Manufacturer: Yamaha

This module manages the values of the Yamaha DME
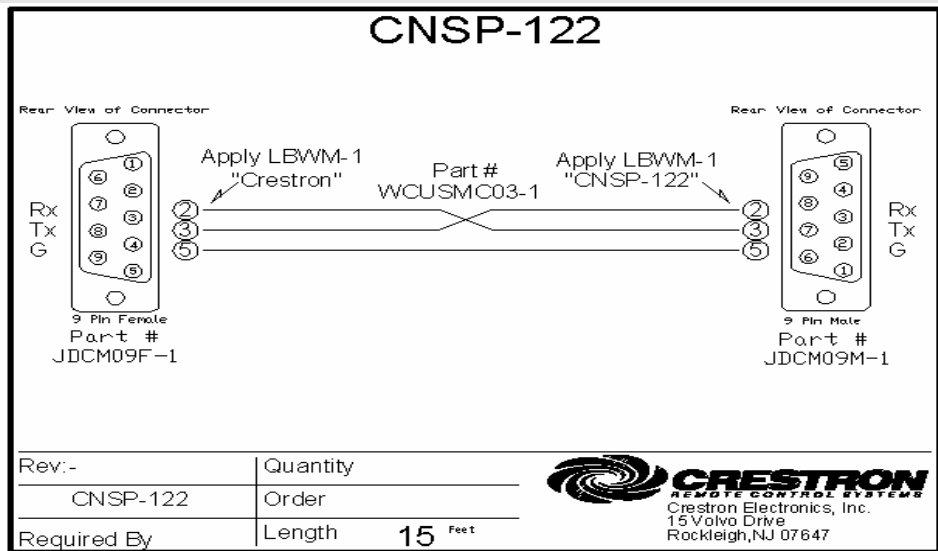
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GENERAL INFORMATION

SIMPLWINDOWS NAME:	Yamaha DME Value
CATEGORY:	Device interface
VERSION:	1.1
SUMMARY:	This module manages the values (curve table method) of the Yamaha DME
GENERAL NOTES:	The Yamaha DME demo program consists of 5 modules:

- Meter: This module controls the meter values of a Yamaha DME meter RCSL parameter
- Scene: This module controls the scenes of a Yamaha DME
- On Off: This module controls the on off of a CSL parameter of the DME
- Value (db): This module controls the value of a CSL parameter of the DME (in db method)
- Value (curve table): This module controls the value of a CSL parameter of the DME (curve table method)

The following only applies for the Curve table method

The Analog values for many components of the Yamaha DME-N are different from each other. A fader for example goes from −∞ to +10 (or 0) while the hold of an automixer ranges from 101ms to 1.96s. This together with the fact that most analog value ranges are not linear, makes it impossible to create one generic Crestron module which calculates feedback in a proper way. That's why Crestron chose to handle feedback in a raw format. I.e. the Yamaha Crestron module will give feedback exactly as it has been received from the Yamaha. The downside of this way of working is that the Yamaha doesn't return the actual value of an analog parameter. For example: when a fader's level reaches it's minimum value (-∞), it will return 0d. Then, when the level reaches it's maximum value (+10db or 0db), it will return 1023d. In this example, the Crestron module will return values ranging from 0d to 1023d. In order for the installer to know which return feedback corresponds to which actual value, we included an excel file that lists all objects together with their parameters. (DME_Min_Max_Value_List.xls)
In the DME_Min_Max_Value_List.xls document every sheet represents one of the DME objects. For every object there's a list of parameters with their min and max values.
The columns are:
- Protocol Min: the minimum value returned by the Yamaha and thus the minimum value returned by the Crestron module

- Protocol Max : the maximum value returned by the Yamaha and thus the maximum value returned by the Crestron module

- DME Min: the actual minimum value of the parameter as displayed in the DME designer software

- DME Max: the actual minimum value of the parameter as displayed in the DME designer software

For the fader's level parameter (as described above) this will be:

Protocol Min	Protocol Max	DME Min	DME Max
0	1023	-∞	+10dB (or 0db)

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	On the module you will notice optional value, step and parameter analog signals.
	Step: is the value with which the analog value will relatively increase/decrease, a bit of trial and error will be necessary here. Value: Hard coded value to which the parameter should be set. (Protocol-wise) See the demo program for correct use.
CRESTRON HARDWARE REQUIRED:	Yamaha DME devices can be controlled over either TCP-IP or RS-232. The demo program implements both ways.
	You'll need an X or 2 series processor with, depending on the way of control, a com port and/or Ethernet port.
SETUP OF CRESTRON HARDWARE:	The demo program was tested on a MC2E with TPS-15
VENDOR FIRMWARE:	V3.06
VENDOR SETUP:	The demo program was tested over RS-232 on a DME-64N with Yamaha DME configuration file: Crestron RS232.daf
	The demo program was tested over TCP-IP on a DME4io-ES with Yamaha DME configuration file: Crestron TCP-IP.daf
CABLE DIAGRAM:	

CNSP-122

Rear View of Connector

Rx Tx G

Apply LBWM-1 "Crestron"

Part # WCUSMC03-1

Apply LBWM-1 "CNSP-122"

Rx Tx G

9 Pin Female
Part # JDCM09F-1

9 Pin Male
Part # JDCM09M-1

Rev:-	Quantity	
CNSP-122	Order	
Required By	Length	15 Feet

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CONTROL:

Up	D	Pulse to increase the value by [Step]
Down	D	Pulse to decrease the value by [Step]
[Value]	A	Optional analog input to set the value of the value parameter to the specified amount
[Step]	A	Optional analog input that specifies by which size the value should changed (use this if multiple step sizes need to be used on 1 or more RCSL value parameters)
[Parameter]	A	Optional analog input to specify which value parameter should be controlled (this signal is used when we want to control multiple RCSL value parameters with one value module)
Rx	S	To be connected to the RX of the com port (or tcp/ip client)

FEEDBACK:

Value_fb	A	Return the current value of the value parameter
Tx	S	To be connected to the Tx of the com port (or tcp/ip client)

PARAMETERS:

Step	A	Analog input to specify which step size should be used
Parameter	A	Optional input to specify which value parameter should be controlled

TESTING:

OPS USED FOR TESTING:	v3.155.1143
COMPILER USED FOR TESTING:	Simpl windows 2.08.38
SAMPLE PROGRAM:	Yamaha DME Demo Program.smw
REVISION HISTORY:	V. 1.0

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