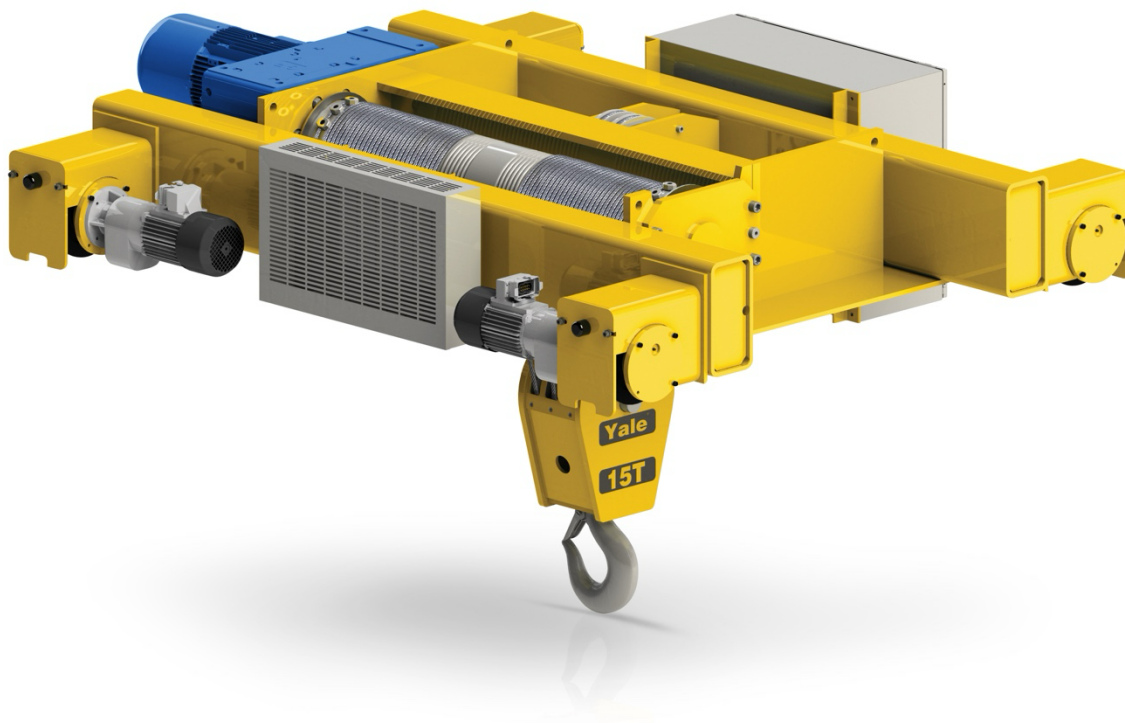




LodeKing LT™ Wire Rope Hoist Advanced VFD Control Ultra-Lift Function Manual Supplement

Before installing hoist, fill in the information below. Refer to the Hoist and Motor data plates.

Model No. _____
Serial No. _____
Purchase Date _____
Voltage _____
Rated Load _____

Yale®

Part Number: C11854802 Rev AA
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Contents

Ultra-Lift function – LKLT Specific 3

1. Introduction.....3

2. Settings.....3

2.1. Parameter Files3

2.2. Ultra-Lift Parameters3-4

Ultra-Lift Function – LKLT Specific

1. Introduction

The IMPULSE VG+ firmware allows over speeding of the hoist motion when the hook load is 50% or less. The Ultra-Lift function measures motor torque at base speed and then accelerates to the maximum safe speed. The function will not be enabled if the motor torque exceeds pre-programmed levels.

The LodeKing LT gearbox can be over-spiced to a maximum of 2700 rpm. This equates to a maximum speed of 150% base speed or maximum setting of 90Hz.

WARNING!

The Ultra-Lift function should not be set for a frequency reference of greater than 90Hz.

2. Settings

2.1. Parameter Files

The LKLT FLV default parameter files are set to Ultra-Lift disabled. The feature can be field enabled by changing parameter C06-01 to “1” and setting maximum speeds C06-02 and C06-03 to 90Hz.

2.2. Ultra-Lift Parameters

Parameter	Name	Content	Range	Factory Setting
C6-01	Ultra Lift (FLV)	Swift Lift Enable / Disable. Parameter text changes based on A1-02. Overspeed level is set by E1-06 when not in Ultra Lift. 0: Disabled 1: Enabled Auto 2: Enabled by MFDI 3: Enabled Adaptive (A1-03=3 Only) 4: Adaptive by MFDI (A1-03=3 Only)	0-4	0
C6-02	UltraLift FWDSpd	Maximum Ultra Lift Forward Speed	0.1-150Hz** Maximum 90Hz for LodeKing LT	60.0
C6-03	UltraLift REVSpd	Maximum Ultra Lift Reverse Speed	0.1-150Hz** Maximum 90Hz for LodeKing LT	60.0

Parameter	Name	Content	Range	Factory Setting
C6-04	UL FWD Torque (FLV)	Output Torque < C6-04 to enable Ultra Lift Forward. Not used with Adaptive UL	0-100%	50.0
C6-05	UL REV Torque (FLV)	Output Torque < C6-05 to enable Ultra Lift Reverse Not used with Adaptive UL	0-100%	50.0
C6-06	UL Enabling Spd	Fout > C6-06 to Enable Ultra Lift. (Threshold Speed)	0.1-150Hz	59.0
C6-07	UL Delay Time	Delay time at Enabling speed to check Output Torque	0.0-25.5	2.0
C6-08	SFS Acc Gain	Swift Lift acceleration multiplier for V/F Modes.	0.1-9.9	1.0
C6-10	Motor Torque Quick Set	Configure motor torque. Typically this parameter does not need to be changed. 0: Custom 1: Very Low Torque 2: Low Torque 3: Standard 4: High Torque 5: Very High Torque	0~5	3
C6-11	Motor Torque 1	Sets the available torque at Speed 1 (above base speed)	1-100%	45
C6-12	Motor Speed 1	Sets the Speed 1 point.	100-300%	150
C6-13	Motor Torque 2	Sets the available torque at Speed 2 (above base speed)	1-100%	25
C6-14	Motor Speed 2	Sets the Speed 2 point	100-300%	200
C6-15	Starting torque offset in Forward direction (AUL FWD Offset)	Adaptive UL torque measurement offset in the up direction to allow for deceleration.	0-100%	10
C6-16	Starting torque offset in Reverse direction (AUL REV Offset)	Adaptive UL torque measurement offset in the down direction to allow for deceleration.	0-100%	10

RECOMMENDED SPARE PARTS

Certain parts of your hoist will, in time, require replacement under normal wear conditions. It is suggested that the following parts be purchased for your hoist as spares for future use.

One Brake Friction Disc
One Brake Control Module
One Brake Hardware Kit
One Set of Contactors
One Transformer
One Wire Rope Assembly
One Hook Latch Kit

Note: When ordering parts, always furnish Hoist Serial Number, Catalog Number, Motor power, Voltage, Phase, Frequency and Rated Load of Hoist on which the parts are to be used.

PARTS AND SERVICES ARE AVAILABLE IN THE UNITED STATES AND IN CANADA

Parts for your hoist or trolley are available from your local authorized repair station. For the name of the nearest parts or service center, visit our website www.cmco.com or call the Columbus McKinnon customer service department at (800) 888-0985.

WARRANTY	
LIMITATION OF WARRANTIES, REMEDIES AND DAMAGES	
INDEMNIFICATION AND SAFE OPERATION Buyer shall comply with and require its employees to comply with directions set forth in instructions and manuals furnished by Seller and shall use and require its employees to follow such instructions and manuals and to use reasonable care in the use and maintenance of the goods. Buyer shall not remove or permit anyone to remove any warning or instruction signs on the goods. In the event of personal injury or damage to property or business arising from the use of the goods, Buyer shall within 48 hours thereafter give Seller written notice of such injury or damage. Buyer shall cooperate with Seller in investigating any such injury or damage and in the defense of any claims arising therefrom. If Buyer fails to comply with this section or if any injury or damage is caused, in whole or in part, by Buyer's failure to comply with applicable federal or state safety requirements, Buyer shall indemnify and hold Seller harmless against any claims, loss or expense for injury or damage arising from the use of the goods. CMCO Warranty (HOISTS) A. Columbus McKinnon Corporation ("Seller") warrants to the original end user ("Buyer") that: (a) for a period of one (1) year from the date of Seller's delivery of the goods (collectively, the "Goods") to the carrier, the electrical components of the Goods will be free from defects in workmanship and materials; and (b) for a period of three (3) years from the date of Seller's delivery of the goods (collectively, the "Goods") to the carrier, the mechanical components of the Goods will be free from defects in workmanship and materials. B. IN THE EVENT OF ANY BREACH OF SUCH WARRANTY, SELLER'S SOLE OBLIGATION SHALL BE EXCLUSIVELY LIMITED TO, AT THE OPTION OF SELLER, REPAIR OR REPLACEMENT, F.O.B. SELLER'S POINT OF SHIPMENT, OF ANY GOODS THAT SELLER DETERMINES TO HAVE BEEN DEFECTIVE OR, IF SELLER DETERMINES THAT SUCH REPAIR OR REPLACEMENT IS NOT FEASIBLE, TO A REFUND OF THE PURCHASE PRICE UPON RETURN OF THE GOODS TO SELLER. NO CLAIM AGAINST SELLER FOR ANY BREACH OF (i) SUCH WARRANTY WITH RESPECT TO THE ELECTRICAL COMPONENTS OF ANY GOOD SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE OF SELLER'S DELIVERY TO THE CARRIER AND (ii) SUCH WARRANTY WITH RESPECT TO THE MECHANICAL COMPONENTS OF ANY GOOD SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE THE DATE ANY ALLEGED CLAIM ACCRUES. EXCEPT FOR THE WARRANTY SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES WITH RESPECT TO THE GOODS, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUALITY AND/OR THOSE ARISING BY STATUTE OR OTHERWISE BY LAW OR FROM ANY COURSE OF DEALING OR USE OF TRADE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.	C. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY WITH RESPECT TO ANY GOOD, WHETHER IN CONTRACT, TORT OR OTHER THEORY OF LAW, FOR LOSS OF PROFITS OR LOSS OF USE, OR FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, DIRECT OR INDIRECT DAMAGES, HOWSOEVER CAUSED. SELLER'S MAXIMUM LIABILITY TO BUYER WITH RESPECT TO THE GOODS SHALL IN NO EVENT EXCEED THE PRICE PAID BY BUYER FOR THE GOODS THAT ARE THE SUBJECT OF THE APPLICABLE CLAIM. D. Seller shall not be liable for any damage, injury or loss arising out of the use of the Goods if, prior to such damage, injury or loss, such Goods are: (1) damaged or misused following Seller's delivery to the carrier; (2) not maintained, inspected, or used in compliance with applicable law and Seller's written instructions and recommendations; or (3) installed, repaired, altered or modified (a) with any part or accessory other than those supplied by Seller or (b) without compliance with such laws, instructions or recommendations. E. This warranty is limited and provided only to the original end user. Each Good must be registered within sixty (60) days of receipt of each product to establish eligibility. Please register at www.cmworks.com/hoist-warranty-registration or submit registration card via US mail. F. Any action against Seller for breach of warranty, negligence or otherwise in connection with the electrical components of any Good must be commenced by Buyer within one (1) year after: (a) the date any alleged claim accrues; or (b) the date of delivery of the Goods to Buyer, whichever is earlier. Any action against Seller for breach of warranty, negligence or otherwise in connection with the mechanical components of any Good must be commenced by Buyer within one (1) year after the date any alleged claim accrues. G. This warranty is contingent upon Buyer's proper maintenance and care of the Goods, and does not extend to normal wear and tear. Seller reserves the right, at its option, to void this warranty in the event of Buyer's use with the Goods of parts or accessories other than those supplied by Seller.

**WARNING**
Alterations or modifications of equipment and use of non-factory repair parts can lead to dangerous operation and injury.

TO AVOID INJURY:

- Do not alter or modify equipment.
- Do use only factory replacement parts.

NOTES

LodeKing LT Advanced VFD Control
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