Partner: ClearOne
Model: Converge
Device Type: Conferencing
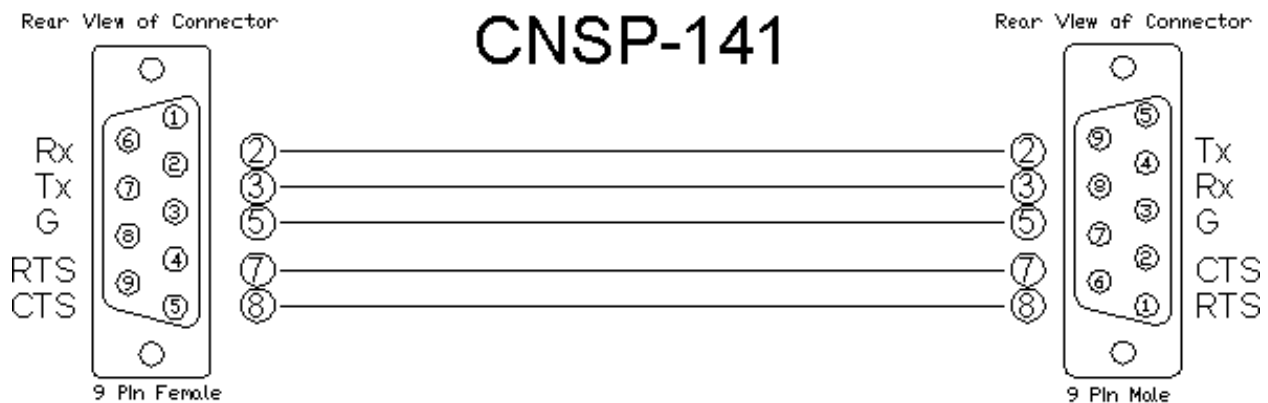
GENERAL INFORMATION

SIMPLWINDOWS NAME:	ClearOne Converge Dialing VH20 v1.7
CATEGORY:	Conferencing
VERSION:	1.7
SUMMARY:	ClearOne Converge VH20 functions including dialing, hook flash and auto-answer.
GENERAL NOTES:	In normal use, the phone line will be on hook (hung up). A number will be dialed on the keypad, and it will be displayed in the display field. When DIAL is pressed, the line will be taken off hook, and the currently displayed number will be dialed. Any additional digits entered after the phone line is off hook will be sent out immediately, and will not be displayed on the touch panel. This is primarily for voice mail and paging systems. The maximum number of characters that can be entered for the phone number is 40. This is a function of the ClearOne Converge, not a Crestron limitation.
	To allow for this flexibility of use, you must specify which ClearOne model is being controlled using the TYPE-ID-ASCII and TYPE-ID-HEX parameter fields. Currently valid entries are a single value (2, 3, D, H, E and 32, 33, 44, 48 or 45) with no suffix as shown below:
	Note: This module will also work with the TH20, 840T, 880T and 880TA, although this module used different command protocol compared to the ClearOne Converge Dialing v*.umc module.
	For Converge TH20, use 2 and 32
	For Converge 840T, use 3 and 33
	For Converge 880T, use D and 44
	For Converge 880TA, use D and 48
	For Converge VH20, use E and 45
	Multiple devices can be connected to the ClearOne bus and controlled from a single RS232 port. Therefore, it is also necessary to enter the Unit ID of the device being controlled. This should be entered in the UNIT-ID-ASCII parameter field as a single digit number from 0-F with no suffix.
	Note: Must be used with the ClearOne Converge Feedback Processor v1.5.umc module or later.
CRESTRON HARDWARE REQUIRED:	CNX-COM2, ST-COM, 2-Series Processor, C2COM3
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 57600 Parity: N Data Bits: 8 Stop Bits: 1

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	RTS/CTS Handshaking should be enabled to insure no data is lost.
VENDOR FIRMWARE:	4.0.0.2.4
VENDOR SETUP:	Flow control should be set to "on". The baud rate should be set to 57600.
CABLE DIAGRAM:	CNSP-141

CONTROL:

AUTO-ANS-*	D	Set the state of Auto Answer.
ON-HOOK	D	Place phone line on hook (hang up).
OFF-HOOK	D	Take phone line off hook (pickup).
FLASH	D	Momentary interruption to phone line connection.
NULL-PHONE-LINE	D	Sends a short noise burst down the phone line and forces the XAP400 to adapt.
HOOK-DURATION-*MS	D	Sets flash hook duration to the time specified.
RX-BOOST-ENABLE	D	Pulse to enable receive boost at the level specified with RX-BOOST-LEVEL.
RX-BOOST-DISABLE	D	Pulse to disable receive boost.
RX-BOOST-LEVEL-*DB	D	Pulse to set the desired level of the receive boost function.
KEYPAD-0-9, *, #	D	Allow the entry of standard touch tone digits.
KEYPAD A-D	D	Allow the entry of additional touch Tone digits.

KEYPAD-PAUSE	D	Insert a pause in the phone number to be dialed. This will be represented as a ",".
KEYPAD-CLEAR	D	Clear the phone number currently displayed.
KEYPAD-BACKSPACE	D	Backspace one digit.
DIAL	D	Dial the phone number currently displayed.
REDIAL	D	Redials the last number dialed.
POLL	D	Used if it is desired to update the state of the Crestron to match the ClearOne Converge unit. Updates should happen automatically, so this can usually be defined as 0.
FROM-CLEARONE-PROCESSOR$	S	Must be routed from the output of the ClearOne Converge Feedback Processor module.

FEEDBACK:

AUTO-ANS-*-FB	D	Real feedback indicating the state of auto answer.
ON-HOOK-FB	D	Real feedback indicating that the phone line is on hook (hung up).
OFF-HOOK-FB	D	Real feedback indicating that the phone line is off hook.
HOOK-DURATION-*MS-FB	D	Feedback indicating the current flash hook duration.
RX-BOOST-ENABLE-FB	D	Real feedback indicating that receive boost is active.
RX-BOOST-DISABLE-FB	D	Real feedback indicating that receive boost is inactive.
RX-BOOST-LEVEL-FB	D	Real feedback indicating the level of the receive boost function.
PHONE-NUMBER$	S	Serial data string containing the phone number entered. Should be routed to a touch panel serial field.
RING	D	One second pulse whenever a ring is detected on the phone line.
To_Device$	S	Serial signal to be routed to a 2-way RS232 port.

PARAMETERS:

TYPE-ID-ASCII	S	Enter 2 for TH20, 3 for 840T, D for 880T or H for 880TA, E for VH20.
TYPE-ID-HEX	S	Enter 32 for TH20, 33 for 840T, 44 for 880T, 48 for 880TA or 45 for VH20.
UNIT-ID-ASCII	S	Enter the unit number of the ClearOne Converge unit being controlled. Should be a number from 0-F.
LENGTH<41D	S	Determines the maximum number of digits that can be entered in the display field. This number can be between 1d and 40d. The ClearOne Converge does not support dialing numbers longer than 40 digits.

TESTING:

OPS USED FOR TESTING:	PRO2 v4.007.0004 CP3 v1.008.0040
SIMPL WINDOWS USED FOR TESTING:	v4.02.38.00
DEVICE DB USED FOR TESTING:	v55.00.002.00
CRES DB USED FOR TESTING:	v44.05.005.00
SYMBOL LIBRARY USED FOR TESTING:	v508
SAMPLE PROGRAM:	ClearOne Converge Series Demo v1.7 PRO2.smw ClearOne Converge Series Demo v1.7 CP3.smw
REVISION HISTORY:	v1.0 – Initial release v1.7 – Added support for later model 3-Series processors and matched all revisions to v1.7.

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