

dbx: ZonePRO 640-641-640m-641m

This module controls a dbx ZonePRO 640, 641, 640m, or 641m over RS-232



GENERAL INFORMATION

SIMPLWINDOWS NAME: dbxZonePRO640_41_40m_41m_Node

CATEGORY: Device Interface

VERSION: V3.0

SUMMARY: This module controls a dbx ZonePRO 640, 641, 640m, or 641m over RS-232

GENERAL NOTES:

RS-232 CONTROL ONLY. USE "dbxZonePRO640m_41m_IP_NODE.umc" MODULE FOR COMMUNICATION OVER TCP-IP (640m and 641m ONLY)

This module is meant for a single dbx ZonePRO 640/641 or 640m/641m.

This module **MUST** be used to communicate with any ZonePRO unit. This module will handle all connection "keep-alive" communication, as well as distributing all incoming serial traffic to the proper module(s).

This module is designed to be used in conjunction with the "**dbxZonePRO640_41_40m_41m_Router.umc**" module and "**dbxZonePRO640_41_40m_41m_Mixer.umc**" module (640m/641m ONLY). Because the user can choose whether to have a mixer or router for each of the 4 output zones, the Crestron programmer must use the proper module to match the ZonePRO's configuration. Connect the 'tx_ModuleX' and 'rx_ModuleX' signals from the Node module to the corresponding Mixer or Router module in each zone. See example program.

This module controls a dbx ZonePRO 640/641 or 640m/641m. The ZonePRO 640/641/640m/641m has 4 outputs and 6 inputs. The Node module controls all 6 input volumes, handles the incoming/outgoing serial traffic, and handles the serial traffic for the 4 router modules (640m/641m has mixer modules). For each output you can use either a Router module (Mixer module for 640m/641m ONLY). The Router module controls the zones input source, adjusts the output zones master volume, and toggle the mute status. The Mixer module can control all 6 mixer input volumes, the mixer master output volume, and master mixer mute(640m/641m ONLY).

This module handles live - feedback. So whenever something is changed manually on the ZonePRO, the module will receive an update and adjusts its outputs. In order to enable live-feedback, you have to pulse the Enable_Feedback input every time the ZonePRO is rebooted.

NOTE: When statuses are changed using the module, the feedback of the module is simulated. When statuses are changed using the ZonePRO, the feedback is real.

Usually the address parameters will be:

ObID_Module1:
 \x01\x05\x00\x10 for 640/641
 \x01\x05\x00\x14 for 640m/641m

ObID_Module2:
 \x01\x05\x01\x11 for 640/641
 \x01\x05\x01\x15 for 640m/641m

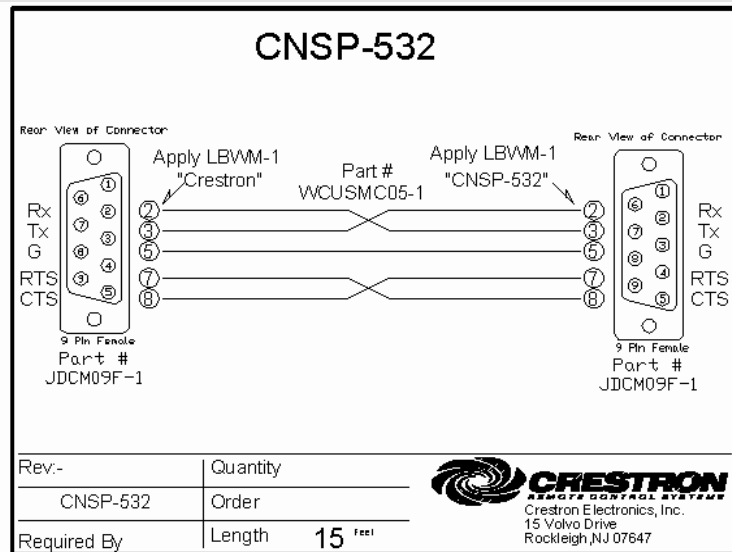
ObID_Module3:
 \x01\x05\x02\x12 for 640/641
 \x01\x05\x02\x16 for 640m/641m



	<p>ObID_Module4: \x01\x05\x03\x13 for 640/641 \x01\x05\x03\x17 for 640m/641m The rest are the same for both the 640/641 and 640m/641m ObID_inputVol1: \x01\x01\x00\x00 ObID_inputVol2: \x01\x01\x01\x01 ObID_inputVol3: \x01\x01\x02\x02 ObID_inputVol4: \x01\x01\x03\x03 ObID_inputVol5: \x01\x01\x04\x04 ObID_inputVol6: \x01\x01\x05\x05</p> <p>However, since these addresses will differ depending on the unit's configuration, please ask the dbx installer for the correct information. See http://www.dbxpro.com/Download/index.htm for help documents showing how to get these objectID's, and for detailed protocol specifications</p> <p><i>"If the default configuration is not loaded into the ZonePRO, then the user must manually enter the Object ID addresses for each device. To get the object ID address, start the PC software for ZonePRO. The easiest way to get the Object ID in decimal format is to click on the device in the ZonePRO program screen and press <Ctrl>+<Shift>+<o> and a dialog box will appear with the correct address. Note that bit 0 is presented at the top and bit 3 at the bottom of the dialog box. Enter this Object ID address in the Crestron module parameter field in HEX as b3,b2,b1,b0.</i></p> <p><i>Another easy way to get the Object ID address in hex is to click on the device symbol in the ZonePRO Designer window and press Ctrl + Shift + T to open the Network Trace Window. Click on the ZonePRO object you want the address for in the software. Change the value of the mute button, volume control, or any other control you are interested in and look for the first row of "MULTSVSET" in the Network Trace Window. Click on this line and look in the window "Frame Data". The object ID will always be the 8th, 9th, 10th, and 11th byte. Enter this 4 byte value into the address parameter on the front of the Crestron module. Repeat this for every address parameter on the front of the module." - DBX</i></p>
CRESTRON HARDWARE REQUIRED:	2-series or X-series processor
SETUP OF CRESTRON HARDWARE:	Pro2 with TPS-6000 Com Port Settings: 57600, 8, 1, N
VENDOR FIRMWARE:	V2a-1.110
VENDOR SETUP:	ZonePRO 640/640m



CABLE DIAGRAM:



CONTROL:

Enable_Feedback	D	Pulse to enable live feedback. Pulse once every time the processor or the ZonePRO restarts
Disco	D	Pulse to send a disco message. The ZonePRO will then report back with it's Node Address. Before this, all commands will be send to default node address \x00\x20 (32 decimal) (640m/641m ONLY)
Input_VolumeChX	A	Sets the volume for input channel X 0d (0%) = -inf (less then -60 dB) 65535d (100%) = 20.0 dB
tx_moduleX	S	Connect to zone X module's 'module_tx'. In other words, this can come from either a 'dbxZonePRO640_41_40m_41m_Router.umc' module or a 'dbxZonePRO640m_41m_Mixer.umc' module (Mixer for 640m/641m ONLY) depending on the configuration loaded inside the ZonePRO.
rx_CommPort	S	To be connected to rx of the com port

FEEDBACK:



Input_VolChX_fb	A	Current volume for input channel X
rx_moduleX	S	Connect to zone X module's 'module_rx'. In other words, this can come from either a 'dbxZonePRO640_41_40m_41m_Router.umc' module or a 'dbxZonePRO640m_41m_Mixer.umc' module (Mixer for 640m/641m ONLY) on the configuration loaded inside the ZonePRO.
tx_CommPort	S	To be connected to tx of the com port

PARAMETERS:

ObID_X	S	<p>The address to which commands have to be send to reach the appropriate control. Usually those will be:</p> <table border="1"> <thead> <tr> <th></th><th>640/641</th><th>640m/641m</th></tr> </thead> <tbody> <tr> <td>obID_Module1:</td><td>\x01\x05\x00\x1E</td><td>\x01\x05\x00\x14</td></tr> <tr> <td>obID_Module2:</td><td>\x01\x05\x01\x1F</td><td>\x01\x05\x01\x15</td></tr> <tr> <td>obID_Module3:</td><td>\x01\x05\x02\x20</td><td>\x01\x05\x02\x16</td></tr> <tr> <td>obID_Module4:</td><td>\x01\x05\x03\x21</td><td>\x01\x05\x03\x17</td></tr> <tr> <td>obID_inputVol1:</td><td>\x01\x01\x00\x00</td><td></td></tr> <tr> <td>obID_inputVol2:</td><td>\x01\x01\x01\x01</td><td></td></tr> <tr> <td>obID_inputVol3:</td><td>\x01\x01\x02\x02</td><td></td></tr> <tr> <td>obID_inputVol4:</td><td>\x01\x01\x03\x03</td><td></td></tr> <tr> <td>obID_inputVol5:</td><td>\x01\x01\x04\x04</td><td></td></tr> <tr> <td>obID_inputVol6:</td><td>\x01\x01\x05\x05</td><td></td></tr> </tbody> </table> <p>However, since these addresses will differ depending on the unit's configuration, please ask the dbx installer for the correct information. See http://www.dbxpro.com/Download/index.htm for help documents showing how to get these objectID's, and for detailed protocol specifications</p>		640/641	640m/641m	obID_Module1:	\x01\x05\x00\x1E	\x01\x05\x00\x14	obID_Module2:	\x01\x05\x01\x1F	\x01\x05\x01\x15	obID_Module3:	\x01\x05\x02\x20	\x01\x05\x02\x16	obID_Module4:	\x01\x05\x03\x21	\x01\x05\x03\x17	obID_inputVol1:	\x01\x01\x00\x00		obID_inputVol2:	\x01\x01\x01\x01		obID_inputVol3:	\x01\x01\x02\x02		obID_inputVol4:	\x01\x01\x03\x03		obID_inputVol5:	\x01\x01\x04\x04		obID_inputVol6:	\x01\x01\x05\x05	
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TESTING:

OPS USED FOR TESTING:	V4.001.1012
COMPILER USED FOR TESTING:	V2.12
SAMPLE PROGRAM:	dbxZonePRO640_41_DemoProgram.smw and dbxZonePRO640m_41m_DemoProgram.smw
REVISION HISTORY:	V. 1.0 – Creation V. 2.0 – DBX manufacturer Update V. 3.0 – DBX manufacturer Added Support for the 640m and 641m