

Datasheet for - Series 20000® Legacy™

Customer Odont Hlita FN OLOMOUC

Service Req. No. 581

Model Legacy S/N 0101162201X

Date Serviced 7.3.2006

NOTE: Throughout this datasheet either fill in the requested data or place a ☒ mark in the bracketed space, ().
Any N/A's must be explained in the notes section of this document.

Test Equipment	Equipment	Calibration Number	Calibration Due Date
	Oscilloscope Probe 196	3024 / 2005	14.12.2006
	DPT III		

Check one of the following: ☒ Preventative Maintenance (complete section 2.1, then proceed to 2.2) or ☐ Service Call/Installation/Upgrade (start at section 2.2)

2.1. PREVENTATIVE MAINTENANCE CHECK

- | | |
|--|--|
| 2.1.1 ☒ Replace CPU PCB battery (non-AdvanTec) | 2.1.10 ☒ Tighten all four casters |
| 2.1.2 ☒ Replacement of LCD backlight (hot cathode) | 2.1.11 ☒ Clean and lubricate Fluidics Module |
| 2.1.3 ☒ Inspect and clean Touchscreen | 2.1.12 ☒ Fluidics Module tubing |
| 2.1.4 ☒ Front Panel movement | 2.1.13 ☒ Fluidics Transducer open |
| 2.1.5 ☒ Inspect for BSS induced corrosion | 2.1.14 ☒ Fluidics Air Vent Stinger clean |
| 2.1.6 ☒ Power cord ground ≤ 0.5 ohms | 2.1.15 ☒ Drip pan and drainage line open and cleaned |
| 2.1.7 ☒ No loose hardware | 2.1.16 ☒ Rollers on the Hub Roller spin freely |
| 2.1.8 ☒ Inspect cables, connectors, PCB's, covers *1 | 2.1.17 ☒ Four cooling fans working |
| 2.1.9 ☒ Base filter cleans and in position | 2.1.18 ☒ IV Pole movement |

2.2. SERVICE FUNCTIONAL TEST

2.2.1. FLUIDICS MODULE VISUAL INSPECTION

2.2.1.4 ☒ Inspect Fluidics Modules tubing, plungers and housing.

2.2.2. SYSTEM POWER TEST

2.2.2.3. (ver. 3.00) Record software revision number (must be 1.40 or higher).

2.2.3. FRONT PANEL TEST

- 2.2.3.1. ☒ Front Panel LED's all illuminated.
2.2.3.2. ☒ Front Panel touch screen and voice confirmation function properly.
2.2.3.3. ☒ All other Front Panel buttons are functioning properly.

2.2.4. REMOTE CONTROL TEST ☒ Backlights illuminating and system responding to control button. N/A

2.2.5. FOOTSWITCH TEST ☒ Footswitch functions all working properly even while flexing the cable.

2.2.6. CASSETTE TYPE SWITCHES

- 2.2.6.1. ☒ Right Cassette Type switch recognition, also Air Vent and Liquid Vent solenoids cycled.
2.2.6.2. ☒ Right Cassette Type switch release is recognized and does not stick in, repeat 5 times.
2.2.6.3. ☒ Left Cassette Type switch recognition, also Air Vent and Liquid Vent solenoids cycled.
2.2.6.4. ☒ Left Cassette Type switch release is recognized and does not stick in, repeat 5 times.

2.2.7. Inspection of phaco handpiece receptacles ☒ Handpiece receptacles (front and back) are clean and free of corrosion. *2

2.2.8. PANEL INSTALLATION

2.2.8.1. ☒ Record information on HISTORY LOG SHEET (located on back of front panel) and install all panels.

2.2.9. TRANSDUCER ACCURACY

- 2.2.9.3. (- 0 mmHg) Pressure Meter Displays +1 to -1 mmHg (Legacy display 0 mmHg to 2 mmHg)
(- 203 mmHg) Pressure Meter Displays -199 to -201 mmHg (Legacy display 190 to 210 mmHg)
(- 520 mmHg) Pressure Meter Displays -499 to -501 mmHg (Legacy display 475 to 525 mmHg)

2.2.10. FLUIDICS VACUUM LEAK TEST

2.2.10.5. (- 522 mmHg one min.) - (- 340 mmHg two min.) = (- 12 mmHg) Fluidics module leak rate (must be ≤ 15 mmHg).

2.2.11. ANTERIOR PNEUMATICS TEST

- 2.2.11.5. (30 psi) VIT pressure at 10 cpm cut rate (must be $\geq +30$ psi).
2.2.11.7. (- 540 mmHg) VIT vacuum at 10 cpm (must be ≤ -455 mmHg).
(Meter reading of -460 mmHg is acceptable, reading of -440 mmHg is unacceptable)

Alcon Pharmaceuticals

(Czech Republic) s.r.o.

Vinohradská 151

130 00 Praha 3

Parent Document: SOP-0422
ID: 26427389 LIC: CZ26427389

Datasheet for - Series 20000® Legacy™

2.2.12. CAUTERY TEST

- 2.2.12.1. (75.5 ohms) Cautery Test Load resistance verification must be 75.0 ± 4.0 ohms (71.0 to 79.0 ohms).
2.2.12.4. (340.5 kHz) COAG frequency (must be from 2.5 to 3.3 microseconds or 303-400 kHz).
2.2.12.5. (38.8 V_{RMS}) COAG voltage at 100% actual (must be from 36.5 V_{RMS} to 40.5 V_{RMS})
2.2.12.6. ☒ COAG voltage change (measured voltage changes by 2.8 V_{RMS} to 4.2 V_{RMS} for each 10% increment)

2.2.13. CASSETTE AUTO-LOAD

- 2.2.13.4. ☒ Cassette tubing auto-loads without chattering or stalling.

2.2.14. LIQUID VENT TEST

- 2.2.14.7. (- 0 mmHg) Vent from vacuum of 46 mmHg (must be ≤ 5 mmHg).

2.2.15. ASPIRATION FLOW RATE

- Indicate test method used to verify flow rates: ☒ FLOWMETER or ☐ BEAKER
2.2.15.1. (34 cc/min.) FLOW RATE at 35 cc/min. (must be at or between 30 to 40 cc/min.).
2.2.15.2. (25 cc/min.) FLOW RATE at 25 cc/min. (must be at or between 21 to 29 cc/min.).

2.2.16. ATTACHÉ FLUIDICS MODULE

- Legacy System has an Attaché Module? ☒ YES (complete section 2.2.16) ☐ NO (skip section 2.2.16 and proceed to 2.2.17)

2.2.16.2. CASSETTE TYPE SWITCH

- 2.2.16.2.2. ☒ When the right Cassette Type switch is pressed Attaché the Hub Roller operates.
2.2.16.2.3. ☒ When the left Cassette Type switch is pressed Attaché the Hub Roller operates.

2.2.16.3. TRANSDUCER ACCURACY

- 2.2.16.3.4. (- 0 mmHg) Pressure Meter Displays +1 to -1 mmHg (Legacy display 0 mmHg to 2 mmHg)
(- 202 mmHg) Pressure Meter Displays -199 to -201 mmHg (Legacy display 190 to 210 mmHg)
(- 506 mmHg) Pressure Meter Displays -499 to -501 mmHg (Legacy display 475 to 525 mmHg)

2.2.16.4. VACUUM LEAKAGE

- 2.2.16.4.5. (- 4 mmHg) Fluidics module leak rate (must be ≤ 30 mmHg).

2.2.16.5. LIQUID VENT TEST

- 2.2.16.5.8. ☒ Vent from vacuum of 400 mmHg (must be ≤ 15 mmHg).

2.2.16.6. ASPIRATION FLOW RATE

- 2.2.16.6.2.2. (35 cc/min) FLOW RATE at 35 cc/min. (must be at or between 30 to 40 cc/min.).
2.2.16.6.3.2. (25 cc/min) FLOW RATE at 25 cc/min. (must be at or between 21 to 29 cc/min.).

2.2.17. PHACO and NEOSONIX DRIVE TEST

- Legacy System has an AdvanTec Software? ☐ YES (complete section 2.2.17) ☒ NO (skip section 2.2.17 and proceed to 2.2.18)

- 2.2.17.1.1. (___ k Ω) Resistance connector pin 9 to test point GND (must be from 2.37 k Ω to 2.62 k Ω).
2.2.17.1.2. (___ Ω) Resistance test points Motor Output and GND (must be from 9.5 Ω to 10.5 Ω).
2.2.17.1.3. (___ Ω) Resistance test points Motor Output and Motor 1 (must be from 9.5 Ω to 10.5 Ω).
2.2.17.1.4. (___ Ω) Resistance test points Motor Output and Motor 2 (must be from 9.5 Ω to 10.5 Ω).
2.2.17.2.5.1. (___ V_{RMS}) Phaco handpiece voltage (must be from 4.62 V_{RMS} to 6.93 V_{RMS})
2.2.17.2.5.2. (___ kHz) Phaco handpiece frequency (must be from 37kHz to 40kHz)
2.2.17.3.5.1. (___ V_{RMS}) NeoSonix motor voltage (must be from 1.785 V_{RMS} to 3.775 V_{RMS})
2.2.17.3.5.2. (___ %) NeoSonix motor % or duty cycle (must be from 57% to 63%)

2.2.18. ULTRASONIC TEST

- 2.2.18.2. ☒ Handpiece recognized in top connector. Is this a customer handpiece? ☒ YES ☐ NO
2.2.18.5. ☒ Phaco handpiece operated properly for one minute at 100% power in top connector.
2.2.18.7. ☒ Pulsed phaco handpiece operate for 30 seconds at 100% and 10 pps.
2.2.18.8. ☐ Phaco handpiece operated properly for 15 seconds at 100% power in middle connector, as applicable.
2.2.18.9. ☐ Phaco handpiece operated properly for 15 seconds at 100% power in bottom connector, as applicable.

2.2.19. CUSTOMER PHACO HANDPIECE CHECK (perform these test if customer will provide the use of their handpieces.)

- 2.2.19.1. ☒ Customers handpieces are provided for 30 seconds while flexing cable.

Note any problems with customer handpieces below. Record handpiece Serial Number(s) below:

(S/N 01015043X) (S/N Vinohradská 151) (S/N 10) (S/N 730.00 Praha 3) (S/N 26427389)

Signature/Stamp: KORZ Date: 7.3.2006

Notes: 1. Potvrzení posazení kabelu pedálu (u vstupu do pedálu) - izolace
2. Potvrzení kon. 2, dle potvrzení korze pinu

Servisní výkaz č.
1385

Technik: **Michal HRUDA**
Podpis: *[Signature]*

ALCON Pharmaceuticals (Czech Republic) s.r.o.
Servisní oddělení
Sokolovská 77-79, 186 00 Praha 8
Tel.: 221115250 Fax.: 221115251

Alcon
Servisní výkaz

Č. objednávky:

Č. zákazníka:

Zákazník:

FN UK Oční klinika

Adresa:

tř. I. P. Pavlova 6, Olomouc

Servis objednal:

Dne:



Tel/fax/e-mail:

Přístroj:

Legacy

Sériové číslo (sn):

~~8065163168~~ 0101168201X

Pedál sn:

0101011501X

Instalace:

Demo/
placement:

Záruka:

Zapůjčení přístroje/
příslušenství:

Servisní smlouva:

Katalogové číslo:

Pořadové číslo:

Popis závady / zakázka

Periodická prohlídka

Datum

h

Provedené práce

Celkem
1/2h

17.3.2005 15:00

Přístroj prověřen dle standardního postupu firmy Alcon po mechanické i elektrické stránce (kontrolní list je k dispozici ve firmě). Přístroj byl dále prověřen z hlediska bezpečnosti. PŘÍSTROJ VÝHOVĚL.

4

Časový rozpis servisního výkonu

Údržba,
serv.smlouva

☐ 1/2h

Oprava,
upgrade

☐ 1/2h

Funkční test

☐ 1/2h

Instalace a
zaškolení

☐ 1/2h

Sazba za 1/2h

465,00

Kč

Celkový čas
servisního výkonu

4

1/2h

Práce celkem

Kč

Časový rozpis cesty

Cesta

1/4h

Sazba za 1/4h

172,50

Kč

Cestovné celkem

Kč

Náhradní díly

Demo

Zapůjčení přístroje/příslušenství

Vrácení přístroje

Katalogové číslo

Počet

Název

č.Alcon

Instalováno

Vráceno

Fakt.cena

8065163168

1

Periodická prohlídka

100

18.000,-

Materiál celkem

Převzal zástupce fy. Alcon:

Kč

K fakturaci celkem bez DPH

18.000,-

Kč

Bezpečnostně technická
kontrola

Odpor ochranného
uzemňovacího vodiče

570 mΩ

Unikající proud mezi síťovou
a přístupnou částí

0,1 mA

Izolační odpor větší než

20 MΩ

Unikající proud mezi síťovou
a přílohou částí

0,1 mA

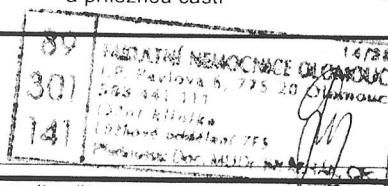
Měřeno přístrojem MEDITEST 50
v.č.: 200181, kal.list.: 00060/1M50

Potvrzujeme provedení servisního výkonu/ převzetí přístroje po opravě:

Datum:

17.3.2005

Razítko a podpis zákazníka:



list serv.výkazu: modrý=serv.technik růžový=posílaný s fakturou zelený=zákazník žlutý=Alcon

Datasheet for - Series 20000[®] Legacy[™]

Customer FN UK Oeni Klinika OLOMUC

Service Req. No. 385

Model STTL S/N 0101168201X

Date Serviced 17.3.2005

NOTE: Throughout this datasheet either fill in the requested data or place a ☒ mark in the bracketed space, ().
Any N/A's must be explained in the notes section of this document.

Test Equipment	Equipment	Calibration Number	Calibration Due Date
	FLUKE 87 III	2273	12/05
	FLUKE 192 SCOPEMETER	2273	12/05
	DPH - III Univ. Biometer	PR 04050488V	05/05

Check one of the following: ☒ Preventative Maintenance (complete section 2.1, then proceed to 2.2) or ☐ Service Call/Installation/Upgrade (start at section 2.2)

2.1. PREVENTATIVE MAINTENANCE CHECK

- | | |
|--|--|
| 2.1.1 ☒ Replace CPU PCB battery (non-AdvanTec) | 2.1.10 ☒ Tighten all four casters |
| 2.1.2 ☒ Replacement of LCD backlight (hot cathode) | 2.1.11 ☒ Clean and lubricate Fluidics Module |
| 2.1.3 ☒ Inspect and clean Touchscreen | 2.1.12 ☒ Fluidics Module tubing |
| 2.1.4 ☒ Front Panel movement | 2.1.13 ☒ Fluidics Transducer open |
| 2.1.5 ☒ Inspect for BSS induced corrosion | 2.1.14 ☒ Fluidics Air Vent Stinger clean |
| 2.1.6 ☒ Power cord ground ≤ 0.5 ohms | 2.1.15 ☒ Drip pan and drainage line open and cleaned |
| 2.1.7 ☒ No loose hardware | 2.1.16 ☒ Rollers on the Hub Roller spin freely |
| 2.1.8 ☒ Inspect cables, connectors, PCB's, covers | 2.1.17 ☒ Four cooling fans working |
| 2.1.9 ☒ Base filter cleans and in position | 2.1.18 ☒ IV Pole movement |

2.2. SERVICE FUNCTIONAL TEST

2.2.1. FLUIDICS MODULE VISUAL INSPECTION

2.2.1.4. ☒ Inspect Fluidics Modules tubing, plungers and housing.

2.2.2. SYSTEM POWER TEST

2.2.2.3. (ver. 3.00) Record software revision number (must be 1.40 or higher).

2.2.3. FRONT PANEL TEST

- 2.2.3.1. ☒ Front Panel LED's all illuminated.
2.2.3.2. ☒ Front Panel touch screen and voice confirmation function properly.
2.2.3.3. ☒ All other Front Panel buttons are functioning properly.

2.2.4. REMOTE CONTROL TEST ☒ Backlights illuminating and system responding to control button.

2.2.5. FOOTSWITCH TEST ☒ Footswitch functions all working properly even while flexing the cable.

2.2.6. CASSETTE TYPE SWITCHES

- 2.2.6.1. ☒ Right Cassette Type switch recognition, also Air Vent and Liquid Vent solenoids cycled.
2.2.6.2. ☒ Right Cassette Type switch release is recognized and does not stick in, repeat 5 times.
2.2.6.3. ☒ Left Cassette Type switch recognition, also Air Vent and Liquid Vent solenoids cycled.
2.2.6.4. ☒ Left Cassette Type switch release is recognized and does not stick in, repeat 5 times.

2.2.7. Inspection of phaco handpiece receptacles ☒ Handpiece receptacles (front and back) are clean and free of corrosion.

2.2.8. PANEL INSTALLATION

2.2.8.1. ☒ Record information on HISTORY LOG SHEET (located on back of front panel) and install all panels.

2.2.9. TRANSDUCER ACCURACY

- 2.2.9.3. (- 0 mmHg) Pressure Meter Displays +1 to -1 mmHg (Legacy display 0 mmHg to 2 mmHg)
(- 203 mmHg) Pressure Meter Displays -199 to -201 mmHg (Legacy display 190 to 210 mmHg)
(- 506 mmHg) Pressure Meter Displays -499 to -501 mmHg (Legacy display 475 to 525 mmHg)

2.2.10. FLUIDICS VACUUM LEAK TEST

2.2.10.5. (- 543 mmHg one min.) - (- 534 mmHg two min.) = (- 9 mmHg) Fluidics module leak rate (must be ≤ 15 mmHg).

2.2.11. ANTERIOR PNEUMATICS TEST

- 2.2.11.5. (33 psi) VIT pressure at 10 cpm cut rate (must be $\geq +30$ psi).
2.2.11.7. (- 553 mmHg) VIT vacuum at 10 cpm (must be ≤ -455 mmHg).
(Meter reading of -460 mmHg is acceptable, reading of -440 mmHg is unacceptable)

Datasheet for - Series 20000® Legacy™

2.2.12. CAUTERY TEST

- 2.2.12.1. (75.5 ohms) Cautery Test Load resistance verification must be 75.0 ± 4.0 ohms (71.0 to 79.0 ohms).
2.2.12.4. (340.8 kHz) COAG frequency (must be from 2.5 to 3.3 microseconds or 303-400 kHz).
2.2.12.5. (39.0 V_{RMS}) COAG voltage at 100% actual (must be from 36.5 V_{RMS} to 40.5 V_{RMS})
2.2.12.6. ☒ COAG voltage change (measured voltage changes by 2.8 V_{RMS} to 4.2 V_{RMS} for each 10% increment)

2.2.13. CASSETTE AUTO-LOAD

- 2.2.13.4. ☒ Cassette tubing auto-loads without chattering or stalling.

2.2.14. LIQUID VENT TEST

- 2.2.14.7. (0 mmHg) Vent from vacuum of 46 mmHg (must be ≤ 5 mmHg).

2.2.15. ASPIRATION FLOW RATE

Indicate test method used to verify flow rates: ☐ FLOWMETER or ☒ BEAKER

- 2.2.15.1. (35 cc/min.) FLOW RATE at 35 cc/min. (must be at or between 30 to 40 cc/min.).

- 2.2.15.2. (25 cc/min.) FLOW RATE at 25 cc/min. (must be at or between 21 to 29 cc/min.).

2.2.16. ATTACHÉ FLUIDICS MODULE

Legacy System has an Attaché Module? ☒ YES (complete section 2.2.16) ☐ NO (skip section 2.2.16 and proceed to 2.2.17)

2.2.16.2. CASSETTE TYPE SWITCH

- 2.2.16.2.2. ☒ When the right Cassette Type switch is pressed Attaché the Hub Roller operates.
2.2.16.2.3. ☒ When the left Cassette Type switch is pressed Attaché the Hub Roller operates.

2.2.16.3. TRANSDUCER ACCURACY

- 2.2.16.3.4. (0 mmHg) Pressure Meter Displays +1 to -1 mmHg (Legacy display 0 mmHg to 2 mmHg)
(202 mmHg) Pressure Meter Displays -199 to -201 mmHg (Legacy display 190 to 210 mmHg)
(504 mmHg) Pressure Meter Displays -499 to -501 mmHg (Legacy display 475 to 525 mmHg)

2.2.16.4. VACUUM LEAKAGE

- 2.2.16.4.5. (15 mmHg) Fluidics module leak rate (must be ≤ 30 mmHg).

2.2.16.5. LIQUID VENT TEST

- 2.2.16.5.8. ☒ Vent from vacuum of 400 mmHg (must be ≤ 15 mmHg).

2.2.16.6. ASPIRATION FLOW RATE

- 2.2.16.6.2.2. (35 cc/min) FLOW RATE at 35 cc/min. (must be at or between 30 to 40 cc/min.).

- 2.2.16.6.3.2. (25 cc/min) FLOW RATE at 25 cc/min. (must be at or between 21 to 29 cc/min.).

2.2.17. PHACO and NEOSONIX DRIVE TEST

Legacy System has an AdvanTec Software? ☐ YES (complete section 2.2.17) ☒ NO (skip section 2.2.17 and proceed to 2.2.18)

- 2.2.17.1.1. (k Ω) Resistance connector pin 9 to test point GND (must be from 2.37 k Ω to 2.62 k Ω).
2.2.17.1.2. (Ω) Resistance test points Motor Output and GND (must be from 9.5 Ω to 10.5 Ω).
2.2.17.1.3. (Ω) Resistance test points Motor Output and Motor 1 (must be from 9.5 Ω to 10.5 Ω).
2.2.17.1.4. (Ω) Resistance test points Motor Output and Motor 2 (must be from 9.5 Ω to 10.5 Ω).
2.2.17.2.5.1. (V_{RMS}) Phaco handpiece voltage (must be from 4.62 V_{RMS} to 6.93 V_{RMS})
2.2.17.2.5.2. (kHz) Phaco handpiece frequency (must be from 37kHz to 40kHz)
2.2.17.3.5.1. (V_{RMS}) NeoSonix motor voltage (must be from 1.785 V_{RMS} to 3.775 V_{RMS})
2.2.17.3.5.2. (%) NeoSonix motor % or duty cycle (must be from 57% to 63%)

2.2.18. ULTRASONIC TEST

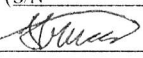
- 2.2.18.2. ☒ Handpiece recognized in top connector. 0002197304X Is this a customer handpiece? ☐ YES ☒ NO
2.2.18.5. ☒ Phaco handpiece operated properly for one minute at 100% power in top connector.
2.2.18.7. ☒ Pulsed phaco handpiece operate for 30 seconds at 100% and 10 pps.
2.2.18.8. ☒ Phaco handpiece operated properly for 15 seconds at 100% power in middle connector, as applicable.
2.2.18.9. ☒ Phaco handpiece operated properly for 15 seconds at 100% power in bottom connector, as applicable.

2.2.19. CUSTOMER PHACO HANDPIECE CHECK (perform these test if customer will provide the use of their handpieces.)

- 2.2.19.1. ☐ Customers handpiece operated properly at 100% power for 30 seconds while flexing cable.

Note any problems with customers' handpieces below. Record handpiece Serial Number(s) below:

(S/N) (S/N) (S/N) (S/N) (S/N)

Signature/Stamp: 

Date:

Notes: 2.2.4

2.2.18.8 není k disp. u zahazníka (dálh. ovl.+3.hanehton)

ALCON Pharmaceuticals

(Czech Republic) s.r.o.

Sokolovská 77-79

186 00 Praha 8

IČO: 26427389 DIČ: CZ26427389