DDM-2000 OC-3 Multiplexer System Commands Quick Reference Guide - 363-206-201 - Issue 6

1. HELP

? (help) obtain command/parameter list

2. SPECIAL CHARACTERS

At-sign (@) - erases an input line.
Backspace [^H [Ctrl] h (Ctrl h)] or underbar (_) - erases a character.
Question mark (?) - help
Semicolon (;) - ends a command.
Carriage return [RETURN] or [ENTER] - ends line of input
CANcel or DELete - aborts a command

3. CROSS-CONNECT

cnvt-crs:*address1,address2* (Release 3 or later) (**Caution***)
converts STS-1 cross-connections to VT1.5 cross-connections
address1=first STS1 channel to be converted
address2=second STS1 channel to be converted

dlt-crs-sts1:*address1,address2*[:**cct=***CrsType*];
(Release 2 or later) (**Caution***)
deletes STS-1 cross-connections
address1=source or "FROM" STS-1 channel
address2=destination or "TO" STS-1 channel
cct=two-way or drop and continue cross connection

dlt-crs-vt1:*address1,address2*[:**cct=***CrsType*];
(Release 3 or later) (**Caution***)
deletes VT1.5 (DS1) cross-connections
address=addresses of VT1.5 channels or DS1 ports
cct=two-way or drop and continue cross connection

ent-crs-sts1:*address1,address2*[:**cct=***CrsType*]
[,**ring=***RingID*]; (Release 2 or later)
makes STS-1 cross-connections
address1=source or "FROM" STS-1 channel
address2=destination or "TO" STS-1 channel
cct=two-way or drop and continue cross connection
ring=ring identification for drop and continue connections

ent-crs-vt1:*address1,address2*[:**cct=***CrsType*]
[,**ring=***RingID*]; (Release 3 or later) (**Caution***)
makes VT1.5 (DS1) cross-connections
address=addresses of VT1.5 channels or DS1 ports
cct=two-way or drop and continue cross connection
ring=ring identification for drop and continue connections

**Caution! Execution of this command may affect service.*

4. LOOPBACK

opr-lpbk-ec1:*address* (**Caution***)
   loops back STS1E towards fiber
      address=EC1 port (a,b,c,all)
opr-lpbk-t1:*address* (**Caution***)
   loops DS1 port toward fiber
      address=DS1 port(s) (all, {a,b,c,}-{1-7,all}-{1-4,all})
opr-lpbk-t3:*address* (**Caution***)
   loops DS3 port toward fiber
      address=DS3 port(s) {a,b,c,all}
rls-lpbk-ec1:*address*
   releases looped back STS1E port
      address=EC1 port (a,b,c,all)
rls-lpbk-t1:*address*
   releases loop on DS1 port
      address=DS1 port(s) (all, {a,b,c,}-{1-7,all}-{1-4,all})
rls-lpbk-t3:*address*
   releases loop on DS3 port
      address=DS3 port(s) (a,b,c,all)

**Caution! Execution of this command may affect service.*

5. MISCELLANEOUS

dlt-tadrmap:tid=*TID*: (Release 6 and later)
deletes an NE entry from the DS-NE
tid=target identifier of NE to be deleted

cpy-prog:tid=*TID*: (Release 6.2 and later)
copies local system controller program to remote system controller
tid=target identifier of NE program is to be copied into

ent-ulsdcc:[*address*];[**L3org=***OrganizationID*]
[,**L3res=***Reserved*][,**L3rou=***RoutingData*]; (Release 6 and later)
enter upper layer section (3 thru 7) of DCC
address=DCC address of the OC-N or LAN
L3org=company code
L3res=currently not used
L3rou=covers routing domain and area fields

init-pm:reg=*Register*
initializes current day & qh pm reg.
reg=register being initialized (day, qh or all)

init-sys:*address* (**Caution***)
initializes data to factory values
address=all slots or SYSCTL (all or sysctl)

ins-prog:*TID*
install new program to SYSCTL
TID=shelf name up to 20 alphanumeric characters

logout;
ends CIT session

opr-aco;
silence audible alarms

reset;
restarts shelf software program

rlgn:*TID*;
sets up remote login session
TID=target identifier of the desired remote shelf

toggle or [Ctrl] **t** (**Ctrl t**)
toggles between local and remote sessions

upd (**Caution***)
updates system database

**Caution! Execution of this command may affect service.*

6. RETRIEVE

rtrv-alm:[*address*]:[**alm=***AlarmLevel*]
displays report of alarms and status
address=slot or channel
alm=alarm level being reported

rtrv-attr-alm;
displays current alm. attributes (almdel, clrdel, pmn)

rtrv-attr-cont:[*address*];
displays current misc. discrete environmental control name
address=environmental control pt. (cont-{1-4,all})

rtrv-attr-env:[*address*];
displays current misc. discrete environmental alarm/status pts.
address=env. input pt. (env-{1-15,all})

rtrv-attr-sts1:[*address*] (Release 5 or later)
displays AIS alarms for STS-1 path
address=one or more STS-1 channels

rtrv-attr-vt1:[*address*] (Release 7 or later)
displays AIS alarms for VT1.5 path
address=one or more VT1.5 channels

rtrv-crs-sts1:[*address*] (Release 2 or later)
displays STS-1 cross-connections
address=one or more STS-1 channels

rtrv-crs-vt1:[*address*] (Release 3 or later)
report displays VT1.5 (DS1) cross-connections
address=VT1.5 channels or DS1 ports

rtrv-ec1:[*address*] (Release 6 or later)
report displays information about each EC1 port
address=one or more EC1 ports (a,b,c,all)

rtrv-eqpt:[*address*]
displays equipage and version information
address=one or more slot(s)

rtrv-feat: (Release 5 or later)
report displays enabled feature options

rtrv-fecom:[*address*] (Release 2 or later)
displays state of DCC channel(s)
address=address of the DCC

rtrv-hsty;
displays most recent events

rtrv-lgn; (Release 3 or later)
report displays login authorization information

rtrv-link;
displays CIT link, baud rate, & page length

rtrv-ne;
displays network element info. prov. by **set-ne**.

rtrv-map-neighbor; (Release 7.2)
displays neighbor systems

rtrv-map-network; (Release 7.2)
displays all systems, their product type, and if they are ASNE or DSNE

rtrv-nmap; (Release 2 thru 7.1)

displays map of SONET network with systems and connections

rtrv-oc3:[*address*]
displays OC-3 line configuration
address=OC-3 line(s) (main,fn-{a,b,c},fn-all,all)

rtrv-passwd; (Release 7.2)
displays logins, passwords (encrypted), and user type

rtrv-pm-line:[*address*]
PM STS-3 line status report
address=OC-3 line(s) or EC-1 line

rtrv-pm-sect:[*address*]
PM OC-3 optics and STS-3 section status report
address=OC-3 line(s)

rtrv-pm-sts1:[*address*] (Release 2 or later)
PM STS-1 status report
address=STS-1 channels

rtrv-pm-t1:[*address*]
PM DS1 status report
address=DS1 channel

rtrv-pm-t3:[*address*]
PM DS3 status report
address=DS3 port(s) (a,b,c,all)

rtrv-pm-tca;
PM threshold cross. alert (TCA) report

rtrv-pm-vt1:[*address*] (Release 6 or later)
report displays PM status for one or more VT1.5 channels
address=one or more VT1.5 channels

rtrv-pmthres-line;
OC-3 line PM threshold report

rtrv-pmthres-sect;
OC-3 section PM threshold report

rtrv-pmthres-sts1; (Release 2 or later)
STS-1 path PM threshold report

rtrv-pmthres-t1; (Release 5 or later)
report displays DS1 PM thresholds

rtrv-pmthres-t3;
DS-3 PM threshold report

rtrv-pmthres-vt1; (Release 6 or later)
report displays VT1.5 PM thresholds

rtrv-secu;
cit and dcc port security and timeout information

rtrv-state:[*address*]
port and protection switching state information
address=one or more slot(s)

rtrv-state-eqpt[:*address*] (Release 5 or later)
displays slot, port, and protn. switching state info.
address=one or more slot(s)

rtrv-state-path:[*address*] (Release 5 or later)
displays signal path state information for the NE
address=any VT1.5 or STS-1 path

rtrv-state-sts1:[*address*] (Release 6.2 or later)
displays STS-1 channel states

address=any STS-1 channel

rtrv-state-vt1:[*address*] (Release 6.2 or later)

displays VT1.5 channel states

address=any VT1.5 channel

rtrv-sts1;

displays signal degrade threshold of dropped STS-1 channels

rtrv-sync;

sync report, provisioning and operational information

rtrv-t1:[*address*]

DS1 port provisioning report

address=DS1 port(s)

rtrv-t3:[*address*]

DS3 port prov. report

address=DS3 port(s)

rtrv-ulsdcc; (Release 6 or later)

retrieves parameter report for NSAP address

rtrv-vt1; (Release 7 or later)

displays signal degrade threshold of dropped VT1.5 channels

7. SWITCH

switch-fn:*address*:**pri=***Priority* (**Caution***)
   controls function unit ckt pk protn switching
      address=function unit slot (fn-{a,b,c})
      pri=priority of protn. sw. request
switch-line:*address*:**pri=***Priority* (**Caution***)
   controls OC-3 line protn. switching
      address=OC-3 line pair
      pri=priority of protn. sw. request
switch-ls:*address*:**pri=***Priority* (**Caution***)
   controls ls ckt pk protn switching
      address=low-speed slot(s)
      pri=priority of protn. switch request
switch-path-sts1:*address*:**pri=***Priority* (Release 5 or later)
   controls STS-1 path switching
      address=STS-1 path carrying traffic
      pri=priority of protn. switch request (manual only)
switch-path-vt1:*address*:**pri=***Priority* (Release 5 or later)
   controls VT1.5 path switching
      address=VT1.5 path carrying traffic
      pri=priority of protn. switch request (manual only)
switch-sync:s=*SyncFunction*:**pri=***Priority* (**Caution***)
   controls sync protn. switching
      s=sync. function (reference, mode, circuitpack)
      pri=priority of protn. switch request (reset or manual)

**Caution! Execution of this command may affect service.*

8. SET

set-attr-alm:[**almdel=***AlarmDelay*][,**cldel=***ClearDelay*]
   sets alarm holdoff and clear delays
      almdel=alarm delay in sec. (00-30)
      cldel=alarm clear delay in sec. (00-30)
set-attr-cont:*address*:[**desc=***Description*]
   provision name of environmental control points
      address=control point (cont-{1-4})
      desc=name up to 26 alphanumeric characters
set-attr-env:address:[**alm=***Alarm*][,**desc=***Description*]
  [,**almtype=***AlarmType*]
   provision alarm level of environmental input points
      address=environmental point (env-{1-15,all})
      alm=level of alarm (cr,mj,mn,na)
      desc=name up to 26 alphanumeric characters
      almtype=name up to 10 alphanumeric characters (misc)
set-date:[**date=***Date*][,**time=***Time*]
   sets date and time
      date=year, month and day
      time=hour, minute and second
set-ec1:*address*:[**alm=***AlarmLevel*]
  [,**dgr=***SignalDegradeThreshold*] (Release 6 or later)
   sets alarm and signal degrade threshold levels of EC-1 port
      address=one or more EC-1 port (a,b,c,all)
      alm=alarm level of incoming EC-1 signal failure
      dgr=signal degrade threshold level (BER of -9 to -5)
set-feat:feat=*Feature*,**act=**Action
   feat=feature options licensed for use
      sts3c=allows service (concatenated signals)
      vtpm=provides PM of VT1.5 services
      ds1pm=provides PM of DS1 services
      act=enabled or disabled feature
set-fecom:*address*:[**com=***Communication*] (Release 2 or later)
      communication=enabled or disabled
   enters, edits, and deletes logins and passwords
      act=enter, edit, or delete
set-link:pg=*PageLength*
   sets vertical page size
      pg=page size in lines (3-150)
set-ne:tid=*TID*:[**gne=***GNE*][,**crs=***CRSMode*]
  [,**dcc=***DCCMode*]; (Release 2 thru 7.1)
   sets target identifier (name) of system
      tid=shelf name up to 20 alphanumeric characters
      gne=gateway network element, yes or no (Release 2 thru 7.1)
      crs=cross-connect mode, default or manual (Release 3 thru 7.1)
      dcc=DCC mode (distinct or identical) (Release 7.1)
set-ne:tid=*TID*:[**dsne=***DSNE*][,**almgrp=***AlarmGroup*]
  [,**agne=***AGNE*][,**dcc=***DCCMode*]; (Release 7.2)
   sets target identifier (name) of system
      tid=shelf name up to 20 alphanumeric characters


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      dsne=directory services network element, yes or no (Release 7.2)
      almgrp=alarm group, 1 through 255 (Release 7.2)
      agne=alarm gateway network element, yes or no (Release 7.2)
      crs=cross-connect mode, default or manual (Release 3 or later)
      dcc=DCC mode (distinct or identical) (Release 7.1 and 7.2)
set-oc3:address:[dgr=SignalDegradeThreshold]
  [,kbyte=Kbyte][,concat=ConcatenationMode]
   sets several parameters of specified OC3 line pair
      address=OC-3 line pair(s)
      dgr=signal degrade threshold (-9 to -5)
      kbyte=K byte overhead for sync messages (enabled or disabled)
      concat=concatenation mode of OC-3 line (enabled or disabled)
set-passwd;
   changes a user's password
set-pmthres-line:[qhb2cvoc3=nnnnn][,dayb2cvoc3=nnnnnnn]
  [,qhb2cvec1=nnnn][,dayb2cvec1=nnnnn][,qhb2es=nnn]
  [,dayb2es=nnnnn][,qhb2esa=nnn][,dayb2esa=nnnnn]
  [,qhb2esb=nnn][,dayb2esb=nnnnn][,qhb2ses=nn]
  [,dayb2ses=nnnn][,qhb2uas=nn][,dayb2uas=nnnn]
  [,qhpscl=nn][,daypscl=nn]
   sets performance parameter thresholds of OC3 line
      qhb2cvoc3=OC-3 coding violations count (qtr. hr.)
      dayb2cvoc3=OC-3 coding violation count (daily)
      qhb2cvec1=EC-1 coding violations count (qtr. hr.)
      dayb2cvec1=EC-1 coding violation count (daily)
      qhb2es=errored second (ES) count (qtr. hr.)
      dayb2es=errored second (ES) count (daily)
      qhb2esa=errored second (ES) type A count (qtr. hr.)
      dayb2esa=errored second (ES) type A count (daily)
      qhb2esb=errored second (ES) type B count (qtr. hr.)
      dayb2esb=errored second (ES) type B count (daily)
      qhb2ses=severely errored second (SES) count (qtr. hr.)
      dayb2ses=severely errored second (SES) count (daily)
      qhb2uas=unavailable second (UAS) count (qtr. hr.)
      dayb2uas=unavailable second (UAS) count (daily)
      qhpscl=line protection switch counts (qtr. hr.)
      daypscl=line protection switch counts (daily)
set-pmthres-sect:[txpwr1db=n][,txpwr2db=n]
  [,laserbias=n][,qhsefs=nn][,daysefs=nnnn]
   sets performance parameter thresholds of OC-3 section
      txpwr1db=transmit pwr. 1dB [enabled, disabled]
      txpwr2db=transmit pwr. 2dB [enabled, disabled]
      laserbias=laserbias [enabled, disabled]
      qhsefs=severely errored frame sec. (SEFS) (qtr. hr.)
      daysefs=severely errored frame sec. (SEFS) (daily)
set-pmthres-sts1:[qhb3cv=nnnn][,dayb3cv=nnnnnn]
  [,qhb3es=nnn][,dayb3es=nnnnn][,qhb3esa=nnn]
  [,dayb3esa=nnnnn][,qhb3esb=nnn][,dayb3esb=nnnnn]
  [,qhb3ses=nn][,dayb3ses=nnnn][,qhb3uas=nn]
  [,dayb3uas=nnnn]  (Release 2 or later)
   sets performance parameter thresholds of STS-1 path
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qhb3cv=coding violations count (qtr. hr.)
dayb3cv=coding violation count (daily)
qhb3es=errored seconds (ES) count (qtr. hr.)
dayb3es=errored seconds (ES) count (daily)
qhb3esa=errored seconds (ES) type A count (qtr. hr.)
dayb3esa=errored seconds (ES) type A count (daily)
qhb3esb=errored seconds (ES) type B count (qtr. hr.)
dayb3esb=errored seconds (ES) type B count (daily)
qhb3ses=severely errored frame seconds (SEFS) count (qtr. hr.)
dayb3ses=severely errored frame seconds (SEFS) count (daily)
qhb3uas=unavailable seconds count (qtr. hr.)
dayb3uas=unavailable seconds count (daily)

set-pmthres-t1:[**dayesp=**nnnnn][,**daysesp=**nnnnnnn]
[,**dayuasp=**nnn][,**dayespfe=**nnnnn][,**daysespfe=**nnn]
[,**dayuaspfe=**nnnnn]
sets performance monitoring thresholds of DS1 signal
dayesp=errored second path (ESP) count (daily)
daysesp=severely errored second path (ESP) count (daily)
dayuasp=unavailable second path (UASP) count (daily)
dayespfe=errored second path far-end (ESPFE) count (daily)
daysespfe=severely errored second far-end path (SESPFE) count (daily)
dayuaspfe=unavailable second path far-end (UASPFE) count (daily)

set-pmthres-t3:[**qhsefs=***nnnn*][,**daysefs=***nnnnnn*]
[,**qhcvp=***nnnn*][,**daycvp=***nnnnnn*][,**qhesp=***nn*]
[,**dayesp=***nnnn*][,**qhsesp=***nn*][,**daysesp=***nnnn*]
[,**qhuasp=***nn*][,**dayuasp=***nnnn*] (Release 7.1 or earlier)
sets performance parameter thresholds of DS3 signal
qhsefs=severely errored frame seconds count (qtr. hr.)
daysefs=severely errored frame seconds count (daily)
qhcvp=coding violations count (qtr. hr.)
daycvp=coding violations count (daily)
qhesp=errored second (ES) count for PM format (qtr. hr.)
dayesp=errored second (ES) count for PM format (daily)
qhsesp=severely errored second (SES) count for PM format (qtr. hr.)
daysesp=severely errored second (SES) count for PM format (daily)
qhuas=unavailable second (UAS) count for PM format (qtr. hr.)
dayuas=unavailable second (UAS) count for PM format (daily)

set-pmthres-t3:[**qhcvl=***nnnnn*][,**daycvl=***nnnnnnn*]
[,**qhesl=***nnnn*][,**dayesl=***nnnnn*][,**qhsesl=***nn*]
[,**daysesl=***nnnn*][,**qhsefs=***nn*][,**daysefs=***nnnn*]
[,**qhpcv=***nnnnn*][,**qhfmcv=***nnnnn*][,**qhesp=***nnn*]
[,**dayesp=***nnnnn*][,**qhsesp=***nn*][,**daysesp-***nnnn*]
[,**qhuasp=**nn][,**dayuasp=***nnnn*] (Release 7.2)
sets performance parameter thresholds of DS3 signal
qhcvl=coding violations count for DS3 line (qtr. hr.)
daycvl=coding violations count for DS3 line (daily)
qhesl=errored second (ES) count for DS3 line (qtr. hr.)
dayesl=errored second (ES) count for DS3 line (daily)
qhsesl=severely errored second (SES) count for DS3 line (qtr. hr.)

daysesl=severely errored second (SES) count for DS3 line (daily)
qhsefs=severely errored frame seconds count (qtr. hr.)
daysefs=severely errored frame seconds count (daily)
qhpcv=coding violations count for P-bit format (qtr. hr.)
qhfmcv=coding violations count for F&M bit format (qtr. hr.)
daypcv=coding violations count for P-bit format (daily)
dayfmcv=coding violations count for F&M bit format (daily)
qhesp=errored second (ES) count for PM format (qtr. hr.)
dayesp=errored second (ES) count for PM format (daily)
qhsesp=severely errored second (SES) count for PM format (qtr. hr.)
daysesp=severely errored second (SES) count for PM format (daily)
qhuasp=unavailable second (UAS) count for PM format (qtr. hr.)
dayuasp=unavailable second (UAS) count for PM format (daily)

set-pmthres-vt1:[**qhv5es=**nnnnn][,**dayv5es=**nnnnnnn]
[,**qhv5ses=**nnn][,**dayv5ses=**nnnnn][,**qhv5uas=**nnn]
[,**dayv5uas=**nnnnn]
sets performance parameter thresholds of VT1.5 signal
qhv5es=errored second (ES) count (qtr. hr.)
dayv5es=errored second (ES) count (daily)
qhv5ses=severely errored second (SES) count (qtr. hr.)
dayv5ses=severely errored second (SES) count (daily)
qhv5uas=unavailable second (UAS) count (qtr. hr.)
dayv5uas=unavailable second (UAS) count (daily)

set-secu:*address*:**sec=***Security*:**to=***Timeout*
enables or disables CIT security on CIT and DCC interfaces
address=dcc-{m,a,b,c,all}, cit-{1,2,all}
sec=security on specified CIT or DCC port(s)
to=timeout of inactive session on CIT (minutes)

set-state-ec1:*address*:**ps=***PrimaryState* (Release 6 or later)
sets state of EC-1 ports
address=EC-1 port(s) (all,a,b,c)
ps=port state (auto or nmon)

set-state-sts1:*address*:**ps=***PrimaryState*
sets state of STS-1 channels
address=STS-1 channel(s)
ps=channel state (auto or nmon)

set-state-t1:*address*:**ps=***PrimaryState*
sets state of DS1 ports
address=DS1 port(s) (all,{a,b,c}-{1-7,all}-{1-4,all})
ps=port state (auto or nmon)

set-state-t3:*address*:**ps=***PrimaryState*
sets state of DS3 ports
address=DS3 port(s) (a,b,c,all)
ps=port state (auto or nmon) **set-state-vt1:***address*:**ps=***PrimaryState*
sets state of VT1.5 channels
address=VT1.5 channel(s)
ps=channel state (auto or nmon)

set-sts1:dgr=*SignalDegrade* (Release 7.1 or later)
sets signal degrade alarm threshold of dropped STS-1 channels
dgr=degrade threshold (-9 to -5)

set-sync:[mdsw=*ModeSwitching*]

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   [,src=SynchronizationSource][,omd=OutputMode]
   [,auto=SyncAutoreconfiguration];(Caution*)
    provisions the synchronization mode switching,
    synchronization source, and output mode ot timing signals
       mdsw=mode of switch (revertive or nonrevertive)
       src=synchronization source (main, main-1, main-2, or fn-c)
       omd=output mode (lock1, lock2, or track)
       auto=syncautoreconfiguration (enabled or disabled)
 set-t1:address:[lc=LineCode][,alm=AlarmLevel]
   [,fth=FailureThreshold][,dlc=DLCBVPtoLOS]
   [,ais=AlarmIndicationSignal][,pmmd=PMMode]
   [,fmt=Format] (Caution*)
    provisions parameters of DS1 ports
       address=DS1 port(s) (all,{a,b,c}-{1-7},all}-{1-4,all})
       lc=line code (ami, b8zs or noOverride)
       alm=level of alarm (mj,mn,na)
       fth=fail threshold (-6 or -3)
       dlc(bpv)=inc. sig. fail translated to LOS (yes or no)
       ais=alarm indication signal (yes or no)
       pmmd=performance monitoring mode of ports (off or on)
       fmt=format to be monitored (sf, esf, or esfn)
 set-t3:address:[md=Mode][,ais=AlarmIndicationSignal]
   [,alm=AlarmLevel][,fth=FailureThreshold][,pmmd=PMMode]
   [,frame=Frame][,fmt=Format] (Caution*)
    provisions parameters of DS3 ports
       address=DS3 port(s) (a,b,c,all)
       md=violation monitor removal mode (vmr, vm or cc)
       ais=alarm indication signal (yes or no)
       alm=level of alarm (cr,mj,mn,na)
       fth=fail threshold (-6 or -3)
       pmmd=performance monitoring mode of ports (off or on)
       frame=framing type (m13 or cbit)
       fmt=format to be monitored (pbit or fmbit)
 set-vt1:dgr=SignalDegrade (Release 7.0 or later)
    sets signal degrade alarm threshold of dropped VT1.5 channels
       dgr=degrade threshold (-8 to -5)

 *Caution! Execution of this command may affect service.
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9. TEST

test-alm:[**md=***Mode*][**,r=***Repeat*]
   tests office alarms
      md=office alarm to test (all,cr,mj,mn)
      r=number of times (1-10) to repeat test
test-auto:md=*Mode* (**Caution***)
   does auto turnup tests
      md=type of turnup test (local,dsx,optics)
test-led:[*address*]**:**[**r=***Repeat*]
   tests shelf leds
      address=slot or userpanel
      r=number of times (1-10) to repeat test
test-sysctl;
   self test of SYSCTL
test-tlm-par:[**md=***Mode*][**,r=***Repeat*]
   tests parallel telem output(s)
      md=parallel telemetry output(s)
      r=number of times (1-10) to repeat test
test-tlm-ser:[**d=***Display*][**,p=***Point*][**,r=***Repeat*]
   tests serial telem outputs
      d=TBOS display being used
      p=TBOS display point(s) to be tested
      r=number of times (1-10) to repeat test
test-trmsn-t1:*address*:[**dirn=***Direction*][**,dur=***Duration*] (**Caution***)
   test DS1 transmission
      address=DS1 port {a,b,c}-{1-7}-{1-4}
      dirn=direction of test (mux or demux)
      dur=length of test in min. (1-120)
test-trmsn-t3:*address*:[**dirn=***Direction*]
  [**,dur=***duration*] (**Caution***)
   test DS3 transmission
      address=DS3 port (a,b,c)
      dirn=direction of test (mux or demux)
      dur=length of test in min. (1-120)
test-trmsn-sts1:*address*:[**dirn=***Direction*][**,dur=***Duration*]
  (**Caution***) (Release 6 or later)
   automatic transmission test of EC-1 signal
      address=DS1 port
      dirn=direction of test (mux or demux)
      dur=length of test in min. (1-120)

**Caution! Execution of this command may affect service.*

10. SPECIAL CHARACTERS

At-sign (@) - erases an input line.
Backspace [^H [Ctrl] h (Ctrl h)] or underbar (_) - erases a character.
Question mark (?) - help
Semicolon (;) - ends a command.
Carriage return [RETURN] or [ENTER] - ends line of input
CANcel or DELete - aborts a command

Glossary: Acronyms

ES — Errored Second

