

The background features a warm orange-to-yellow gradient. Overlaid on this are several layers of binary code (0s and 1s) in various colors (yellow, orange, red) and orientations. A dark, semi-transparent image of a computer keyboard is visible, appearing to be floating or layered over the binary code.

***Ethernet and RS-232
Command Information
Section 7***

Ethernet and RS-232 Command Information

This section of the catalog provides a look at some of JFW's existing remote commands for Ethernet and RS-232 test systems. The interface card JFW uses for Ethernet and RS-232 systems is different than the interface card we use in our GPIB test systems. Therefore, there are differences in what JFW can offer for remote commands depending on the control type of the test system. In addition to these standard commands we have listed in this catalog, JFW can provide you with custom remote commands if requested. The commands listed in the catalog are only typical remote commands. For the remote commands for a specific model, please refer to the system manual.

| Ethernet and RS-232 Commands | |
|------------------------------|------|
| Command Name | Page |
| Identification | 7-2 |
| Set Attenuator | 7-3 |
| Read Attenuator | 7-3 |
| Set Switch | 7-4 |
| Read Switch | 7-4 |
| Set Output | 7-5 |
| Read Output | 7-5 |
| Set Input | 7-6 |
| Read Input | 7-6 |
| Fade Attenuator | 7-7 |
| Variable Handover | 7-8 |
| Pause | 7-9 |
| Disconnect Command | 7-10 |
| Change Baud Rate | 7-10 |

Identification

This command echoes back information about the test system.

Syntax: IDN<CR>
<CR> = carriage return
<LF> = line feed

Example: **IDN<CR>** - Returns “**JFW Industries, Inc., Model 50PA-374, Firmware Rev A<CR><LF>**”

Notes: Command is not case sensitive.
Command does not have to be terminated by a carriage return.

Ethernet and RS-232 Command Information

Set Attenuator

The set attenuator command is used to set the attenuation level of a specific attenuator.

Syntax: **S**Ax y<CR>
 x = attenuator number
 y = attenuation level
 <CR> = carriage return

Example: **SA1 127<CR>** - Sets attenuation of attenuator #1 to 127dB
 SA12 98<CR> - Sets attenuation of attenuator #12 to 98dB

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Read Attenuator

The read attenuator command returns the attenuation setting for a specific attenuator.

Syntax: **R**Ax<CR>
 x = attenuator number
 <CR> = carriage return
 <LF> = line feed

Example: **SA2 85<CR>** - Sets the attenuation of attenuator #2 to 85dB
 RA2<CR> - Reads attenuator #2 setting and returns “**Atten #2 = 85dB<CR><LF>**”
 SA5 0<CR> - Sets the attenuation of attenuator #5 to 0dB
 RA5<CR> - Reads attenuator #5 setting and returns “**Atten #5 = 0dB<CR><LF>**”

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Set Switch

The set switch command is used to set a switch to a specific port number.

Syntax: SSx y<CR>
 x = switch number
 y = port number
 <CR> = carriage return

Example: **SS1 8<CR>** - Sets switch #1 to port #8
 SS2 5<CR> - Sets switch #2 to port #5

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Read Switch

The read switch command returns the port setting for a specific switch.

Syntax: RSx<CR>
 x = switch number
 <CR> = carriage return
 <LF> = line feed

Example: **SS1 8<CR>** - Sets switch #1 to port #8
 RS1<CR> - Reads switch #1 setting and returns “**J8<CR><LF>**”

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Set Output

The set output command is used to set the output port of a matrix switch to a specific input port.

Syntax: SOx y<CR>
 x = output port number
 y = input port number
 <CR> = carriage return

Example: **SO3 1<CR>** - Connects output port #3 to input port #1
 SO8 4<CR> - Connects output port #8 to input port #4

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Read Output

The read output command is used to see if the output port is connected to any input port.

Syntax: ROx<CR>
 x = output port number
 <CR> = carriage return
 <LF> = line feed

Example: **SO3 1<CR>** - Connects output port #3 to input port #1
 RO3<CR> - Reads output port #3 setting and returns “**J1<CR><LF>**”
 SO3 0<CR> - Sets output port #3 to unused state
 RO3<CR> - Reads output port #3 setting and returns “**J0<CR><LF>**”

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Set Input

The set input command is used to set the input port of a matrix switch to a specific output port.

Syntax: S1x y<CR>
 x = input port number
 y = output port number
 <CR> = carriage return

Example: **S11 3<CR>** - Connects input port #1 to output port #3
 S14 8<CR> - Connects input port #4 to output port #8
 S112 1<CR> - Connects input port #12 to output port #1
 S112 11<CR> - Connects input port #12 to output port #11

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Read Input

The read input command is used to see if the input port is connected to any input port.

Syntax: R1x<CR>
 x = input port number
 <CR> = carriage return
 <LF> = line feed

Example: **S13 12<CR>** - Connects input port #3 to output port #12
 R13<CR> - Reads input port #3 setting and returns “**J12<CR><LF>**”
 S13 0<CR> - Sets input port #3 to unused state
 R13<CR> - Reads output port #3 setting and returns “**J0<CR><LF>**”
 S115 7<CR> - Sets input port #15 to output port #7
 R115<CR> - Reads output port #15 setting and returns “**J7<CR><LF>**”

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Fade Attenuator

This command fades an attenuator from one attenuation setting to another attenuation setting. It is possible to fade attenuation up or down. The interval time can be set in seconds or milliseconds.

Milliseconds Syntax: **FAx y z tM<CR>**

Seconds Syntax: **FAx y z tS<CR>**

x = attenuator number

y = starting attenuation setting

z = ending attenuation setting

t = interval time (1 through 9999)

M = sets interval time in milliseconds

S = set interval time in seconds

<CR> = carriage return

Example: **FA1 0 63 300M<CR>**

Fade attenuator #1 from 0dB to 63dB in 1dB steps with 300 milliseconds between steps.

FA1 63 0 1S<CR>

Fade attenuator #1 from 63dB to 0dB in 1dB steps with 1 seconds between steps.

FA12 0 127 50M<CR>

Fade attenuator #12 from 0dB to 127dB in 1dB steps with 50 milliseconds between steps.

FA3 127 6 1000M<CR>

Fade attenuator #3 from 127dB to 6dB in 1dB steps with 1000 milliseconds between steps.

Notes: Command is not case sensitive.

Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Variable Handover

This command fades one attenuator up in attenuation while fading a second attenuator down in attenuation.

Milliseconds Syntax: **VHND Av Aw Vx Vy TzM<CR>**

Seconds Syntax: **VHND Av Aw Vx Vy TzS<CR>**

v = attenuator number to start at low dB value (steps up to high dB value)

w = attenuator number to start at high dB value (steps down to low dB value)

x = starting attenuation setting for attenuator "v"

y = starting attenuation setting for attenuator "w"

z = interval time (1 through 9999)

M = sets interval time in milliseconds

S = set interval time in seconds

<CR> = carriage return

Example: **VHND A1 A2 V0 V63 T300M<CR>**

Fades attenuator #1 from 0dB to 63dB in 1dB steps.

Fades attenuator #2 from 63dB to 0dB in 1dB steps.

Interval time is 300 milliseconds between steps.

VHND A8 A15 V7 V127 T2S<CR>

Fades attenuator #8 from 7dB to 127dB in 1dB steps.

Fades attenuator #15 from 127dB to 7dB in 1dB steps.

Interval time is 2 seconds between steps.

Notes: Command is not case sensitive.

Command must be terminated by a carriage return.

Ethernet and RS-232 Command Information

Pause

The pause command pauses the test system from executing any new commands for a specified duration.

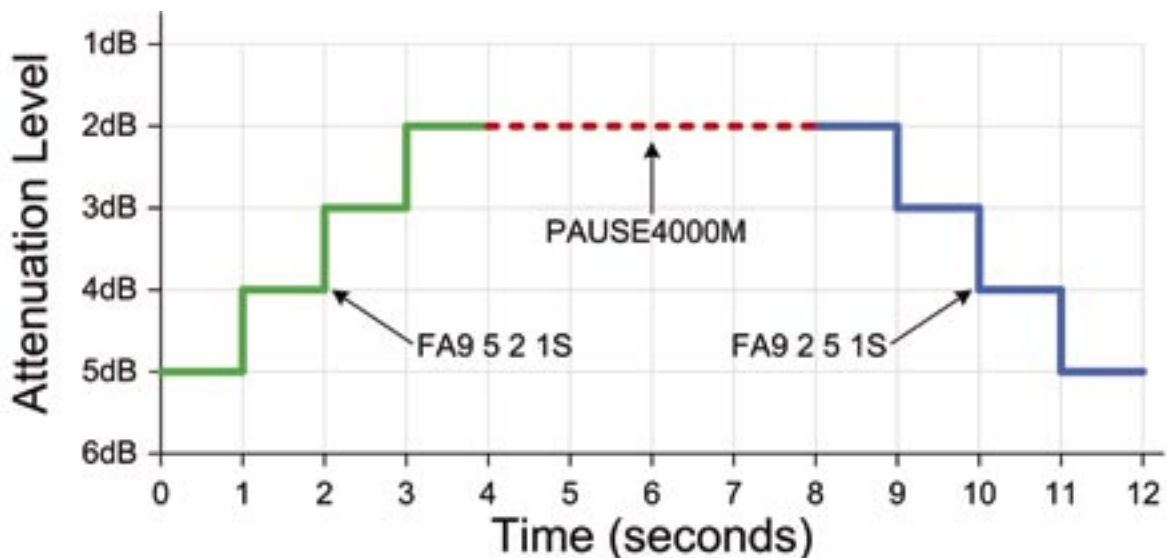
Milliseconds Syntax: `PAUSExM<CR>`

Seconds Syntax: `PAUSExS<CR>`
x = duration of time to pause (1 through 9999)
M = sets interval time in milliseconds
S = set interval time in seconds
<CR> = carriage return

Example: **PAUSE100M<CR>** - Test system pauses for 100 milliseconds
PAUSE56S<CR> - Test system pauses for 56 seconds

Notes: Command is not case sensitive.
Command must be terminated by a carriage return.

Script Example: **FA9 5 2 1S<CR>** - Fades attenuator #9 from 5dB to 2dB at 1 second/step.
PAUSE4000M<CR> - Test system pauses for 4 seconds (4000 milliseconds).
FA9 2 5 1 S<CR> - Fades attenuator #9 from 2dB to 5dB at 1 second/step.



Ethernet and RS-232 Command Information

Change Baud Rate

This command is used to change the baud rate of the test system. This command only works in RS-232 mode.

Syntax: **CBx<CR>**
 x = new baud rate
 <CR> = carriage return

Example: **CB9600<CR>** - Changes the baud rate to 9600 baud
 CB19200<CR> - Changes the baud rate to 19200 baud
 CB38400<CR> - Changes the baud rate to 38400 baud

Notes: Command is not case sensitive.
 Command must be terminated by a carriage return.

Disconnect Command

This command causes the test system to close the existing Ethernet connection. This command is only used while in Ethernet mode. This command is useful if you are using a terminal program to control the test system.

Syntax: **DIS<CR>**
 <CR> = carriage return

Examples: **DIS<CR>**
 When the command is received and processed, the Ethernet connection will be closed.

Notes: Command is not case sensitive, but must be terminated by a carriage return.
 Command must be terminated by a carriage return.