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PHASED OUT

Service readout and Service Data Tool with JUMBO Care 2nd generation

User manual

LINAK.COM/MEDLINE-CARELINE

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Preface

We are delighted that you have chosen a product from LINAK.

Your new JUMBO Care control box has a microprocessor inside making it possible to read out service data via the Service Data Tool and via the display (if available on your control box). In this manual you can read about how to use the service function and get the full benefit of it in your JUMBO Care.

If no drivers are installed on your laptop (if you never have used service data tool on your laptop before), please contact your local sales representative to get access to the IB300001 user manual in which this procedure is explained.

If you experience any problems with your new JUMBO Care, you are always welcome to contact your local LINAK representative who will be able to help you.

LINAK A/S

Service Intervals

What is the service interval presetting?
A standard JUMBO Care control box will be pre-set with a service interval of: 12 months / 8000 cycles, whichever comes first.

How do I see on the control box that it is time for service?

The notice about service need depends upon the JUMBO Care version:

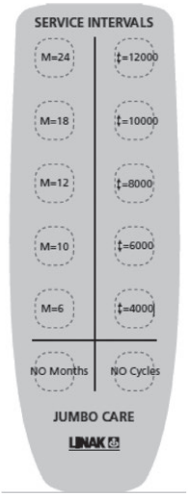
- **No indicators on the front cover:** one single beep telling that it is time for service
- **Diodes on the front cover:** The service diode will light up and one single beep will tell that it is time for service
- **Display:** The display will show the service symbol and one single beep will tell that it is time for service.

When does the service time start counting?
The service time will start to count down from the day the control box is produced.

How to change to another service interval?
The service interval can be changed via a special LINAK handset (Item number HB8646V2010 + 71). To change the service interval you simply plug in the handset in the JUMBO Care and press the button. You can choose from a number of months or cycles between services. You can also choose 'NO months' or 'NO cycles'.

E.g. Push M = 24, Push ↕ 10000.
The JUMBO Care is now set to indicate service need every 24 month or at 10000 cycles, whichever comes first.

After having set a different service interval, the control box will provide an audio sound (as a receipt).



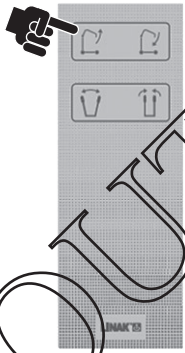
Read out service data on a JUMBO Care with display

When you have a JUMBO Care with display, it is possible to have some basic service data on the display. To get this information on the display, press the "*lifting arm up*" button on your LINAK hand control or control box (short press ½ second).

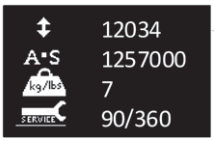
The information that appears on the display is;

CBJ Care read out service data

HB80



HB70



------> Total cycles made by the lifting actuator (channel 1)
------> Total work made by the lifting actuator (channel 1)
------> Total number of overloads (channel 1)
------> Days since last service/days between services

Before getting started with reading out service data on a laptop

Equipment needed to read out service data

When reading out service information on a laptop you need:

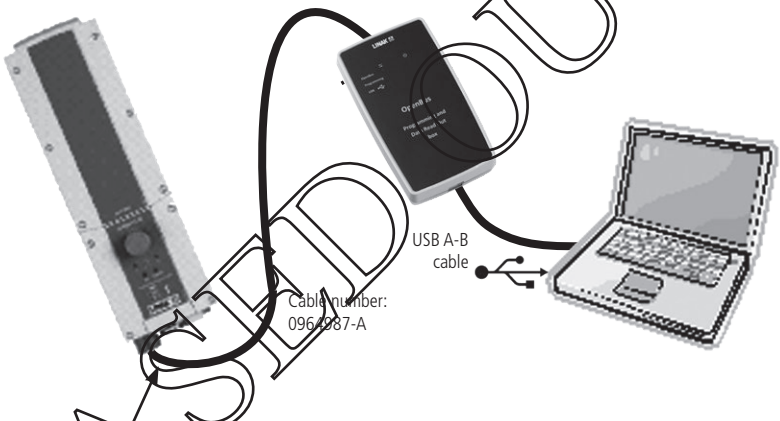
- Service Data Tool 2 version 2.5.0 or a newer version installed on the laptop. The software will be provided from your local LINAK sales representative
- An OpenBus programming and data readout box (item number IB300001)
- A service readout cable (LINAK item number 0964987-A)
- One USB A-B cable

How to connect the equipment and get started

A) First of all, make sure that Service Data Tool drivers and the Service Data Tool 2 software (version 2.5.0 or higher for JUMBO Care 2nd generation) is installed on your laptop. If Service Data Tool drivers and the Service Data Tool software are not installed, please see the SDT2 user manual.

B) Connect the equipment as shown below.

JUMBO Care



The service readout cable (item number 0964987-A / 0964198) has to be connected via the HB port. It is also possible to use a T-cable (item number 0015412-A) for connection of hand control and Service Data Tool 2 at the same time.

Please note! The T-cable is needed if you do not have an activation button on the JUMBO Care control box.

When connection is observed, the red LED ("*Supply 8V Missing*") in the current laptop window changes to green.

C) Wake the control box (by pressing a button on the hand control or a button on the CB for operation of lifting/lowering).

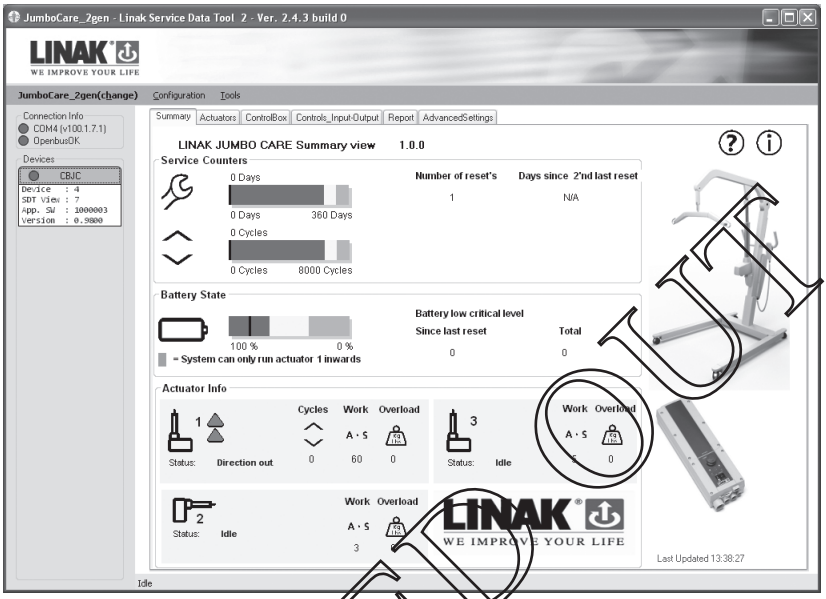
D) Enter the Start menu on your laptop 

and choose the LINAK program to open the Service Data Tool 

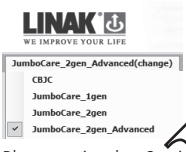
Reading out service data on a laptop

Ensure that the JUMBO Care view is initiated by pressing the menu shown.

Please contact your local LINAK supplier for support if this is not the case.



It is possible to switch between service data tool views for Jumbo Care 1st and 2nd generation by pressing the menu - "Jumbo Care_2gen". The text will vary depending on the last activated view.



Please notice that Service data tool version Jumbo Care_2gen can be used for systems with CBJ Care **2gen control boxes**.

CBJ-C 2.Gen.

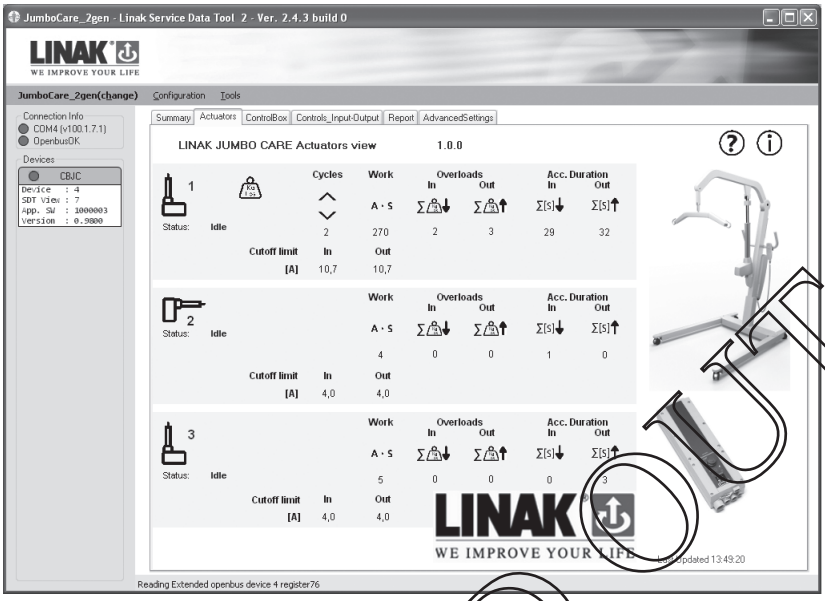
"JumboCare_2gen" Service data tool can also work with CBJ Care 1st gen. control boxes produced after July 2013 - see production date on the product label.

The Service Data Tool for Jumbo Care 2nd generation is divided into sections:

Section	Used for…..
Summary	For quick and easy overview of service indicator, battery status and actuator statistics
Actuators	For detailed information about the actuators' statistical service data
Control box	For detailed information about the control box and battery state
Controls_InputOutput	For detailed information about hand control signals and codes
Report	For service reporting and resetting of service counters via hand control after saving report
Advanced settings	**Intended for trained and authorised service technicians only.** For change of service settings and update of actuator info if the control box is replaced to maintain service data. For update of information when replacing the actuator

For further help and recommendations on each section, please press the help icon ⓘ or see next page.

Actuators



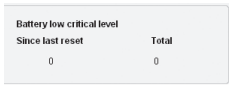
Symbol	Service data description and recommendations
	**If the overload symbol is shown next to the actuator there is currently an overload situation.** Reduce the load on the actuator. If a buffer actuator is used, the amount of overloads is an expression of how many times the actuator has run into end-stop and been overloaded.
 *Shown in the summary section*	**Total overloads CH1:** Counts the number of times the actuator on channel 1 has been overloaded. If the actuator has been overloaded, we recommend lifting equipment with higher load capacity. The indicator can only be reset by exchanging the actuator through Service Data Tool "*actuator*" menu. Channels 2 and 3: If a buffer actuator is used, the amount of overloads is an expression of how many times the actuator has run into end-stop and been overloaded
	**Total work CH1 (A*S):** Work indicator for the actuator on channel 1 measures via ampere usage * seconds in use. The work indicator gives a very good indication of how worn the actuator is. Typical minimum lifetime performance without abuse of the actuator LA23: 10.000 cycles in life test equals: 1.500.000 A*S LA31: 10.000 cycles in life test equals: 2.900.000 A*S LA34: 10.000 cycles in life test equals: 4.200.000 A*S LA43: 10.000 cycles in life test equals: 3.750.000 A*S LA44: 10.000 cycles in life test equals: 5.600.000 A*S The indicator can only be reset by exchanging the actuator through Service Data Tool "*Advanced Settings*" menu. Please contact the lift manufacturer in order to decide when it is appropriate to consider exchanging the actuator.
	**Total cycles:** The total number of cycles made by the actuator on channel 1. One cycle is defined as; Driving with load (the actuator draws more than 1.5 Amps). Driving direction up for a minimum of 5 seconds (several activations are allowed), followed by driving down for a minimum of 2 seconds. The indicator can only be reset by exchanging the actuator through Service Data Tool *"Advanced Settings"* menu or by pressing the up and down button on channel 1 for 5 seconds.
	**Cut-off limit:** To ensure that the lift will stop if the current draw exceeds the preset limits. The best way to set the cut-off limit is via learn mode.

How to conclude on the service information

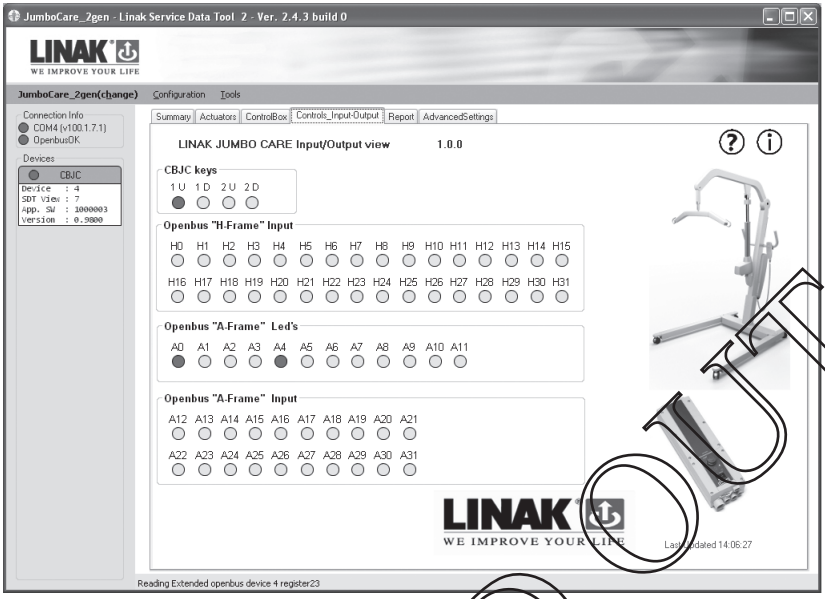
Total cycles and total work:
Please contact the lift manufacturer in order to decide when it is appropriate to consider exchanging the actuator.

Overload:
If overload has occurred it is recommended to consider stronger lifting equipment with higher working load for the particular patients/institution.

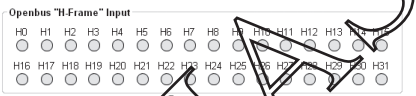
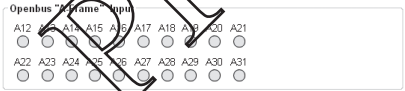
Control box

Symbol	Data description and recommendations
	Read out how many times a hand control button or the button on the control box has been activated on CH1.
	**Battery state:** **Green;** battery fully charged (approx. 100-50% capacity remaining) **Yellow;** battery approx. half charged (approx. 50-25% capacity remaining) **Orange;** Battery empty (incl. audio signal when the hand control is activated). Limited actuator function. Good battery behaviour is charging the battery at all times when it is not in use. Deep discharging of the battery can cause damage of the battery.
	**Since last reset:** Number of times the control box has detected a critical battery level. If batteries are switched between lifts, it does not say anything about the battery condition. It is only an indication of the battery behaviour. The "*Battery low critical level*" counter will be reset after each service reset, but it will be saved if making a report. **Total** Number of times the control box has detected a critical battery level. If batteries are switched between lifts, it does not say anything about the battery condition. It is only an indication of the battery behaviour. The number of critical battery levels will not be valid if the emergency stop button is used as an on/off power button and not for emergency situations only.

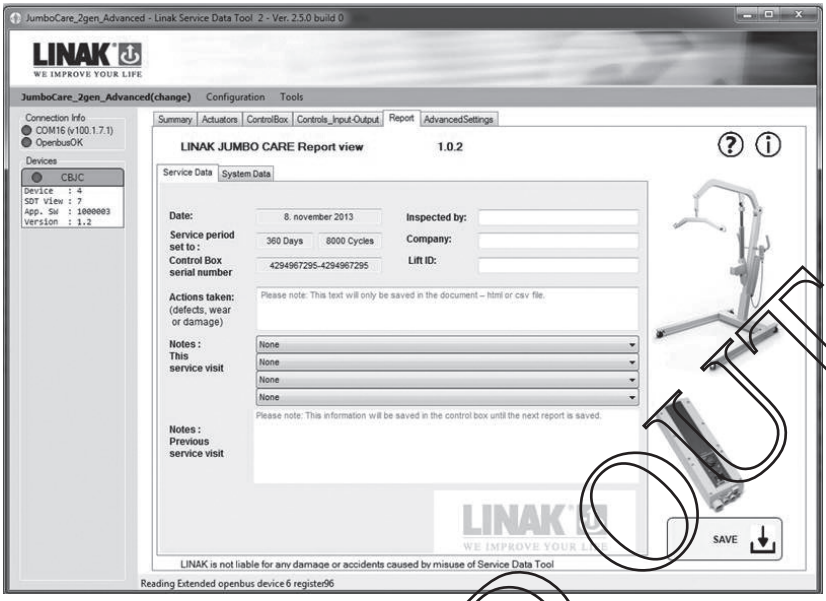
Controls



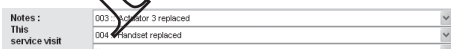
If a diode (or hand control button) is activated, one of the coded buttons will light up as the example above shows.

Codes	Code explanation
	Up and down buttons on the CBJC control box. HB40 like signals
	**OpenBus** signals
	**OpenBus Diode** signals
	**OpenBus button** signals

Report



After each service visit it is recommended to fill in the service report and press "*save*" to maintain service data.

Data	Recommended procedure and explanation
	These data are filled in automatically.
	Fill in these data.
	Description made in this box will be read out when the report is saved.
	Choose up to 4 notes after the service visit. Messages for the next service visit - will be stored and readable at the next visit.
	Up to 4 notes readable from the previous service visit
	Check the lift extra well on the marked spots. Action is recommended in case of noteworthy observations.

When the lift has been checked and the information completed, press "*save*" to save as html or a comma separated file. Relevant actuator statistics and system data will be included in the report.

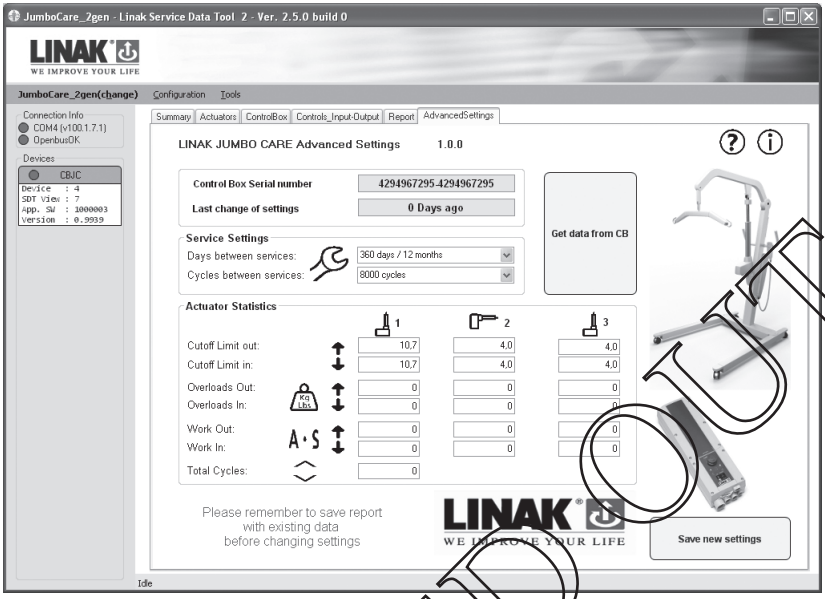
Resetting the service counters:
- Days since last service
- Cycles since last service

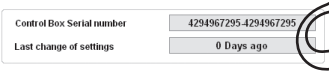
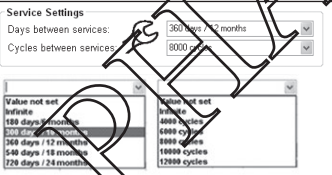
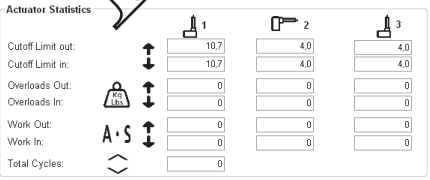
Resetting of service is made by pressing 2 buttons on the hand control or the control box at the **same time for 5 seconds.** The reset buttons are predefined as lifting arm up and lifting arm down.

An audio signal will indicate that the timer has been reset.

Advanced settings

Please note! This section is only intended for trained and authorised service technicians

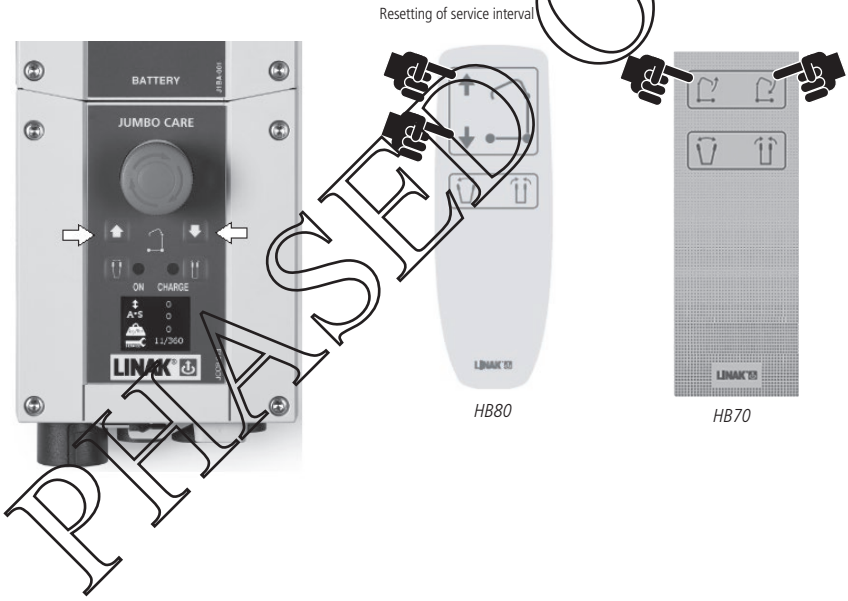


Data	Recommended procedure and explanation
	**Control box serial number:** This number is unique and can be found on the label of the control box. It will be updated automatically if the control box is replaced and cannot be changed. L**ast change of settings:** The date of the last programming is shown and cannot be changed, it will be reset when pressing "*Save new settings*". It will also be reset when service settings are changed via the special LINAK HB.
	**Service settings**: The settings are automatically shown, but they can be changed via the drop-down menu. It is also possible to insert days and cycles in service settings which are not available on the drop down list. Only requirement is – the setting of days must be dividable with 30 to calculate the months.
	**Actuator info:** Remember to update actuator info **if the control box is exchanged.** In this way you maintain the statistical service data information on the actuators. Remember to update "cut-off limit out" and "cut-off limit in" and all other figures if **an actuator is replaced.**

Get data from CB	**Get / retrieve data from the control box:** When entering new data, the data will be visible with bold script. "Get data from CB" undo changes and retrieve existing data from the control box.
Save new settings	**Remember to save report with existing data before changing settings** **Save new settings:** This will reset the above information with the new data filled in.

Resetting of service interval after service has been carried out.

Resetting of service is done by pressing 2 buttons (lifting arm up and lifting arm down on the hand control or on the control box at the same time for 5 seconds. (Buttons that need to be pressed might differ depending on hand control type or control box). After pressing the buttons for 5 seconds, you will receive an audio signal indicating that the timer has been reset. The timer will reset the diodes/clear the display for service symbol, and start counting a new service period.



Info Site

The lift manufacturer can add one information site per section and it is accessible via the icon ⓘ

The information site may include further information e.g. service checklist for the service technician to follow, Lift guidance by lift type etc.

FACTORIES

China
LINAK (Shenzhen) Actuator Systems, Ltd.
Phone: +86 755 8610 6656
Phone: +86 755 8610 6990
www.linak.cn

Denmark - Headquarters
LINAK A/S
Phone: +45 73 15 15 15
Fax: +45 74 45 80 48
Fax (Sales): +45 73 15 16 13
www.linak.com

Slovakia
LINAK Slovakia s.r.o.
Phone: +421 51 7563 444
www.linak.sk

Thailand
LINAK APAC Ltd.
Phone: +66 33 265 400
www.linak.com

USA
LINAK U.S. Inc.
Americas Headquarters
Phone: +1 502 253 5595
Fax: +1 502 253 5596
www.linak-us.com
www.linak-latinamerica.com

SUBSIDIARIES

Australia
LINAK Australia Pty. Ltd
Phone: +61 3 8796 9777
Fax: +61 3 8796 9778
www.linak.com.au

Austria
LINAK Repräsentanz - Österreich (Wien)
Phone: +43 (1) 890 7446
Fax: +43 (1) 890 744615
www.linak.at - www.linak.hu

Belgium
LINAK Actuator-Systems NV/SA
(Belgium & Luxembourg)
Phone: +32 (0)9 230 01 09
www.linak.be - www.fr.linak.be

Brazil
LINAK Do Brasil Comércio De Atuadores Ltda.
Phone: +55 (11) 2832 7070
Fax: +55 (11) 2832 7060
www.linak.com.br

Canada
LINAK Canada Inc.
Phone: +1 502 253 5595
Fax: +1 416 255 7720
www.linak-us.com

Czech Republic
LINAK C&S s.r.o.
Phone: +42 058 174 1814
Fax: +42 058 170 2452
www.linak.cz - www.linak.sk

Denmark - International
LINAK International
Phone: +45 73 15 15 15
www.linak.com

Denmark - Sales
LINAK DANMARK A/S
Phone: +45 86 80 36 11
Fax: +45 86 82 90 51
www.linak.dk

Finland
LINAK OY
Phone: +358 10 841 8700
www.linak.fi

France
LINAK FRANCE E.U.R.L
Phone: +33 (0) 2 41 36 34 34
Fax: +33 (0) 2 41 36 35 00
www.linak.fr

Germany
LINAK GmbH
Phone: +49 6043 9655 0
Fax: +49 6043 9655 60
www.linak.de

India
LINAK A/S India Liaison Office
Phone: +91 120 4531797
Fax: +91 120 4786428
www.linak.in

Ireland
LINAK UK Limited (Ireland)
Phone: +44 (0)121 544 2211
Fax: +44 (0)121 544 2552
+44 (0)796 855 1606 (UK Mobile)
+35 387 634 6554
(Republic of Ireland Mobile)
www.linak.co.uk

Italy
LINAK ITALIA S.r.l.
Phone: +39 02 48 46 31 66
Fax: +39 02 48 46 82 52
www.linak.it

Japan
LINAK K.K.
Phone: 81-45-533-0802
Fax: 81-45-533-0803
www.linak.jp

Malaysia
LINAK Actuators Sdn. Bhd.
Phone: +60 4 210 6500
Fax: +60 4 226 8901
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Netherlands
LINAK Actuator-Systems B.V.
Phone: +31 76 5 42 44 40
www.linak.nl

New Zealand
LINAK New Zealand Ltd
Phone: +64 9580 2071
Fax: +64 9580 2072
www.linak.com.au

Norway
LINAK Norge AS
Phone: +47 32 82 90 90
www.linak.no

Poland
LINAK Polska
LINAK Danmark A/S (Spólka Akcyjna)
Phone: +48 22 295 09 70 /
+48 22 295 09 71
www.linak.pl

Republic of Korea
LINAK Korea Ltd.
Phone: +82 2 6231 1515
Fax: +82 2 6231 1516
www.linak.kr

Russia
LINAK LLC
Phone: +7 495 780 3161
Fax: +7 495 687 1426
www.linak.ru

Spain
LINAK Actuadores, S.L.u.
Phone: +34 93 588 27 77
Fax: +34 93 588 27 85
www.linak.es

Sweden
LINAK Scandinavia AB
Phone: +46 8 732 20 00
Fax: +46 8 732 20 50
www.linak.se

Switzerland
LINAK AG
Phone: +41 43 388 31 88
Fax: +41 43 388 31 87
www.linak.ch - www.fr.linak.ch
www.it.linak.ch

Taiwan
LINAK (Shenzhen) Actuator systems Ltd.
Taiwan Representative office
Phone: +886 2 272 90068
Fax: +886 2 272 90096
www.linak.tw

Turkey
LINAK İth. İhr. San. ve Tic. A.Ş.
Phone: + 90 312 4726338
Fax: + 90 312 4726635
www.linak.com.tr

United Kingdom
LINAK UK Limited
Phone: +44 (0)121 544 2211
Fax: +44 (0)121 544 2552
www.linak.co.uk

DISTRIBUTORS

Argentina
NOVOTEC ARGENTINA SRL
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Fax: +[57] (1) 282-1684
www.mem.net.co

India
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India Pvt Ltd
Phone: +91-44-28558484, 85
www.mechatronicscontrol.com

Indonesia
PT. HIMALAYA EVEREST JAYA
Phone: +6 221 544 8956,
+6 221 544 8965
Fax: +6 221 619 1925
Fax (Sales): +6 221 619 4658
www.hej.co.id

Iraq
Scan Medical Tech
Phone: +964 770 470 2202

Israel
NetivTech LTD
Phone: +972 55-2266-535
Fax: +972 2-9900-560
www.netivtech.com

Kingdom of Bahrain
Mechatronics Industrial Equipments
Phone: +973 17280059
Fax: +973 17910045
www.mechatronicsbh.com

Qatar
Mechatronics Industrial Equipments
Phone: +974 44581155
Fax: +974 44689135
www.mechatronicsqatar.com

Russia
OOO FAM
Phone: +7 812 3319333
Fax: +7 812 3271454
www.fam-drive.ru

Singapore
Servo Dynamics Pte Ltd
Phone: +65 6844 0288
Fax (Sales): +65 6844 0070

South Africa
Industrial Specialised Applications CC
Phone: +27 011 466 0346
www.isaza.co.za

United Arab Emirates
Mechatronics Industrial Equipments LLC
Phone: +971 4 267 4311
Fax: +971 4 267 4312
www.mechatronics.ae

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