intended for use in the electromagnetic environment specified below. The customer or the user of the MicroAire 1020 system should assure that it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment – Guidance**
Electrostatic Discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±1 kV for power supply lines	± 0.5 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
	± 0.5 kV for input/output lines	±0.5 kV for input/output lines	
Surge IEC 61000-4-5	±1 kV line to line ±2 kV line to earth	±1 kV line to line ±2 kV line to earth	Mains power quality should be that of a typical commercial or hospital environment.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: U_T is the a.c. mains voltage prior to the application of the test level.			

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
The MicroAire 1020 system is intended for use in the electromagnetic environment specified below. The customer or the user of the MicroAire 1020 system should assure that it is used in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment – Guidance**
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.5 GHz	3 Vrms 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the MicroAire 1020 system, including cables, than the recommended sepation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d = (3.5/3)\sqrt{P}$ 150 kHz to 80 MHz $d = (3.5/3)\sqrt{P}$ 80 MHz to 800 MHz $d = (7/3)\sqrt{P}$ 800 MHz to 2.5 GHz ...where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and (d) is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site surveyed, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 
NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Superscript a: Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the MicroAire 1020 system is used exceeds the applicable RF compliance level above, the MicroAire 1020 system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the MicroAire 1020 system.

Superscript b: Over the frequency range 150 KHz to 80 MHz, field strengths should be less than 3V/m.

Recommended Separation Distances Between Portable and Mobile RF Communications Equipment and the MicroAire 1020 System			
The MicroAire 1020 system is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the MicroAire 1020 system can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the MicroAire 1020 system as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter (W)	**Separation distance according to frequency of transmitter (m)**		
	150 kHz to 80 MHz $d = (3.5/3)\sqrt{P}$	**80 MHz to 800 MHz** $d = (3.5/3)\sqrt{P}$	**800 MHz to 2.5 GHz** $d = (7/3)\sqrt{P}$
0.01	0.12	0.12	0.23
0.10	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33
For transmitters rated at a minimum output power not listed above, the recommended separation distance (*d*) in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

The use of the accessories, transducers, or cables with medical equipment other than those specified may result in increased emissions or decreased immunity of the medical equipment.

Guidance and Manufacturer's Declaration – Power Output, Vibration Exposure, Noise Emission Value and Mass Weight Information						
Power Output	**Vibration Exposure**		**Noise Emission Value**			**Mass**
kW – Kilowatts	a_{hv}(m/s2)	Uncertainty K (m/s2)	$L_{PA\ (dB(A))}$	$L_{C,peak\ (dB(C))}$	$L_{WA\ (dB(A))}$	Weight (kg)
0.24	-	-	-	-	-	4.7

- WARRANTY, SERVICE, REPAIR AND DISPOSAL -

Periodic inspection and service is essential to keep precision MicroAire instruments running properly. If repairs are required, they can be accomplished quickly with a minimum of disruption to the hospital's schedule.

- IN HOSPITAL SERVICE -

All MicroAire equipment should be inspected and tested periodically in accordance with the facility's bioengineering policy. Such service should be documented within the bioengineering department.

NOTE: The 1020 Standard Electric Console requires no preventative maintenance**.**

WARNING: Repairs or alterations to MicroAire products made by anyone other than MicroAire or an Authorized MicroAire Repair Facility will void that product's warranty, and the customer will be responsible for any costs related to returning the product to working condition.

- MICROAIRE REPAIR SERVICE -

Responsive service comes with every MicroAire product. If a problem with your equipment should arise, contact our Customer Service Department at:

	Telephone	Fax	E-mail
USA	(800) 722-0822	(800) 648-4309	inquiry@microaire.com
Outside USA	+01-434-975-8000	+01-434-975-4134	inquiry@microaire.com

NOTE: Mailing address information is located on back cover.

We may be able to help solve the problem quickly without returning the item for service. **DO NOT** disassemble or attempt to service the equipment. It can only be serviced by MicroAire or an Authorized MicroAire Repair Facility. Unauthorized service will void the warranty.

To return an item for service, follow this procedure:

1. Contact Customer Service for a Return Material Authorization (RMA) number.

NOTE: DO NOT return equipment without an RMA number. This could cause delays in service, and/or problems tracking your return.

2. Clean and disinfect equipment before sending for repair.

3. Along with the items sent for repair, enclose a description of the problem encountered, the type of use, the place of use, a contact name, and a telephone number. This information is helpful to our repair technicians.

4. If the instrument is out of warranty, enclose a purchase order number with the instrument. If the instrument is under warranty, include the purchase date.

5. In the United States, ship the merchandise by Express Mail, Federal Express, or UPS Blue Label to prevent shipping delays. From outside the United States, return goods by Federal Express or Air Freight.

6. Return the merchandise prepaid.

7. If an estimate of repair costs is needed before the repair technicians start work, include the name and telephone number of the person to contact.

8. We will repair and reship the item by 2nd Day Air within the United States and by Federal Express or Air Freight outside the U.S. unless specified otherwise.

- PERIODIC INSPECTION -

Because of the stressful nature of surgical use, decontamination, and sterilization, we recommend that all instruments be returned for routine inspection and service at least once a year. There is no charge for service during the warranty period.

- MICROAIRE PRODUCT LIFESPAN -

The 1020 Standard Electric Console has no inherent wear-out mechanisms and should provide years of reliable service. This life-expectancy is based on the proper handling and care of the console. Any abuse, misuse, or use in other than recommended operating parameter may affect the life of the equipment.

- 1020 CONSOLE WARRANTY -

MicroAire Surgical Instruments LLC warrants its 1020 Standard Electric Console to be free from defects in material and workmanship in their manufacture for a period of 1 year from the original purchase date by the end customer. The warranty is limited to the repair or replacement of the product without charge.

This warranty is void in the event of abuse, misuse, or use in other than normal surgical environment, or in the event disassembly, alteration, or repair of the product not authorized by the manufacturer, or in the event that the product has not been used in a reasonable manner and in compliance with the written instructions furnished by the Manufacturer.

All other expressed or implied warranties of fitness and merchantability are excluded here from, and manufacturer shall have no liability of any kind for incidental or consequential damages.

- EXTENDED WARRANTY / SERVICE AGREEMENT -

Extended warranties and service agreements are available on MicroAire power equipment. Extended warranties may be purchased while the equipment is covered by the original warranty. If the equipment is out of warranty, it must first be restored, if necessary, to full serviceable condition before being eligible for a service agreement.

- DISPOSAL -

In accordance with the 2002/96/EC Directive on Waste Electrical and Electronic Equipment (the WEEE Directive) and the current national provisions, the organization of the transfer of these wastes for devices sold by MANUFACTURER shall be undertaken by DISTRIBUTOR. For this reason, DISTRIBUTOR shall organize a system for the collection, storage and arrange transfer of any and all WEEE components to a Manufacturer's approved WEEE collection facility in Europe. DISTRIBUTOR shall provide on request to MANUFACTURER, the proof of compliance with the European and national provisions regarding the WEEE Directive. Please refer to www.microaire.com/weee for WEEE Compliance Instructions.

MICROAIRE®

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