



## C. Command Descriptions

### 90h, Set load operating parameters and maximum limits

Byte 1	AAh (frame start)
Byte 2	Address (00h - FEh)
Byte 3	90h (command)
Byte 4	Low byte of the maximum current
Byte 5	High byte of the maximum current
Byte 6	Low byte of the maximum power
Byte 7	High byte of the maximum power
Byte 8	New address of the Load (change address)
Byte 9	Type of set-value; 01h = current, 02h = power, 03h =resistance
Byte 10	Low byte of set-value
Byte 11	High byte of set-value
Byte 12 - 25	System Reserved
Byte 26	Checksum

The set-values for current, power and resistance are all expressed by two bytes. The Low byte is sent first. For example, the set-value 3589h is specified by the following sequence:

89h	35h
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## 91h, Read current, voltage, power and resistance of the instrument

Byte 1	AAh (frame start)
Byte 2	Address (00h—FEh)
Byte 3	91h (command)
Byte 4	Low byte of the current
Byte 5	High byte of the current
Byte 6	Low byte of the low character of the voltage
Byte 7	High byte of the low character of the voltage
Byte 8	Low byte of the high character of the voltage
Byte 9	High byte of the high character of the voltage
Byte 10	Low byte of the power
Byte 11	High byte of the power
Byte 12	Low byte of the max current
Byte 13	High byte of the max current
Byte 14	Low byte of the max power
Byte 15	High byte of the max power
Byte 16	Low byte of the resistance value
Byte 17	High byte of the resistance value
Byte 18	Output state of the electronic load
Byte 19 - 25	System reserved
Byte 26	Checksum

The output state of the load is revealed by the individual bits of byte18:

From High to Low

b7	b6	b5	b4	b3	b2	b1	b0
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b0: 0 = local (front panel) control ; 1 = remote (PC) control

b1: 0 = load OFF; 1 = load ON.

b2: 0 = correct polarity detected; 1 = wrong polarity detected

b3: 0 = temperature in acceptable range; 1 = excessive temperature

b4: 0 = Voltage acceptable; 1 = excessive Voltage.

b5: 0 = power acceptable; 1 = excessive power

**Note: values of bytes 4 through 18 in command string will be ignored by instrument (suggest setting these to 00h); reply from instrument will have valid data in bytes 4 through 18.**

## 92h, Activate or de-activate load and set local/remote control

Byte 1	AAh
Byte 2	Address (00h-FEh)
Byte 3	92h (command)
Byte 4	State of the electronic load
Byte 5- 25	System Reserved
Byte 26	Checksum

The desired state of the load is specified by the individual bits of byte4:

From High to Low

b7	b6	b5	b4	b3	b2	b1	b0
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b0: 0 = load OFF; 1 = load ON

b1: 0 = go to local mode (front panel control); 1 = go to remote control (PC in control)

### 93h, Define programmed test sequence, steps 1-5

Byte 1	AAh
Byte 2	Address (00h—FEh)
Byte 3	93h (command)
Byte 4	Type of setting; 01h = current, 02h = power, 03h = resistance
Byte 5	Total number of program steps (1-10)
Byte 6	Low byte of step 1 setting
Byte 7	High byte of step 1 setting
Byte 8	Low byte of step 1 duration (seconds)
Byte 9	High byte of step 1 duration
Byte 10	Low byte of step 2 setting
Byte 11	High byte of step 2 setting
Byte 12	Low byte of step 2 duration
Byte 13	High byte of step 2 duration
Byte 14	Low byte of step 3 setting
Byte 15	High byte of step 3 setting
Byte 16	Low byte of step 3 duration
Byte 17	High byte of step 3 duration
Byte 18	Low byte of step 4 setting
Byte 19	High byte of step 4 setting
Byte 20	Low byte of step 4 duration
Byte 21	High byte of step 4 duration
Byte 22	Low byte of step 5 setting
Byte 23	High byte of step 5 setting
Byte 24	Low byte of step 5 duration
Byte 25	High byte of step 5 duration
Byte 26	Checksum

## 94h, Define programmed test sequence, steps 6-10

Byte 1	AAh
Byte 2	Address (00h—FEh)
Byte 3	94h (command)
Byte 4	Low byte of step 6 setting
Byte 5	High byte of step 6 setting
Byte 6	Low byte of step 6 duration
Byte 7	High byte of step 6 duration
Byte 8	Low byte of step 7 setting
Byte 9	High byte of step 7 setting
Byte 10	Low byte of step 7 duration
Byte 11	High byte of step 7 duration
Byte 12	Low byte of step 8 setting
Byte 13	High byte of step 8 setting
Byte 14	Low byte of step 8 duration
Byte 15	High byte of step 8 duration
Byte 16	Low byte of step 9 setting
Byte 17	High byte of step 9 setting
Byte 18	Low byte of step 9 duration
Byte 19	High byte of step 9 duration
Byte 20	Low byte of step 10 setting
Byte 21	High byte of step 10 setting
Byte 22	Low byte of step 10 duration
Byte 23	High byte of step 10 duration
Byte 24	Program mode (00h = run once; 01h = repeat)
Byte 25	System Reserved
Byte 26	Checksum

### 95h, Start programmed test sequence

Byte 1	AAh
Byte 2	Address (00h-FEh)
Byte 3	95h (command)
Byte 4 - 25	System Reserved
Byte 26	Checksum

### 96h, Stop programmed test sequence

Byte 1	AAH
Byte 2	Address (00h-FEh)
Byte 3	96h (command)
Byte 4 - 25	System Reserved
Byte 26	Checksum