

Scoot Control

Effortless attendant controller



Scoot Control (P015-61) –R-net

Contact & Product

mo-Vis bvba



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Scoot Control User & Installation manual

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Important information about this Manual

Thank you for choosing a mo-Vis product!

This is the Manual of your new mo-Vis device. Before you install or start to use this product, it is important that you read and understand the content instructions, especially the safety precautions.

The installation instructions will guide you as an installer through the options and possibilities of this device. The operating instructions are primarily intended to acquaint you with the functions and the characteristics of the mo-Vis product and how you can use it in the best manner possible. They also contain important safety and maintenance information, as well as a description of possible problems that can arise during use.

Always keep the operating instructions handy in connection with your wheelchair, since the need for important information can arise concerning its use, safety and maintenance.

All information, pictures, illustrations and specifications are based on the product information that was available at the time of printing. Pictures and illustrations shown in these instructions are representative examples and are not intended to be exact depictions of the various parts of the product. We reserve the right to make changes to the product without prior notice.

If you would like to learn more about mo-Vis and its products, we invite you to go to our website: www.mo-vis.com, where you can also download additional copies of this User & Installation manual.

Support, scrapping and spare parts

Technical support

Please contact your dealer in case of technical problems. If the dealer is not available, or unknown, please contact mo-Vis BVBA by email support@mo-vis.com or by phone +32 9 335 28 60.

Always state the device serial number when contacting mo-Vis. This ensures you are provided with the correct information.

Spare parts and accessories

Spare parts and accessories must be ordered by the dealer at mo-Vis BVBA.

Scrapping & recycling

For scrapping, adhere to your local waste legislation.

Dispose of obsolete electronic parts responsibly in accordance with local recycling regulations.

Warranty

mo-Vis bv warrants the Scoot Control to be free from defects in material and workmanship for a period of 2 years under proper use, care & service. All warranties only cover parts and do not extend beyond the initial purchaser from an authorised mo-Vis dealer.

Start of the warranty period

Each warranty shall begin on the date the product is first delivered to the customer.

Repair and replacement

For warranty service, we advise you to contact the dealer from whom the product was purchased. In the event of a defect in material or workmanship, the dealer must obtain a return authorisation (RMA) number from mo-Vis and the product must be shipped to a service centre designated by mo-Vis. mo-Vis will repair or, at mo-Vis' option, replace any product covered by the warranty.

Disclaimer and Limitations of Remedies

The express warranties set forth in this agreement are in lieu of all other warranties of merchantability or fitness of purpose. In no event shall mo-Vis be liable for any direct, indirect, incidental or consequential damages resulting from any defect in this product. Warranty of parts subject to "normal wear and tear" (e.g. pads,

joystick balls, batteries ...) are not covered in the warranty except as it applies to defects in material or construction.

Amendments

No person is authorised to alter, extend or waive the warranties of mo-Vis.

Voiding of warranties

The foregoing warranties are contingent upon the proper installation, use, maintenance and care of the product. The warranty will be void if the product has been installed or used improperly, or if it has been repaired or any part replaced by persons other than mo-Vis or an authorised dealer. The Scoot Control, integrated cabling included, is considered as a non-serviceable part.

The addition of equipment or features that are not manufactured or recommended by mo-Vis could affect the intended function of the mo-Vis product and may invalidate the warranty.

Understanding usage

The authorised installer is responsible for understanding the intended use of the mo-Vis equipment, the specifications and its programming parameters. mo-Vis cannot be held responsible for damage caused by incorrect installation or incorrect use of the product. Misuse, mishandling or storage is not covered by this warranty.

Safety precautions

General

The Scoot Control is part of our range of input devices. The main purpose of the device is to enable the attendant to control a powered wheelchair. The Scoot Control is to be mounted on the back and is a steering device with 2 handles (similar to a compact bicycle steer).

The Scoot Control R-net is only compatible with the R-net electronics of Curtiss-Wright.

Incorrect use or installation may lead to risk of injury to the user and damage to the wheelchair and other property. In order to reduce these risks, you should carefully read this manual, especially the safety instructions and warning texts.

Only install this product on a wheelchair where the wheelchair manufacturer allows the installation of third party parts.

Any unauthorised use of the product may lead to increased risk of accident. In case of doubt for alterations and adjustments, always contact a qualified service engineer.

The Scoot Control, integrated cabling included, is considered as a non-serviceable part.

In case any serious incident occurs in relation to this device, this should be reported immediately to mo-Vis and the competent authority in the Member State in which the user is established.

Warning labels

The following safety labels are used throughout this manual to draw attention to items of significant importance to safety.



CAUTION!

Signal word to indicate a hazardous situation which, if not avoided, could result in damage to the product or to other property.



WARNING!

Signal word to indicate a hazardous situation which, if not avoided could result in personal injury or property damage.

Safety precautions



CAUTION!

Limited liability: *mo-Vis accepts no liability for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings and instructions in this manual.*



CAUTION!

EMC Requirements: *The Scoot Control complies with the limit values for Electromagnetic Compatibility (EMC) set out in the harmonised standards of the Medical Device Directive 93/42/EEC (EU).*



WARNING!

Assembly: *The Scoot Control should only be installed or adjusted by a qualified service engineer or someone with adequate knowledge to perform the adjustment in an expert manner.*

Maintenance and service: *Carry out only the service and maintenance activities specified in this manual. All other service, alterations to and interventions on the Scoot Control must be carried out by a qualified service engineer or someone with adequate knowledge to perform the adjustment in an expert manner. In case of doubt, contact a qualified service engineer or mo-Vis.*

*Use only **spare parts or accessories** approved or recommended by mo-Vis. All other use could lead to changes which might impair the function and safety of the product. It could also lead to the warranty becoming void.*



CAUTION!

Testing: *The Scoot Control should always be tested without any person sitting in the wheelchair after every alteration of the physical installation or adjustment of the parameters.*

Design and function of the Scoot Control

Purpose

The Scoot Control is a wheelchair control used by the attendant or caregiver to control the power chair over long distances outdoor, to maneuver the chair in tight spaces or to take over the control of the user in difficult circumstances.

Features

- Fully proportional handle bar with 2 rubber handles and 2 configurable thumb throttles at either side.
- Built in a compact housing, with a 3.5 mm stereo jack to connect an external actuator keypad (Curtiss-Wright CJS2 compatible).
- Full access to wheelchair functions such as Lights, Horn and Speed settings.
- Battery and speed display via LEDs.
- On-board configuration possible.
- Compatible with multiple types of wheelchair equipped with R-net electronics.

Operation of the device

Scoot Control P015-61

The Scoot Control consists of the following parts:



Part	Location	Purpose
Control panel	Center	Control the Scoot Control
Handle bar	Rubber handle at either side	Steer the wheelchair
Thumb throttle	One left, One right	Move forward and/or backward
3,5 mm jack	Bottom	Connect an actuator keypad (Curtiss-Wright CJS2 compatible)
Sounder	Built-in	Use as a horn

Horizontal movements of the **handle bar** will result in a steering action of the wheelchair (turning).

In combination with the **thumb throttle** (forward/backward) it is possible to move the wheelchair in any direction. In standard configuration, the right throttle will move the wheelchair forward and the left throttle will move the wheelchair backward.

- If both throttles are operated simultaneously and that would result in conflicting directions the chair will stop driving.
- It is possible to configure each throttle separately in the parameter settings (see on-board configuration).

The Scoot Control will enter in **stand-by** if not used for 15 seconds (throttle and handle bar in rest). This is to prevent that accidentally touching the handle bar results in a sudden movement of the wheelchair.

When the device is in stand-by or **not in focus**, it will not be possible to drive or scroll through the profiles/modes via the Scoot Control. To exit stand-by mode and reactivate the Scoot Control, move one of the throttles.

There is an **out of neutral detection** at start-up and when changing a profile. If the handlebar/throttle is not in neutral within 10 seconds, an error will be given and further operation of the device is halted until it is switched off and on again.

Control Panel

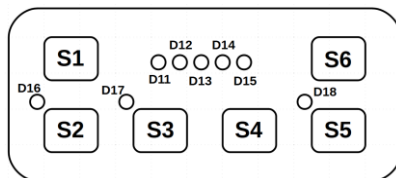


Illustration of the control panel

The **buttons** have the following functions:

Button	Function	Action
S1	On/Off	Switch the R-net system on/off The Scoot Control needs to be switched on locally in order to get the focus.
S2	Left Indicator	Switch left indicator on/off (switch off right indicator if it was on)
S3	Right Indicator	Switch right indicator on/off (switch off left indicator if it was on)
S2 > 2s	Hazard Lights	Switch on/off hazard lights
S3 > 2s	Lights	Switch on/off lights
S4	Horn	Horn sounds as long as pressed <ul style="list-style-type: none">— An R-net command is send, which will activate the R-net horn.— If there is no R-net horn available, the built-in sounder will be used.
S5	Direction	Switch direction (see parameters)
S6	Speed Setting	Change speed. The first click on S6 will show you the current speed setting. Your next clicks will change the speed. Roll over at the end.
S6 > 2s	Grab focus	Press long to grab control of the wheelchair (see § Parameters: on-board configuration).

Led indications on the control panel provide you with the following information:

LED	Function	Information
D11 – D15	Speed Setting	Speed indicator when setting speed. 5 speeds, 5 green LEDs in a row (e.g. speed level 3 = 3 LEDs on). Becomes active when pressing S6 and remains active for 5 seconds after the last speed change.
	Battery Gauge	Battery indicator: Led Bar, D11 red, D13/D14 orange, D15 Green. Is default on in focus mode.
	Error	D11 and D15 red, D13 number of flashes indicates the fault (RED). All other LEDs are off!
	Status	<ul style="list-style-type: none"> – Not In Focus: D13 heartbeat flash (GREEN) – Configuration: D13 fast flash (GREEN) In both cases, all other LEDs are off!
D16	Left Indicator	Green flash when left indicator is on
D17	Right Indicator	Green flash when right indicator is on

LED	Function	Information
D16 + D17	Hazard lights/ lights indicator	Both flash red when hazard lights are on. Both are orange when the lights are on and the direction indicator is off.
D18	Forward/ Reverse	Forward = Green Backward = Orange
	No Focus	Off
	Stand-by	Flash Green/Orange

R-net parameters








What we describe here are the standard settings for the Scoot Control. Please see §Parameters: on-board configuration for all other options.

Please set the following parameters in R-net before using the Scoot Control.

- *R-net: Controls > Global > Power-up Mode (Ch. 3 – 7.12):* set this parameter to *Drive* to make sure that you start in the mode Drive when you switch on the Scoot Control.
- *R-net: Profile Management > Input Device Type (Ch. 3 – 4.4):* set this parameter to *Attendant* and **choose ‘No’ for Allow Grab.**

See the Curtiss-Wright manual SK77981-14 | R-net Technical Manual | Chapter 3 – Programming, for more information.

Example of the R-net settings:

Profile Management		Profile 8
	Profile Name	Attendant
	<u>Profile Enable</u>	Yes
	Mode Enable	[1234 8]
	Input Device Type	Attendant
	Input Device Subtype	All
	Seat Reversal Profile	No
	Allow Grab	No

If you want to combine the Scoot Control with other mo-Vis joysticks, keep the following in mind:

- **For mo-Vis R-net joysticks, you should select 'JSM' as 'Input Device Type' and not 'Universal'.**
- **For mo-Vis Omni joysticks, you should select 'Omni' as 'Input Device Type' and not 'Universal'.**
- **If you do choose 'Universal', then the Scoot Control will not be fully functional as an Attendant Control.**

Optional: Actuator keypad

You can also connect an external R-net compatible keypad to the Scoot Control to control the actuators of the Wheelchair, e.g. the mo-Vis Actuator keypad.

Contact mo-Vis for information on the mo-Vis Actuator keypads P016-98 & 99 (CJSM2) and the corresponding mounting bracket M015-91.

A keypress will send an axis command onto the R-net system. Please refer to the R-net documentation for actuator settings and controls: Curtiss-Wright manual SK77981-14 | R-net Technical Manual | Chapter 3 – Programming.

A parameter is available to control 5 or 10 axes (toggle function: see **§ Parameters: on-board configuration**).

Keypad 5 AXIS

Number	Command	Action
1	AXIS 1 up	Move Axis up
2	AXIS 1 down	Move Axis down
...		
9	AXIS 5 up	Move Axis up
10	AXIS 5 down	Move Axis down

Keypad 10 AXIS

Number	Command	Action
1	AXIS 1 toggle	Toggle Axis, start with Up then Down
2	AXIS 2 toggle	
...		
9	AXIS 9 toggle	
10	AXIS 10 toggle	

Optional: mounting parts

Contact mo-Vis for information on available mounting parts, and advice on mounting the device.

The Scoot Control Mounting Bracket (M015-70) is available as dedicated mounting part.

The Scoot Control Keypad Bracket Set (M015-91) is available to mount a mo-Vis Actuator Keypad (P016-98 & 99) to the Scoot Control.

Ordering spare parts

Spare parts and accessories must be ordered by the dealer at mo-Vis bvba. Always mention Product code & Product description of items to be ordered.

Parameters: on-board configuration

A number of parameters is settable on board, without the use of the mo-Vis Configurator software or peripheral devices.



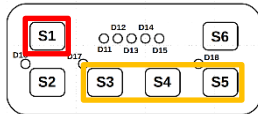
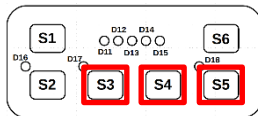
WARNING

Altering the parameters should only be executed by a qualified service engineer. Incorrect programming of the device and/or the wheelchair electronics may cause damage to the device(s), or injury to the user.

Enter on-board programming mode

Proceed as follows to enter the on-board programming mode:

Step	Action
1	Verify the R-net system is switched off
2	Simultaneously press S3, S4 and S5
3	While S3, S4 and S5 are pressed, switch the Scoot Control on using S1



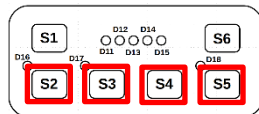
Step	Action
4	Keep S3, S4 and S5 pressed, while you wait for the beep (5-second delay)
5	Release all buttons within 2 seconds after the beep Result: You are now in on-board programming mode

If the steps are not followed correctly, you will enter or abort the calibration process. In that case, D11 – D15 will be flashing red.

Select/change a parameter

Use the following buttons to select/change a parameter:

Button	Action
S2	Select previous parameter
S3	Select next parameter
S4	Decrease value
S5	Increase value



The LEDs of the battery/speed gauge (D11-D15) indicate the selected parameter/value:

- Parameter: LED bar green, parameter 1 to 4
- Value: LED bar orange, value 1 to 4

Save/discard changes

Press S6 to save the changes. All LEDs of the battery/speed gauge will flash green. Turn the device off and on again.

If the device is switched off without pressing S6, the changes will not be saved.

Parameter settings

There are five available parameters.

Parameter Number	Name	Value	Description (Default settings in bold)
1	Throttle Right	1	None – The throttle has no action
		2	Forward
		3	Reverse
2	Throttle Left	1	None – The throttle has no action
		2	Forward
		3	Reverse

With the first two parameters, you can adjust the default direction of the throttles.

Parameter Number	Name	Value	Description (Default settings in bold)
3	Actuator Keypad Setting (optional)	1	Single – Each button on the keypad will move the actuator in one direction (up or down)
		2	Toggle – Each button on the keypad will move the actuator up and down

See **§Optional: Actuator Keypad**.

Parameter Number	Name	Value	Description (Default settings in bold)
4	Profile/Mode	1	Standard – Use the R-net setting
		2	Profile – Only Profiles
		3	Profile/Mode – Always Profile/Mode

This parameter is only useful, when Parameter #5 is set to 'Universal'.

With this parameter, you can choose to overrule the R-net settings.
(R-net: Controls > Global > Profile Button (Ch. 3 – 7

5): this parameter can be set to Profile or Profiles/Modes. See the Curtiss-Wright manual SK77981-14 | Chapter 3 – Programming for more information.)

E.g. you have chosen Profile/Mode in R-net, but you do not want that the attendant has the options to go through the modes and change the actuators for instance. Then you can set this parameter to Value 2 – Only Profiles.

If you do allow the attendant to be able to go through the modes, then it is possible to control the axes of the actuators of the wheelchair through the Scoot Control.









- Press S6 > 2 seconds. You scroll through the profiles/modes. Stop at the seating mode.
- In the seating mode, you can scroll through the different actuators by pressing the handlebar gently. Stop at the desired actuator.
- Move the actuator by pushing the left and right throttle (the actuator will move up/down according to the settings of both throttles).

Parameter Number	Name	Value	Description (Default settings in bold)
5	Allow Grab	1	Attendant
		2	Universal

With this setting you can choose to set the Scoot Control as a Universal Joystick.

- If the Scoot Control is set as Attendant, then the Scoot Control will start up in the last used profile. When you press S6 for more than two seconds, you will go directly to Profile 8. You have no access to the modes. When you press S6 again for longer than two seconds, you go back to the other profile and give the control back to the person in the wheelchair.
- If the Scoot Control is set as Universal, then the Scoot Control will start up in the last used profile. When you press S6 for more than two seconds, you scroll through the profiles and the modes. You can drive in every profile and you can change the seating positions (optional, see above).

R-net settings for the Scoot Control as Universal Joystick:

 Profile Management	Profile 8
 Profile Name	Attendant
 Profile Enable	Yes
 Mode Enable	[1234]
 Input Device Type	Universal
 Input Device Subtype	All
 Seat Reversal Profile	No
 Allow Grab	Yes

It is very important that you change the settings both in the Scoot Control (on-board configuration) AND in R-net. E.g. if you set parameter #5 as 'Universal', but you do not change the R-net settings, that it will not function as it should.

Intended use

The Scoot Control is a steering device which can be connected directly to the wheelchair electronics (R-net) to control the wheelchair and its functions. It is intended to support an attendant in controlling or manoeuvring a powered wheelchair, both inside and outside.

Safe driving



WARNING!

The on/off switch must be available to the user at all times. This allows to instantly stop the wheelchair in case of problems or an emergency.

In case the wheelchair responds in an unexpected way, the user must immediately release the Scoot Control or use the power on/off switch.



WARNING!

Only adult attendants should operate the Scoot Control.

Installation instructions

Preparations

Tools



CAUTION!

Use the proper tools to install and adjust the Scoot Control. The use of improper tools may cause damage to the device.



CAUTION!

Do not tighten screws with an excessive force.

Installation plan

Set up an installation plan before starting the installation. Based on the users' needs and capabilities of the wheelchair and user, this plan should take into account:

- At which position (height, inclination ...) the Scoot Control should be placed.
- How the Scoot Control will be operated: parameter settings
- A robust and reliable positioning. Hard or sudden movements of the wheelchair may not disorganise the installation.

**CAUTION!**

Protect the device against bumps.

**WARNING!**

Avoid hitting obstacles during driving.

**WARNING!**

Mind damaging the unit and wiring. Make sure that cabling is mounted in such a way that excessive wear and tear is avoided.

**CAUTION!**

Any connection must always be secured with all delivered screws. Only use the screws provided in the package.

Serial number sticker

The additional serial number sticker which can be found in the package should be adhered to the back of this manual.

Installation

1. Mount the unit with suited mounting parts at the desired location. If necessary, adjust the angle and the height of the handlebar to fit the user's position.

Contact your dealer or mo-Vis for more information.



CAUTION!

You can adjust the position of the handlebar by loosening the screws at the sides of the handles. Afterwards, screw them up again with a maximum torque of 1 Nm.

2. Place and secure all cabling on the wheelchair.
3. Connect the cabling to the wheelchair electronics.



WARNING!

All wheelchair electronics must be switched off during installation.

Calibration



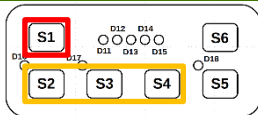
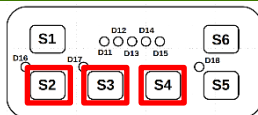
CAUTION!

Only when you experience asymmetrical movement and after every change or repair of the device, a **qualified service engineer** should recalibrate the device in order to guarantee a proper functioning.

Enter the on-board calibration mode

Proceed as follows to enter the on-board calibration mode:

Step	Action
1	Verify the R-net system is switched of
2	Verify that the throttles and steering bar are in neutral.
3	Simultaneously press S2, S3 and S4
4	While S2, S3 and S4 are pressed, switch the Scoot Control on using S1
5	Wait for the beep (5-second delay)
6	Release all buttons within 2 seconds after the beep Result: You are now in on-board calibration mode



If the steps are not followed correctly, you will enter or abort the calibration process. In that case, D11 – D15 will be flashing red.

Execute on-board calibration

The calibration process consists of multiple stages.

- The stage number is indicated by the number of LEDs (D11-D15) coloring green.
- Each stage can have multiple steps.
- Every time you hear a beep, you should release the handlebar and only proceed with the next action when you see that the corresponding LED is turned on.

Stage	Input	Step	Action
1 green	Throttle right	1	Full throttle right and wait for beep
		2	Release throttle right
2 green	Throttle left	1	Full throttle left and wait for beep
		2	Release throttle left
3 green	Handlebar right	1	Full handlebar right and wait for beep
		2	Release handlebar right
4 green	Handlebar left	1	Full handlebar left and wait for beep
		2	Release handlebar left

Stage	Input	Step	Action
5 green	Calibration was successful and the new calibration data is stored in the device		
5 red	Calibration aborted or failed and no calibration data is changed in the device		



WARNING!

If the calibration was successful, please proceed to check if the movement of the wheelchair is symmetrical when moving the handlebar to both sides. Check if the device returns to its default position.

Testing

After installation of the Scoot Control, execute the following tests before the wheelchair is delivered or put into service, in according order:

1. Check the Scoot Control for intactness
2. Operational test
3. Test drive
4. Stop test

Check the Scoot Control for intactness

Check whether:

- The device is not bent or damaged
- Housing, cabling and all connectors are not damaged
- The device returns to its default position when moving and releasing the device forward, backward, left and right.

Operational test



WARNING!

Execute this test only on a level surface, with at least one meter of free space around the wheelchair.

Test drive

Make a test drive with the wheelchair.

- Check whether the wheelchair and all its functionalities function fully correctly in all positions the user/attendant may use the Scoot Control.
- Check no cabling or parts may get damaged or hindered in any possible position of the wheelchair.

Stop test

Drive full speed ahead and shut down the wheelchair with the power on/off switch. The wheelchair may not suddenly stop, but must slow down to a gradual stop.

First time use

Dealer assistance

During first time use by the user it is advised that the dealer or service engineer assists and explains the different possibilities to the customer (the user of the attendant control).

If needed, the dealer can make final adjustments.

User testing

It is important that the customer is fully aware of the installation, how to use it and what can be adjusted to optimise his experience. As a dealer, proceed as follows:

1. Explain and show the customer how you have executed the installation, and explain the function of every (new) button.
2. Have the user test all positions of the Scoot Control:
 - Is the Scoot Control and buttons within easy reach?
 - Can the user safely operate the wheelchair with the least effort?
 - Is the placement of the device in all available positions optimal for the user?
3. If needed, adjust the position and the settings of the Scoot Control.
4. Explain to the customer possible problems and how to address them.

Using the Scoot Control

Conditions of use

The Scoot Control is intended for use as installed by the dealer, in accordance to the installation instructions in this manual.

The foreseen conditions of use are communicated by the dealer or service engineer to the user and/or attendant during the first time use.

If the conditions of use change significantly, please contact your dealer or a qualified service engineer to avoid excessive wear and tear or unintended damage.

Error codes

When a fault occurs, the LED of the Scoot Control will start to flash. A long delay is followed by a number of flashes with a short delay. Count the number of flashes and look in the table below:

Flash count	Reason	Required action
1	-	-
2	Hall Sensor Left	Replace Sensor Board & Calibrate
3	Hall Sensor Right	
4	Throttle Left	Replace Throttle Sensor & Calibrate
5	Throttle Right	
6	Test Flag failed	Redo diagnostic tests
7	CPU Fault	Replace PCB
8	Code Fault	Update Firmware Replace PCB
9	Software Watchdog	Update Firmware Replace PCB
10	R-net Failure	Check R-net configuration, check fault log in the R-net PC programmer
11	Diagnostic Test	Test Failed, redo test

Fault log

The system maintains a fault log with counters. The fault log can be accessed via the mo-Vis Configurator (Dealer Level). In that case, please contact mo-Vis for further instructions.

Fault	Reason	Required action
CPU Error RAM	CPU consistency check failed.	Replace PCB.
CPU Error FLASH		
CPU Error STACK		
CPU Error EEPROM		
Watchdog Reset	The watchdog kicked in.	Update Firmware or Replace PCB.
Hard Fault	A hard fault in the CPU	
Unexpected Case	An invalid case occurred.	
Null Pointer	An invalid pointer occurred.	
Unexpected Value	Unknown command was received.	
Out Of Bounds	Access to an invalid memory location.	

Fault	Reason	Required action
MSP Slave	Communication Problem	Connection with the PC (Configurator program) went wrong. Update Firmware or update Configurator Software. Try again.
PCB Test	Factory test failed.	A fault occurred during factory testing.
Field Test	Field test failed (Calibration).	A fault occurred during field testing (Calibration).
Test Flags	One or more test flags not set.	Redo tests and/or replace PCB.
Software wdt	Software Watchdog	Update Firmware Replace PCB
Hall Sensor Left	The left sensor is faulty.	Replace sensor and calibrate.
Hall Sensor Right	The right sensor is faulty.	
Throttle Left	The left throttle is faulty.	Replace throttle and calibrate.
Throttle Right	The right throttle is faulty.	
R-net Trip Code	There is an R-net Trip Code	Check R-net fault on joystick display or in the R-net PC Programmer

R-net Trip Codes

When a fault is detected by the Scoot Control, an R-net trip fault will be generated. The Trip Code will be shown on the joystick (if it is present and equipped with a graphic display). The Trip Code will also be logged in the R-net system and can be investigated using the R-net PC Programmer.

If you want to learn more about Trip Codes, see the Curtiss-Wright manual: SK77981-14 R-net Technical Manual | Chapter 3 – Programming.

Application Trip Codes

R-net Trip Code	Reason	Required action
9600	Uart overflow	Update Firmware or Replace PCB
9601	Uart underflow	
9602	Packet transmission exceeded maximum number of retries	
9603	TX handle overflow	
9604	RX handle overflow	
9605	Invalid sequence number	
9606	Ack number does not match	

R-net Trip Code	Reason	Required action
9607	Invalid packet descriptor	
9608	Incorrect R-net version	
9609	Chip tripped	
960A	Invalid response when accessing a file	
9620	CPU Error	
9621	Code Error	
9640	One or more test flags not set.	Redo tests and/or replace PCB.
9641	Software Watchdog	Update Firmware or Replace PCB.
9642	There was a problem during the preparation of the R-net system.	Check R-net fault on joystick display or in the R-net PC Programmer. Check R-net configuration.
9643	The left sensor is faulty.	Replace sensor board and calibrate.
9644	The right sensor is faulty.	
9645	The left throttle is faulty.	Replace throttle and calibrate.

R-net Trip Code	Reason	Required action
9646	The right throttle is faulty.	
9647	There is an R-net Trip Code.	Check R-net fault on joystick display or in the R-net PC Programmer.
9648	Factory test failed.	A fault occurred during factory testing.
9649	Field test failed (Calibration).	A fault occurred during field testing (Calibration).

Chip Set Trip Codes

R-net Trip Code	Reason	Required action
9800	API_MSG_SEND_TO_FREQUENTLY	Update Firmware or Replace PCB, check R-net configuration
9801	API_MSG_DATA_OUT_OF_RANGE	
9802	API_MSG_ID_UNKNOWN	
9803	API_MSG_DATA_INCORRECT_AMOUNT	
9804	API_MSG_TOO_SHORT	
9805	API_MSG_TOO_LONG	
9806	API_MSG_NOT_ENABLED	

R-net Trip Code	Reason	Required action
9807	API_RESPONDED_OUT_OF_TIME	
9808	API_MSG_REQUIEREMENT_WRONG	
9809	API_MSG_INVALID_IN_CURRENT_STATE	
9810	DATA_PACKET_WITH_INVALID_SEQ_NR	
9811	ACK_PACKET_WITH_INVALID_SEQ_NR	
9812	INVALID_HEADER	
9813	PACKET_TIMEOUT	
9814	CHIP_INT_ERR0	
9815	CHIP_INT_ERR1	
9816	HOST_RESTART_AFTER_CORRECT_INIT	
9817	HOST_INCOMPATIBLE_SERIAL_PROTOCOL_VERSION	
9820	CHIPSET_INTERNAL_QUEUE_OVERFLOW	
9821	CHIPSET_HEARTBEAT	

Maintenance

Cleaning

Clean all parts of the Scoot Control on a regular basis (monthly), or whenever needed.

- Gently remove dust and dirt with a damp cloth
- Use only non-aggressive disinfectant cleaning agents



WARNING!

Do not immerse in water or use excessive amounts of liquid.



CAUTION!

Do not apply additional lubricants to the moving parts.

Monthly check

Monthly, or whenever needed, check whether:

- All bolts and screws are still firmly tightened
- There is no damage to any wiring
- There is no excessive wear to any of the parts

Yearly check

We advise to have at least yearly a full check of the wheelchair and its operating systems by a qualified service engineer.

Contact your local dealer or mo-Vis for more information.

Maintenance free

The Scoot Control is maintenance-free. Under regular use circumstances, the device and different parts do not require additional maintenance.

Technical data

Product description & Code

- Scoot Control R-net (P015-61)
- Scoot Control Mounting Bracket (M015-70)
- Scoot Control Keypad Bracket Set (M015-91)
- Actuator Keypad Button R-net CJSM2 (P016-98)
- Actuator Keypad Paddle R-net CJSM2 (P016-99)

Device connectors

- 3.5 mm stereo jack (actuator panel)
- Mini USB (internal)
- R-net Wheelchair connector

Specifications

Factor	Specification
Electronics	Curtiss-Wright R-net Compatible
Input Keypad	Curtiss-Wright CJSM2 compatible keyboard (34E)
Cable Length	Pigtail 600 mm / 23.62 in R-net male pin connector
Throttle Force	300 g / 10.58 oz (3,000 g / 6.61 lb Safe Overload)
Keyboard force	100 g / 3.53 oz (1,000 g / 2.20 lb Safe Overload)
Handlebar force	2.500 g / 5.51 lb (25,000g / 55.12 lb Safe Overload)
Weight	1.250 g / 2.76 lb
Dimensions	450 x 100 x 55 mm / 17.72 x 3.94 x 2.17 in (WxDxH)
Mounting	4 * M6 (8 mm depth) in a square (55 x 55 mm / 2.17 x 2.17 in))

Installation date: . . / . . /

Dealer:



Dealer stamp:

A large, empty rectangular box with a thin black border, intended for a dealer stamp.

Serial number sticker

A large, empty rectangular box with a thin black border, intended for a serial number sticker.