

# MXCW

Command Strings

MXCWAPT command strings for control systems, such as Crestron or Extron.

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### MXCW Command Strings

## MXCWAPT Microflex® Complete Wireless Command Strings

The device is connected via Ethernet to a control system, such as AMX, Crestron or Extron.

Connection: Ethernet (TCP/IP; select "Client" in the AMX/Crestron program)

Port: 2202

#### Conventions

There are 4 types of strings:

GET	Finds the status of a parameter. After the AMX/Crestron sends a GET command, the device responds with a REPORT string
SET	Changes the status of a parameter. After the AMX/Crestron sends a SET command, the device will respond with a REPORT string to indicate the new value of the parameter.
REP	When the device receives a GET or SET command, it will reply with a REPORT command to indicate the status of the parameter. REPORT is also sent by the device when a parameter is changed on the MXCWAPT, through the GUI, or a conference unit.
SAMPLE	Used for metering audio levels.

All messages sent and received are ASCII. Note that the level indicators and gain indicators are also in ASCII.

Most parameters will send a REPORT command when they change. Thus, it is not necessary to constantly query parameters. The device will send a REPORT command when any of these parameters change.

#### Indexing

Indexing is used to specifically identify upon what the command string is acting.

0	All Channels / All Seat Numbers
1 through 1	Aux Input
1 through 1	Aux Output
1 through 10	Dante Input
1 through 10	Dante Output
1 through 65535	Seat Number
1 through 50	Voting Configuration
1 through 5	Voting Button

# Command Strings

### MIC\_STATUS

Description	Retrieve and control microphone status
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  Using a value of 0 is only applicable to the GET command.  The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	OFF ON
Examples	If device is available:  < GET 2 MIC_STATUS >  < REP 2 MIC_STATUS OFF >  < SET 5 MIC_STATUS ON >  < REP 5 MIC_STATUS ON >  If mic is enabled via another source other than TPCI:  < REP 1 MIC_STATUS ON >  If device is registered, but unavailable:  < GET 2 MIC_STATUS >  < REP 2 MIC_STATUS UNKNOWN >  < SET 5 MIC_STATUS ON >  < REP 5 MIC_STATUS UNKNOWN >

#### SPEAK\_REQUEST

Description	Control speaker requests
Supported Commands	SET
Indexing	Seat Number

	Note:
	There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  Using a value of 0 is NOT accepted.
Values	TRUE
	If operation mode is automatic and speaker list is NOT full:
	< SET 2 SPEAK_REQUEST TRUE >
	< REP 2 SPEAK_LIST_STATUS IN_LIST >
	If operation mode is manual and request list is NOT full:
Examples	< SET 2 SPEAK_REQUEST TRUE >
	< REP 2 REQUEST_LIST_STATUS IN_LIST >
	If device is registered, but unavailable:
	< SET 2 SPEAK_REQUEST TRUE >
	< REP 2 SPEAK_REQUEST UNKNOWN >

#### SPEAK\_RELEASE

Description	Release speakers in list
Supported Commands	SET
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  Using a value of 0 is NOT accepted.
Values	TRUE
Examples	If in speaker list:  < SET 2 SPEAK_RELEASE TRUE >  < REP 2 SPEAK_LIST_STATUS NOT_IN_LIST >  If in request list:  < SET 2 SPEAK_RELEASE TRUE >  < REP 2 REQUEST_LIST_STATUS NOT_IN_LIST >  If device is registered, but unavailable:

< SET 2 SPEAK_RELEASE TRUE > < REP 2 SPEAK_RELEASE UNKNOWN >
Specified seat number is NOT in speaker or request list (no response given):
< SET 2 SPEAK_RELEASE TRUE >

### ALL\_DELEGATE\_MIC\_OFF

Description	Turn all delegate microphones off
Supported Commands	SET
Indexing	None
Values	TRUE
Examples	< SET ALL_DELEGATE_MIC_OFF TRUE > < REP 1 MIC_STATUS OFF > < REP 2 MIC_STATUS OFF >

### EXCLUSIVE\_MUTE

Description	Assign exclusive mute
Supported Commands	SET and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  Using a value of 0 is NOT accepted.  The seat number requesting exclusive mute must correspond to a seat number assigned to a chairman.
Values	OFF ON
Examples	Acquire exclusive mute if the chairman is NOT already in the speaker list:  < SET 1 EXCLUSIVE_MUTE ON >  < REP 1 EXCLUSIVE_MUTE ON >  < REP GLOBAL_MUTE ON >  < REP 1 SPEAK_LIST_STATUS IN_LIST >

Release exclusive mute if no other chairman is holding global mute:

<SET 1 EXCLUSIVE\_MUTE OFF >
<REP 1 EXCLUSIVE\_MUTE OFF >
<REP GLOBAL\_MUTE OFF >
<REP 1 SPEAK\_LIST\_STATUS NOT\_IN\_LIST >

Does NOT acquire exclusive mute (no response given; seat is not a chairman or another chairman already holds exclusive mute):

<SET 1 EXCLUSIVE\_MUTE ON >

If device is registered, but unavailable:

<SET 1 EXCLUSIVE\_MUTE ON >
<REP 1 EXCLUSIVE\_MUTE ON >

#### GLOBAL\_MUTE

Description	Control global mute
Supported Commands	GET, SET, and REP
Indexing	None  Note: The REP reflects whether the global mute state has been taken by any controller (including TPCI). There can be more than one controller which simultaneously holds the global mute.
Values	OFF ON
Examples	< GET GLOBAL_MUTE > < REP GLOBAL_MUTE OFF >  Acquire global mute:  < SET GLOBAL_MUTE ON > < REP GLOBAL_MUTE ON >  Release global mute:  < SET GLOBAL_MUTE OFF > < REP GLOBAL_MUTE OFF >

#### REQUEST\_LIST\_STATUS

Description	Search status of seats in request list
Supported Commands	GET and REP
Indexing	Seat Number

	Note:	
	There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."	
	The GET command with an index of 0 will GET ALL seat numbers of registered devices.	
Values	NOT_IN_LIST IN_LIST	
Examples	< GET 1 REQUEST_LIST_STATUS > < REP 1 REQUEST_LIST_STATUS NOT_IN_LIST >	

### SPEAK\_LIST\_STATUS

Description	Search status of seats in speaker list	
Supported Commands	GET and REP	
Seat Number  Note:  There are 65535 valid seat numbers, but only some may refer to online register Indexing seat numbers not referring to online devices may result in no responsiturn value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of register.		
Values	NOT_IN_LIST IN_LIST	
<pre>&lt; GET 1 SPEAK_LIST_STATUS &gt; &lt; REP 1 SPEAK_LIST_STATUS NOT_IN_LIST &gt;</pre>		

#### CLEAR\_REQUEST\_LIST

Description	Clear seats from request list	
Supported Commands	SET	
Indexing	None	
Values	TRUE	

< SET CLEAR_REQUEST_LIST TRUE >
< REP 1 REQUEST_LIST_STATUS NOT_IN_LIST >
< REP 2 REQUEST_LIST_STATUS NOT_IN_LIST >
< SET CLEAR_REQUEST_LIST TRUE >  *No response is provided when the request list is empty.*
<

#### NEXT\_MIC\_ON

Description	Turn next microphone in request list on	
Supported Commands	SET	
Indexing	None	
Values	TRUE	
Examples	< SET NEXT_MIC_ON TRUE > < REP 4 MIC_STATUS ON >	

#### MAX\_TOTAL\_SPEAKERS

Description	Set maximum number of speakers allowed	
Supported Commands	GET, SET, and REP	
Indexing	None	
Values	Format: Numeric  1 character of fixed output	
Examples	< GET MAX_TOTAL_SPEAKERS > < REP MAX_TOTAL_SPEAKERS 2 > < SET MAX_TOTAL_SPEAKERS 2 > < REP MAX_TOTAL_SPEAKERS 2 >	

### MAX\_DELEGATE\_SPEAKERS

Description Set maximum number of delegate speakers	
Supported Commands GET, SET, and REP	
Indexing None	

Values	Format: Numeric  1 character of fixed output
Examples	< GET MAX_DELEGATE_SPEAKERS > < REP MAX_DELEGATE_SPEAKERS 3 > < SET MAX_DELEGATE_SPEAKERS 3 > < REP MAX_DELEGATE_SPEAKERS 3 >

#### MAX\_NUM\_REQUESTS

Description	Set maximum number of delegates allowed in request list	
Supported Commands	GET, SET, and REP	
Indexing	None	
Values	Format: Numeric  1 character of fixed output	
Examples	< GET MAX_NUM_REQUESTS > < REP MAX_NUM_REQUESTS 5 > < SET MAX_NUM_REQUESTS 5 > < REP MAX_NUM_REQUESTS 5 >	

#### OPERATION\_MODE

Description	Retrieve and set operation mode	
Supported Commands	GET, SET, and REP	
Indexing	None	
Values	AUTO  MANUAL  FIFO  HANDSFREE	
< GET OPERATION_MODE > < REP OPERATION_MODE MANUAL >		

< SET OPERATION_MODE AUTO >	
< REP OPERATION_MODE AUTO >	

### INTERRUPT\_MODE

Description	Retrieve and set interruption mode	
Supported Commands	GET, SET, and REP	
Indexing	None	
Values	NOT_ALLOWED HIGHER_PRIORITY EQUAL_AND_HIGHER_PRIORITY	
<pre>&lt; GET INTERRUPT_MODE &gt;</pre>		

#### MIC\_PRIORITY

Description	Retrieve and set microphone priority
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET and SET command with an index of 0 will GET and SET ALL seat numbers of registered devices.
Values	Format: Numeric  1 character of fixed output
Examples	< GET 1 MIC_PRIORITY > < REP 1 MIC_PRIORITY 2 > < SET 1 MIC_PRIORITY 3 > < REP 1 MIC_PRIORITY 3 >

### LOUDSPEAKER\_VOLUME

Description	Set the volume of loudspeakers for conference units
Supported Commands	GET, SET, and REP
Indexing	None
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 6 dB in 1 dB steps  TPCI range: 000 to 036 in steps of 1
Examples	< GET LOUDSPEAKER_VOLUME > < REP LOUDSPEAKER_VOLUME 004 > < SET LOUDSPEAKER_VOLUME 12 > < REP LOUDSPEAKER_VOLUME 012 >

### AUX\_INPUT\_PAD

Description	Retrieve and set aux input pad
Supported Commands	GET, SET, and REP
Indexing	Aux Input  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux input.
Values	OFF ON
Examples	< GET 1 AUX_INPUT_PAD > < REP 1 AUX_INPUT_PAD OFF > < SET 1 AUX_INPUT_PAD ON > < REP 1 AUX_INPUT_PAD ON >

#### AUX\_INPUT\_GAIN

Description	Retrieve and set aux input gain
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Supported Commands	GET, SET, and REP
Indexing	Aux Input  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux input.
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 10 dB in 1 dB steps  TPCI range: 000 to 040 in steps of 1
Examples	< GET 1 AUX_INPUT_GAIN > < REP 1 AUX_INPUT_GAIN 4 > < SET 1 AUX_INPUT_GAIN 12 > < REP 1 AUX_INPUT_GAIN 12 >

#### AUX\_OUTPUT\_GAIN

Description	Retrieve and set aux output gain
Supported Commands	GET, SET, and REP
Indexing	Aux Output  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux output.
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 0 dB in 1 dB steps  TPCI range: 000 to 030 in steps of 1
Examples	< GET 1 AUX_OUTPUT_GAIN > < REP 1 AUX_OUTPUT_GAIN 4 > < SET 1 AUX_OUTPUT_GAIN 12 > < REP 1 AUX_OUTPUT_GAIN 12 >

### MIC\_GAIN

Description	Control the microphone gain of conference units
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  Using the GET and SET commands with an index value of 0 will GET and SET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.  If AGC is enabled this command will report existing value.
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 10 dB in 1 dB steps  TPCI range: 000 to 040 in steps of 1
Examples	If device is available:  < GET 1 MIC_GAIN >  < REP 1 MIC_GAIN 4 >  < SET 1 MIC_GAIN 12 >  < REP 1 MIC_GAIN 12 >  If device is registered, but unavailable:  < GET 1 MIC_GAIN >  < REP 1 MIC_GAIN UNKNOWN >  < SET 1 MIC_GAIN 12 >  < REP 1 MIC_GAIN 12 >  < REP 1 MIC_GAIN UNKNOWN >

#### DANTE\_INPUT\_GAIN

Description	Retrieve and set Dante input gain
Supported Commands	GET, SET, and REP
Indexing	Dante Input

	Note: Using the GET and SET commands with an index value of 0 will GET and SET ALL Dante inputs.
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 10 dB in 1 dB steps  TPCI range: 000 to 040 in steps of 1
Examples	< GET 1 DANTE_INPUT_GAIN > < REP 1 DANTE_INPUT_GAIN 4 > < SET 1 DANTE_INPUT_GAIN 12 > < REP 1 DANTE_INPUT_GAIN 12 >

### DANTE\_OUTPUT\_GAIN

Description	Retrieve and set Dante output gain
Supported Commands	GET, SET, and REP
Indexing	Dante Output  Note: Using the GET and SET commands with an index value of 0 will GET and SET ALL Dante outputs.
Values	Format: Numeric  3 characters of fixed output  Values REP and SET are offset by 30  Actual_Value = SetOrReportedValue - 30  Actual range: -30 to 0 dB in 1 dB steps  TPCI range: 000 to 030 in steps of 1
Examples	< GET 1 DANTE_OUTPUT_GAIN > < REP 1 DANTE_OUTPUT_GAIN 4 > < SET 1 DANTE_OUTPUT_GAIN 12 > < REP 1 DANTE_OUTPUT_GAIN 12 >

### AUX\_INPUT\_AGC

Description	Retrieve and set aux input AGC
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Supported Commands	GET, SET, and REP
Indexing	Aux Input  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux input.
Values	OFF ON
Examples	< GET 1 AUX_INPUT_AGC > < REP 1 AUX_INPUT_AGC ON > < SET 1 AUX_INPUT_AGC OFF > < REP 1 AUX_INPUT_AGC OFF >

### DANTE\_INPUT\_AGC

Description	Retrieve and set Dante input AGC
Supported Commands	GET, SET, and REP
Indexing	Dante Input  Note: Using the GET and SET commands with an index value of 0 will GET and SET ALL Dante inputs.
Values	OFF ON
Examples	< GET 1 DANTE_INPUT_AGC > < REP 1 DANTE_INPUT_AGC ON > < SET 1 DANTE_INPUT_AGC OFF > < REP 1 DANTE_INPUT_AGC OFF >

#### DANTE\_INPUT\_MUTE

Description	Retrieve and set Dante input mute
Supported Commands	GET, SET, and REP
Indexing	Dante Input  Note: Using the GET and SET commands with an index value of 0 will GET and SET ALL Dante inputs.
Values	OFF

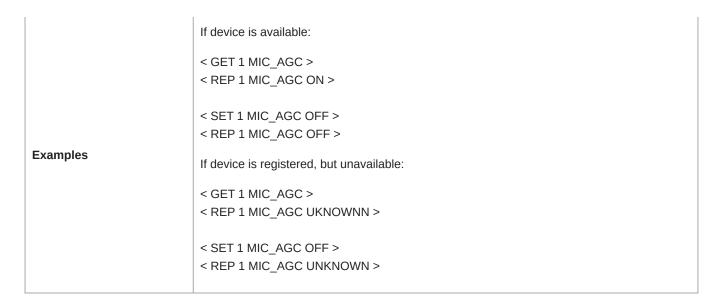
	ON
Examples	< GET 1 DANTE_INPUT_MUTE > < REP 1 DANTE_INPUT_MUTE ON > < SET 1 DANTE_INPUT_MUTE OFF > < REP 1 DANTE_INPUT_MUTE OFF >

### DANTE\_OUTPUT\_MUTE

Description	Retrieve and set Dante output mute
Supported Commands	GET, SET, and REP
Indexing	Dante Output  Note: Using the GET and SET commands with an index value of 0 will GET and SET ALL Dante outputs.
Values	OFF ON
Examples	< GET 1 DANTE_OUTPUT_MUTE > < REP 1 DANTE_OUTPUT_MUTE ON > < SET 1 DANTE_OUTPUT_MUTE OFF > < REP 1 DANTE_OUTPUT_MUTE OFF >

### MIC\_AGC

Description	Retrieve and set microphone AGC
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET and SET command with an index of 0 will GET and SET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	OFF ON



#### FLASH

Description	Turn on flash to identify a device
Supported Commands	GET, SET, and REP
Indexing	No index flashes APT. Index (Seat Number) flashes microphone  Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET and SET command with an index of 0 will GET and SET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	OFF ON
Examples	Flash APT:  < GET FLASH >  < REP FLASH ON >  < SET FLASH ON >  < REP FLASH ON >  Flash conference unit if device is available:  < GET 1 FLASH >  < REP 1 FLASH OFF >

< SET 1 FLASH ON > < REP 1 FLASH ON >
Flash conference unit if device is registered, but unavailable:
< GET 1 FLASH > < REP 1 FLASH UNKNOWN >
< SET 1 FLASH ON > < REP 1 FLASH UNKNOWN >

#### ROLE

Description	Retrieve and set role for device
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET and SET command with an index of 0 will GET and SET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	DELEGATE CHAIRMAN LISTENER AMBIENT REMOTE_CALLER DUAL_DELEGATE
Examples	1. GET all roles to check availability.  If device is available:  < GET 1 ROLE >  < REP 1 ROLE DELEGATE >  < SET 1 ROLE CHAIRMAN >  < REP 1 ROLE CHAIRMAN >  If device is registered, but unavailable:

< GET 1 ROLE > < REP 1 ROLE UNKNOWN > < SET 1 ROLE CHAIRMAN > < REP 1 ROLE UNKNOWN > 2. SET seat number to DUAL\_DELEGATE. Notice a new device shows online. < SET 1 ROLE DUAL\_DELEGATE > < REP 1 ROLE DUAL\_DELEGATE > < REP 2 UNIT\_AVAILABLE AVAILABLE > 3. Check that the new device is the dual delegate. < GET 0 ROLE > < REP 1 ROLE DUAL DELEGATE > < REP 2 ROLE DUAL\_DELEGATE > 4. Turn the dual delegate unit back to a single delegate unit. < SET 2 ROLE DELEGATE > < REP 2 ROLE DELEGATE > < REP 1 UNIT\_AVAILABLE NOT\_REGISTERED > 5. Ensure only one delegate exists. < GET 0 ROLE > < REP 2 ROLE DELEGATE > 6. SET the role for all units. < SET 0 ROLE DELEGATE > < REP 2 ROLE DELEGATE > < REP 1 UNIT\_AVAILABLE NOT\_REGISTERED > < REP 3 ROLE DELEGATE > < REP 4 ROLE DELEGATE > < REP 6 ROLE DELEGATE > < REP 7 ROLE DELEGATE > < REP 8 ROLE DELEGATE >

#### SEAT\_NAME

Description	Retrieve seat name
Supported Commands	GET, SET, and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices.  Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."

	The GET and SET command with an index of 0 will GET and SET ALL seat numbers of registered devices.
Values	UTF-8 data is allowed with the exception of characters found in the TPCI protocol: {,},<,> Maximum data size for GET: 512 bytes  Maximum data size for SET: 128 bytes  Note: Padding will occur up to 128 bytes. Padding is only guaranteed to be consistent when dealing with ASCII character sets.
Examples  Note: Text between asterisks, "* *," explains actions taken by the system. Only text within angle brackets, "<>," is displayed.  Note: 128 bytes total occur in the brackets, "{}." Not all bytes are shown in these examples due to size limitations of the document.	If NFC card is NOT inserted:  < GET 1 SEAT_NAME >  < REP 1 SEAT_NAME {JOHN} >  < SET 1 SEAT_NAME {DOUG} >  < REP 1 SEAT_NAME {DOUG} >  If NFC card (Card Name = BILL) is inserted:  < GET 1 SEAT_NAME >  < REP 1 SEAT_NAME {BILL} >  < SET 1 SEAT_NAME {BILL} >  < SET 1 SEAT_NAME {DOUG} >  < REP ERR >  If NFC card (Card Name = LUKE) is inserted and removed:  < GET 1 SEAT_NAME >  < REP 1 SEAT_NAME {GARY} >  * NFC CARD INSERTED *  < REP 1 SEAT_NAME {LUKE} >  * NFC CARD REMOVED *  < REP 1 SEAT_NAME {GARY} >

### RF\_POWER

Description	Retrieve and set RF power
Supported Commands	GET, SET, and REP
Indexing	None
Values	OFF LOW MEDIUM

	HIGH
	MAXIMUM
	LOST DE DOMES.
	< GET RF_POWER >
	< REP RF_POWER LOW >
Examples	
	< SET RF_POWER HIGH >
	< REP RF_POWER HIGH >

### DEVICE\_ID

Description	Retrieve and set device ID
Supported Commands	GET, SET, and REP
Indexing	None
Values	Format: Fixed string 31 character for REP  1-31 characters from the set: A-Z,a-z,0-9, and hyphen "-"  Note: The device ID cannot begin or end with the hyphen "-"
Examples  Note: 31 characters total occur in the brackets, "{}." Not all character spaces are shown in these examples due to size limitations of the document.	< GET DEVICE_ID > < REP DEVICE_ID {BILL} > < SET DEVICE_ID {DOUG} > < REP DEVICE_ID {DOUG} >

### ALL

Description	Retrieve all supported commands
Supported Commands	GET and REP
Indexing	None
Values	None
Examples	< GET ALL >  Responds with REP for all supported commands

#### BATT\_CHARGE

Description	View battery charge status
Supported Commands	GET and REP

Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	Format: 3 numbers  000-100: Percent status of charge
Examples	If device is available:  < GET 5 BATT_CHARGE >  < REP 5 BATT_CHARGE 85 >  If device is registered, but unavailable:  < GET 3 BATT_CHARGE >  < REP 3 BATT_CHARGE UNKNOWN >

### BATT\_RUN\_TIME

Description	Monitor battery life
Supported Commands	GET and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	Format: 5 numbers  00000-65535: Corresponds to the minutes until the conference unit turns off, according to the current power level
Examples	If device is available:  < GET 1 BATT_RUN_TIME >  < REP 1 BATT_RUN_TIME 00045 >  If device is registered, but unavailable:

< GET 5 BATT_RUN_TIME >
< REP 5 BATT_RUN_TIME UKNOWN

### BATT\_CYCLE

Description	Monitor individual battery cycles
Supported Commands	GET and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	Format: 4 numbers 0000-9999
Examples	If device is available:  < GET 2 BATT_CYCLE >  < REP 2 BATT_CYCLE 0006 >  If device is registered, but unavailable:  < GET 5 BATT_CYCLE >  < REP 5 BATT_CYCLE UNKNOWN >

#### BATT\_HEALTH

Description	Monitor battery health percentages
Supported Commands	GET and REP
Indexing	Seat Number
	Note:
	There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."
	The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	Format: 3 numbers

	000-100: Percent status of health
	255: Unknown, or not applicable
	If device is available:
	< GET 4 BATT_HEALTH >
	< REP 4 BATT_HEALTH 098 >
Examples	If device is registered, but unavailable:
	< GET 1 BATT_HEALTH >
	< REP 1 BATT_HEALTH UNKNOWN >

### UNIT\_AVAILABLE

Description	Indicates device is available
Supported Commands	GET and REP
Indexing	Note:  There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of registered devices.
Values	AVAILABLE  OFFLINE  NOT_REGISTERED
Examples  Note: Text between asterisks, "* *," explains actions taken by the system. Only text within angle brackets, "< >," is displayed.	If device is available:  < GET 1 UNIT_AVAILABLE >  < REP 1 UNIT_AVAILABLE AVAILABLE >  If device becomes registered and is available:  < REP 2 UNIT_AVAILABLE AVAILABLE >  If registered device goes offline:  < REP 3 UNIT_AVAILABLE OFFLINE >  If device is not registered:  < GET 4 UNIT_AVAILABLE >  < REP 4 UNIT_AVAILABLE NOT_REGISTERED >  If registered device becomes deregistered:

- < GET 5 UNIT\_AVAILABLE >
- < REP 5 UNIT\_AVAILABLE AVAILABLE >
- < REP 5 UNIT\_AVAILABLE NOT\_REGISTERED >

NOT\_REGISTERED will not be returned unless command targets an unregistered seat number:

- < GET 0 UNIT\_AVAILABLE >
- < REP 1 UNIT\_AVAILABLE AVAILABLE >
- < REP 2 UNIT\_AVAILABLE AVAILABLE >
- < REP 3 UNIT\_AVAILABLE OFFLINE >

#### AUDIO\_METER\_RATE

Description	Set and view audio metering rate		
Supported Com- mands	GET, SET, and REP		
Indexing	None		
Values	Where <b>rate</b> is from 0= off, 100-99999= interval between reported metering samples in milliseconds.  Audio sampling messages are sent periodically at the rate specified in the AUDIO_METER_RATE message.		
Examples	Audio metering:  < SET AUDIO_METER_RATE 1000 >  < REP AUDIO_METER_RATE 1000 >  < GET AUDIO_METER_RATE >  < REP AUDIO_METER_RATE 1000 >  < AUDIO_SAMPLE auxinPeak auxinRms slot1Peak slot1Rms slot2Peak slot2Rms slotXPeak slotXRms >	Where auxInPeak is the aux input peak audio level.  Where auxInRms is the aux input RMS audio level.  Where slot[N]Peak is the uplink slot [n] peak audio level.  Where slot[N]Rms is the uplink slot [n] RMS audio level.  Audio RMS Level is a three digit value, which takes on the value -98 dB to 0 dB offset by 98 (i.e. 000-098). actualAudioRMS = aud - 98	

### RF\_METER\_RATE

Description	Set and view RF metering rate		
Supported Com- mands	GET, SET, and REP		
Indexing	None		
Values	Where <b>rate</b> is from 0= off, 100-99999= interval between reported metering samples in milliseconds.  RF sampling messages are sent periodically at the rate specified in the RF_METER_RATE message.		
Examples	RF metering:  < SET RF_METER_RATE 1000 >  < REP RF_METER_RATE 1000 >  < GET RF_METER_RATE >  < REP RF_METER_RATE 1000 >  < REP seatNum1 RSSI value1 >  < REP seatNum2 RSSI value2 >  < REP seatNumX RSSI valueX >	Where seatNum[N] is the seat number being reported on.  Where value[N]is the average estimated receive signal power, in dBm, at the conference unit.	

### AUX\_INPUT\_MUTE

Description	Retrieve and set aux input mute
Supported Commands	GET, SET, and REP
Indexing	Aux Input  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux input.
Values	OFF ON
Examples	< GET 1 AUX_INPUT_MUTE > < REP 1 AUX_INPUT_MUTE ON > < SET AUX_INPUT_MUTE OFF > < REP AUX_INPUT_MUTE OFF >

### AUX\_OUTPUT\_MUTE

Description	Retrieve and set aux output mute
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Supported Commands	GET, SET, and REP
Indexing	Aux Output  Note: Using the GET and SET commands with an index value of 0 or 1 will GET and SET the aux output.
Values	OFF ON
Examples	< GET 1 AUX_OUTPUT_MUTE > < REP 1 AUX_OUTPUT_MUTE ON > < SET 1 AUX_OUTPUT_MUTE OFF > < REP 1 AUX_OUTPUT_MUTE OFF >

#### MODEL

Description	Retrieve model number
Supported Commands	GET
Indexing	None
Values	Format: Fixed string of 32 characters for REP  Characters from the set: A-Z and 0-9
Examples  Note: 32 characters total occur in the brackets, "{}." Not all character spaces are shown in these examples due to size limitations of the document.	< GET MODEL > < REP MODEL {MXCWAPT} >

### START\_VOTE

Description	Start a new voting session
Supported Commands	SET
Indexing	None
Values	Format: Numeric  1 to 2 characters of fixed input between 1 and 50 representing the voting configuration

Examples	<pre></pre>
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#### COMPLETE\_VOTE

Description	Complete voting session
Supported Commands	SET
Indexing	None
Values	TRUE
Examples	<pre> <set 3="" start_vote=""> <rep 03="" voting_configuration=""> <rep active="" voting_state=""> <rep 0="" 1="" interim_voting_result=""> <rep 0="" 2="" interim_voting_result=""> <rep 1="" 3="" interim_voting_result=""> <rep 1="" interim_voting_result=""> <rep 1="" 3="" interim_voting_result=""> <rep 1="" 3="" interim_voting_result=""> <rep 1="" 3="" interim_voting_result=""> <rep complete="" voting_state=""> <rep complete="" voting_state=""> <rep share_voting_results="" true=""> </rep></rep></rep></rep></rep></rep></rep></rep></rep></rep></rep></rep></set></pre> If voting state is inactive or complete: <pre> <set complete_vote="" true=""> <rep err=""></rep></set></pre>

#### PAUSE\_VOTE

Description	Pause voting session
Supported Commands	SET

Indexing	None
Values	TRUE
Examples	<pre></pre>

### RESUME\_VOTE

Description	Resume a paused voting session
Supported Commands	SET
Indexing	None
Values	TRUE
Examples	<pre> &lt; SET START_VOTE 5 &gt;  &lt; REP VOTING_CONFIGURATION 05 &gt;  &lt; REP VOTING_STATE ACTIVE &gt;  &lt; REP 1 INTERIM_VOTING_RESULT 0 &gt;  &lt; REP 2 INTERIM_VOTING_RESULT 0 &gt;  &lt; REP 3 INTERIM_VOTING_RESULT 0 &gt;  &lt; REP 4 INTERIM_VOTING_RESULT 0 &gt;  &lt; REP 5 INTERIM_VOTING_RESULT 0 &gt;  &lt; REP 1 INTERIM_VOTING_RESULT 1 &gt;  &lt; REP 4 INTERIM_VOTING_RESULT 1 &gt; </pre>

#### CANCEL\_VOTE

Description	Cancel voting session
Supported Commands	SET
Indexing	None
Values	TRUE
Examples	<pre></pre>

#### VOTING\_CONFIGURATION

Description	Retrieve current voting configuration
Supported Commands	GET and REP
Indexing	None

Values	Format: Numeric 2 characters of fixed output between 01 and 50
Examples	< GET VOTING_CONFIGURATION > < REP VOTING_CONFIGURATION 01 >

#### VOTING\_CONFIGURATION\_NAME

Description	Retrieve names of voting configurations
Supported Commands	GET and REP
Indexing	Voting Configuration
Values	UTF8 characters are allowed except those used to encapsulate TPCI: {,},<,> e.g. {1234567890123456789012345678901}  Fixed character size: 31
Examples  Note: 31 characters total occur in the brackets, "{}." Not all character spaces are shown in these examples due to size limitations of the document.	Get all voting configurations if in standalone:  < GET 0 VOTING_CONFIGURATION_NAME >  < REP 1 VOTING_CONFIGURATION_NAME {2-button voting} >  < REP 2 VOTING_CONFIGURATION_NAME {2-button voting secret} >  < REP 3 VOTING_CONFIGURATION_NAME {3-button voting} >  < REP 4 VOTING_CONFIGURATION_NAME {3-button voting secret} >  < REP 5 VOTING_CONFIGURATION_NAME {5-button voting} >  < REP 6 VOTING_CONFIGURATION_NAME {5-button voting secret} >  Get voting configuration 1 if in standalone:  < GET 1 VOTING_CONFIGURATION_NAME >  < REP 1 VOTING_CONFIGURATION_NAME {2-button voting} >

#### VOTING\_BUTTON\_NAME

Description	Retrieve labels of voting buttons
Supported Commands	GET and REP
Indexing	Voting Button
Values	Voting button name  UTF8 characters are allowed except those used to encapsulate TPCI: {,},<,>

	e.g. {1234567890123456789012345678901}
Examples  Note: 31 characters total occur in the brackets, "{}." Not all character spaces are shown in these examples due to size limitations of the document.	Fixed character size: 31  Get all voting button labels for 2-button voting:  < GET 1 0 VOTING_BUTTON_NAME >  < REP 1 1 VOTING_BUTTON_NAME {Yes} >  < REP 1 2 VOTING_BUTTON_NAME {No} >  Get all voting button labels for 3-button voting:  < GET 3 0 VOTING_BUTTON_NAME >  < REP 3 1 VOTING_BUTTON_NAME {Yes} >  < REP 3 2 VOTING_BUTTON_NAME {Abstain} >  < REP 3 3 VOTING_BUTTON_NAME {No} >  Get all voting button labels for 5-button voting:  < GET 5 0 VOTING_BUTTON_NAME {++} >  < REP 5 1 VOTING_BUTTON_NAME {++} >
	< REP 5 3 VOTING _BUTTON_NAME {0} > < REP 5 4 VOTING_BUTTON_NAME {-} > < REP 5 5 VOTING_BUTTON_NAME {} >

#### VOTING\_STATE

Description	Indicates state of the current voting session
Supported Commands	GET and REP
Indexing	None
Values	INACTIVE PAUSE ACTIVE COMPLETE
Examples	Voting session is off:  < GET VOTING_STATE >  < REP VOTING_STATE INACTIVE >  Voting session started and stopped:  < SET START_VOTE 3 >  < REP VOTING_CONFIGURATION 03 >  < REP VOTING_STATE ACTIVE >  < REP 1 INTERIM_VOTING_RESULT 0 >  < REP 2 INTERIM_VOTING_RESULT 0 >

< REP 3 INTERIM\_VOTING\_RESULT 0 > < REP 1 INTERIM\_VOTING\_RESULT 1 > < REP 3 INTERIM\_VOTING\_RESULT 1 > < SET COMPLETE\_VOTE TRUE > < REP VOTING\_STATE COMPLETE > < REP SHARE\_VOTING\_RESULTS TRUE > Voting session started and cancelled: < SET START\_VOTE 5 > < REP VOTING\_CONFIGURATION 05 > < REP VOTING STATE ACTIVE > < REP 1 INTERIM\_VOTING\_RESULT 0 > < REP 2 INTERIM\_VOTING\_RESULT 0 > < REP 3 INTERIM\_VOTING\_RESULT 0 > < REP 4 INTERIM\_VOTING\_RESULT 0 > < REP 5 INTERIM\_VOTING\_RESULT 0 > < REP 1 INTERIM\_VOTING\_RESULT 1 > < REP 4 INTERIM\_VOTING\_RESULT 1 > < SET CANCEL\_VOTE TRUE > < REP VOTING STATE INACTIVE > Voting session started and paused: < SET START VOTE 5 > < REP VOTING\_CONFIGURATION 05 > < REP VOTING\_STATE ACTIVE > < REP 1 INTERIM\_VOTING\_RESULT 0 > < REP 2 INTERIM\_VOTING\_RESULT 0 > < REP 3 INTERIM\_VOTING\_RESULT 0 > < REP 4 INTERIM\_VOTING\_RESULT 0 > < REP 5 INTERIM\_VOTING\_RESULT 0 > < REP 1 INTERIM VOTING RESULT 1 > < REP 4 INTERIM VOTING RESULT 1 > < SET PAUSE VOTE TRUE > < REP VOTING\_STATE PAUSE > < SET RESUME\_VOTE PAUSE > < REP VOTING\_STATE ACTIVE > < REP 1 INTERIM\_VOTING\_RESULT 2 > < REP 3 INTERIM\_VOTING\_RESULT 1 > < SET COMPLETE\_VOTE TRUE > < REP VOTING STATE COMPLETE > < REP SHARE\_VOTING\_RESULTS TRUE >

#### INTERIM\_VOTING\_SELECTION

Description	Shows interim voting selection
Supported Commands	REP
Indexing	Seat Number

	<b>Note:</b> There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."
Values	Voting Button
	Non-secret voting session with seats 10, 11, and 12 casting votes:
	< SET START_VOTE 3 >
	< REP VOTING_CONFIGURATION 03 >
	< REP VOTING_STATE ACTIVE >
	< REP 1 INTERIM_VOTING_RESULT 0 >
	< REP 2 INTERIM_VOTING_RESULT 0 >
	< REP 3 INTERIM_VOTING_RESULT 0 >
	< REP 10 INTERIM_VOTING_SELECTION 1 >
	< REP 1 INTERIM_VOTING_RESULT 1 >
	< REP 11 INTERIM_VOTING_SELECTION 1 >
	< REP 1 INTERIM_VOTING_RESULT 2 >
Examples	< REP 12 INTERIM_VOTING_SELECTION 3 >
	< REP 3 INTERIM_VOTING_RESULT 1 >
	< SET COMPLETE_VOTE TRUE >
	< REP VOTING_STATE COMPLETE >
	< REP SHARE_VOTING_RESULTS TRUE >
	Secret voting session:
	< SET START_VOTE 4 >
	< REP VOTING_CONFIGURATION 04 >
	< REP VOTING_STATE ACTIVE >
	< SET COMPLETE_VOTE TRUE >
	< REP VOTING_STATE COMPLETE >

### INTERIM\_VOTING\_RESULT

Description	Shows voting results as they come in from a non-secret voting session
Supported Commands	REP
Indexing	Voting Button
Values	Interim result = number of results on the specified column
Examples	Non-secret voting session:  < SET START_VOTE 3 >  < REP VOTING_CONFIGURATION 03 >  < REP VOTING_STATE ACTIVE >  < REP 1 INTERIM_VOTING_RESULT 0 >  < REP 2 INTERIM_VOTING_RESULT 0 >  < REP 3 INTERIM_VOTING_RESULT 0 >  < REP 1 INTERIM_VOTING_RESULT 1 >  < REP 3 INTERIM_VOTING_RESULT 1 >  < REP 3 INTERIM_VOTING_RESULT 1 >  < REP 3 INTERIM_VOTING_RESULT 1 >  < REP VOTING_STATE COMPLETE >

< REP SHARE_VOTING_RESULTS TRUE >
Non-secret voting session with seats 10, 11, and 12 casting votes:
< SET START_VOTE 3 >
< REP VOTING_CONFIGURATION 03 >
< REP VOTING_STATE ACTIVE >
< REP 1 INTERIM_VOTING_RESULT 0 >
< REP 2 INTERIM_VOTING_RESULT 0 >
< REP 3 INTERIM_VOTING_RESULT 0 >
< REP 10 INTERIM_VOTING_SELECTION 1 >
< REP 1 INTERIM_VOTING_RESULT 1 >
< REP 11 INTERIM_VOTING_SELECTION 1 >
< REP 1 INTERIM_VOTING_RESULT 2 >
< REP 12 INTERIM_VOTING_SELECTION 3 >
< REP 3 INTERIM_VOTING_RESULT 1 >
< SET COMPLETE_VOTE TRUE >
< REP VOTING_STATE COMPLETE >
< REP SHARE_VOTING_RESULTS TRUE >
Secret voting session:
< SET START_VOTE 4 >
< REP VOTING_CONFIGURATION 04 >
< REP VOTING_STATE ACTIVE >
< SET COMPLETE_VOTE TRUE >
< REP VOTING_STATE COMPLETE >

### FINAL\_VOTING\_SELECTION

Description	Retrieve voting selections
Supported Commands	GET and REP
Indexing	Seat Number  Note: There are 65535 valid seat numbers, but only some may refer to online registered devices. Indexing seat numbers not referring to online devices may result in no response or in a return value of "UNKNOWN."  The GET command with an index of 0 will GET ALL seat numbers of online registered devices. No response is given for seat numbers not referring to online devices.
Values	Voting Button Label
Examples	Get voting selection of all seats after a 3-button voting session (seats 10, 11, and 12 cast votes in the prior session):  < GET 0 FINAL_VOTING_SELECTION > < REP 10 FINAL_VOTING_SELECTION 1 > < REP 11 FINAL_VOTING_SELECTION 1 > < REP 12 FINAL_VOTING_SELECTION 3 >  Get voting selection of all seats after a secret vote or cancelled voting session:

< GET 0 FINAL_VOTING_SELECTION >
< REP ERR >

### FINAL\_VOTING\_RESULT

Description	Retrieve voting results
Supported Commands	GET and REP
Indexing	Voting Button
Values	Final voting result = number of results on the specified column
Examples	Get last voting sessions result after 3-button voting:  < GET 0 FINAL_VOTING_RESULT >  < REP 1 FINAL_VOTING_RESULT 5 >  < REP 2 FINAL_VOTING_RESULT 1 >  < REP 3 FINAL_VOTING_RESULT 2 >  Get last voting session result after voting cancelled:  < GET 0 FINAL_VOTING_RESULT >  < REP ERR >

#### SHARE\_VOTING\_RESULTS

Description	Indicates voting results being shared with all delegates. Secret voting sessions have to be specified.
Supported Commands	SET and REP
Indexing	None
Values	TRUE
Examples  Note: Text between asterisks, "* *," explains actions taken by the system. Only text within angle brackets, "< >," is displayed.	Sharing non-secret voting results:  < SET START_VOTE 1 >  < REP VOTING_CONFIGURATION 01 >  < REP VOTING_STATE ACTIVE >  < REP 1 INTERIM_VOTING_RESULT 0 >  < REP 2 INTERIM_VOTING_RESULT 1 >  < REP 1 INTERIM_VOTING_RESULT 1 >  < REP 2 INTERIM_VOTING_RESULT 1 >  < REP 2 INTERIM_VOTING_RESULT 1 >  < REP 2 INTERIM_VOTING_RESULT 1 >  < REP VOTING_STATE COMPLETE >

\*Non-secret voting results are automatically shared\*
< REP SHARE\_VOTING\_RESULTS TRUE >

Sharing secret voting results:

< SET START\_VOTE 2 >
< REP VOTING\_CONFIGURATION 02 >
< REP VOTING\_STATE ACTIVE >
< SET COMPLETE\_VOTE TRUE >
< REP VOTING\_STATE COMPLETE >
< REP VOTING\_STATE COMPLETE >
< REP SHARE\_VOTING\_RESULTS TRUE >
< REP SHARE\_VOTING\_RESULTS TRUE >

#### CLOSE\_VOTING\_RESULTS

Description	Close view of voting results
Supported Commands	SET and REP
Indexing	None
Values	TRUE FALSE
	Sharing and closing non-secret voting results:
Examples  Note: Text between asterisks, "* *," explains actions taken by the system. Only text within angle brackets, "< >," is displayed.	<pre></pre>

< SET SHARE_VOTING_RESULTS TRUE > < REP SHARE_VOTING_RESULTS TRUE >
*SET close voting results to TRUE for closing the voting results screen and returning to the home screen* < SET CLOSE_VOTING_RESULTS TRUE > < REP CLOSE_VOTING_RESULTS TRUE >
<pre>&lt; SET CLOSE_VOTING_RESULTS TRUE &gt;  *No response is given when the results have already been closed the 1st time on the same  voting session.*</pre>

#### AUDIO\_INPUT\_SPEAKLIST

Description	Show audio input speaklist
Supported Commands	GET, SET and REP
Indexing	None
Values	OFF ON
Examples	If AUDIO_INPUT is enabled via another source other than TPCI:  < REP AUDIO_INPUT_SPEAKLIST ON >  < GET AUDIO_INPUT_SPEAKLIST >  < REP AUDIO_INPUT_SPEAKLIST OFF >  < SET AUDIO_INPUT_SPEAKLIST ON>  < REP AUDIO_INPUT_SPEAKLIST ON >

#### WDU\_OFF

Description	Turn conference unit off
Supported Commands	SET and REP
Indexing	None
Values	TRUE
Examples	< SET WDU_OFF TRUE > < REP 1 WDU_OFF TRUE > < REP 2 WDU_OFF TRUE >

### WDU\_LOCK\_WELCOME

Description	Set welcome screen lock status
Supported Commands	GET, SET, and REP
Indexing	None
Values	DISABLED (default - doesn't lock welcome screen)  ENABLED (locks welcome screen)
Examples	< GET WDU_LOCK_WELCOME > < REP WDU_LOCK_WELCOME ENABLED > < SET WDU_LOCK_WELCOME DISABLED > < REP WDU_LOCK_WELCOME DISABLED >

#### WELCOME\_LOCK\_RESET

Description	Reset welcome screen lock to default
Supported Commands	SET and REP
Indexing	None
Values	TRUE
Examples	< SET WELCOME_LOCK_RESET TRUE > < REP WELCOME_LOCK_RESET TRUE >

#### RETAIN\_SEAT\_PERSISTENCE

Description	Retain seat information on reboot
Supported Commands	GET, SET, and REP
Indexing	None
Values	DISABLED ENABLED (default)
Examples	If device is available:  < GET RETAIN_SEAT_PERSISTENCE >  < REP RETAIN_SEAT_PERSISTENCE DISABLED >

< SET RETAIN_SEAT_PERSISTENCE ENABLED >  < REP RETAIN_SEAT_PERSISTENCE ENABLED >
If enabled via another source other than TPCI:
< REP RETAIN_SEAT_PERSISTENCE ENABLED >