XX113-76-02

ViconNet Version 6
Serial Host Protocols Driver

Software Manual

Vicon Industries Inc. does not warrant that the functions contained in this equipment will meet your requirements or that the operation will be entirely error free or perform precisely as described in the documentation. This system has not been designed to be used in life-critical situations and must not be used for this purpose.

VICON INDUSTRIES INC., 89 ARKAY DRIVE, HAUPPAUGE, NEW YORK 11788
TEL: 631-952-2288 FAX: 631-951-2288 TOLL FREE: 800-645-9116
24-Hour Technical Support: 800-34-VICON (800-348-4266)
UK: +44 (0) 1489-566300 WEB: www.vicon-security.com

Vicon Part No. 8009-8113-76-02 Rev 613

VICON

Dear Valued Customer:

Thank you for selecting Vicon systems and products for your video needs.

Since Vicon's beginning in 1967, our only business has been the design, engineering, and production of the highest quality video systems and equipment for use in a wide variety of security, safety, control, surveillance, and communication applications.

We stand behind the quality and dependability of every product with an industry leading Beneficial Use warranty.

If you are not satisfied with a Vicon product or service, I would like to know. Your complete satisfaction is the mission of every Vicon employee.

Sincerely,

Kenneth M. Darby
President

Contents

Introduction

The information in this manual describes the Serial Host Protocols driver and its use with the ViconNet® Virtual Matrix Display Controller and DVR/NVR/Workstation.

This driver was created to allow controlling the Virtual Matrix Display Controller (VMDC) (and some ViconNet application functions) through the RS-232 port. The use of this driver requires ViconNet version 6 software and driver 926 and higher.

The Serial Host driver is based on the keypad functionality of the Virtual Matrix Display Controller, but allows other devices (i.e., an alarm system, access control, or PLC) to switch/control camera functions through the VMDC or DVR/NVR/Workstation. This driver supports all keypad-like operations transferred in three different protocols:

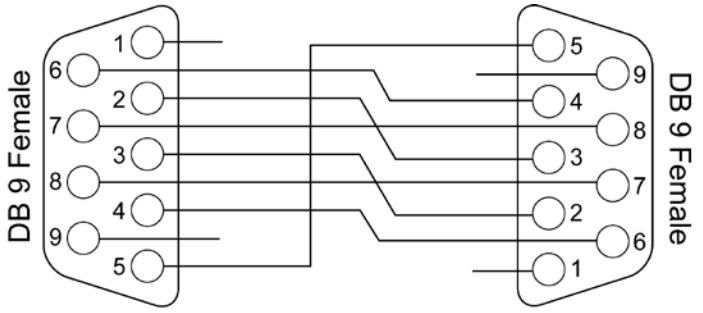
- ViconNet Serial Host Protocol
- ViconNet Serial Host Short Protocol
- 1500 Serial Host Protocol – limited functionality with VMDC

This manual shows how these three protocols operate with the Serial Host driver.

NOTE: *Read all instructions before beginning any installation.*

Installation

The Virtual Matrix Display Controller and DVR/NVR/Workstation can be connected to a device to allow it to switch/control camera functions through the RS-232 port. Since the VMDC does not have a COM port, this is done using the USB to serial port connector (converter) that is supplied for serial-based devices with the VMDC. Plug the USB end of the adapter into any USB port on the VMDC. Refer to the typical system diagram that follows for a sample connection. For the RS-232 pin-out connections, refer to Figure 1, Standard Wiring (null modem). For a DVR/NVR/Workstation, use the COM port on the rear panel of the unit.



Connector 1	Connector 2	Function
2	3	Rx ← Tx
3	2	Tx → Rx
4	6	DTR → DSR
5	5	Signal Ground
6	4	DSR ← DTR
7	8	RTS → CTS
8	7	CTS ← RTS

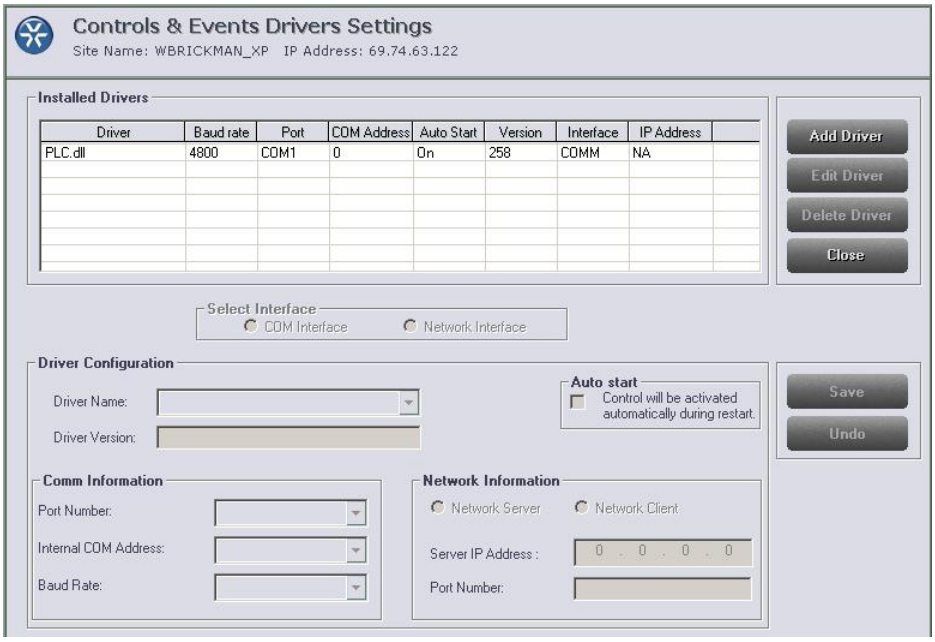
Only pins 2, 3 and 5 are required to be connected.

Figure 1: Standard RS-232 Cabling
(Note: If using other protocols, refer to that manufacturer's documentation.)

Only the Vicon supplied converter can be used for converting the USB to an RS-232 COM port. Additional converters are available from Vicon, model VRS232-USB-CD.

Figure 2: USB – RS-232 Converter

The serial host driver must have a dedicated COM port. The COM port is configured in Control Settings ViconNet Setup, selecting the available COM port for the “Internal COM Address”. The internal comport address must be set to 1. The required baud rate is 4800 baud.

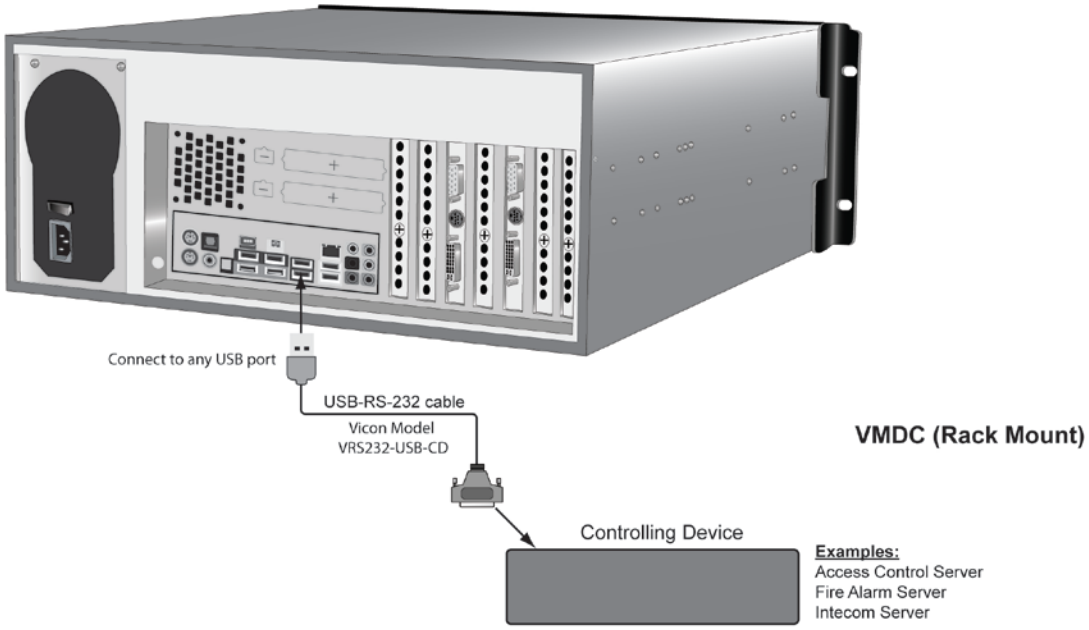


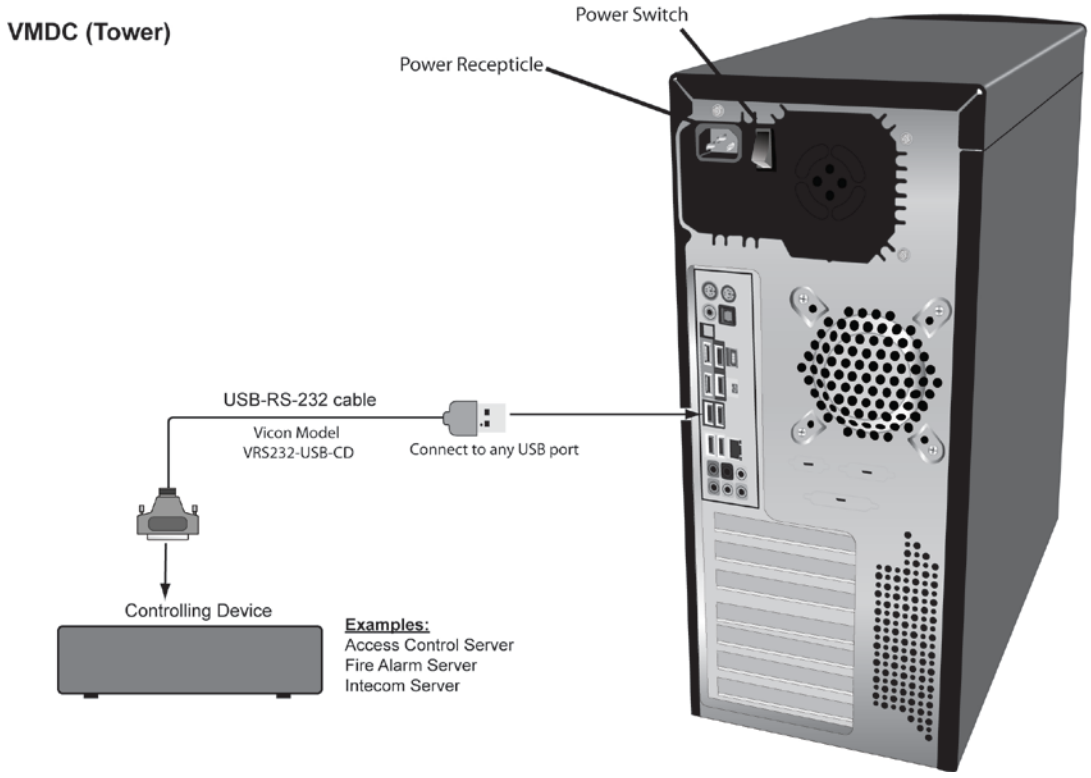
For testing purposes, Vicon has successfully used Realterm Software (http://realterm.sourceforge.net). Hyperterminal is NOT recommended.

Note: All switching commands sent to the VMDC must be sent as a complete string, not character by character.

Note: the VMDC must be used with the V1500X-SCCS-1 System Controller keypad. Refer to the current version of instruction manual XX201 for details on how to install and operate the keypad.

Virtual Matrix Display Controller RS-232 Connections
(Note: RS-232 : COM Port is provided through USB Converter)





Typical Installation Diagram

Protocols

Following is a list of commands for use with the Serial Host driver. The functionality of these commands varies depending on whether it is being used with a VMDC or ViconNet DVR/NVR/Workstation. Additionally, the variables in the command depend on the ViconNet device. For VMDC, there can be up to 6 monitors and 64 quadrants (rectangles). When using a DVR/NVR/Workstation, the monitor command is used to select the quadrant and the quadrant is always 0. For 1500 protocol, there are no quadrants; only a single camera can be displayed on the selected monitor.

In the table for each command, there is a guide to show the product support for each protocol as Fully Supported, Partially Supported or Not Supported. Note these distinctions carefully when trying to control the ViconNet device using these commands.

Note: *All protocols use only capital letters.*

Note: *All switching commands sent to the VMDC must be sent as a complete string, not character by character.*

Note: *The time that it takes the video to display may require delaying some commands, such as presets or PTZ. If this is necessary, the sender must send a pause before the command to allow the video to display before the command can be recalled. Start with a 50 millisecond delay and increase in 50 millisecond increments until the command is recalled in a timely fashion on the video display.*

Select Monitor & Quadrant

This is a mandatory command for using the Serial Host driver with the VMDC. The driver needs to know the monitor and the quadrant (rectangle) that is selected.

Product Support	Protocol	Command	Example	Notes	Restrictions
DVR/NVR/WS: Fully Supported	ViconNet Host Serial Protocol	MONITOR,xx,yy**.**	MONITOR,11,0. The 11th rectangle on the ViconNet application is selected	xx- Rectangle yy- always 0	DVR/NVR/WS: Monitor number is used for the rectangle; can be 1-16. Rectangle is always 0.
VMDC: Fully Supported		MONITOR,xx,yy**.**	MONITOR,11,25. The 25th rectangle on monitor no. 11 in VMDC is selected	xx- Monitor # yy- Rectangle #	VMDC: Monitor number is the numerical ID set in monitor layout. Rectangle can be 1-64 (or 1-4 for KRX-3).
DVR/NVR/WS: Fully Supported	ViconNet Host Serial Short Protocol	M,xx,yy**.**	M,11,0. The 11th rectangle on the ViconNet application is selected	xx- Rectangle yy- always 0	DVR/NVR/WS: Monitor number is used for the rectangle, can be 1-16. Rectangle is always 0.
VMDC: Fully Supported		M,xx,yy**.**	M,11,25. The 25th rectangle on monitor no. 11 in VMDC is selected	xx- Monitor # yy- Rectangle #	VMDC: Monitor No. is the numerical ID set in monitor layout. Rectangle can be 1-64 (or 1-4 for KRX-3).
DVR/NVR/WS: Fully Supported	1500 Host Serial Protocol	<SOH> + Axx + <CR>	<SOH> + A11+ <CR> The 11th rectangle on the ViconNet application is selected	xx- Rectangle	DVR/NVR/WS: Monitor number is used for the rectangle can be 1-16.
VMDC: Partially Supported		<SOH> + Axxy + <CR>	<SOH> + A110 + <CR> Monitor no. 11 in VMDC is selected	xx- Monitor # yy- Rectangle #	VMDC: Monitor No. is the numerical ID set in monitor layout. Rectangle can be 1-9 (or 1-4 for KRX-3).

Important Notes

1. In all products, the display layout will switch to a higher number layout to accommodate higher rectangle number; for example, if a single camera is used and then rectangle 4 is selected, the layout will switch to a 2x2 layout. The layout will NOT switch back to a lower number layout.
2. The 1500 Protocol is designed around the legacy matrix functionality and is recommended only in single camera per monitor mode.

Change Display Layout

Prior to this command, a monitor has to be selected

Product Support	Protocol	Command	Example	Notes	Restrictions
DVR/NVR/WS and VMDC	ViconNet Host Serial Protocol	CHANGEMODE,x,yy.	CHANGEMODE,0,16. The selected monitor layout is switched to 16 way (4x4)	x- Always 0 yy – Layout	DVR/NVR/WS: Optional layouts 1,4,6,9 and 16 VMDC: Optional layouts 1,4,9,16,25,26 and 64
DVR/NVR/WS/VMDC	ViconNet Host Serial Short Protocol	Not Supported			
DVR/NVR/WS/VMDC	1500 Host Serial Protocol	Not Supported			

Important Notes:

1. The layout change depends on the specific GUI capabilities, hence the difference between PC and VMDC.
2. To switch layouts the monitor has to be selected first and the first parameter (x) has to be 0.

Change Display State between GUI and Full Screen

Prior to this command, a monitor has to be selected

Product Support	Protocol	Command	Example	Notes	Restrictions
DVR/NVR/WS and VMDC	ViconNet Host Serial Protocol	CHANGEMODE,x,yy**.**	CHANGEMODE,**1**,16. The selected monitor layout is switched between full and GUI modes. This is a toggle command to change state.	x- Always 1 yy – -NR- / ignored	DVR/NVR/WS: Supported change state VMDC: Supported on the VMDC GUI screen. Not relevant to Receive monitors.
DVR/NVR/WS/ VMDC	ViconNet Host Serial Short Protocol	Not Supported			
DVR/NVR/WS/ VMDC	1500 Host Serial Protocol	Not Supported			

Important Notes:

1. This is used only to switch the display on a WS/NVR/DVR or the VMDC main GUI screen to the full screen mode and back.
2. To switch to full screen and back the first parameter (x) must be 1 and the second is ignored.

Start/Stop Camera

Prior to this command, a monitor and quadrant (rectangle) must be selected.

Product Support	Protocol	Command	Example	Notes	Restrictions
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	CAMERA,xx,0.	CAMERA,11,0. Camera 11 is started on the selected Monitor	xx- Camera Number	DVR/NVR/WS: Monitor number is used for the rectangle; can be 1-16.
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	C,xx,0.	C,11,0. Camera 11 is started on the selected monitor	xx- Camera Number	VMDC: Monitor number. is the numerical ID set in monitor layout. Rectangle can be 1-9 (or 1-4 for KRX-3).
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Bxx + <CR>	<SOH> + B11 + <CR> Camera 11 is started on the selected monitor	xx- Camera Number	DVR/NVR/WS: Monitor number is used for the rectangle; can be 1-16.

Save/Store Preset

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	SAVE,xx,0.	SAVE,11,0. Preset 11 is called	xx- Preset Number	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	H,xx,0.	H,11,0. Preset 11 is called	xx- Preset Number	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Hxx + <CR>	<SOH> + H11 + <CR> Preset 11 is called	xx- Preset Number	

Cam/Goto Preset

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	GOTO,xx,0.	GOTO,11,0. Preset 11 is called	xx- Preset Number	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	G,xx,0.	G,11,0. Preset 11 is called	xx- Preset Number	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Gxx + <CR>	<SOH> + G11 + <CR> Preset 11 is called	xx- Preset Number	

Open Iris

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	IRIS,xx,0.	IRIS,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	I,xx,0.	I,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Sxx + <CR>	<SOH> + S11 + <CR>	xx- Speed 1-99	

Close Iris

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	NOIRIS,xx,0.	NOIRIS,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	N,xx,0.	N,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Rxx + <CR>	<SOH> + R11 + <CR>	xx- Speed 1-99	

Autoiris

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	AIRIS,xx,0.	AIRIS,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	U,xx,0.	U,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Txx + <CR>	<SOH> + T11 + <CR>	xx- Speed 1-99	

Autopan

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	AUTOPAN,xx,0.	AUTOPAN,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	P,xx,0.	P,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Kxx + <CR>	<SOH> + K11 + <CR>	xx- Speed 1-99	

Lens Speed

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	LENS,xx,0.	LENS,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	L,xx,0.	L,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + [xx + <CR>	<SOH> + [11 + <CR>	xx- Speed 1-99	

Stop All

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	STOP,0,0.	STOP,0,0.		
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	S,0,0.	S,0,0.		
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + C00 + <CR>	<SOH> + C00 + <CR>		

Pan Left

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	LEFT,xx,0.	LEFT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	4,xx,0.	4,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Ixx + <CR>	<SOH> + I11 + <CR>	xx- Speed 1-99	

Pan Right

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	RIGHT,xx,0.	RIGHT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	6,xx,0.	6,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Jxx + <CR>	<SOH> + J11 + <CR>	xx- Speed 1-99	

Tilt Up

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	UP,xx,0.	UP,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	8,xx,0.	8,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Mxx + <CR>	<SOH> + M11 + <CR>	xx- Speed 1-99	

Tilt Down

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	DOWN,xx,0.	DOWN,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	2,xx,0.	2,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Lxx + <CR>	<SOH> + L11 + <CR>	xx- Speed 1-99	

Move Up Left

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	UPLEFT,xx,0.	UPLEFT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	7,xx,0.	7,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	Not Supported	Not Supported		

Move Down Left

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	DOWNLEFT,xx,0.	DOWNLEFT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	1,xx,0.	1,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	Not Supported	Not Supported		

Move Up Right

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	UPRIGHT,xx,0.	UPRIGHT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	9,xx,0.	9,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	Not Supported	Not Supported		

Move Down Right

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	DOWNRIGHT,xx,0.	DOWNRIGHT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	3,xx,0.	3,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	Not Supported	Not Supported		

Zoom In

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	ZOOMIN,xx,0.	ZOOMIN,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	+,xx,0.	+,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Oxx + <CR>	<SOH> + O11 + <CR>	xx- Speed 1-99	

Zoom Out

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	ZOOMOUT,xx,0.	ZOOMOUT,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	-,xx,0.	-,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Nxx + <CR>	<SOH> + N11 + <CR>	xx- Speed 1-99	

Focus Far

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	FAR,xx,0.	FAR,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	F,xx,0.	F,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Qxx + <CR>	<SOH> + Q11 + <CR>	xx- Speed 1-99	

Focus Near

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	NEAR,xx,0.	NEAR,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	E,xx,0.	E,11,0.	xx- Speed 1-99	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + Pxx + <CR>	<SOH> + P11 + <CR>	xx- Speed 1-99	

Reset Alarm

The monitor needs to be defined prior to using this command.

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	ALARM,0,0.	ALARM,0,0.		
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	A,0,0.	A,0,0.		
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + \ + <CR>	<SOH> + \ + <CR>		

Auxiliary

The monitor needs to be defined prior to using this command. (In the ViconNet application the camera needs to be selected in the GUI prior to using this command.)

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	AUX,xx,0.	AUX,1,0.	xx- Aux num 1-6 Second parameter must be 0	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	X,xx,0.	X,1,0.	xx- Aux num 1-6 Second parameter must be 0	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + U/V + <CR>	<SOH> + U + <CR>	U = Aux1 V = Aux2 Only Aux 1 and 2 are supported in 1500 protocol	

Quick Playback

The monitor needs to be defined prior to using this command.

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	QPB,xxx,YY.	QPB,15,1.	xxx = Seconds, YY =Camera ID	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	X,xx,YY.	X,3,1.	xx= 3- 15 secs xx= 4- 30 secs xx= 5- 1 min xx= 6- 5 min Must have YY YY – Camera ID	
DVR/NVR/WS and VMDC Fully Supported	1500 Host Serial Protocol	<SOH> + W/X/Y/Z + <CR>	<SOH> + X + <CR>	W = 15 secs X = 30 secs Y = 1 min Z = 5 min	

Stop Camera Stream on a Monitor

The monitor and rectangle on which to stop the stream are given in this command; supported by VMDC only.

	Protocol	Command	Example	Notes	
VMDC only	ViconNet Host Serial Protocol	STOPSTREAM,xxx,yy.	STOPSTREAM,15,1.	xxx = Monitor Number yy = Rectangle Number	
VMDC only	ViconNet Host Serial Short Protocol	D,xx,yy.	D,15,1.	xx = Monitor Number yy = Rectangle Number	
VMDC only	1500 Host Serial Protocol	--	--	--	

Start Macro

The ViconNet support for this command will start both Record and Display macros.

	Protocol	**Command**	**Example**	**Notes**	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	STARTMACRO,xx,yyy,zzz.	STARTMACRO,1,TEST,NVR**.** This will start the macro called **TEST** on the site **NVR** and will assign it with numerical ID **1**.	xx = Macro ID* assigned in programming yyy = Macro Name as set in ViconNet zzz = Optional Site name (case sensitive**)	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	T,xx,yyy.zzz	T,1,Test**.** This will start the macro called TEST on the site NVR and will assign it with numerical ID **1**.	xx= Macro ID* yyy = Macro Name zzz = Optional Site name (case sensitive**)	
Not Supported	1500 Host Serial Protocol	--	--	--	

Important Notes

1. *Macro ID - This is a numeric identifier for the “start macro” command and needs to be assigned in the command itself. Assign any number as long as a different number is used for every macro. Example: If you have two macros called test1 and test 2, start the first with ID=1 and the second with ID=2: STARTMACRO,1,test1. and STARTMACRO,2,test2.
2. **The site name (zzz) is optional and should be used when the serial command is sent to several PCs at once and the designated PC needs to be named so the command will not start other macros on other PCs. In the case when only one PC is receiving the commands, the site name can be omitted.

*To confirm the exact site name, go to **Setup** in ViconNet. From the **System Settings** screen, select **Network Settings and Site Name**. Click **Change Name.** The exact name of the site will display. Click **Cancel** to exit (OK will cause a reboot).*

Stop Macro

The ViconNet support for this command will start both Record and Display macros.

	Protocol	Command	Example	Notes	Additional Information
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	STOPMACRO,xx,yy.	STOPMACRO,0,test. stops the running macro named “test”	xx = Macro ID* yy- Macro name	To stop a macro by its name use macro id=0 (zero) and the name
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	O,xx,yy.	O,0,test**.** STOPMACRO,0,test. Stops the running macro named “test”	xx = Macro ID (should be unique per macro name) yy- Macro name	To stop a macro by its name use macro id=0 (zero) and the name
Not Supported	1500 Host Serial Protocol	--	--	--	

** The Macro ID is the unique number given at the start macro command (see START MACRO).*

Stop or Restart Scheduler

	Protocol	Command	Example	Notes	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Protocol	SETSCHEDULER,xx.	SETSCHEDULER,0. (Restarts the Scheduler tasks) SETSCHEDULER,1. (Suspends the Scheduler)	xx 0-Restart the Scheduler 1-Disable the Scheduler	
DVR/NVR/WS and VMDC Fully Supported	ViconNet Host Serial Short Protocol	D,xx.	D,0. (Restarts the Scheduler tasks) D,1. (Suspends the Scheduler)	xx 0-Restart the Scheduler 1-Disable the Scheduler	
Not Supported	1500 Host Serial Protocol	--	--	--	

Shipping Instructions

Use the following procedure when returning a unit to the factory:

1. Call or write Vicon for a Return Authorization (R.A.) at one of the locations listed below. Record the name of the Vicon employee who issued the R.A.

   Vicon Industries Inc.
   89 Arkay Drive
   Hauppauge, NY 11788
   Phone: 631-952-2288; Toll-Free: 1-800-645-9116; Fax: 631-951-2288

   For service or returns from countries in Europe, contact:

   Vicon Europe Ltd
   Brunel Way
   Fareham, PO15 5TX
   United Kingdom
   Phone: +44 (0)1489/566300; Fax: +44 (0)1489/566322

2. Attach a sheet of paper to the unit with the following information:

   a. Name and address of the company returning the unit
   b. Name of the Vicon employee who issued the R.A.
   c. R. A. number
   d. Brief description of the installation
   a. Complete description of the problem and circumstances under which it occurs
   b. Unit's original date of purchase, if still under warranty

3. Pack the unit carefully. Use the original shipping carton or its equivalent for maximum protection.
4. Mark the R.A. number on the outside of the carton on the shipping label.

Notes

Vicon Standard Equipment Warranty

Vicon Industries Inc. (the "Company") warrants your equipment to be free from defects in material and workmanship under Normal Use from the date of original retail purchase for a period of three years, with the following exceptions:

1. VCRs, all models: Labor and video heads warranted for 120 days from date of original retail purchase. All other parts warranted for one year from date of original retail purchase.
2. LCD and CRT monitors, all models: One year from date of original retail purchase.
3. Uninterruptible Power Supplies: Two years from date of original retail purchase.
4. VDR-700 Recorder Series: One year from date of original retail purchase.
5. V5616MUX: One year from date of original retail purchase.
6. Arecont Cameras: One year from date of original retail purchase.
7. FMC series fiber-optic media converters and associated accessories: Lifetime warranty.
8. For PTZ cameras, "Normal Use" excludes prolonged use of lens and pan-and-tilt motors, gear heads, and gears due to continuous use of "autopan" or "tour" modes of operation. Such continuous operation is outside the scope of this warranty.
9. Vicon Security Management Systems (SMS) All Models: All hardware is warranted for two years from date of original retail purchase.
10. Any product sold as "special" or not listed in Vicon's commercial price list: One year from date of original retail purchase.

Date of retail purchase is the date original end-user takes possession of the equipment, or, at the sole discretion of the Company, the date the equipment first becomes operational by the original end-user.

The sole remedy under this Warranty is that defective equipment be repaired or (at the Company's option) replaced, at Company repair centers, provided the equipment has been authorized for return by the Company, and the return shipment is prepaid in accordance with policy.

The Company will not be obligated to repair or replace equipment showing abuse or damage, or to parts which in the judgment of the Company are not defective, or any equipment which may have been tampered with, altered, misused, or been subject to unauthorized repair.

Software supplied either separately or in hardware is furnished on an "As Is" basis. Vicon does not warrant that such software shall be error (bug) free. Software support via telephone, if provided at no cost, may be discontinued at any time without notice at Vicon's sole discretion. Vicon reserves the right to make changes to its software in any of its products at any time and without notice.

This Warranty is in lieu of all other conditions and warranties express or implied as to the Goods, including any warranty of merchantability or fitness and the remedy specified in this Warranty is in lieu of all other remedies available to the Purchaser.

No one is authorized to assume any liability on behalf of the Company, or impose any obligations on it in connection with the sale of any Goods, other than that which is specified above. In no event will the Company be liable for indirect, special, incidental, consequential, or other damages, whether arising from interrupted equipment operation, loss of data, replacement of equipment or software, costs or repairs undertaken by the Purchaser, or other causes.

This warranty applies to all sales made by the Company or its dealers and shall be governed by the laws of New York State without regard to its conflict of laws principles. This Warranty shall be enforceable against the Company only in the courts located in the State of New York.

The form of this Warranty is effective March 1, 2011.

THE TERMS OF THIS WARRANTY APPLY ONLY TO SALES MADE WHILE THIS WARRANTY IS IN EFFECT. THIS WARRANTY SHALL BE OF NO EFFECT IF AT THE TIME OF SALE A DIFFERENT WARRANTY IS POSTED ON THE COMPANY'S WEBSITE, *WWW.VICON-SECURITY.COM*. IN THAT EVENT, THE TERMS OF THE POSTED WARRANTY SHALL APPLY EXCLUSIVELY.

Vicon Part Number: 8006-9010-03-09 Rev 0311

Vicon Industries Inc.

Corporate Headquarters
89 Arkay Drive
Hauppauge, New York 11788
631-952-2288 800-645-9116
Fax: 631-951-2288

Vicon Europe Headquarters
Brunel Way
Fareham, PO15 5TX
United Kingdom
+44 (0) 1489 566300
Fax: +44 (0) 1489 566322

Vicon Germany
Kornstieg 3
D-24537 Neumuenster
Phone: +49 (0) 4321 8790
Fax: +49 (0) 4321 879 97

Far East Office
Unit 5, 17/F, Metropole Square
2 On Yiu Street, Shatin
New Territories,
Hong Kong
(852) 2145-7118
Fax: (852) 2145-7117

Internet Address: www.vicon-security.com

VICON