



INSTRUCTIONS for RSC-103E + controller

You can prepare for your order by reading the "First operation" document at this link:

<https://www.plequipment.com/media/products/files/199/FirstOperation.pdf>

Also you can read the "Quick start" document from here:

<https://www.plequipment.com/media/products/files/199/QuickStart.pdf>

We recommend:

- First connect the **RSC-103E** cable and the USB cable to the controller and the PC.
- Start the "Termite" software and make sure it is "Ready to communicate"
- The power connector is the last thing you connect after the software is already running.

When power is applied the controller automatically executes the commands saved in MACRO 0. This acts as a "signs of life" routine by rotating back and forth one time.

Please observe the **RSC-103E** makes a CW and CCW movement to show you that it is alive and well and the controller is also working OK.

Always start operating the system by typing CM1 <enter>.

This executes the Reference routine. It looks for the reference sensor then sets the position to "0".

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The following MACRO programs have been already saved in the controller memory and you can execute them using the "CM"number **not the "DM"number command**.

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DM0=MR405,WA500,MR-405,WA500,TP

(This "proof of life " routine is automatically executed at start-up. You can change it or DELETE it)

DM1=ST,LN,MN,MR-5000,MR300,MR-1000,WA1000,LF,DH

(Used to "hunt" for the reference sensor and set the position to "0". Don't change it or DELETE)"

DM2=(MA-1500,WA500,MA-3000,WA500,MA-3240,WA1000,MA100,WA500,GH,WA500)RP4

(This is an exercise routine that will move the rotator 3x10 times. You can change it or DELETE it)

DM3=RN,AL1234,FD43,SM2,SQ800,SF350,SC500,SV120000,RF,LF,UD,RR1234

(Do not alter or Delete because it contains the default settings)

DM7=MA810,WA500,TP

(Executed in AM6 when the digital input transitions from 1 to 0. You can change it or DELETE it)

DM8=GH,WA500,TP

(Executed in AM6 when the digital input transitions from 0 to 1. You can change it or DELETE it)



The **Commands List** is in the **Quick Start** document on page 4.

Most common commands are:

CM1	Referencing	
MAnumber	Move Absolute	
MRnumber	Move Relative	
GH	Go Home	
TP	Tell position	
AB	ABort	Use this to stop any action of the controller
ST	STop	
<enter>	Will repeat the last command	

The number of micro-steps that are needed for a full 360 degrees rotation is 3240.

This corresponds to **exactly 9 micro-steps/degree of rotation.**

You cannot give commands with decimal numbers so you will approximate to the next integer.

If you are at "0" position and you type MA324 <enter> (Move to Absolute position 324) then the rotation will be 36 degrees.

- If you type MA3240 the rotator will make a full 360 deg rotation.
- When you type GH the rotator go back to 0 degrees.
- Now type MR1620 will rotate to 50% or 180 degrees
- Press <enter> and the last command will be repeated.
- Type TP and the controller will report the current position. It should be 3240.
- MRnumber are considered with (+) sign and will rotate CCW
- MR-number are considered with (-) sign and will rotate CW

DIGITAL input mode:

To switch to Digital TTL input must type:

AL1234<enter>

AM6<enter>

When the signal input in the BNC connector transitions from 1 to 0 the stage executes CM7

When the signal input in the BNC connector transitions from 0 to 1 the stage executes CM8

ANALOG input mode:

To switch to Analog input must type:

AL1234<enter>

AM4<enter>

Type AM0<enter> to switch back to USB input.