

MODULAR UNIVERSAL ACTUATOR

Quick Start Guide



North America, South America & Australia/Oceania

VICI Valco Instruments Co. Inc.

sales: 800-367-8424

tech: 713-548-2700

email: valco@vici.com

Europe, Asia & Africa

VICI AG International

tel: 41 41 925-6200

fax: 41 41 925-6201

email: info@vici.ch



Version 1 : 09-2022



APPLICABLE MODELS

This manual is applicable to the following models:

UMH

UMD

UMT

MODULAR UNIVERSAL ACTUATOR

Quick Start Guide



Description

The VICI modular universal actuators are designed to work with both two position and multiposition valves, with any number of ports. This is accomplished through simple settings via the serial interface or manual remote. The actuator consists of a control module, motor assembly, motor cable, manual remote, 24VDC universal power supply (100-240 VAC, 50-60 Hz) and interface cables.

Power & Connector Function

Power connector: Input power (24-28 VDC, 2.5 amps recommended) center pin is + voltage and the outer barrel is ground. The typical average DC current draw is 2.1 amps.

Motor connector: interface to Valco's EM(X)MA series valve/motor assemblies using Valco cable P/N: I-22640-CE.

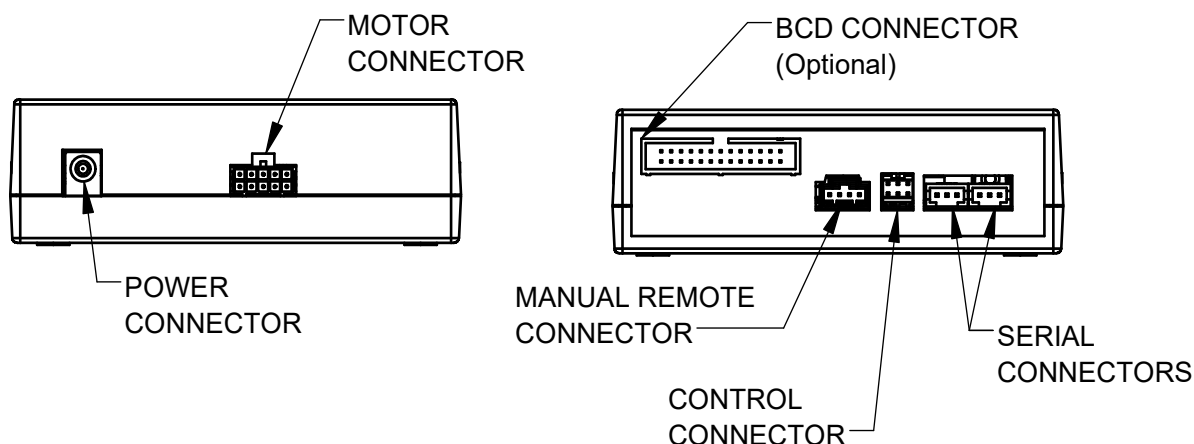
Manual Remote connector: interface to the Manual Remote P/N: I-25052

Control connector: digital input/output signals accessible by Valco cable P/N I-25176

Serial connectors: two paralleled three-pin serial I/O connectors for RS-232 or RS-485 interface using Valco's cable P/N I-22697.

BCD connector: 26-pin is for the (optional) BCD input/output assembly.

The serial and digital functions are fully described in the Modular Universal Actuator Manual, available at www.vici.com under the support section.

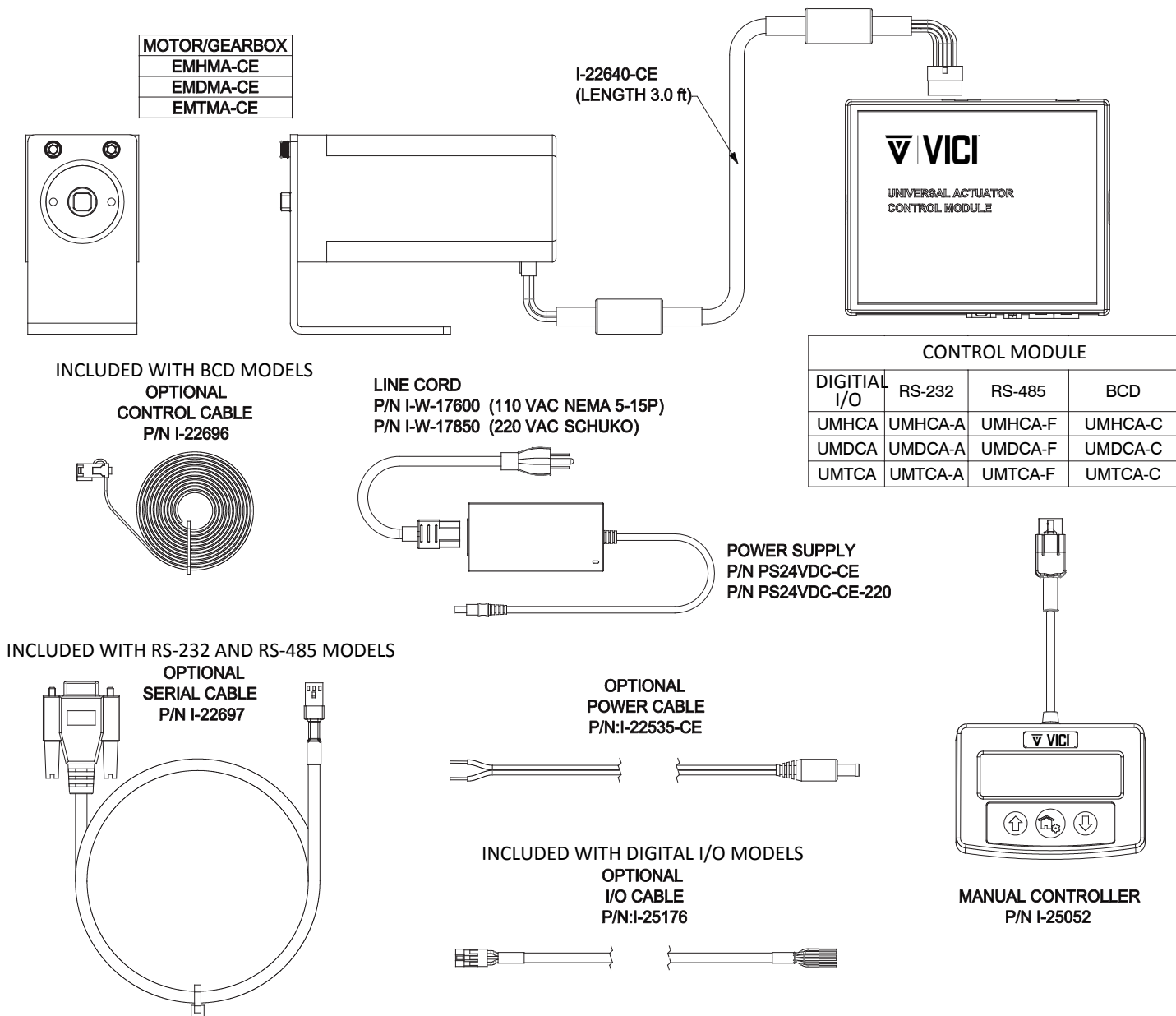


Component Description:

This is a list of typical components that comprise the Modular Universal actuator. Some components may not be included in all shipped versions.

MODULAR UNIVERSAL ACTUATOR

Quick Start Guide

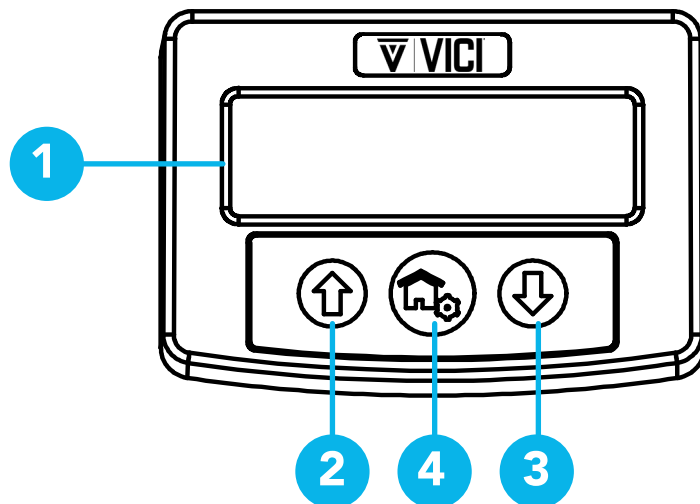


Basic Operation of the Manual Remote

The manual remote provides simple valve positioning capabilities, but in the configuration mode, it can be used to perform extensive actuator setup functions. For information on using the manual remote to configure the actuator, refer to the menu tree on page 8 or see the full Modular Universal Actuator Manual.



Do not attempt to enter the setup mode by holding down the two arrow buttons, as with the Microelectric actuator.



Display

UP arrow button: In the *two position mode*, pressing the UP arrow button moves the actuator to Position B. If it is already in Position B, nothing happens. In *multiposition mode*, pressing the UP arrow button advances the actuator one position, i.e., from 1 to 2, 4 to 5, etc.

DOWN arrow button: In the *two position mode*, pressing the DOWN arrow button moves the actuator to Position A. If it is already in Position A, nothing happens. In *multiposition mode*, pressing the DOWN arrow button reverses the actuator one position, i.e., from 2 to 1, 5 to 4, etc.

HOME/SETUP button: In the *two position mode*, pressing the HOME button moves the actuator to Position A. If it is already in Position A, nothing happens. In *multiposition mode*, pressing the HOME button sends the actuator to Position 1. Pressing and holding the HOME/SETUP button for 5 seconds sends the manual remote into the Setup mode. (Refer to the menu tree on page 8).



Pressing and holding the HOME button for 5 seconds sends the manual remote into the setup mode. If this occurs unintentionally, press the UP arrow to escape and return to normal operation. Changing settings in this mode can cause the unit to be inoperable.

Serial Port Configuration

Default serial port settings are 9600 baud, no parity, 8 data bits, 1 stop bit, no hardware or software handshaking. For more information see Modular Universal Actuator manual.

Serial Commands Table

Below is a condensed list of serial commands. To see the full list, use the help command (?) or review the Modular Universal Actuator manual. All RS-485 communications require a "/" as a beginning of message character followed by a valid ID character. The default ID is "Z".

MODULAR UNIVERSAL ACTUATOR

Quick Start Guide



SERIAL COMMANDS		
COMMAND	MODES*	DESCRIPTION
AL <enter>	2, 3	Moves the actuator drive shaft to the reference position prior to valve installation
AM <enter>	1, 2, 3	Displays the current actuator mode
AMn <enter>	1, 2, 3	Sets the actuator mode to [1] two position with stops, [2] two position without stops, or [3] multiposition
CC <enter>	1, 2	Sends the actuator from Position A to Position B
	3	Decrements the actuator one position. (For example, from position 5 to position 4)
CCnn <enter>	3	Sends the actuator in the "negative" or "down" direction to position <i>nn</i> (from NP to 1)
CP <enter>	1, 2, 3	Displays the current position
CW <enter>	1, 2	Sends the actuator from Position B to Position A
	3	Increments the actuator one position. (For example, from position 4 to position 5)
CWnn <enter>	3	Sends the actuator in the "positive" or "up" direction to position <i>nn</i> (from 1 to NP)
GO <i>nn</i> <enter>	1, 2	Sends the actuator to position <i>n</i> , where <i>n</i> is A or B
	3	Sends the actuator to position <i>nn</i> (from 1 to NP) via the shortest route
HM <enter>	3	Moves the valve to position 1 (home)
IDa/n <enter>	1, 2, 3	Sets the ID of the actuator to <i>a/n</i> (must be a number 0-9 or letter A-Z)
LRN <enter>	1	Automated procedure to locate A & B mechanical stop positions
MA <enter>	1, 2, 3	Displays the current motor setting
MAaaa <enter>	1, 2, 3	Sets the controller to operate the type of motor assembly to be used: EMH, EMD or EMT
NP <enter>	2, 3	Displays the number of positions the actuator is currently set to index
NPnn <enter>	2	Sets the number of ports (<i>nn</i>) for the current valve.
	3	Sets the number of positions (<i>nn</i>) for the current valve.
SB <enter>	1, 2, 3	Displays the current baud rate
SBnnnn <enter>	1, 2, 3	Sets the baud rate to 48(00), 96(00), 192(00), 384(00), 576(00), or 1152(00). The parity setting, number of data bits, and number of stop bits cannot be changed.
VRn <enter>	1, 2, 3	Displays the current firmware version for the main PCB where <i>n</i> is not used, or for firmware version for the optional interface PCB where <i>n</i> = [2].
? <enter>	1, 2, 3	Displays a list of valid commands

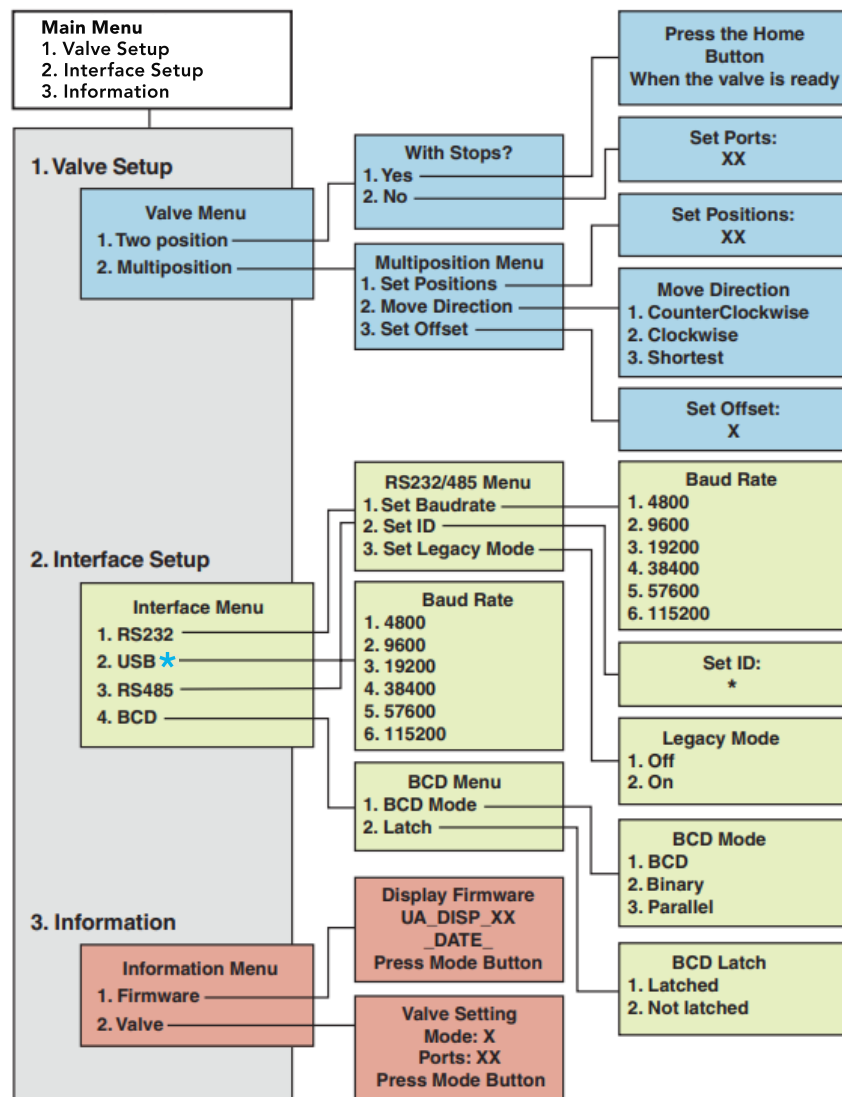
Notes: In this chart, [*n*] represents numbers; [*a*] represents letters; <enter> represents a CR(0x0D).

MODULAR UNIVERSAL ACTUATOR

Quick Start Guide



Menu Tree



***Note:** Modular universal actuator and universal actuator use the same manual remote. USB not available on the modular universal actuator.

For More Information

For detailed information on serial control, digital protocols, and other features of the Modular Universal Actuator, refer to the complete list at www.vici.com/uma-manual, or request a copy by calling **713-548-2700** or (int) **+41-41-925-6200**.

REVISION HISTORY

DOCUMENT NAME	DATE [DD.MM.YYYY]	REASON FOR CHANGES	VERSION
VICI_MU Actuator_Quick Start Guide_V1.pdf	02.09.2022	New quick start guide creation	0.1

North America, South America & Australia/Oceania

VICI Valco Instruments Co. Inc.

sales: 800-367-8424
tech: 713-548-2700
email: valco@vici.com

Europe, Asia & Africa

VICI AG International

tel: 41 41 925-6200
fax: 41 41 925-6201
email: info@vici.ch