

Thomson Movotrak Cobot Transfer Unit

A Collaborative 7th Axis Solution for Universal Robots

Installation Manual

Edition 2024-02

 THOMSON[®]

Linear Motion. Optimized.™

A REGAL REXNORD BRAND

Version history

Edition	Reason for revision
2023-06	First edition
2024-02	Updated safety section and new images of the control cabinets

Warranty

The Thomson MovoTrak Cobot Transfer Unit is warranted to be free from defects in materials and workmanship for a period of twelve (12) months from date of delivery. The application of this product is the responsibility of the buyer and Thomson makes no representation or warranty as to the suitability of the product for any particular use or purpose. For a copy of the entire warranty for this product that is contained in our standard terms and conditions of sale, please go to http://www.thomsonlinear.com/website/com/eng/support/terms_and_conditions.php.

Disclaimer

Technical changes to improve the performance of the equipment may be made without prior notice!

Thomson disclaims any and all liability if the MovoTrak CTU (mechanical actuators, motor, sensors, and/or control panel) is damaged, changed or modified in any way. Thomson cannot be held responsible for any damages caused to the MovoTrak CTU or any other equipment due to programming errors or malfunctioning of the MovoTrak CTU.

All rights reserved. No part of this work may be reproduced in any form (by printing, photocopying, microfilm or any other method) or processed, copied or distributed by electronic means without the written permission of Thomson.

Contents

1. General	4
1.1 About this manual	4
1.2 Target group	4
1.3 Symbols used	4
1.4 Transport and storage	4
1.5 Packaging	4
1.6 Disposal	4
1.7 Support	4
2. Safety	5
2.1 Safety notes	5
3. Product identification	8
3.1 Product label	8
3.2 Product model number/ordering key	8
3.3 List of components and terminology	9
4. Mechanical installation	10
4.1 Dimensions	10
4.2 Tools required	10
4.3 Mounting	11
5. Electrical installation and software setup	13
5.1 Connection of the MovoTrak CTU and the Universal Robot control systems	13
5.2 Basic setup	15
5.3 Setting up move parameters and sensitivity	18
6. Programming of the MovoTrak Cobot Transfer Unit (CTU) system	20
6.1 General requirements	21
6.2 Programming	21
7. Collision detection system	24
7.1 Activation	24
8. Troubleshooting	25
7.1 Troubleshooting	25

1. General

1.1 About this manual

This manual contains mechanical and electrical installation instructions for the Thomson MovoTrak Cobot Transfer Unit (MovoTrak CTU) system. It also contains, among other things:

- technical data
- installation data
- type designation key.

It is important to carefully read this manual before installing the system and to have the correct qualifications needed to perform the installation.

1.2 Target group

This manual addresses qualified mechanical and electrical personnel.

1.3 Symbols used



This symbol is shown to highlight a general warning, general instruction or as a warning for a mechanical hazard.

1.4 Transport and storage

The MovoTrak CTU may only be transported and stored in the original packaging supplied by Thomson. The temperature during transportation and storage must be between -40 to +85° C (-40 to +185° F). Avoid shocks to the package. If the package is damaged, check the CTU for visible damage and notify the carrier, and if appropriate Thomson as well.

1.5 Packaging

The packaging consists of a wooden crate. The crate contains the MovoTrak CTU 7th axis linear unit, a control cabinet, a cable chain system, cables, a USB stick and this manual. For large quantity orders, bulk packaging may be used, in which case the packaging and the content will vary depending on the order agreement.

1.6 Disposal

Where required by law, used packaging and MovoTrak CTU system parts are taken back by Thomson for professional disposal if the transportation cost is paid by the sender. Please contact Thomson for shipping information.

1.7 Support

If technical support or information is needed for this product, please contact the nearest Thomson Service Center. See the back of this manual. You can also visit www.thomsonlinear.com for information on this product and how to contact us.

2. Safety

2.1 Safety notes



- Only properly qualified personnel are permitted to perform mechanical and electrical installation of this product. Properly qualified personnel are familiar with mechanical or electrical installation work and have the appropriate qualifications for their job.
- Read this manual and any other available documentation before working on the equipment that the CTU is or shall be a part of.
- Conform strictly to the information contained in this manual and on the MovoTrak CTU product label on the system. Never exceed the performance limits stated herein.
- Never work on the MovoTrak CTU or its installation with the power on.
- Never unplug any cables or connectors during operation or with power on.
- Immediately stop using the MovoTrak CTU if it seems faulty or damaged in any way and notify an appropriate person so that corrective actions can be taken.
- Never open any of the MovoTrak CTU components as that will compromise the sealing and the function of the system. There are no serviceable components inside.



- Collision detection settings are provided for your convenience. These are not official safety features. User is responsible for conducting their own risk analysis. When applicable, third-party safety devices should be used.



- Carefully follow electrical and wiring instructions to ensure emergency stop and safeguard stop I/O has been connected between the articulated robot and the MovoTrak CTU system.

2.2 Validity and responsibility

The information in this manual does not cover designing, installing and operating a complete MovoTrak CTU system and robot application, nor does it cover all peripheral equipment that can influence the safety of the complete system. The MovoTrak CTU itself is partly completed machinery and the safety of the overall application depends upon how the MovoTrak CTU is integrated with the collaborative robot, end effectors, obstacles, and other machinery. The complete system must be designed and installed in accordance with the safety requirements set forth in the standards and regulations of the country where the robot is installed. The integrators of collaborative robots are responsible for ensuring that the applicable safety laws and regulations in the country concerned are observed and that any significant hazards in the complete robot application are eliminated. This includes, but is not limited to:

- Performing a risk assessment for the complete robot system.
- Interfacing other machines and additional safety devices if defined by the risk assessment.
- Setting up the appropriate settings in the software.
- Validating that the MovoTrak CTU and total robot system is designed and installed correctly
- Specifying instructions for use.

2.3 Warnings

This section contains some general warnings and cautions that can be repeated or explained in different parts of this manual. Other warnings and cautions are present throughout this manual.



1. Make sure all parts of the MovoTrak CTU system and the robot are properly and securely bolted in place.
2. Make sure the MovoTrak CTU linear unit has ample space to operate freely.
3. Do not wear loose clothing or jewellery when working with the MovoTrak CTU system.
4. Make sure long hair is tied back when working with the MovoTrak CTU system.
5. Never use the MovoTrak CTU system if it is damaged.
6. The MovoTrak CTU system freedrive function (Impedance/Backdrive) shall only be used in installations where the risk assessment allows it.
7. Tool/end effectors and obstacles shall not have sharp edges or pinch points.
8. Make sure to warn people to keep their heads and faces outside the path of any moving parts.
9. Be aware of the MovoTrak CTU linear unit movement when using the teach pendant.
10. If determined by the risk assessment, do not enter near the operation range of the MovoTrak CTU system or touch it when the system is in operation.
11. Collisions can release high levels of kinetic energy, which are significantly higher at high speeds and with high payloads.
12. Combining different machines can increase hazards or create new hazards.
13. Always make an overall risk assessment for the complete installation.
14. Never modify the MovoTrak CTU system. A modification might create hazards that are unforeseen by the risk assessment.

2.4 Intended use

The MovoTrak CTU is intended to transfer collaborative robots along with their tools and end effectors.

As with collaborative robots, collaborative operation is only intended for non-hazardous applications, where the complete application – including the MovoTrak CTU linear unit, collaborative robot, end effectors, obstacles, and other machines is without any significant hazards according to the risk assessment of the specific application.

Any use or application deviating from intended use is deemed to be impermissible misuse. This includes but is not limited to:

- Use in potentially explosive environments
- Use in medical and life critical applications
- Use before performing a risk assessment
- Use outside of stated specifications
- Use as a climbing aid
- Operation outside the permissible operating parameters

- page intentionally left blank -

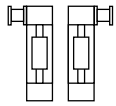
3. Product identification

3.1 Product label

The product label can be found on one of the linear units. It will tell you which model of MovoTrak CTU you have, its basic performance data and where it is manufactured. Please study the product label to determine CTU type before starting any installation or service on the CTU. If you need any assistance from Thomson, please provide the serial number, manufacturing date and the designation of the CTU(s) in question.

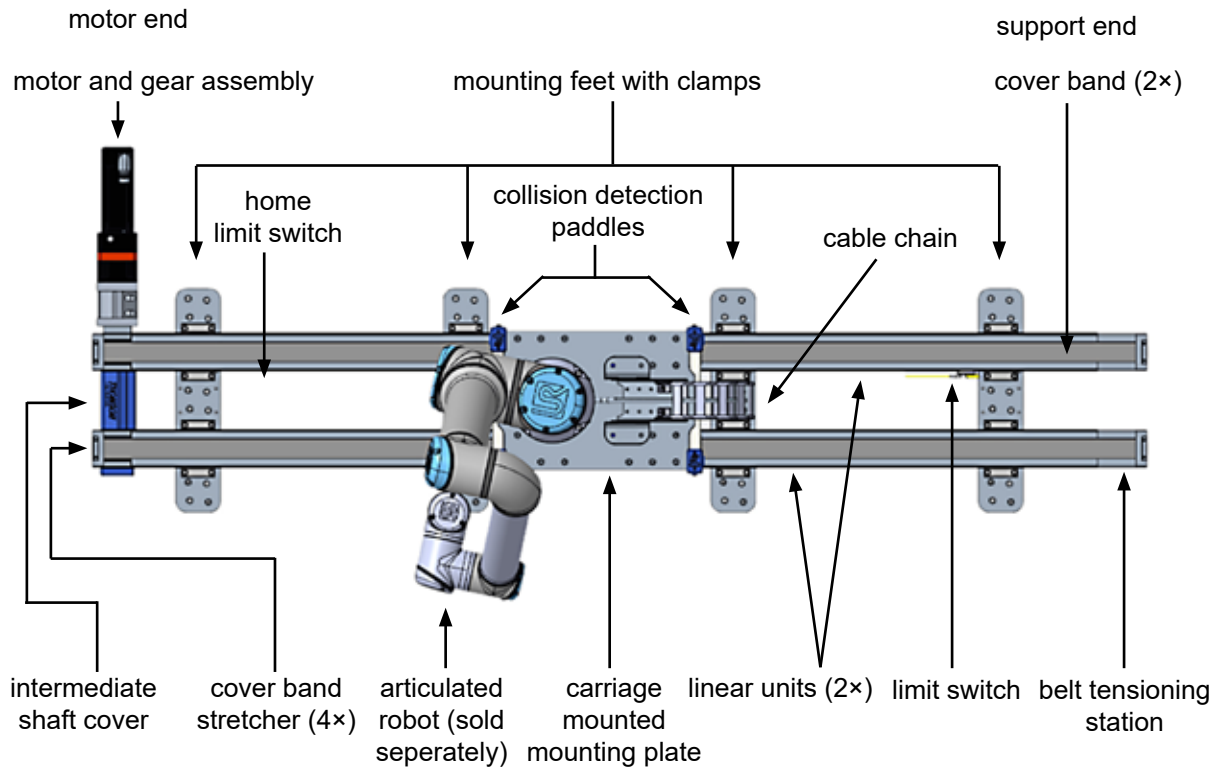
3.2 Product model number/ordering key

The model number (which also is the ordering code for your unit) is found on the product label. The below key will describe how your MovoTrak CTU unit is configured. This is important to understand in order to safely and successfully install, use and maintain your MovoTrak CTU.

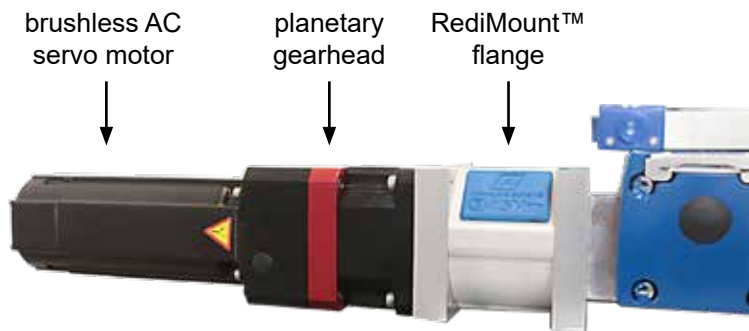
Ordering Key					
Position	1	2	3	4	5
Example	CTU07	B	R	02000	UR03
1. CTU type and size CTU07 = MovoTrak CTU size 07 (Movopart M75 linear unit)			4. Stroke length xxxxx = stroke in millimeters		
2. Drive type B = belt drive			5. Type and size of articulated robot UR03 = Universal Robot UR3e UR05 = Universal Robot UR5e UR10 = Universal Robot UR10e UR16 = Universal Robot UR16e UR20 = Universal Robot UR20 UR30 = Universal Robot UR30		
3. Motor configuration L = motor on left side R = motor on right side			<div style="text-align: center;"> <p>left / right</p>  </div>		

3.3 List of components and terminology

3.3.1 Movotrak CTU 7th axis assembly



3.3.2 Motor and gear assembly



3.3.3 Control cabinet



3.3.4 Motor cable



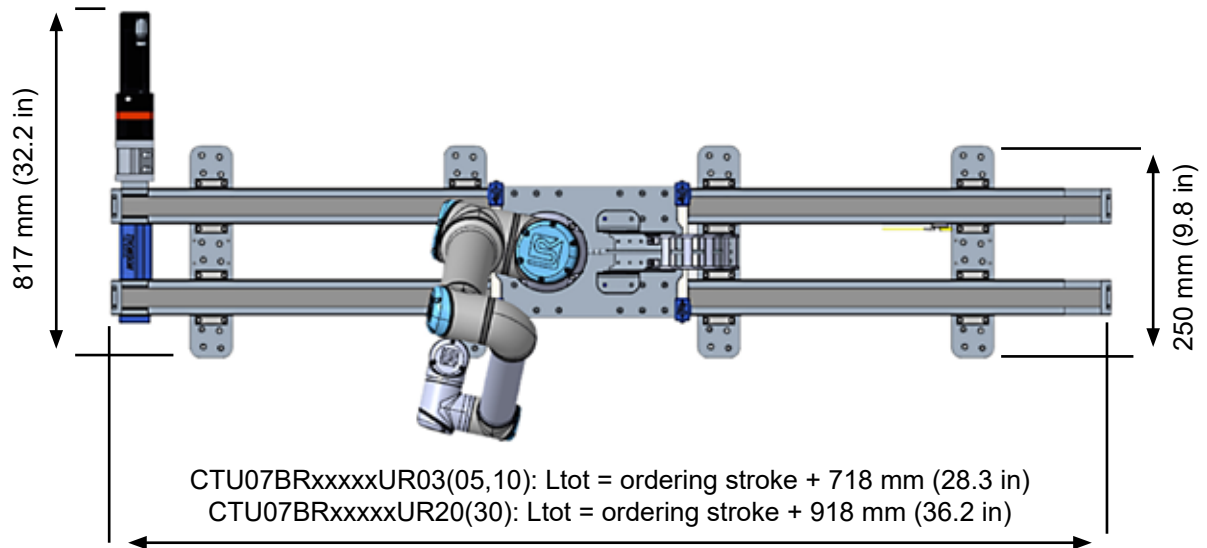
3.3.5. USB stick



4. Mechanical installation

4.1 Dimensions

4.1.1 MovoTrak CTU 7th axis assembly



4.1.2 Control cabinet

Width: 407 mm (16 in)
Height: 407 mm (16 in)
Depth: 305 mm (12 in)



4.2 Tools required

1. M6 hexagon key
2. M4 hexagon key
3. 10 mm socket wrench
4. ¼" hexagon key (only if attaching to inch extrusion)



4.3 Mounting

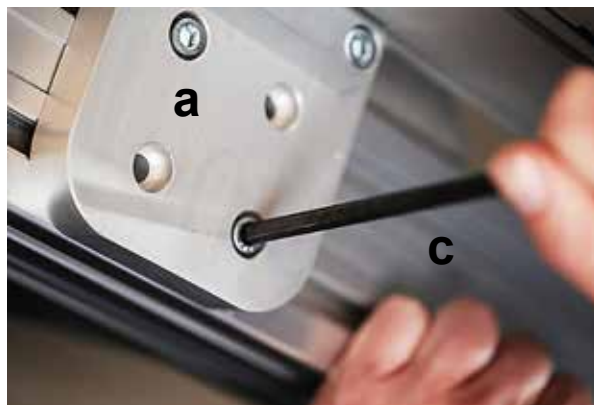
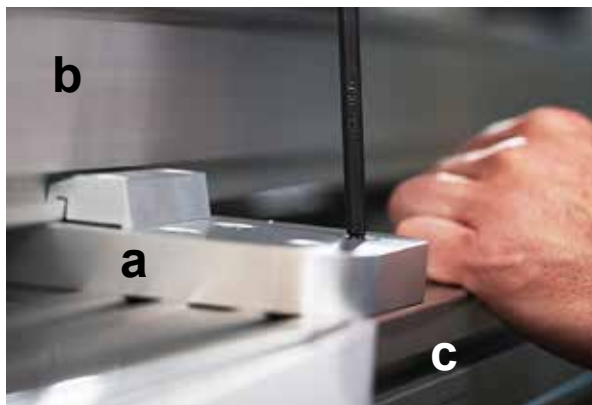
4.3.1 Mounting of the MovoTrak CTU linear units

1. Take the MovoTrak CTU unit out of the crate.
2. The MovoTrak CTU unit comes standard with mounting feet (a) mounted to the linear units (b) spaced at 500 mm. The mounting feet are predrilled with holes that will mount to either the 90 mm metric support extrusions (c) using M8 bolts or to the 3 in support extrusions using 5/16 in bolts.
3. Support extrusion should be mounted to the surface, utilizing end-loaded or twist-in styles. T-nuts and mounting screws for support extrusion mounting are not included.

Note: custom mounting hole patterns are available from Thomson. If needed, please contact Thomson customer support prior to purchase to discuss mounting considerations.

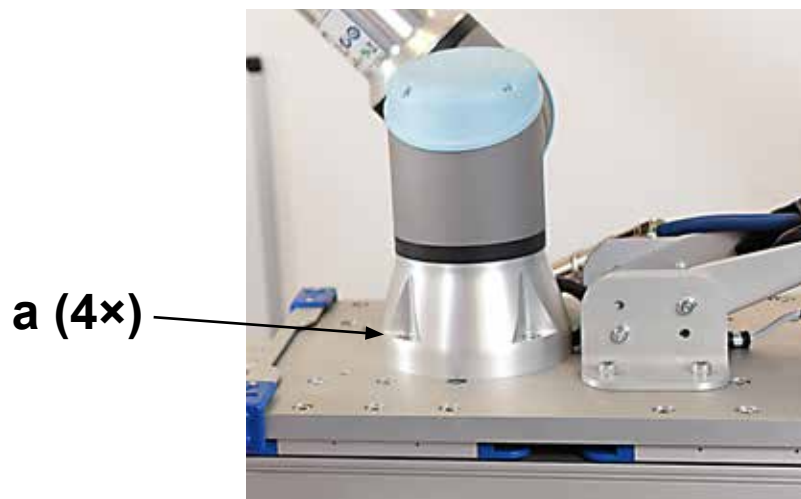


Make sure to mount the MovoTrak CTU linear units and any support extrusion so that they are straight and not subjected to any bending or twisting forces in any direction.



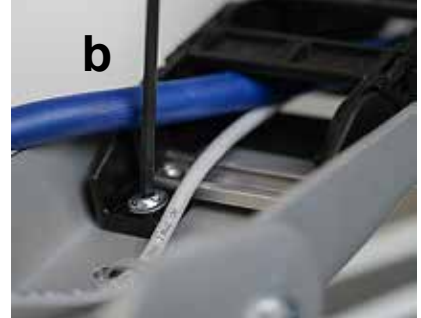
4.3.2 Mounting the articulated robot to the carriage mounting plate

1. Align the robot with the alignment pin on the linear unit carriage.
2. Fix the robot to the linear unit carriage with the four bolts (a) provided.



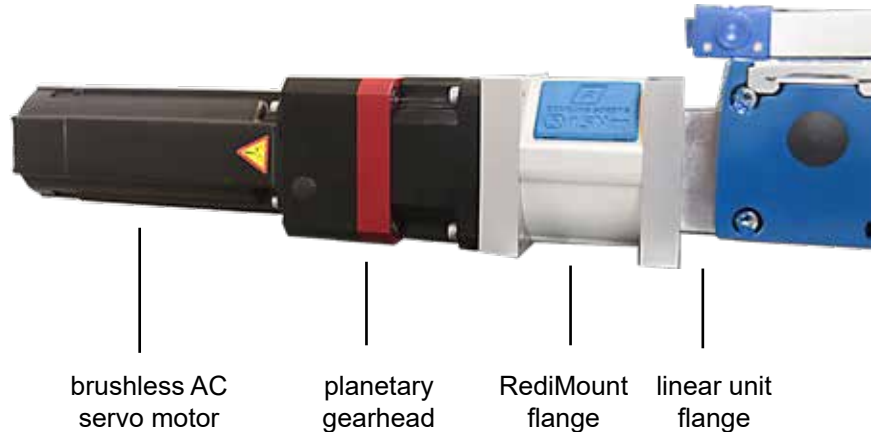
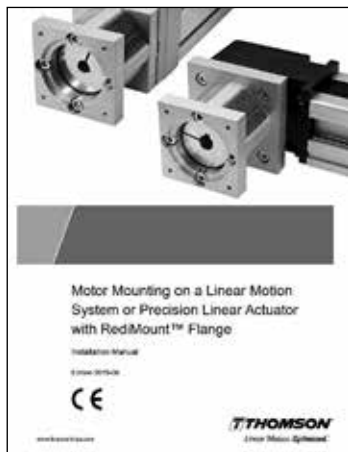
4.3.3 Mounting of the cable chain

1. Lay the cable chain tray flat and utilizing flathead screwdriver, feed UR Power Flex Cable (not provided) through the cable chain.
2. Utilizing a 10 mm socket wrench, attach the end of the cable chain tray to the cable chain bracket located on the linear unit carriage plate (a).
3. Utilizing a M4 hexagon key, attach the other end of the cable chain tray to the base (b).



4.3.4 Mounting of the motor and gear assembly

Utilize the Thomson RediMount™ system to mount the motor and gearhead onto the linear CTU drive shaft. See image below for final result. The RediMount mounting instructions can be downloaded here: www.thomsonlinear.com/downloads/CTUs/Redimount_Motor_Mounting_MNEN_0005-02.pdf



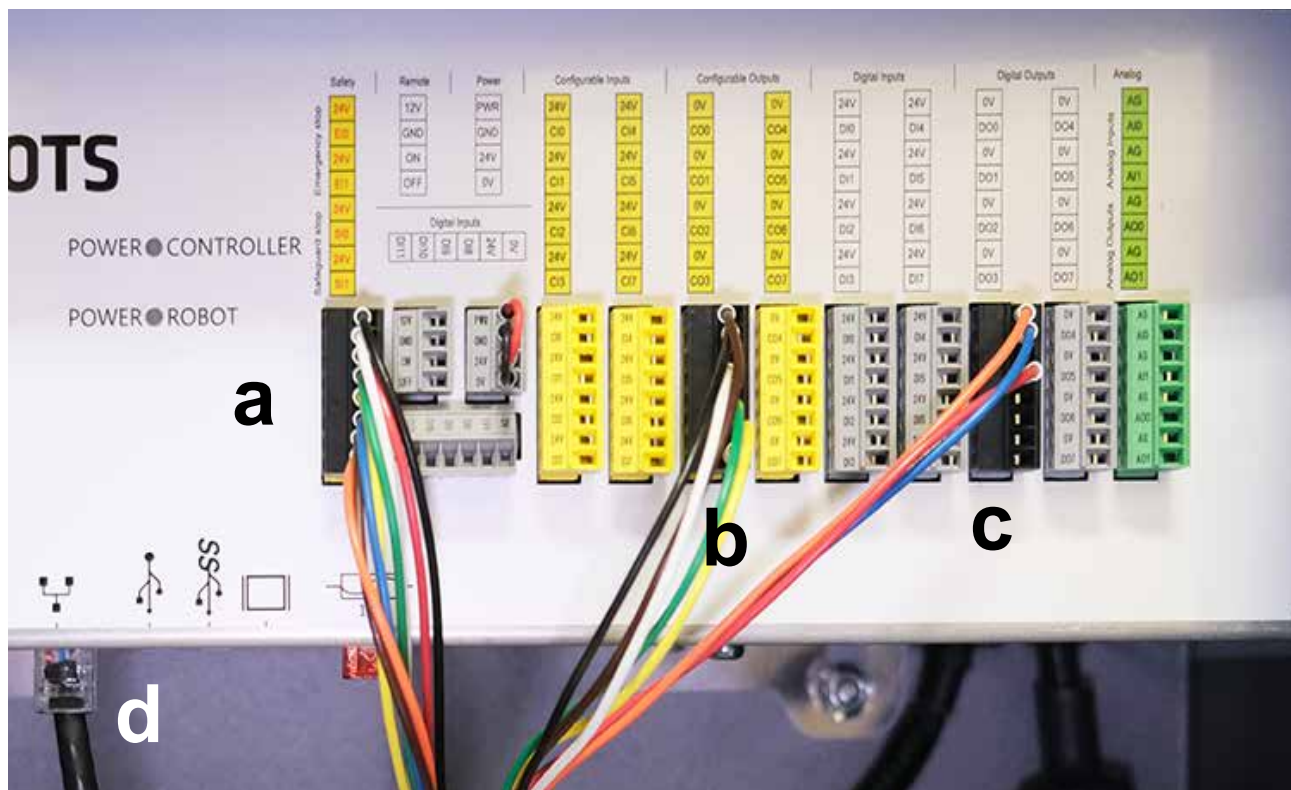
5. Electrical installation and software setup

5.1 Connection of the MovoTrak CTU and the Universal Robot control systems

5.1.1 Cable connections

On the Universal Robots control cabinet, remove the bottom panel and pull through the wire bundle from the MovoTrak CTU control box. Connect as described below.

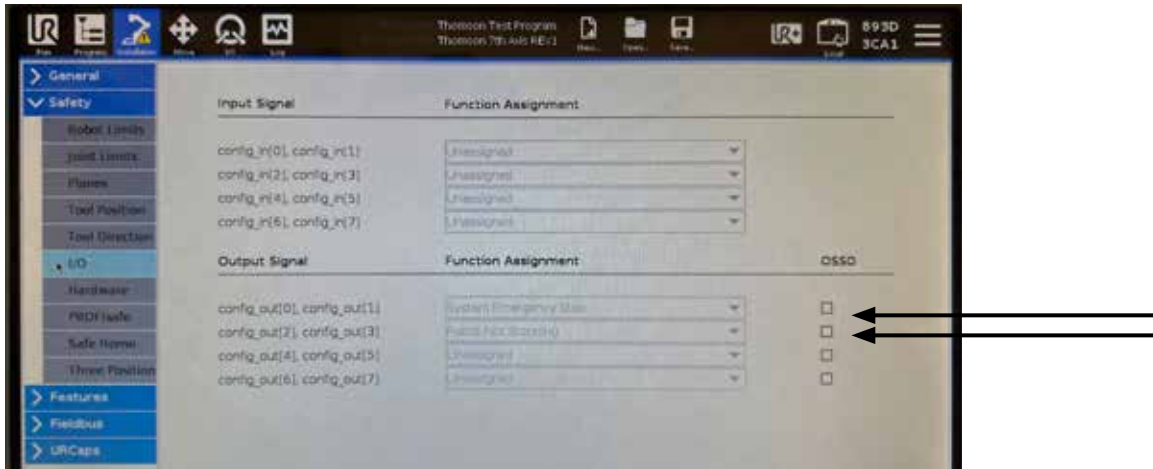
1. Connect the protective earth wire bundle to the ground nut located on the base of the cabinet.
2. Connect the prewired safety outputs connector (yellow connector, red lettering) to the Universal Robots safety outputs (a).
3. Connect the prewired configurable outputs connector (yellow connector, black lettering) to the Universal Robots digital outputs (b).
4. Connect the prewired digital output connector (gray connector, black lettering) to the Universal Robots digital outputs (c).
5. Connect the blue Ethernet cable connector to the Ethernet port (d).



5.1.2 Setup of the safety I/Os

To be able to activate the MovoTrak CTU, the safety and general I/Os must be configured correctly in the Universal Robots environment using the teach pendant.

1. On the “Installation” tab, select “Safety” from the menu on the left side. Navigate to “I/O”. On the “Safety I/O” tab, assign outputs as below.
2. Assign “config_out(0), config_out(1)” to: System Emergency Stop
Assign “config_out(2), config_out(3)” to: Robot Not Stopping (Safeguard Stop)



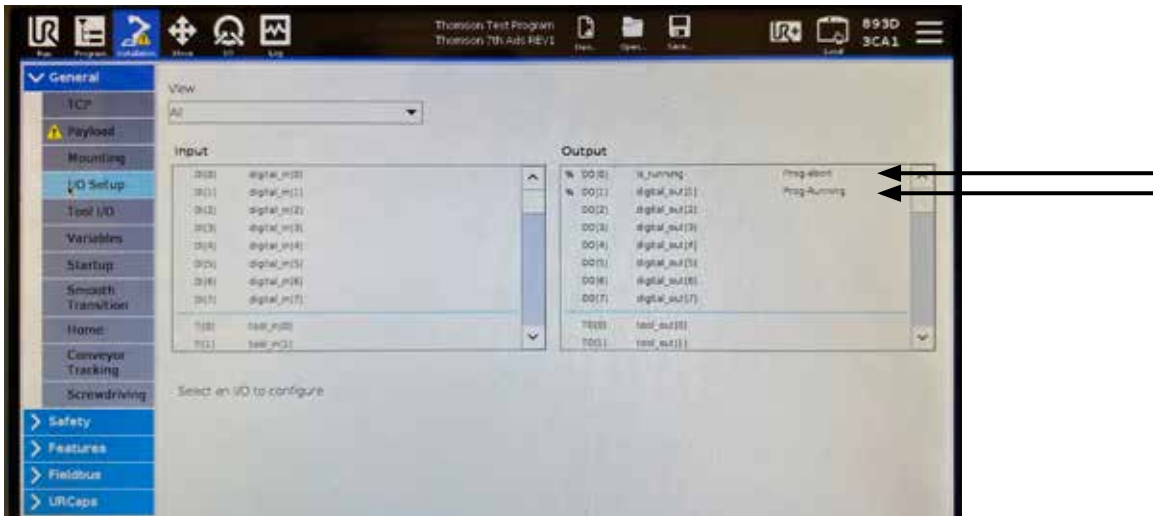
5.1.3 Setup of the general digital I/Os

In the “Installation” tab, navigate to the “General” menu on the left hand side and select “I/O Setup”.

On the “General I/O” tab, assign outputs as seen in the image:

1. Assign “DO0” to: “Low on unscheduled stop, otherwise High”.
2. When complete, DO0 should show “Prog abort” has been assigned.
3. Assign “DO1” to: “High when running, low when stopped”.
4. When complete, DO1 should show “Prog-Running” has been assigned

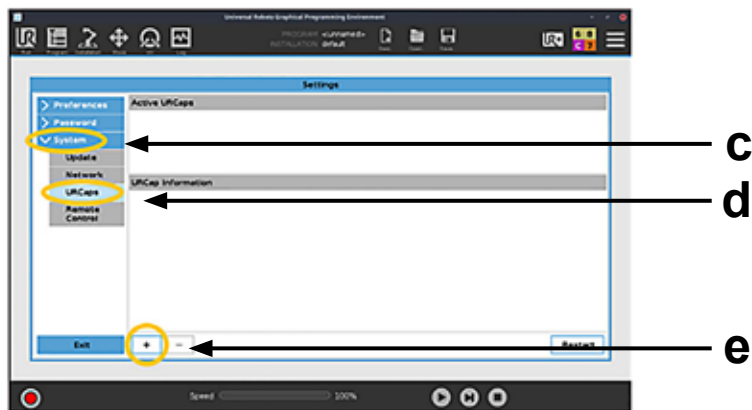
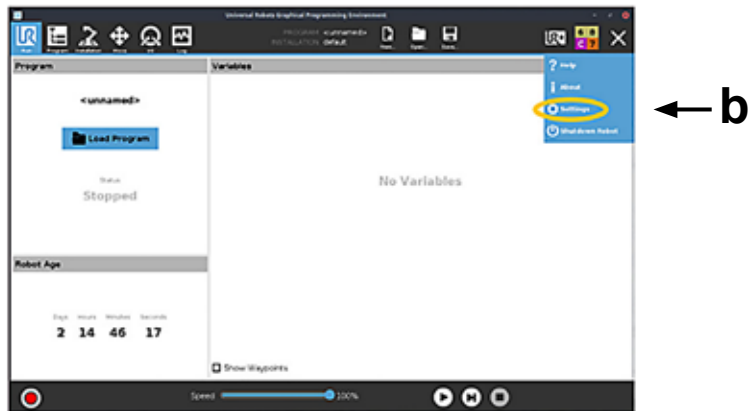
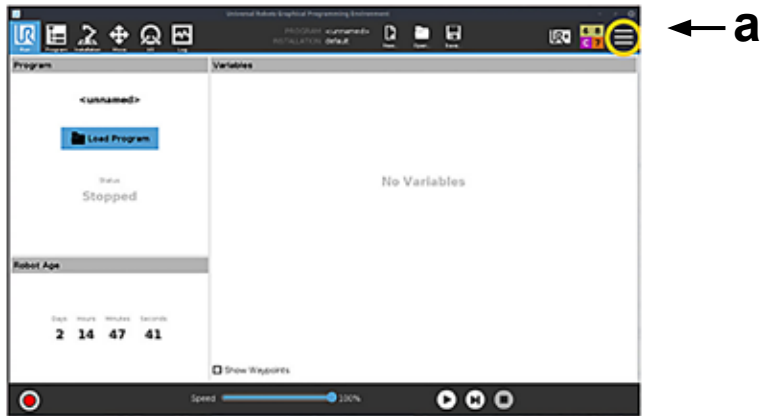
Note: If the I/O above are in use by other third-party URCaps, other I/O ports of the same type can be used. Adjust the I/O assignments accordingly in the Installation tab. In order for proper communication of emergency and safeguard stops between the Universal Robot control and the MovoTrak CTU motor drive, this install setup must be used for all programs.



5.1.4 Installation of URCaps

To install Thomson URCaps, follow these steps:

1. Click on the hamburger menu in the top right corner (a).
2. Click "Settings" (b).
3. Go to "System" (c), select "URCaps" (d) and press "+" (e).
4. Insert the MovoTrak CTU USB drive into the USB port in the programming pendant, choose URCaps file from the USB drive and press "Restart".



5.2 Basic setup

5.2.1 General information

The system requires a basic setup procedure which includes:

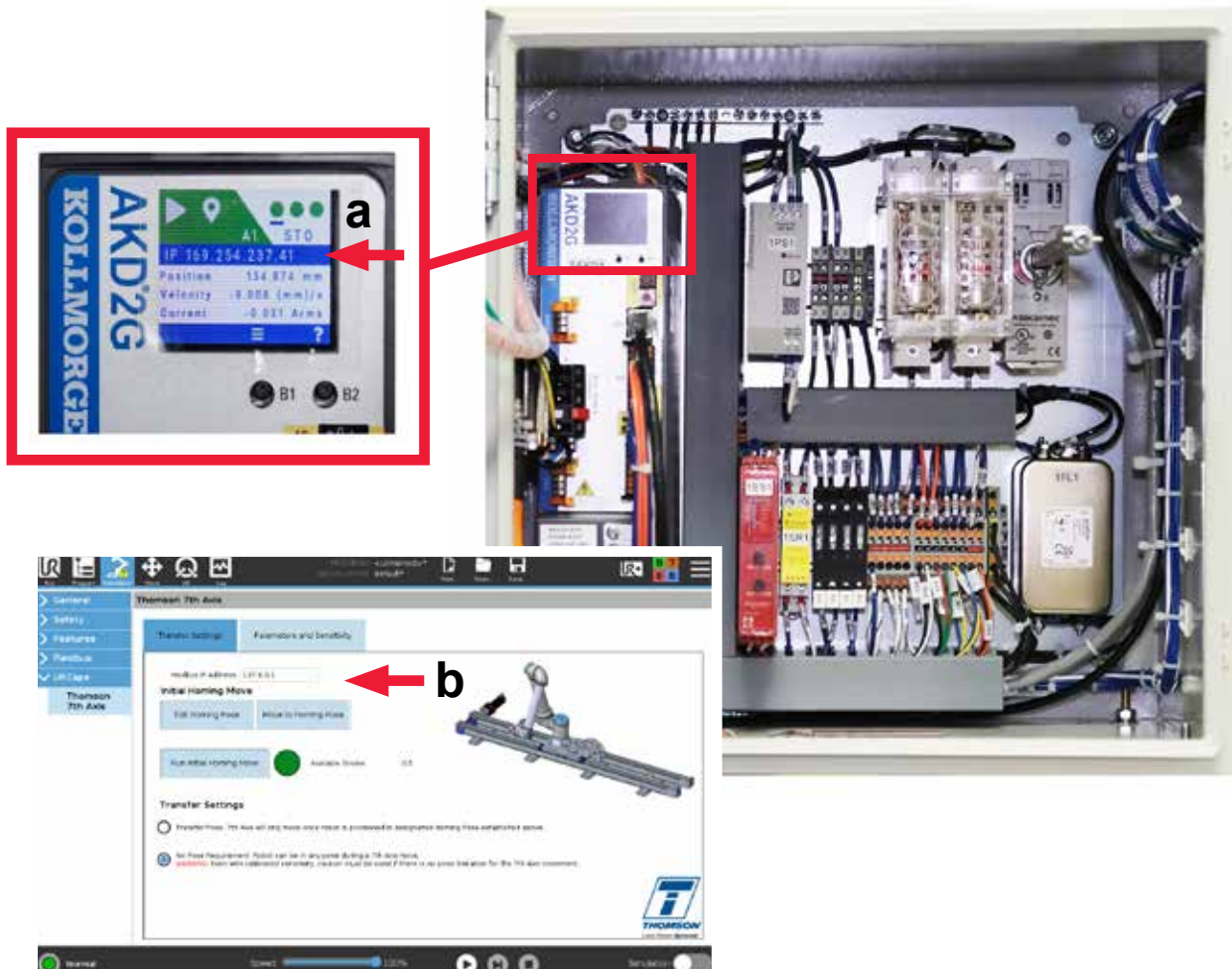
1. Entering of the motor drive IP address into the control system.
2. Setting up the home position (zero position) of the articulated robot.
3. Performing a homing move sequence for both the articulated robot and the MovoTrak CTU 7th axis. (homing will be needed after each time power is removed from the overall system when all axes will move to home at a designated speed).
4. Determining the available stroke of the MovoTrak CTU 7th axis by letting it move between the home sensor on the motor side and the support side sensor.
5. Setting up speed, acceleration and other movement parameters.
6. Testing of the system and adjustment of the collision protection sensitivity.



Be careful when setting up the system and make sure only qualified personnel necessary for the process are present.

5.2.2 Entering the IP address of the motor drive

1. Open the MovoTrak CTU control cabinet.
2. The small drive display will scroll through status information, including the IP address (a).
3. Enter the IP address into the accompanying URCap field (b).

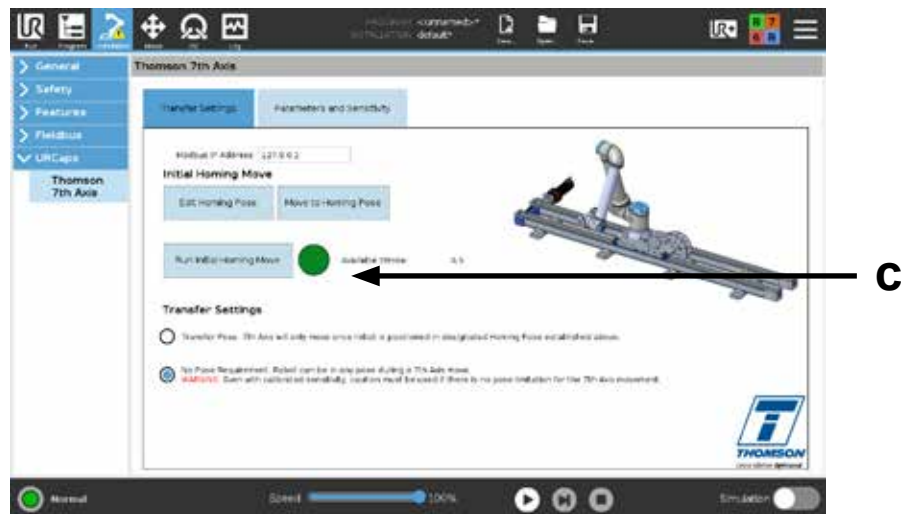
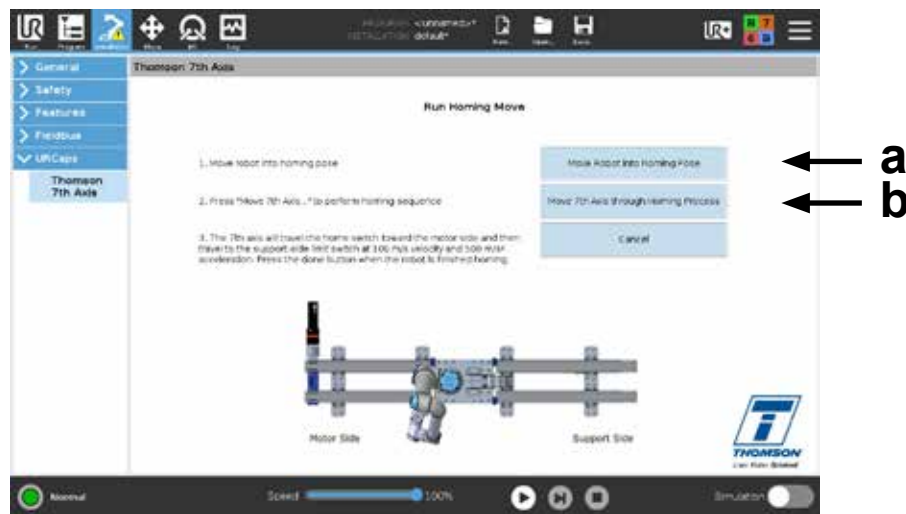


5.2.3 Homing of the articulated robot

Perform a homing sequence for the articulated robot by pressing “Move Robot into Homing Pose”.

5.2.4 Move the MovoTrak CTU 7th axis to its home position and determine the max. stroke

1. Select and hold “Move Robot into Homing Pose” (a) to properly position the robot.
2. Next select and hold the “Move 7th Axis through Homing Process”. The 7th axis will begin moving to the motor side limit switch. On the first homing sequence, the 7th axis will reach the motor side limit switch and then travel to the opposite limit switch. This will establish the “Available Stroke” for the 7th axis and also establish software limits to accompany the physical limit switches. On subsequent homing moves, the 7th axis will only move to the motor side switch. The “Move 7th Axis through Homing Process” button must be held until the homing move and if needed, the available stroke move, are completed.
3. On the “Transfer Settings” tab, the homing indicator light will now be green (c). If the light is not green, repeat the homing process and ensure that the full homing move is completed.



5.2.5 Transfer pose requirements

Select from the following options for when the MovoTrak CTU 7th axis is allowed to move:

1. Transfer Pose. The 7th axis will only move once the articulated robot is positioned in the designated homing position established earlier (section 5.2.3).
2. No Pose Requirement. The articulated robot can be in any position during a 7th axis move.



Even with calibrated collision sensitivity, caution must be used if there is no pose limitation for 7th axis movement. The user is responsible for a risk analysis for their application.

5.3 Setting up move parameters and sensitivity

The following steps will let you adjust the default speed and acceleration/deceleration rates as well as tune the motor and adjust the collision protection sensitivity.



Be careful when setting up the system and make sure only qualified personnel necessary for the process are present.

5.3.1 Default movement parameters (a)

1. Select a velocity and acceleration to use for “Default Move Parameters”. These values will establish a standard move profile for each 7th axis move. These values can be customized for each move during programming (section 6.2.2 and 6.2.3).
2. Note that the tuning parameters will affect the maximum velocity and acceleration. See section 5.3.2.
3. For best results with the collision sensitivity, it is recommended that the most aggressive move needed is entered in the “Default Move Parameter”.

5.3.2 7th axis motor tuning (a)

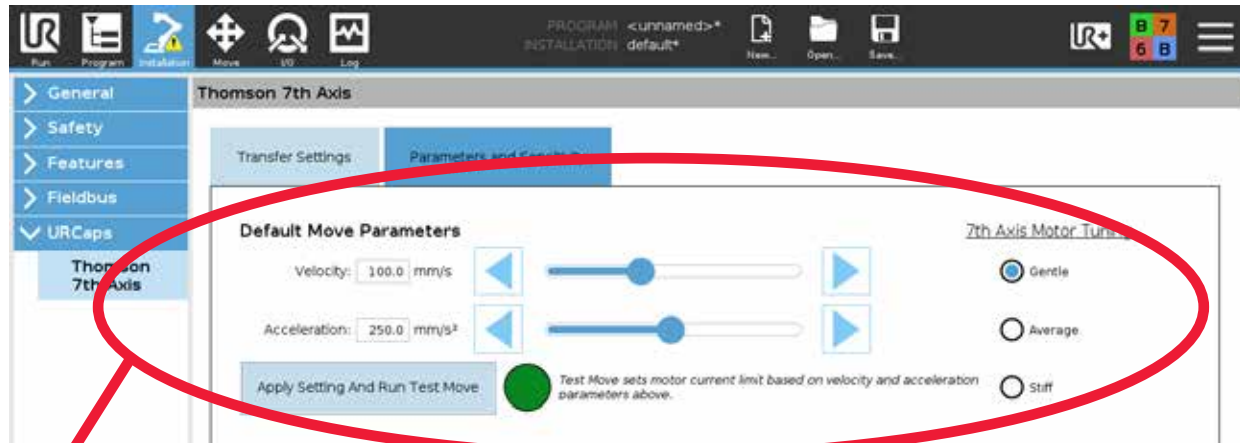
Select a motor tuning of the below that is appropriate for your application. If unknown, utilize the “average” tuning.

- Gentle: for applications that require smooth and steady acceleration and decelerations. Examples may include moving testing and quality equipment through a scanning process.
- Average: a tuning that balances quick and smooth acceleration and deceleration. Applications may include machine tending, palletizing, and other general factory automation applications.
- Stiff: for applications that require quicker accelerations and decelerations. Examples may include welding and dispensing.

5.3.3 Running a test move (b)

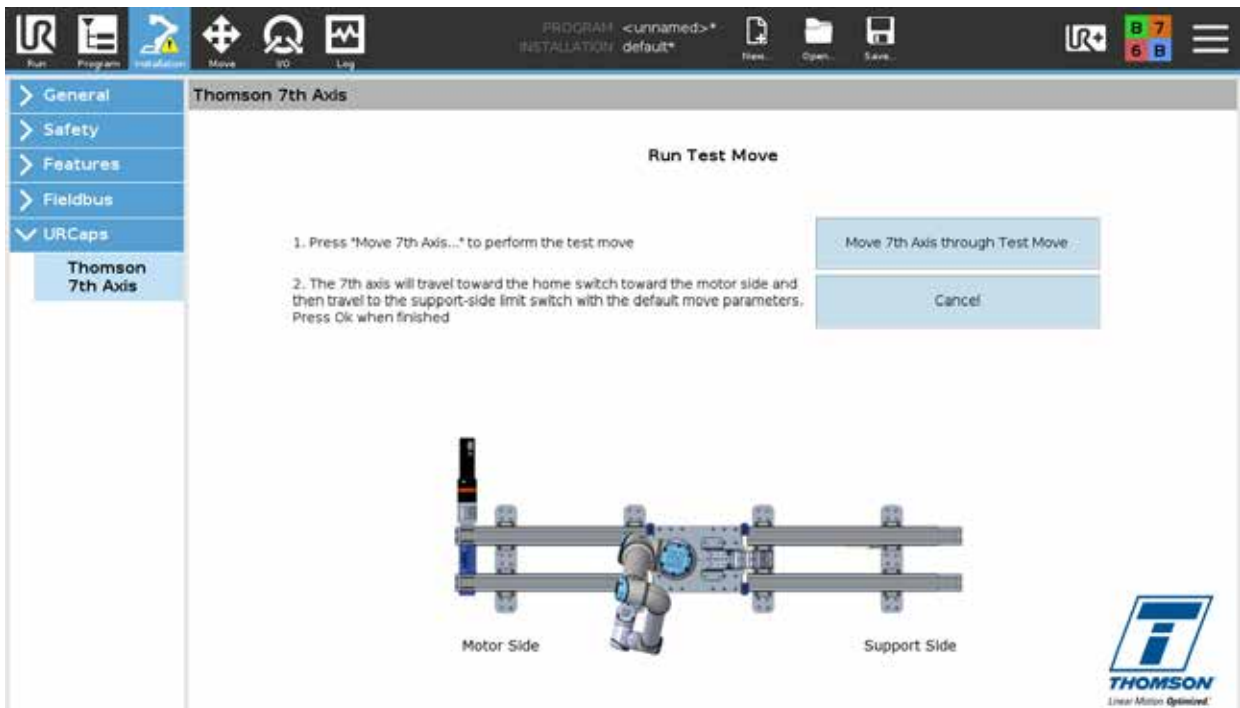
This test move is used to establish a maximum current in the 7th axis motor drive.

1. Position the robot into a typical transfer position. It is recommended that the typical transfer position that will put the most moment load (i.e. side load) on the 7th axis be used here. If possible, have the robot carrying a typical payload.
2. Press and hold the “Move 7th Axis through Test Move” button. The 7th axis will move to the motor side switch. It will then travel at the default velocity and acceleration to the support-side limit switch.
3. Once the test move procedure is fully complete, hit “OK.” The indicator light should now be green. This indicates that an appropriate maximum current has been established for the 7th axis motor.



a

b



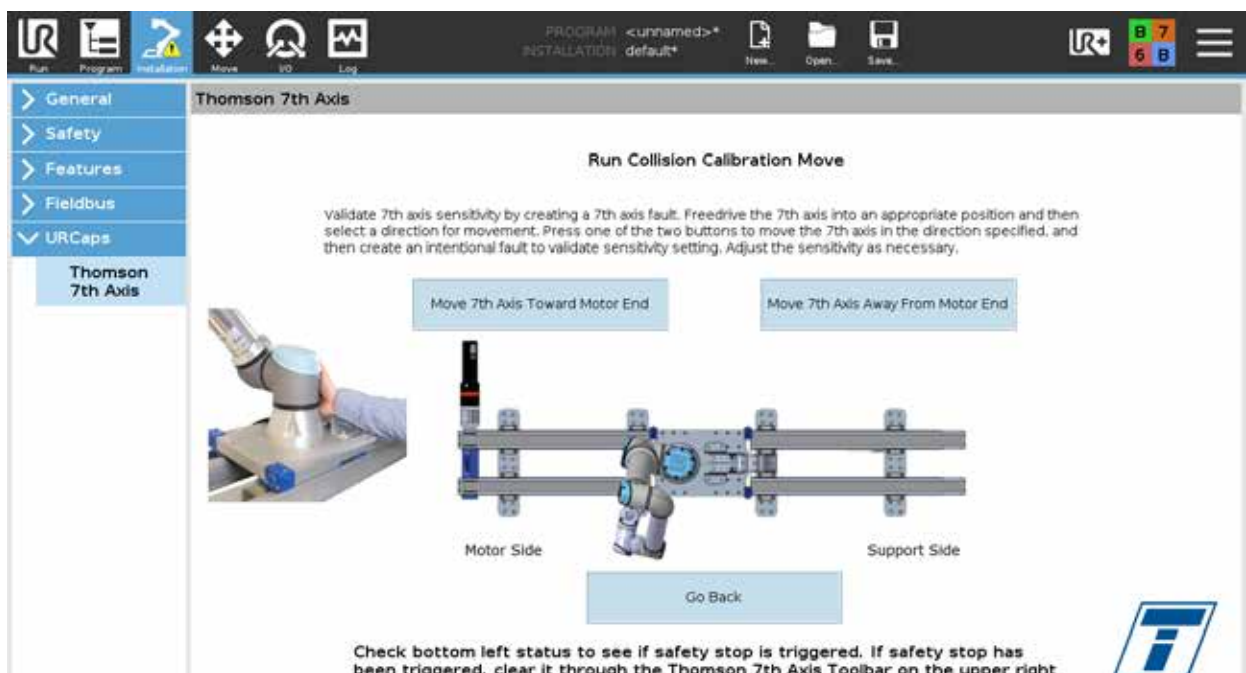
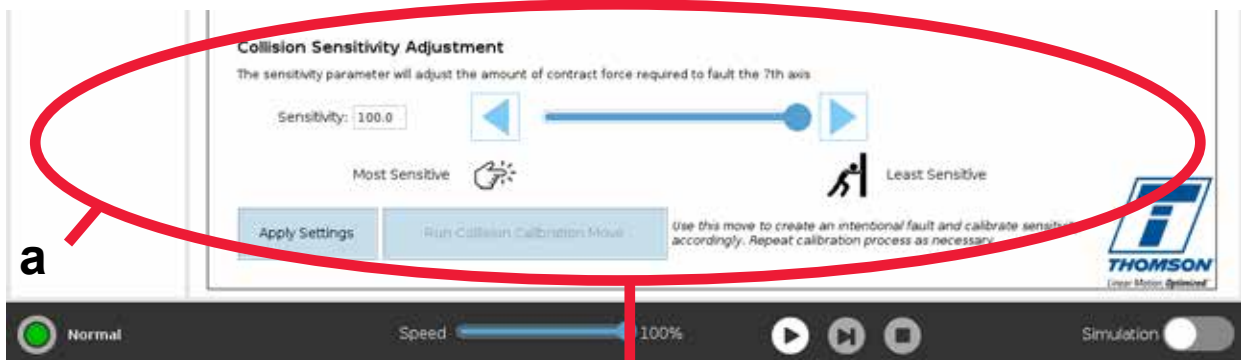
5.3.4 Collision sensitivity adjustment (a) and collision calibration move (b)

1. Adjust the bar to set the sensitivity of the collision detection system.
2. Next a collision calibration move needs to be run, which is a move utilized to validate the collision detection settings by creating an intentional fault.
3. Select a direction in which to move the 7th axis CTU. While holding this button, intentionally create a fault by contacting the base of the robot as seen in the pendant display. The base of the robot will ensure the fault is created on the 7th axis and not from a protective stop caused by hindering a joint of the articulated robot.
4. Based on the force required to create the fault:
 - If the sensitivity levels are acceptable, move on to programming.
 - If the force is too high or low, go back and adjust the sensitivity level on the slider bar and repeat the collision calibration move as necessary.

Note: If pressing the “Move 7th Axis.....” buttons on this screen results in a small move and an immediate sensitivity fault, the sensitivity value is set too tight. Adjust the slider bar to make the MovoTrak CTU less sensitive and repeat the collision calibration move as necessary.



Collision detection settings are provided for your convenience. These are not official safety features. User is responsible for conducting their own risk analysis. When applicable, third-party safety devices should be used.



6. Programming of the MovoTrak CTU 7th axis system

6.1 General requirements

To program the unit, at least the following must be true:

1. The power must be turned on to the system.
2. No emergency stop or any of the safety collision systems can be activated.
3. Both the articulated robot and the 7th axis must have carried out a successful homing procedure.

Be careful when programming the system and make sure only qualified personnel necessary for the process are present.

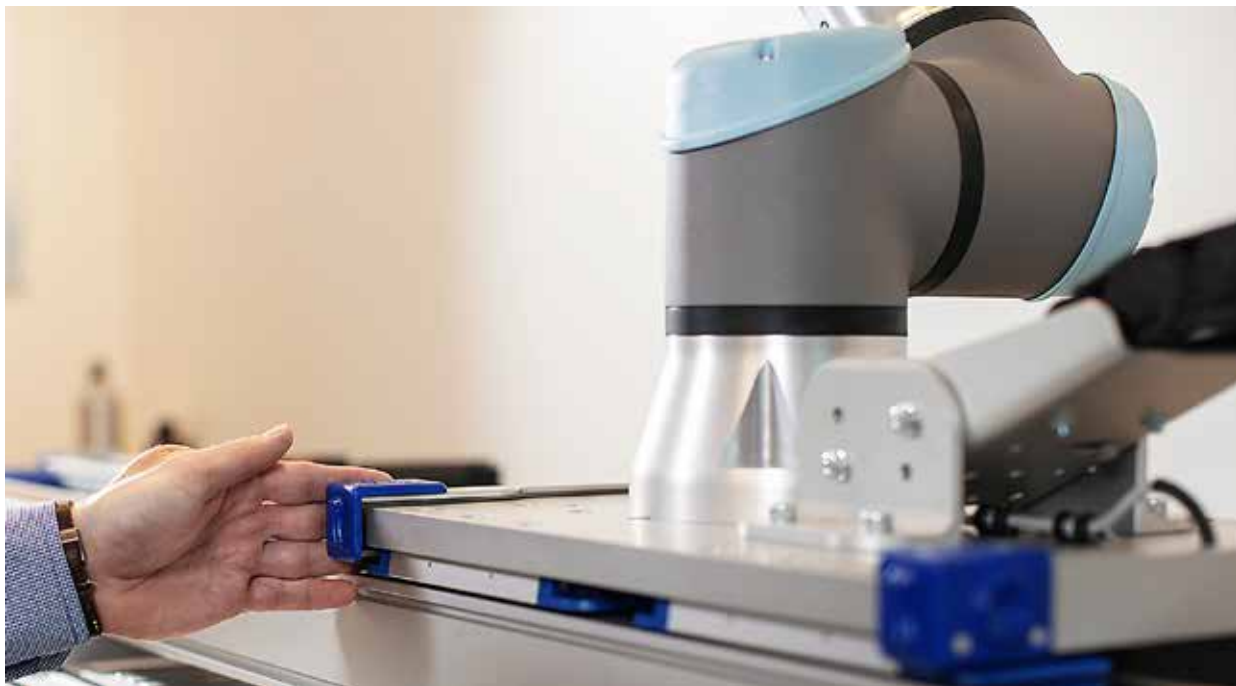


6.2 Programming

6.2.1 FreeDrive Mode

The 7th axis system can be moved by contacting the collision detection paddles when in FreeDrive mode. FreeDrive mode is activated by opening the 7th axis toolbar and select “7th Axis FreeDrive Mode”.

The paddles can be pushed or pulled, which will cause corresponding motion of the 7th axis system. The speed of the 7th axis is based on the force of the contact with the paddle. The 7th axis can then be positioned by hand – similar to the joints of the articulated robot.



6.2.2 Programming an absolute move

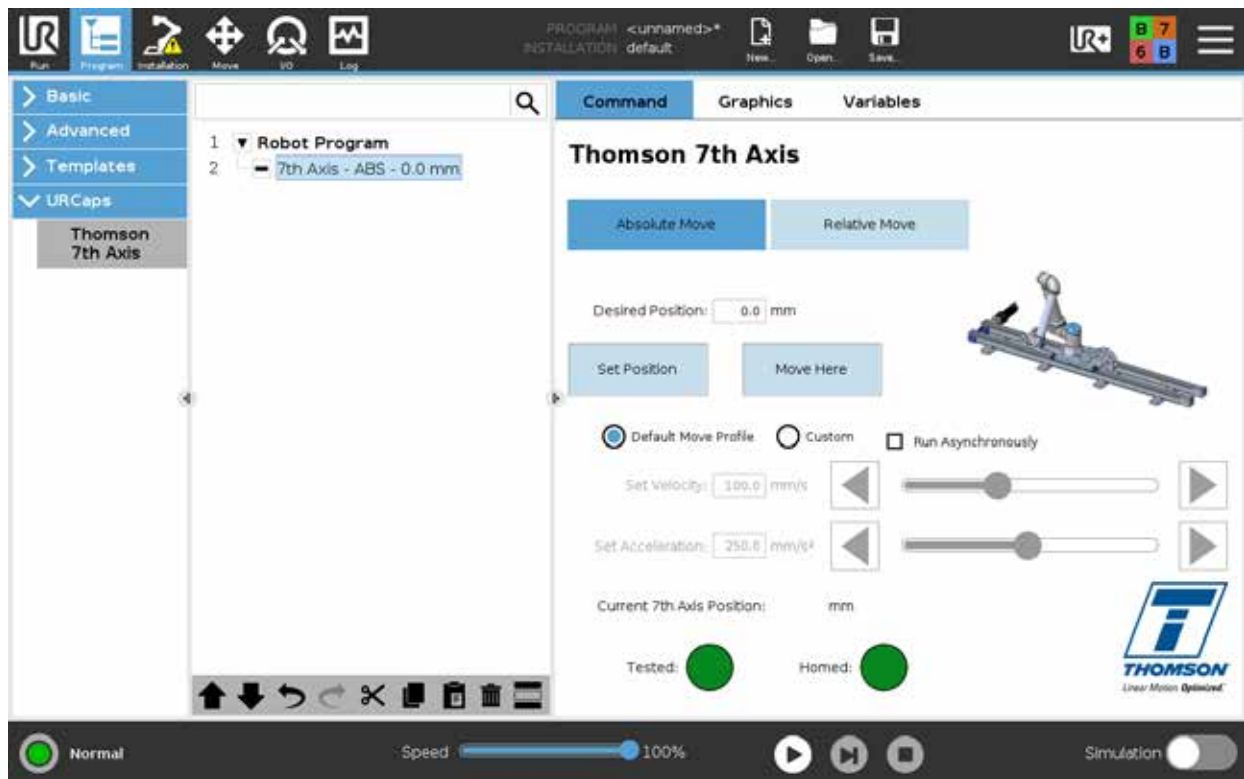
An absolute move will move the 7th axis to a designated position. Example: an absolute move of 500 mm will move the 7th axis to 500 mm from the zero home position at the motor side limit switch irrespective of where the axis is at the moment. To set a linear waypoint, the 7th axis can be moved to the desired position in three ways:

1. Use the FreeDrive mode to position the 7th axis by hand.
2. Use the arrow keys on the “Absolute Move” tab to jog.
3. Type in the desired position to the “Desired Position” box.

The settings for velocity and speed will be set to the “Default Move Parameters”. These can be changed for this particular move by selecting the “Custom” option. Note that increasing the velocity and acceleration along with a lower collision sensitivity detection level may cause the collision detection system to activate even without a collision.

There is also a box for “Run Asynchronously”. Checking this box will allow the linear move to occur along with other waypoint moves performed by the articulated robot at the same time.

The indicators at the bottom of the tab indicate if the 7th axis is properly connected and homed or not.



6.2.3 Programming a relative move

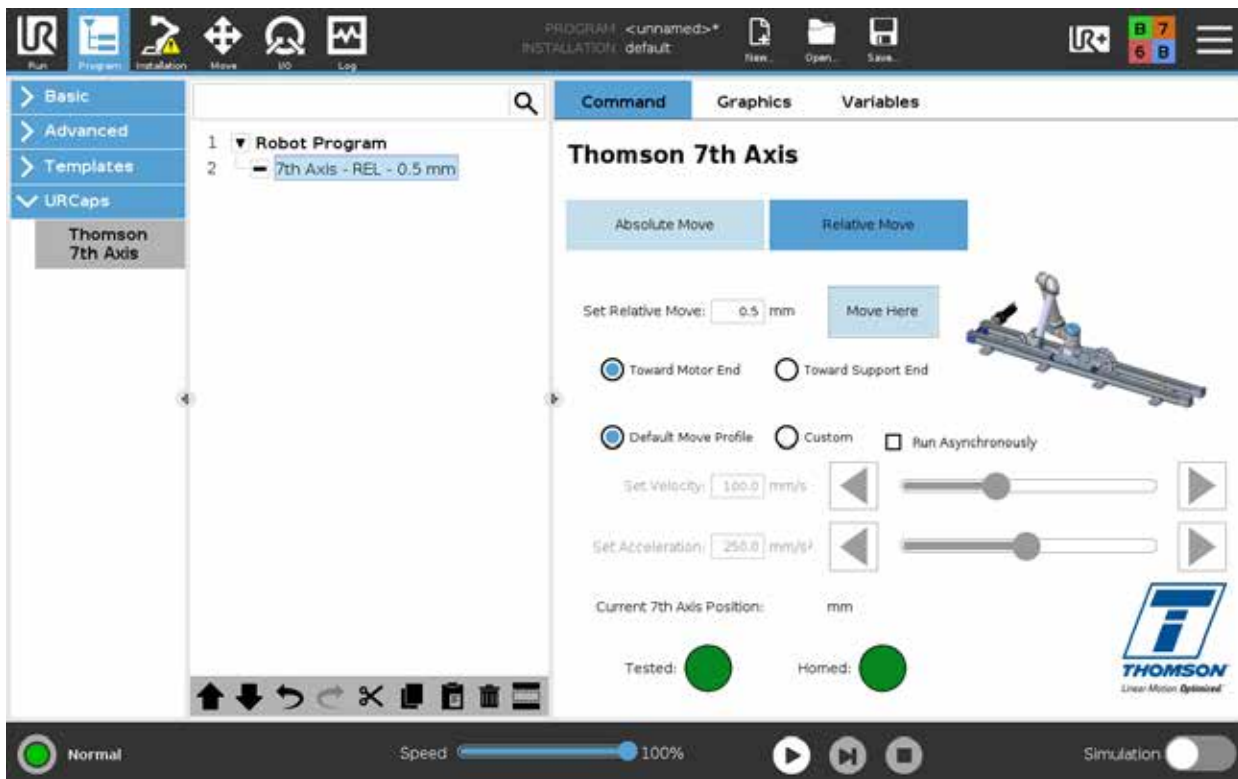
A relative move will move the 7th Axis the designated distance from its present location. In addition to the distance of the relative move, a direction of the move must also be selected. Example: a relative move of 500 mm towards the motor end will move the 7th axis 500 mm towards the motor end from its present position side. Note: If the incremental move would move the 7th axis outside of its stroke, motion will be aborted when reaching any of the limit switches.

To set a relative linear waypoint, type the distance into the “Set Relative Move” box. This move can be verified by using the “Move Here” button.

The settings for velocity and speed will be set to the “Default Move Parameters”. These can be changed for this particular move by selecting the “Custom” option. Note that increasing the velocity and acceleration along with a lower collision sensitivity detection level may cause the collision detection system to activate even without a collision.

There is also a box for “Run Asynchronously”. Checking this box will allow the linear move to occur along with other waypoint moves performed by the articulated robot at the same time.

The indicators at the bottom of the tab indicate if the 7th axis is properly connected and homed or not.



7. Collision detection system

7.1 Activation

Collision detection can be activated in two ways. Either by one of the collision detection paddles (section 3.3.1) coming in contact with an obstacle or by the collision sensitivity setting (section 5.3.4) being exceeded. In both cases, the articulated robot and the MovoTrak CTU 7th axis will cause a safeguard stop. In order to resume operation after a collision detection stop has been triggered, it must first be reset (section 7.1.3).

7.1.1 Activation by collision detection paddle touch

Contact with the collision detection paddle on either end of the carriage will cause a safeguard stop for the 7th axis and the articulated robot.



7.1.2 Activation by the collision detection sensitivity feature

Exceeding the collision detection sensitivity setting will cause a safeguard stop for the the 7th axis and the articulated robot. It can be triggered by hitting an obstacle as well as by an overload condition.



9.3 Resetting a collision detection stop

Reset is done by pressing the “Clear” button on the teach pendant in the Thomson 7th axis toolbar.



Do not reset a collision detection stop and resume operation without knowing the cause of the stop and, if necessary, also have the issue that caused the stop corrected.

8. Troubleshooting

8.1 Troubleshooting

- Problem:** An emergency stop is issued as soon as the 7th axis is turned on.
Issue: The wiring and I/O setup is not correct.
Solution: 1. Check that the I/O wiring to the Universal Robot controller (section 5.1.1) has been done correctly.
2. Check that the instructions for safety I/O and general I/O (section 5.1.2) have been followed accordingly.
- Problem:** The 7th axis begins movement and stops suddenly before reaching the desired position.
Issue: The collision detection sensitivity setting is being activated.
Solution: The collision detection may activate, particularly if a custom move profile has been created with either a faster velocity or acceleration than the default move profile. Adjust the default move profile to those faster speeds and accelerations, and re-run the test move and calibration settings with that profile (section 5.3).
- Problem:** The 7th axis will not perform program moves. Homing indicator is red.
Issue: Power has been removed previously, and the 7th axis has not been homed.
Solution: The 7th axis needs to be homed. Return to the installation tab and run a homing move (section 5.2.4).
- Problem:** The program will not run.
Issue: The default velocity and/or acceleration has been changed. A new “Test Move” needs to be done to set the proper current limit.
Solution: Go to “Parameters and Sensitivity” tab in Thomson URCap installation and perform a “Test Move” (section 5.3.3).

USA, CANADA and MEXICO

Thomson
203A West Rock Road
Radford, VA 24141, USA
Phone: 1-540-633-3549
Fax: 1-540-633-0294
E-mail: thomson@regalrexnord.com
Literature: literature.thomsonlinear.com

EUROPE**United Kingdom**

Thomson
Office 9, The Barns
Caddsdawn Business Park
Bideford, Devon, EX39 3BT
Phone: +44 1271 334 500
E-mail: thomson.europe@regalrexnord.com

Germany

Thomson
Nürtinger Straße 70
72649 Wolfschlügen
Phone: +49 7022 504 403
Fax: +49 7022 504 405
E-mail: thomson.europe@regalrexnord.com

France

Thomson
Phone: +33 243 50 03 30
E-mail: thomson.europe@regalrexnord.com

Italy

Thomson
Via per Cinisello 95/97
20834 Nova Milanese (MB)
Phone: +39 0362 366406
Fax: +39 0362 276790
E-mail: thomson.italy@regalrexnord.com

Sweden

Thomson
Bredbandsvägen 12
29162 Kristianstad
Phone: +46 44 590 2400
Fax: +46 44 590 2585
E-mail: thomson.europe@regalrexnord.com

ASIA**Asia Pacific**

Thomson
E-mail: thomson.apac@regalrexnord.com

China

Thomson
Rm 805, Scitech Tower
22 Jianguomen Wai Street
Beijing 100004
Phone: +86 400 606 1805
Fax: +86 10 6515 0263
E-mail: thomson.china@regalrexnord.com

India

Kollmorgen – Div. of Altra Industrial Motion
India Private Limited
Unit no. 304, Pride Gateway,
Opp. D-Mart,
Baner Road, Pune, 411045
Maharashtra
Phone: +91 20 67349500
E-mail: thomson.india@regalrexnord.com

South Korea

Thomson
3033 ASEM Tower (Samsung-dong)
517 Yeongdong-daero
Gangnam-gu, Seoul, South Korea (06164)
Phone: + 82 2 6001 3223 & 3244
E-mail: thomson.korea@regalrexnord.com

SOUTH AMERICA**Brazil**

Thomson
Av. João Paulo Ablas, 2970
Jardim da Glória - Cotia SP - CEP: 06711-250
Phone: +55 11 4615 6300
E-mail: thomson.brasil@regalrexnord.com

www.thomsonlinear.com

MovoTrak_CTU_Installation_Operation_MNEN-0022-02 | 20240212TJ
Specifications are subject to change without notice. It is the responsibility of the product user to determine the suitability of this product for a specific application. All trademarks property of their respective owners. ©2024 Thomson Industries, Inc.

The logo features a stylized 'T' inside a square frame, followed by the word 'THOMSON' in a bold, italicized, sans-serif font with a registered trademark symbol.

Linear Motion. Optimized.™

A REGAL REXNORD BRAND