

# Control box CBJ2 Data Sheet



## Contents

<b>Introduction</b> .....	<b>3</b>
<b>Features and options</b> .....	<b>3</b>
<b>Usage</b> .....	<b>4</b>
<b>Ordering example</b> .....	<b>5</b>
<b>Current cut-off for CBJ2</b> .....	<b>6</b>
<b>Internal battery charger</b> .....	<b>7</b>
<b>Dimensions</b> .....	<b>8</b>
<b>Standard front covers</b> .....	<b>9</b>
For version without internal charger .....	9
For version with internal charger.....	9
<b>JUMBO combinations</b> .....	<b>10</b>
<b>Contacts</b> .....	<b>11</b>

## Introduction



The control box CBJ2 is part of the battery-driven modular JUMBO system which consists of a control box (CBJ2), a battery either based on lead acid or Li-Ion technology (BAJ/BAJL). Together with a charger (CHJ2), JUMBO is an ideal and flexible solution, specially developed for patient lifts.

Main benefits of using CBJ2:

- Soft stop for safety and comfort
- Valuable information via display
- Easily accessible emergency stop
- Customisable front covers

CBJ2 is available in a special edition that can be used in harsh conditions, such as indoor and outdoor pool environments.

## Features and options

- Output voltage: 24 V DC
- Soft start/stop on channel 1
- Emergency function down
- Acoustic battery alarm at approx. 25% battery capacity
- Bayonet lock for locking the hand control plug (DIN-plug)
- Protection class: IPX5
- Colours: Dark grey (RAL 7016) or light grey (RAL 7035) bottom and light grey top (RAL 7035)
- Electronic overload protection (EOP)
- Matching hand controls for CBJ2: HB30, HB70 and HB80 (see hand control chapters)
- Emergency stop button
- LCD-display showing the actual battery capacity and indicating when the battery needs recharging
- Socket for external battery pack. This socket for external battery pack enables furthermore charging of the JUMBO battery pack BAJ with CH01 through the control box.
- Internal charger possible
- Possible to mount an Emergency Stop Guard
- Customised front covers
- Variable current cut-off

### Pool Lift version Features and Options:

- Improved contact terminals
- Rubber seal around contact terminals
- Stainless steel screws
- Robot injected sealing glue
- Internal charger not possible
- Always external charger CHJ2
- No display option
- No emergency stop
- Always IPX5

## Usage

CBJ2 with internal charger:	Nominal current draw max. 400 mA Power consumption (standby) max. 2.5 W Power consumption (charging) max. 19 W
Duty cycle:	max. 10% or 2 min.continuous use then 18 min. without use
Operation temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to +50 °C
Relative humidity:	20% to 80% – non-condensing
Atmospheric pressure:	700 to 1060 hPa
Meters above sea level:	Max. 3000 meters
Mains supply grid should be limited to the highest prospective short circuit current of 35 A.	
Demands to mains supply safety for the application in accordance with IEC 60601-1 ed. 3.2, § 8.11.5	
Approvals:	IEC60601-1 ANSI/AAMI ES60601-1 CAN/CSA-22.2 No 60601-1

## Ordering example

CBJ 2 0 0 1 N A 0 0 1 0 4 1

**IP protection**

- 1 =IPx5
- 4 =IPx4

**Front cover no.**

See the front cover table for details  
xx (last 2 digits) 01-99

CBJ 2	A,B,E,F	0	0	09	00J2CB009
	A,B,E,F	0	1,3	02	00J2CB002
	A,B,E,F	1	0	17	00J2CB017
	A,B,E,F	1	1,3	03	00J2CB003
	C,D,G,H	0	0	08	00J2CB008
	C,D,G,H	0	1,3	04	00J2CB004
	C,D,G,H	1	0	54	00J2CB054
	C,D,G,H	1	1,3	01	00J2CB001
	C,D,G,H	1	1,3	51	00J2CB051

\*Light grey

**Color of bottom part**

- 1 = RAL7016, dark grey (standard)
- 2 = RAL7035, light grey

**Emergency stop**

- 0 =without emergency stop
- 1 =with emergency stop
- 3 =with emergency stop and guard

**Indicator options**

- 0 =without LCD-display
- 1 =with LCD-display

**Option**

- A =LINAK battery BAJ or BAJL
- B =External batteries via DC Power connector
- C =LINAK batteries BAJ or BAJL and internal charger. (max. IPx4)
- D =External batteries and internal charger\* (max. IPx4)
- E =LINAK battery BAJ or BAJL and variable current cut-off CH1
- F =External batteries via DC Power connector and variable current cut-off CH1
- G =LINAK batteries BAJ or BAJL, int.charger and variable current cut-off CH1 (max. IPx4)
- H =External batteries, int.charger and variable current cut-off to CH1 (max. IPx4)

**Version:**

- 1N =CH1 normal current cut-off
  - 2N =CH1 normal current cut-off
  - 3H =CH1 Current cut-off for LA28S
  - 4H =CH1 Current cut-off for LA28S
  - 5N =CH1 normal current cut-off
  - 6H =CH1 high current cut-off
  - 7H =CH1 high current cut-off
  - 8H =CH1 high current cut-off
- CH2 current cut-off for LA28  
CH2 current cut-off for LA28S  
CH2 current cut-off for LA28S  
CH2 current cut-off for LA28  
CH2 current cut-off for LA28S

Not used

**Type:**

- 2 =CBJ2

\* Pool lift version should be ordered as special article.  
Please contact LINAK A/S sales for further information if you need this CBJ2 solution.

## Current cut-off for CBJ2

CBJ2	CH1		Leg spreader CH2	
	Min.	Max.	Min.	Max.
CBJ2001N	7	9	-	-
CBJ2002N	7	9	2	2.9
CBJ2003H	4.9	5.9	-	-
CBJ2004H	4.9	5.9	4.7	6.2
CBJ2005N	7	9	4.7	6.2
CBJ2006H	9.8	11.8	-	-
CBJ2007H	9.8	11.8	2	2.9
CBJ2008H	9.8	11.8	4.7	6.2

The minimum and maximum values stated above refer to the tolerance range, not the adjustment range.

The current cut-off tolerance is +/- 0.2 A depending on the ambient temperature (20 °C).



### Warnings

To avoid injury, all control boxes with variable current cut-off are preset to < 4.5 A, unless otherwise specified.

When plugging a mono jack plug into channel 1 the current cut-off will be as the high speed table.

## Internal battery charger

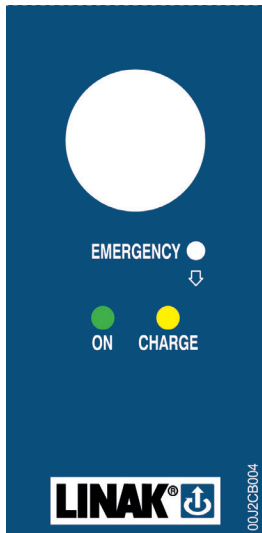
The internal charger is a Switch Mode Power Supply (SMPS) version which makes charging of the batteries more efficient.

The charging time for a BAJ1 battery pack is approx. 4-5 hours.

Mains voltage from 100-240VAC (50/60 Hz) is possible on same charger.

The charger indicates whether the charger is connected to mains (green LED) or whether the battery is being charged (yellow LED).

Medically approved.



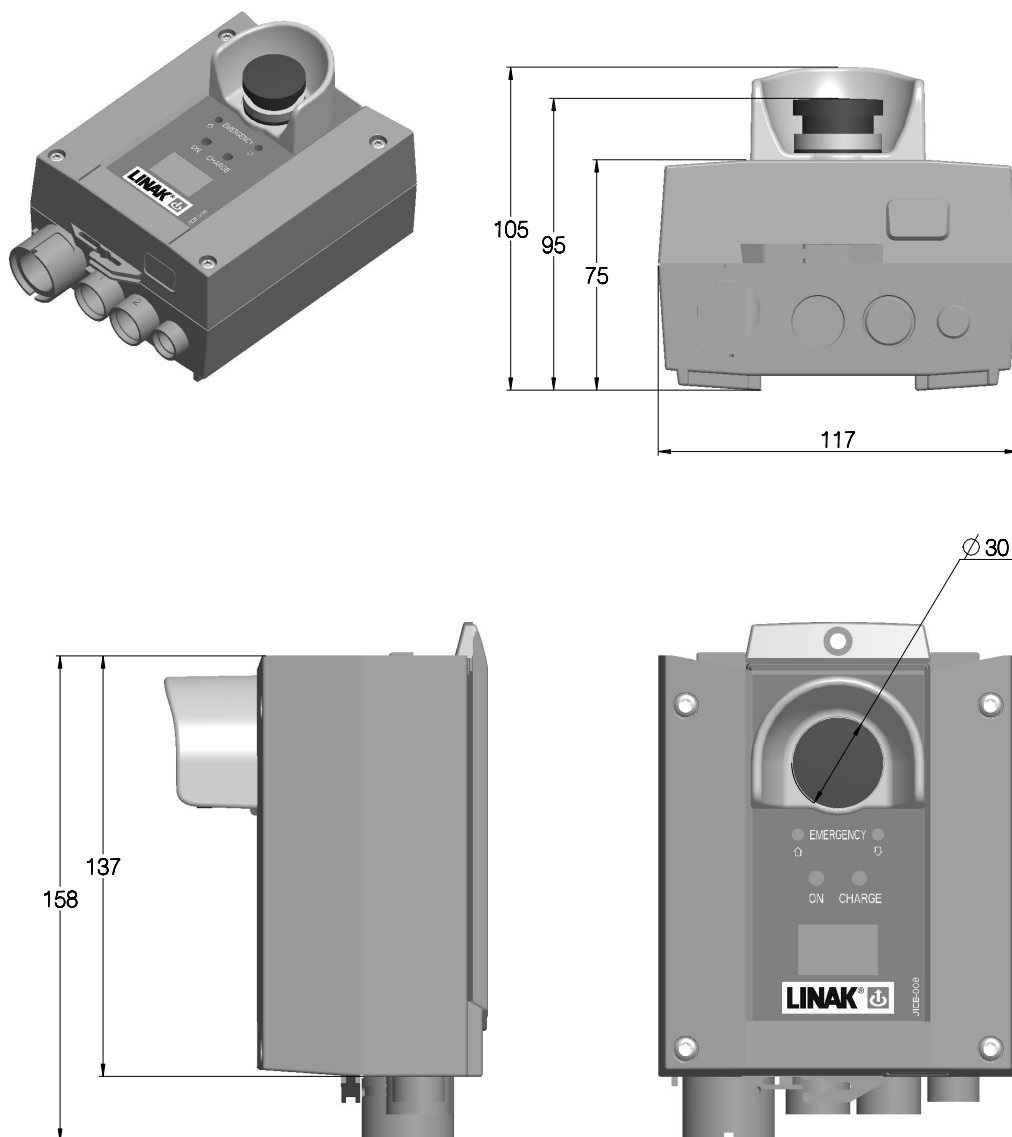
00J2CB004



### Recommendations

- The mains cable must always be ordered separately when ordering a CBJ2 with an internal charger.
- Use only original LINAK mains cables to ensure proper connection to internal charger.
- To reduce strain on mains cable, it is always recommended to use cable relief when mains is connected. Alternatively, use extension cable CAB0015579.

## Dimensions



Drawing number: CBJ001

### Available blind plugs for JUMBO products

Item number	Colour	Ports
032046	Black	Actuator port
032210	Grey	Actuator port
00918175	Black	DC port
00918174	Grey	DC port
00912204	Grey	Hand control port

## Standard front covers

### For version without internal charger

#### CBJ2



00J2CB002

00J2CB003

00J2CB009\*

00J2CB017

\* Standard front covers for pool lift

### For version with internal charger

#### CBJ2



00J2CB001

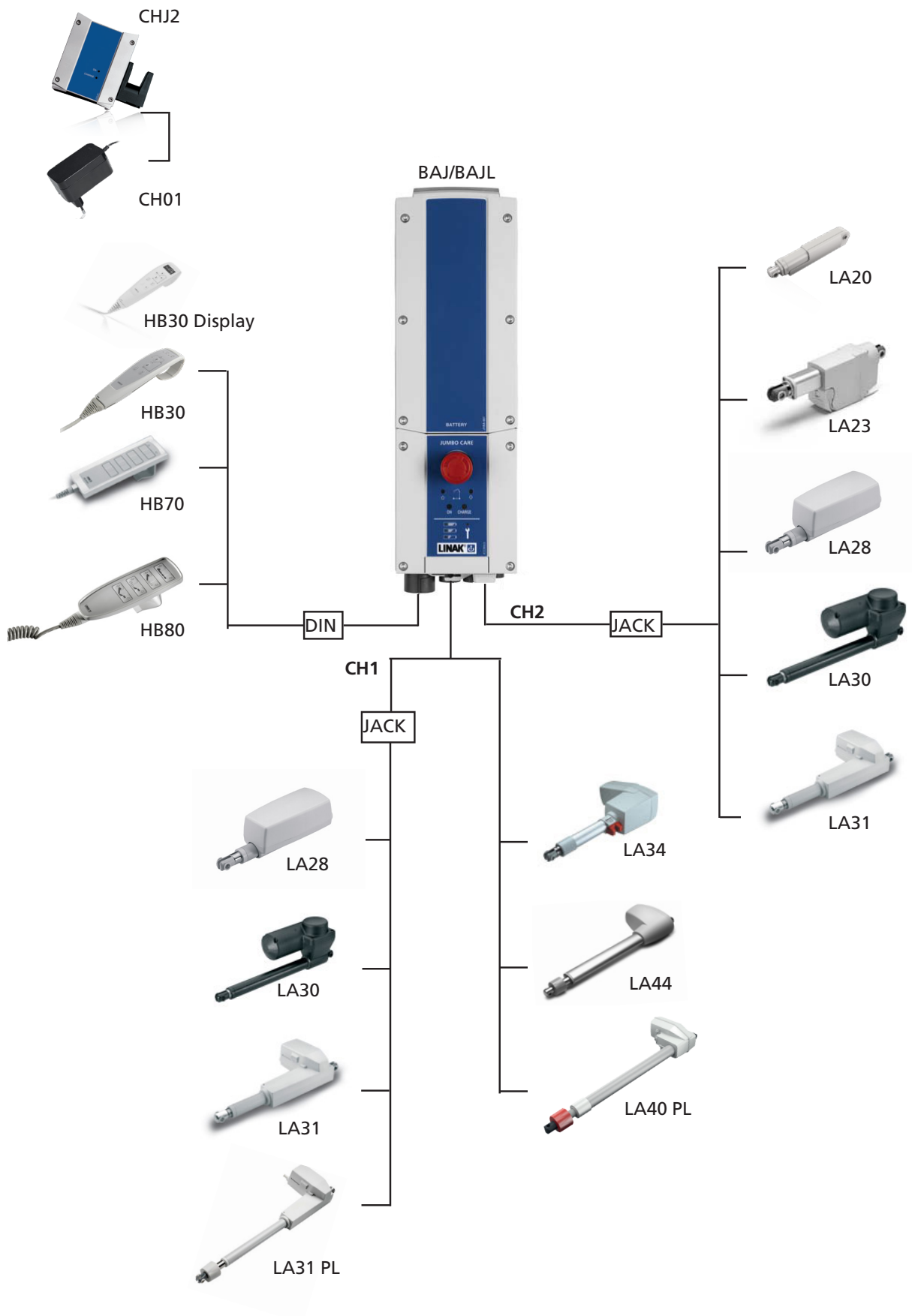
00J2CB004

00J2CB008

00J2CB051

00J2CB054

# JUMBO combinations



# Contacts

## FACTORIES

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

CHINA  
LINAK (SHENZHEN) ACTUATOR SYSTEMS, LTD.  
PHONE: +86 755 8610 6656  
PHONE: +86 755 8610 6990  
WWW.LINAK.CN

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  
E-mail: sales@linak.com.au  
www.linak.com.au

Austria  
LINAK Zweigniederlassung - Österreich (Wien)  
PHONE: +43 (1) 890 7446  
FAX: +43 (1) 890 744615  
E-mail: info@linak.de  
www.linak.at - www.linak.hu

Belgium  
LINAK Actuator-Systems NV/SA  
(Belgium & Luxembourg)  
PHONE: +32 (0)9 230 01 09  
E-mail: beinfo@linak.be  
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  
E-mail: info@linak.com.br  
www.linak.com.br

Canada  
LINAK Canada Inc.  
PHONE: +1 502 253 5595  
FAX: +1 416 255 7720  
E-mail: info@linak.ca  
www.linak-us.com

Czech Republic  
LINAK C&S s.r.o.  
PHONE: +42 058 174 1814  
FAX: +42 058 170 2452  
E-mail: info@linak.cz  
www.linak.cz - www.linak.sk

Denmark - International  
LINAK International  
PHONE: +45 73 15 15 15  
E-mail: info@linak.com  
www.linak.com

Denmark - Sales  
LINAK DANMARK A/S  
PHONE: +45 86 80 36 11  
FAX: +45 86 82 90 51  
E-mail: linak@linak-silkeborg.dk  
www.linak.dk

Finland  
LINAK OY  
PHONE: +358 10 841 8700  
E-mail: linak@linak.fi  
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  
E-mail: linak@linak.fr  
www.linak.fr

Germany  
LINAK GmbH  
PHONE: +49 6043 9655 0  
FAX: +49 6043 9655 60  
E-mail: info@linak.de  
www.linak.de

India  
LINAK A/S India Liaison Office  
PHONE: +91 120 4531797  
FAX: +91 120 4786428  
E-mail: info@linak.in  
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)  
E-mail: sales@linak.co.uk  
www.linak.co.uk

Italy  
LINAK ITALIA S.r.l.  
PHONE: +39 02 48 46 33 66  
FAX: +39 02 48 46 82 52  
E-mail: info@linak.it  
www.linak.it

Japan  
LINAK K.K.  
PHONE: 81-45-533-0802  
FAX: 81-45-533-0803  
E-mail: linak@linak.jp  
www.linak.jp

Malaysia  
LINAK Actuators Sdn. Bhd.  
PHONE: +60 4 210 6500  
FAX: +60 4 226 8901  
E-mail: info@linak-asia.com  
www.linak.my

Netherlands  
LINAK Actuator-Systems B.V.  
PHONE: +31 76 5 42 44 40 /  
+31 76 200 11 10  
E-mail: info@linak.nl  
www.linak.nl

New Zealand  
LINAK New Zealand Ltd  
PHONE: +64 9580 2071  
FAX: +64 9580 2072  
E-mail: nzsales@linak.com.au  
www.linak.com.au

Norway  
LINAK Norge AS  
PHONE: +47 32 82 90 90  
E-mail: info@linak.no  
www.linak.no

Poland  
LINAK Polska  
LINAK Danmark A/S (Spółka Akcyjna)  
PHONE: +48 22 295 09 70 /  
+48 22 295 09 71  
E-mail: info@linak.pl  
www.linak.pl

Republic of Korea  
LINAK Korea Ltd.  
PHONE: +82 2 6231 1515  
FAX: +82 2 6231 1516  
E-mail: info@linak.kr  
www.linak.kr

Slovakia  
LINAK SLOVAKIA S.R.O.  
PHONE: +421 51 7563 444  
www.linak.sk

Spain  
LINAK Actuadores, S.L.U.  
PHONE: +34 93 588 27 77  
FAX: +34 93 588 27 85  
E-mail: esma@linak.es  
www.linak.es

Sweden  
LINAK Scandinavia AB  
PHONE: +46 8 732 20 00  
FAX: +46 8 732 20 50  
E-mail: info@linak.se  
www.linak.se

Switzerland  
LINAK AG  
PHONE: +41 43 388 31 88  
FAX: +41 43 388 31 87  
E-mail: info@linak.ch  
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  
E-mail: sales@linak.com.tw  
www.linak.com.tw

Turkey  
LINAK İth. İhr. San. ve Tic. A.Ş.  
PHONE: +90 312 4726338  
FAX: +90 312 4726635  
E-mail: info@linak.com.tr  
www.linak.com.tr

United Kingdom  
LINAK UK Limited  
PHONE: +44 (0)121 544 2211  
FAX: +44 (0)121 544 2552  
E-mail: sales@linak.co.uk  
www.linak.co.uk

## DISTRIBUTORS

Argentina  
NOVOTEC ARGENTINA SRL  
PHONE: 011-4303-8989 / 8900  
FAX: 011-4032-0184  
E-mail: info@novotecargentina.com  
www.novotecargentina.com

Colombia  
MEM Ltda  
PHONE: +[57] (1) 334-7666  
FAX: +[57] (1) 282-1684  
E-mail: servicioalcliente@memltda.com.co  
www.mem.net.co

India  
Mechatronics Control Equipments India Pvt Ltd  
PHONE: +91-44-28558484, 85  
E-mail: bala@mechatronicscontrol.com  
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  
E-mail: hejplastic-div@centrin.net.id  
www.hej.co.id

Israel  
NetivTech LTD  
PHONE: +972 55-2266-535  
FAX: +972 2-9900-560  
Email: info@NetivTech.com  
www.netivtech.com

Singapore  
Servo Dynamics Pte Ltd  
PHONE: +65 6844 0288  
FAX: +65 6844 0070  
E-mail: servodynamics@servo.com.sg

South Africa  
Industrial Specialised Applications CC  
PHONE: +27 011 466 0346  
E-mail: gartht@isagroup.co.za  
www.isaza.co.za

United Arab Emirates  
Mechatronics  
PHONE: +971 4 267 4311  
FAX: +971 4 267 4312  
E-mail: mechtron@emirates.net.ae

## Terms of use

LINAK® takes great care in providing accurate and up-to-date information on its products. However, the user is responsible for determining the suitability of LINAK products for a specific application. Due to continual development, LINAK products are subject to frequent modifications and changes. LINAK reserves the rights to conduct modifications, updates, and changes without any prior notice. For the same reason, LINAK cannot guarantee the correctness and actual status of imprinted information on its products.

LINAK uses its best efforts to fulfil orders. However, for the reasons mentioned above, LINAK cannot guarantee availability of any particular product at any given time. LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or in other written material created and produced by LINAK, LINAK subsidiaries, or LINAK affiliates. All sales are subject to the 'Standard Terms of Sale and Delivery for LINAK A/S' available on LINAK websites. LINAK and the LINAK logotype are registered trademarks of LINAK A/S. All rights reserved.



WE IMPROVE YOUR LIFE